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Accommodating to the Changes

Developing University Website in Three Foreign Languages

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ABSTRACT

Globalization has brought new challenges to the governance, economy, industry and many other areas including the academia. The new challenges require the academia to reach out to the global community especially in the chase for global promotion, in getting more international students and establishing international collaboration. For this reason, the websites in multiple languages is advantageous to reach more audience and generate more promotion for the universities. The development of university websites usually takes massive collaboration among the teaching, administrative and technical staff. The development processes are more complex when the websites are multilingual and are aimed for multicultural readership. This paper described the processes of developing the university websites for the readership of potential international students. The University website was in English and the mirror image websites in three foreign languages were developed using Hierarchy chart and Page layout techniques. The languages in context were English, Mandarin, Thai and Arabic. Apart from the cultural and linguistic diversity, these languages also have different writing systems that add to the complexity. The development was carried out by two technology staff and the rest were the administrative and teaching staff. The objective of the paper is to describe the processes that were carried out within the website development project, followed by the techniques in overcoming some of the typical development issues and finally the outcome of the projects. The foreign language websites were constructed as a mirror image of the official English website and the analysis showed that 81 links on the English website was identified. 50.62% of the links were translated and 23% have only the first page translated. 25.93% of the links were not created in the foreign language websites. This study found that hierarchical charts and process flow diagram were effective in the development of a mirror image web site development.

Keywords: *Website development, university website, international students, Institutional website in multiple languages*

JEL Classification: *I-23*

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Introduction:

Globalization has brought new challenges to the governance, economy, industry (Hazry, Sugisaka, Yuji; 2006) and many other areas including the academia. The new challenges require the

academia to reach out to the global community especially in the chase for global promotion, in getting more international students and establishing international collaboration. For this reason, the websites in multiple languages would be an advantageous means to reach more audience



and generate more promotion for the universities. The development of university websites usually takes massive collaboration among the teaching, administrative and technical staff. The development processes are more complex when the websites are multilingual and are aimed for multicultural readership.

This paper described the processes of developing the university websites for the readership of potential international students. The website owned by Universiti Malaysia Perlis was originally in Malay language. The English version comprises information meant for international audience and as a step forward towards better international visibility, mirror website of the English website were developed. The languages in context were English, Mandarin, Thai and Arabic. Apart from the cultural and linguistic diversity, these languages also have different writing systems that add to the complexity. The mirror image websites in three foreign languages were developed using Hierarchy chart and Page layout techniques. The development was carried out by two technology staff and the rest were the administrative and teaching staff. The objective of the paper is to describe the processes that were carried out within the website development project, followed by the techniques in overcoming some of the typical development issues and finally the outcome of the projects. The foreign language websites were constructed as a mirror image of the official English website and the analysis showed that 81 links on the English website was identified. 50.62% of the links were translated and 23% have only the first page translated. 25.93% of the links were not created in the foreign language websites.

Emerging technology has brought changes to the way things are done (Shittu, Basha, Abdul Rahman & Ahmad, 2011; Zakaria, Watson, & Edwards, 2010; Suryani, Hazry & Yaacob, 2010). One of the technologies that brought many changes is the use of websites by organizations. Website development work has been done by countless organization for the obvious benefits. Ooi, Ho & Amri (2010) have listed out the benefits of using website for promotional gain by tertiary education providers; among which are; the fast and easy access to millions of potential customers, the potential contained by growing internet users in Asia, the convenience of updating the information, the ability to display various forms of information

and the ease of accessibility across space and time (Ina, Shafiq, Aminul and Hazry; 2012). Despite the rapid use of website as promotional means, there have been inadequate details and examinations in the method on how the developments of websites works are actually done within an organisation. Gellerson & Gaedke (1999) have pointed out that there is no systematic approach to website development and on the peculiar note, most website development and management practices rely on the knowledge and experience of individual developers.

Literature Review

This paper joined the list of conformist to the view proposed by that Taylor, McWilliam, Forsyth & Wade (2002) that the development process for web-based system is different from that for existing type of IT systems and the methodologies, standards and best practice guides for traditional IT systems may be inappropriate for web development projects due to the differences in a number of ways compared to the existing types of IT system. Some of the differences pointed out were on the different structure and approach on the application development, the different audience and purpose for which they are develop and the multiplatform accessibility.

