

The management of web presence for tertiary institutions in Ghana: The case of University of Cape Coast

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Abstract

The goal of this paper was to determine how specific website factors affect the ranking of University of Cape Coast (UCC) website and how to increase its Web credibility. This study sought to critique the university's webpage to find out how well the page is being managed in the face of scarce and limited resources. The search engine 'Google' was searched using link: ucc.edu.gh to determine the backlinks. The Google PageRank of the UCC home page was determined. The web ranking of University of Cape Coast on 4icu was also established. Analysis of the UCC website from DigSitesValue.com was also investigated. The backlinks to the UCC website was about 161. The Google Page rank value was 7 out of 10. The web ranking of University of Cape Coast on 4icu was 5255. Some of the measures that can be adopted to make the UCC website a high quality content site include eliminating spelling, stylistic, or factual errors on web pages. It is recommended that the university webmaster update the university website by regularly liaising with the departments/units in the university and the Public Affairs Division of the University.

Keywords: web credibility; web ranking; backlinks; assessing website, University of Cape Coast

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1. Introduction

In higher education, increasing differentiation in responding to the needs of society at large has resulted in more competitive marketing of institutions and programs with information technology identified as a core capability. Many institutions are investing heavily in upgrading their technology infrastructure and developing applications which will give them a competitive advantage. One of the ways by which institutions market themselves is through the Internet using the World Wide Web (WWW). The WWW as defined by Mendelzon, Mihaila, and Milo (1996) is a large, heterogeneous, distributed collection of documents connected by hypertext links. Most higher education institutions such as University of Cape Coast (UCC) host their web domain server in their institution. The University of Cape Coast as an institution has an official website, <http://ucc.edu.gh> with which it projects its presence on the world wide web.

The hosting of the web server by UCC on its campus means that the school should do everything possible to make the website running. A website's ranking is negatively affected if it consistently and frequently goes down as in case of UCC. As noted by International Business Machines Corporation (2002) "...outages, poor performance, and scheduled interruptions affect business opportunities, costs, customer satisfaction and bring tremendous costs to the business in the form of productivity losses in IT and the business units, lost revenue, and other penalties" (p. 62). This means that UCC, for example, should have a constant power supply either from the national grid or have standby generators to keep the web server running. This is because anytime that power goes off, the internet connectivity is affected and downtime is unusually extended. Ghana unfortunately has problems with its power supply, a phenomenon peculiar to most developing countries. Frequent power outage is a persistent problem in Ghana and as a result most institutions have acquired their own standby generators. Anecdotal evidence show that some institutions find it difficult, if not impossible, to acquire such standby generators for lack of resources. Those that acquire the generators are unable to fuel and maintain them overtime (Campion, Maurice, & Adu, 2012). Apart from problems with electricity, the high costs of internet facilities in Ghana make usage not reliable (Campion et al., 2012). Such difficulties affect among other things, management and utilization of ICT facilities and services on campus. It appears that leaders who are expected to champion this change are not interacted with or may not be well-informed about the need to keep web-servers running.

The University of Cape Coast is an institution of higher learning competing for the same students, research funding and resources just like any other university in the country and to a large extent the whole world; it cannot maintain a weak presence on the World Wide Web. This is because most students, parents and organizations look out for information about schools of interest from the internet. Thus, a weak internet presence may do more harm in the long run to the university's reputation and may affect its ability to attract quality foreign students, foreign investors, projects and resources. The paper therefore sought to determine how specific website factors affect the ranking of University of Cape Coast website and how to increase its Web credibility. It also intended to critique the university's website to find out how well the site is being managed in the face of scarce and limited resources. It should be noted that this paper is not being written as a way to denigrate the webmaster(s), the university and the staff. However, the paper sought to look at the information available on the University of Cape Coast website and how best it can improve with the ultimate goal of attracting quality foreign students, foreign investors, projects and resources (Kretschmer, 1997).