While some may argue that experience is valuable but empirical data is needed for validation of methods (Yusof, Akmal & Jomhari, 2013), this paper brave up to the argument by drawing a quotation from Shneiderman (1996) "It will take a decade till sufficient experience, experimentation and hypothesis testing clarify design issues, so we should be grateful for the early and daring attempts to offer guidance". True enough, it took almost a decade before an accumulation of many rapid research and empirical studies were turned into recommendations that could be validated and used further in design area. This is particularly right on the issues on the development process for the multilingual websites.

Taylor et.al (2002) found that 68 percent of the organisations studied have not used any technique in their website development (Figure 1). He pointed out that "There has been little if any research examining how website development work is carried out within organisations, and actual methodologies/ standards/ techniques used for

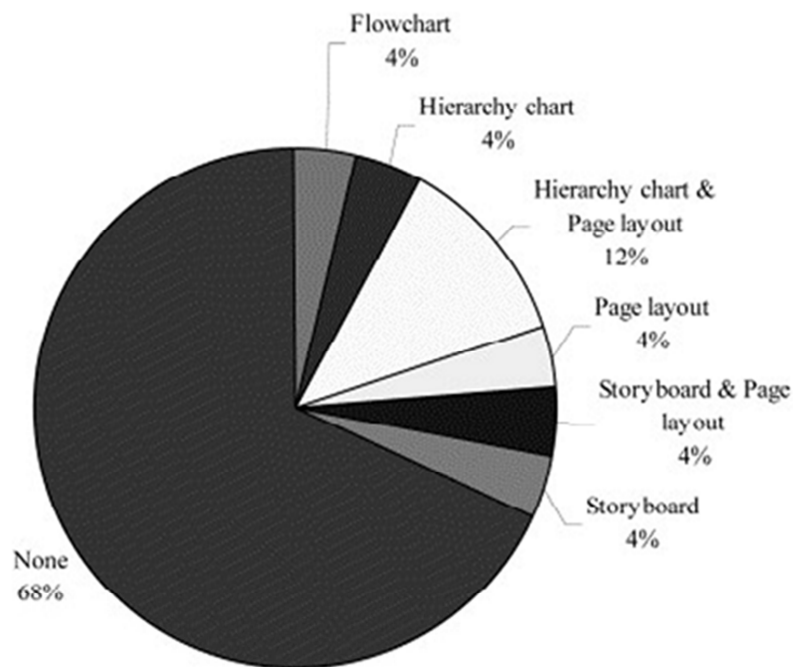
such works.” To add to that, such website development work is complex as it needs involvement not only technical know-how but also relies on various expertises in the organisation such as from the promotional and editorial units.

The development processes are more complex when the websites are multilingual (Syed, Zulhusny, Hazry; 2009) and are aimed for multicultural readership (Amoto, 2013). Examination on website development methodology within an organisation is much called for as for it to be corroborated into some guidelines which can be developed, tested and validated. For these reasons, this paper is aimed describe the methodology and practices executed during the development of mirror image websites

organisations was carried out by Taylor et.al (2002). It was found that there “was only limited use of formalised website design techniques (mainly hierarchy charts and storyboards)... roughly half of the organisations studied did use some form of website layout standards.” Some of the techniques listed were Website hierarchy charts, Website flowcharts, Page layout and Storyboards.

Methodically, this project benefits a great deal from the Hierarchy chart and Page layout techniques. The website for this project was represented in a diagrammatic and hierarchy manner. To begin with, upon specification on direction and content by the steering committee, the IT committee came up with the website

Figure 1: Use of website development techniques in the organisations



Taylor, McWilliam, Forsyth, Wade (2002)

for the existing English website into three foreign languages of Thai, Arabic and Mandarin using Hierarchy Chart and Page Layout Techniques.