1.1 Ranking systems

There are several ranking systems that measure quality of higher education institutions for different groups of stakeholders. One of such ranking is 4 International Colleges & Universities (4icu) which ranks universities in

each country by web popularity as measured by a number of independent web metrics, including Google Page Rank, total number of inbound links and Alexa Traffic Rank. It is intended to help international students and academic staff to understand how popular a specific University/College is in a foreign country. The credibility of many higher institutions and senior management within these institutions has been affected due to the emergence of ranking systems (Thakur, 2007). The 4icu.org University Web Ranking is used to rank Universities and Colleges. The current ranking is based upon an algorithm including five unbiased and independent web metrics extracted from three different search engines: Google Page Rank, Alexa Traffic Rank, Majestic SEO Referring Domains, Majestic SEO Citation and Majestic SEO Trust (4 International Colleges & Universities (4icu), n.d). Search engine optimization (SEO) value is also a measure of evaluating a website. Search engine optimization is the process of creating, formatting and promoting web pages in a manner that ensures that they are ranked highly for chosen keyword phrases after a user performs a Web search (Dover & Dafforn, 2011).

One of the measurements of a website's popularity is the number of backlinks that point to it (Howe, 2007). Backlinks are incoming links to a website or web page. Most commercial search engines provide a mechanism to determine the number of backlinks they have recorded to a particular web page. Search engines often use the number of backlinks that a website has as one of the most important factors for determining that website's search engine ranking, popularity and importance. Indeed, many of the web search engines have used backlink count as a way to try to bias their databases in favour of higher quality or more important pages. Web pages vary greatly in terms of the number of backlinks they have. Generally, highly linked pages are more 'important' than pages with few links (Page, Brin, Motwani, & Winograd, 1999). Poor internal linkages can cause a site to fall short of its maximum PageRank but no kind of internal link structure can cause a site to exceed it (James, 2013). The only way to increase the maximum is to add more inbound links (links into the site from the outside) and/or increase the number of pages in the site. Inbound links are one way to increase a site's total PageRank. The other is to add more pages. The success of most Web sites today depends on whether users perceive the site to be credible. If users think a site lacks credibility suggesting that the information and services cannot be trusted then they will abandon the site and seek to fill their needs in other ways.

1.2 Theoretical Framework.

The theoretical framework that underpins the study is Prominence-Interpretation Theory. The theory is used in explaining how people assess credibility. Prominence-Interpretation Theory posits that two things happen when people assess credibility: a person (1) notices something (Prominence) and (2) makes a judgment about it (Interpretation). If one or the other does not happen, then there is no credibility assessment. The process of noticing prominent elements and interpreting will usually happen more than once when a person evaluates a website, with new aspects of the site being noticed and interpreted until the person reaches satisfaction with an overall credibility assessment or reaches a constraint, such as running out of time (Fogg, 2003)

2. Methodology

2.1 Design

An evaluative research design was used to evaluate University of Cape Coast website. As stated by Weiss, evaluation is the “systematic assessment of the operation and/or the outcomes of a program or policy, compared to a set of explicit or implicit standards, as a means of contributing to the improvement of the program or policy” (Weiss, 1998, p. 4). An evaluative research design can reveal whether policies work or not working and can enhance effectiveness of a programme. Conflicts of interests among stakeholders sometimes limits the usefulness of evaluative research as some programmes being run are influenced by political decisions.

The Boston College Libraries offer a list of topics to cover when evaluating a website, such as ‘authority’, ‘accuracy’, ‘currency’, ‘purpose,’ ‘audience’, ‘coverage’, ‘style and functionality’, and other links (Boston College, n.d.). The search engine 'Google' was searched using link: ucc.edu.gh on June 26, 2013 to determine the

backlinks, that is, the number of pages on the Web pointing to <http://ucc.edu.gh/>. The Google PageRank of the UCC home page was determined. The web ranking of University of Cape Coast on 4icu was also established. Analysis of the UCC website from DigSitesValue.com was also investigated.

3. Results and Discussion

The number of backlinks to the UCC home page <http://ucc.edu.gh/>. Using the Google search engine was 'about 161 results (0.41 seconds)'. The UCC home page has a page rank value of 7 from 10 possible points. Using website analyzer on June 24, 2013 gave the following statistics - ucc.edu.gh has 1,807 daily visitors. The web ranking of University of Cape Coast in 2013 on 4icu was 5255. From the website, it appears that the smaller the figure then the more popular the website is. The 2013 World University Web Ranking showing top 100 Universities and Colleges in Africa by the 4icu.org University Web Ranking placed University of Cape Coast in 93rd position (4 International Colleges & Universities (4icu), n.d).