Materials and Methods

The investigation on the way in which website development techniques were done in UK

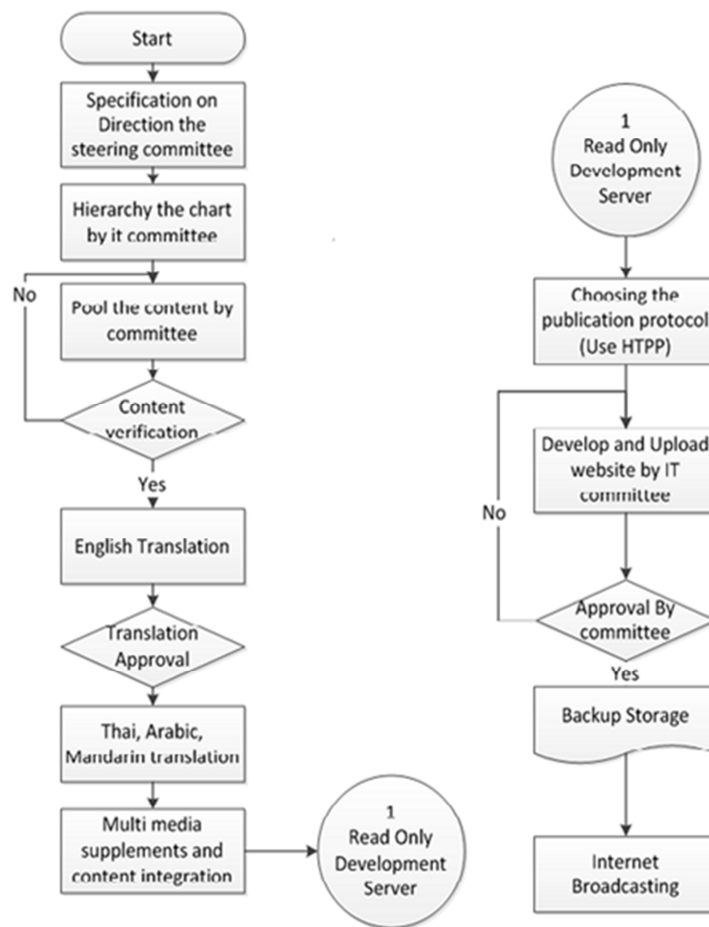
hierarchy charts in form of diagram on page layering. The charts were drawn in table form as in (Figure 2). Apart from the specific request by the steering committee, the working committee also studied the websites of the other organizations for design ideas. Simultaneously, the content

committee began to pool the required information from the various departments.

The nature of the organization was tertiary so among the department involved were the Student

versions even contradict. At this point, it was important for the content committee to get verification on the right content from each relevant department. After obtaining information verification from the departments, the information

Figure 2: Website Development Flowchart



Residency Department for hostel fees and description, Bursary for academic fees, Faculties and Registrar for courses offered, Student Affairs Department for students' activities and regulations. The information obtained was in various forms such as brochures, memos, minutes of meetings and emails.

There were cases where the departments released many versions of information and some of the

was sent to the English language editor. It is important to understand that the information was constructed by various departments in Malay language which is the National language for Malaysia. The English language editor who is an English second language user translated the information into English

The head of the working committee checked the translation work and upon approval, distributed the

information to the Mandarin, Arabic and Thai language editors. These editors were the native speakers of respective languages and have English as their second or third language. The language editors translated and worded the information in a manner suitable for promotional purpose. At that time, the exact content of the translated versions in Mandarin, Arabic and Thai were not checked due to lack of time. The translated work into these languages were taken as per say. Nevertheless the steering committee elected a few senior academicians who were native speakers of respective languages to check on the language accuracy and cultural suitability.

At this point, the language editors also worked out with the multimedia designers on the suitable multimedia supplement for each of the page. Most of the multimedia supplements included were pictures, tables, diagrams and videos. After determining the designated content length and multimedia supplement, the IT committee draft out the diagram for the page layout. Consequently, it was the IT committee who determined the website structures and ensured that all versions of the websites developed were uniformed and compatible. The page layout were prepared as templates for website in all languages versions except for the website in Arabic language which necessitate a special template due to the nature of Arabic language that require reading from right to left instead of left to right. The Mandarin version was created to be read from left to right instead of the traditional top to bottom writing.

These layout designs were done iteratively by the IT committee, the language editors and the steering committee. After reaching an agreement on the best template, it was time to upload the content onto the server; however, there were problems in getting all the committee to sit together and do this stage. Up to then, the team only meet up after regular office hours for five times and the rest of the communication were done through group email. The reason was even though the website development project was above-board in nature; the committee members were also considerably tide down with their designated work for example, the language editors who were actually language instructors were busy with teaching and learning preparations and the content committee whose designated office was in the Centre for

International Affairs was busy hosting foreign delegates.