Analysis of the UCC website from DigSitesValue.com service give the following statistics on Monday 6th of May 2013 - It has 96 257 backward links from 890 domains, 875 backward links from .edu domains and 706 links from .gov domains. Homepage Links Analysis showed that the main page of ucc.edu.gh has 3 external links and 41 internal links (DigSitesValue, 2013). Alexa Traffic Rank gives rough estimate site popularity. The rank is calculated using a combination of average daily visitors to ucc.edu.gh and page views on ucc.edu.gh over the past 3 months. The site with the highest combination of visitors and page views is ranked #1. Alexa Traffic Rank Global Rank of ucc.edu.gh's popularity was 429,080. Alexa Rank in Primary Country was 362. The search engine optimization score was 60/100. (Alexa Internet Inc, 2013).

3.1 The state of University of Cape Coast website

The use of WWW is not properly organized and managed. For instance, while the university have an official website, different departmental and units in the university have their own websites that do not link the official website (Ayebi-Arthur, in press). Figure 1 shows the homepage of the University of Cape Coast. Using The Boston College Libraries criteria in evaluating the UCC website, the finding was that the website had authority as the website was the official website of the university. It had the copyright '© 2013 University of Cape Coast – Ghana' on the homepage and had the country code top-level domain (ccTLD) for Ghana, gh and second level domains (SLD) for schools .edu.gh (Ghana Network Information Center, 2013). The University of Cape Coast website having a ccTLD and SLD for schools boosts the website's Google PageRank (webconfs.com, 2013).

In addition, using The Boston College Libraries criteria in evaluating the UCC website, the finding was that the website did not have currency. From Figure 1, it can be deduced that on the UCC website there was no date provided for when the information on the home page was last updated. Although not have a date or an old date on a website will not have an effect on the SEO visitors to the website may wonder if the website has not been updated for a while.

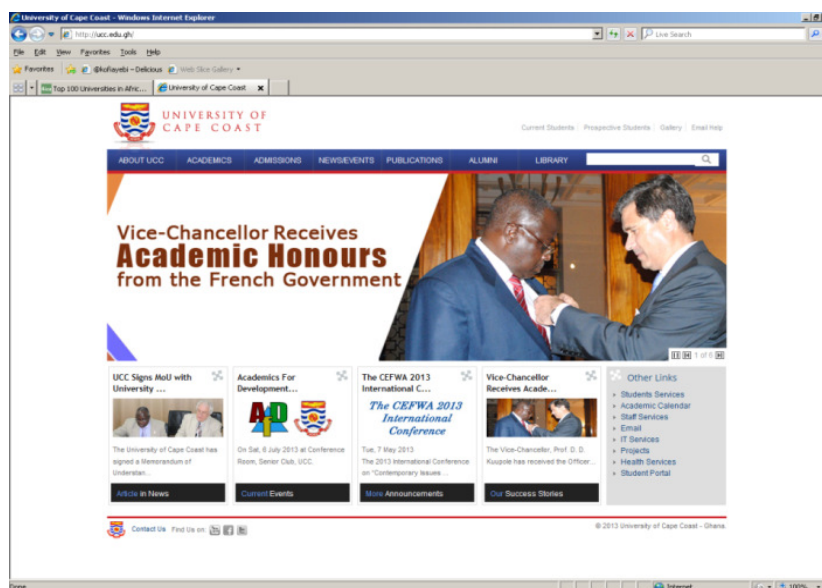


Figure 1. Homepage of University of Cape Coast

It was also found out that not all the links still work. As shown in Figure 1, the home page of the UCC website has hyperlinked icons for web 2.0 tools YouTube, Facebook and Twitter. The latest post on the UCC Facebook page as at 26 June, 2013 was dated January, 11 2013. The Twitter account was last updated on 18th April, 2013. The YouTube link however does not work as no page is opened when the link is clicked.

A webpage with uniform resource locator (URL) <http://ucc.edu.gh/academics/> displayed a page titled 'Academics'. Images of faculties, schools, institutes, support services and Students Representative Council were shown and hyperlinked to their main pages. The word 'Staff' appeared in two places, 'A' and 'B' as indicated on Figure 2 which each of them was hyperlinked to different pages.