The uploading process requires coordinated progress from all team members and for this reason; the team was taken away from the campus, to a remote resort over a weekend. The workshop was aimed at completing the uploading content onto the templates. At this stage, the IT committee had already worked on the HTTP protocol virtualization and the templates of the approved page layout were already parked on the designated servers but the status of the website remained unpublished.

The IT committee came up with a simple module to put in plain words on how to upload the contents onto the designated pages. As the template, content and multimedia supplements were all ready; the uploading process was accomplished over the weekend. The uploading process was done by the language editors under close guidance by the IT committee. Significantly, the workshop facilitates presence and cooperation from all team members; making confirmation and reference instantaneous. The presence also retained the group focus and enables the team to make progress in a coordinated manner. After the uploading process, the IT committee proceeded with the backup storage and the network process for the website production server for the internet and intranet.

The Results

The foreign language websites were constructed as a mirror image of the official English website. Out of 81 links on the English website, 50.62 percent of the links were fully translated into three foreign languages and 23 percent have only the first page translated. 25.93 percent of the links were not created in the foreign language websites. The factors which influence translation were relevance to the target audience and promotional value. Each language website has a photo gallery that display hundreds of pictures on the international students' activities. The photos were taken by professional photographers hired by the University. This site was one of the favourite pages for the international students, friends and families.

The construct used in evaluating standards for website development by Taylor et al. (2002) is

used as guide to evaluate the standards in this project. The construct listed out were Website design standards, Website layout standards, Website content standards, Website development tool standards and Website testing standards. The standard for website design of this project was achieved through the development of website hierarchy charts by the IT committee. The website layout standard proposed by Taylor et al. (2002) were standard concerning the use of video, animation, pictures, graphics, banners, menus, navigation and placement of return button.

All of listed item were present in the layout template prepared by the IT committee. The Website content standards according to Taylor et al. (2009) also included the guidelines for use of keywords relating to Internet search engine and the guidelines for the actual content of webpage. Even though both guidelines proposed by Taylor et al. (2002) were omitted in the development process; the standard content of the website is still the most crucial standard for this project; mainly because the project was aimed to produce mirror websites of the English website in three languages. It was very important to have a standard content as contradiction in any version would result in confusion among the readers. The existence of content committee ensured that the content obtained from various source were validated. The cross check done on the translated English content with the original source in Malay language by the head of the working committee also ensured that the content passed to the foreign language translators were uniformed.

Taylor et al. (2002) proposed the website development tools standard and Website testing standard; however these two standards were not fully considered in this project development. It was by chance that all project committee used Microsoft tools for some of the work stage. Nevertheless, a combination of other word processing tools was indispensable as the language editors needed to use Chinese, Arabic and Thai characters. Website testing guidelines were not developed for this project. The project committee only did simple tests on the links, functions and download times; leaving out the test on viewing using different browsers. The website development documentation was done in a report form. Over all, this website development activities involved IT

expertise, language expertise and administrative personnel.

Beginning with the hierarchy charts, all three foreign language websites retained the same content and flow of information. The website layout standards were observed in the use of video, animation, pictures and page layouts. The websites in three language versions were constructed within the institutional corporate image to the level of mirror image. The IT committee were the main contributor for the project establishment of standards.

Conclusion

The result of the website performance was reported in the study by Didegah & Erfanmanesh (2010) using criteria obtained from Alexa databank. Among the criteria were traffic rank, the average number of page views, percentage of visitors (internal and international), the number of in links and spent time on site per user. The findings by Didegah & Erfanmanesh (2010) shown positive and favourable outcome for the mirror website. "45.4 percent of Universiti Malaysia Perlis visitors were from abroad" and they pointed out that this could be contributed by the appearance and language features. The UniMAP percentage for visitors abroad was the highest among the other Universities in Malaysia. Following close were Universiti Teknologi Malaysia at 43.7 percent and Universiti Malaysia Pahang at 41.2 percent. Based on the outcome of the finished product and also based on the external evaluation (Didegah & Erfanmanesh; 2010); it can be concluded that the developments of the mirror websites were successful in gaining international visibility which was one of the project aim.

This study found that hierarchical charts and process flow diagram are useful techniques in mirror website development. These two techniques are sufficient in keeping the development on track and maintain the standard content as expected from mirror websites. Further investigation on website testing guidelines and construct for evaluating the website standards can be conducted to find out the effectiveness of these two techniques in website developments.

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