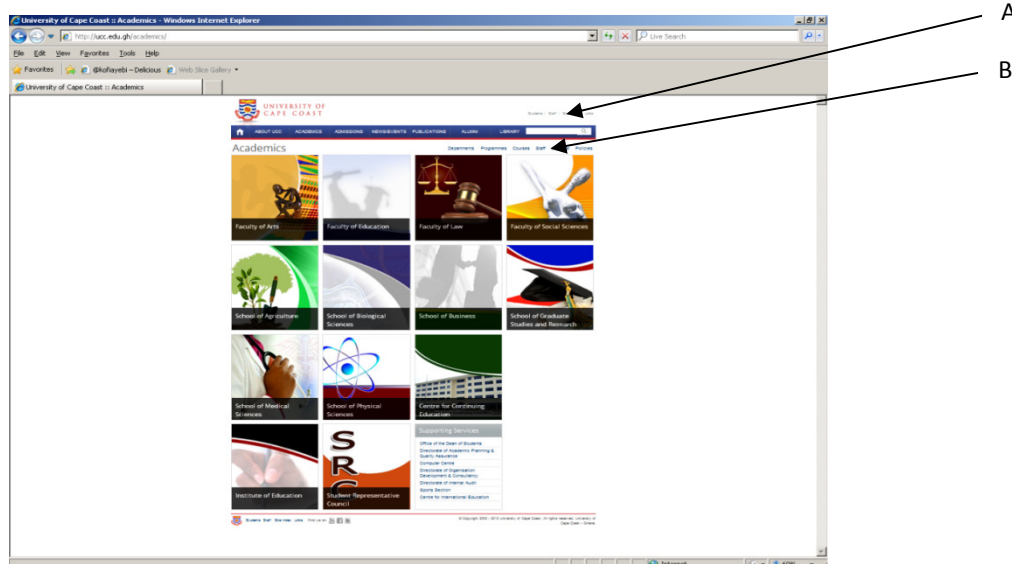


Figure 2. Academics

Label 'A' was hyperlinked to <http://ucc.edu.gh/staff>, and displayed 'Oops, Page Not Found' as shown in Figure 3 when clicked. If the site (or separate pages) is inaccessible because of broken links, 404 errors, password-protected areas and other similar reasons, then the site simply can't be indexed (webconfs.com, 2013).

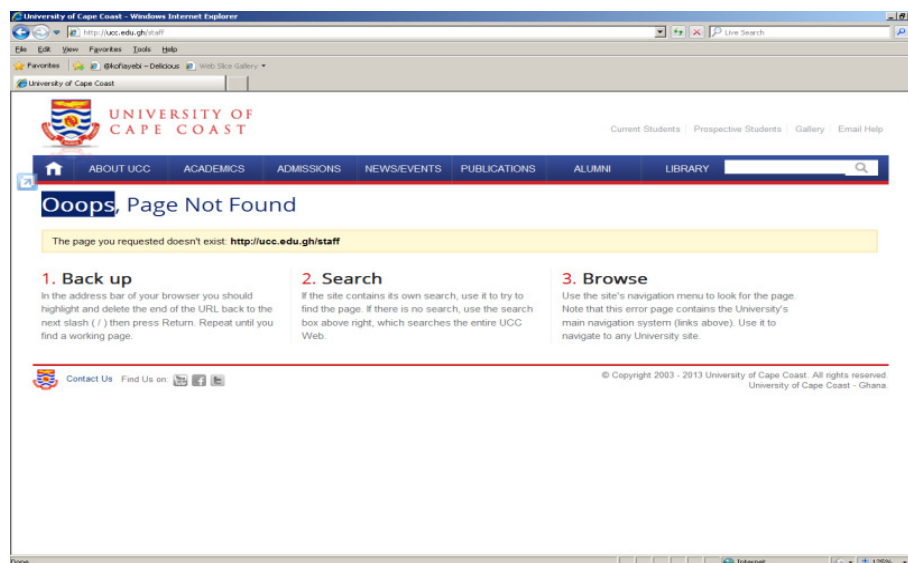


Figure 3. Oops, Page not found

Clicking on the label 'B' on Figure 2 displayed a list of staff of the university as shown in Figure 4. The list displayed was not in any order. The names are not sorted by rank, alphabetically, nor by faculties/schools/departments/institute. As noted by webconfs.com (2013), when the design and/or coding of a site is poor, the site might not be index-able at all. However, there was a search feature to aid in locating a name.

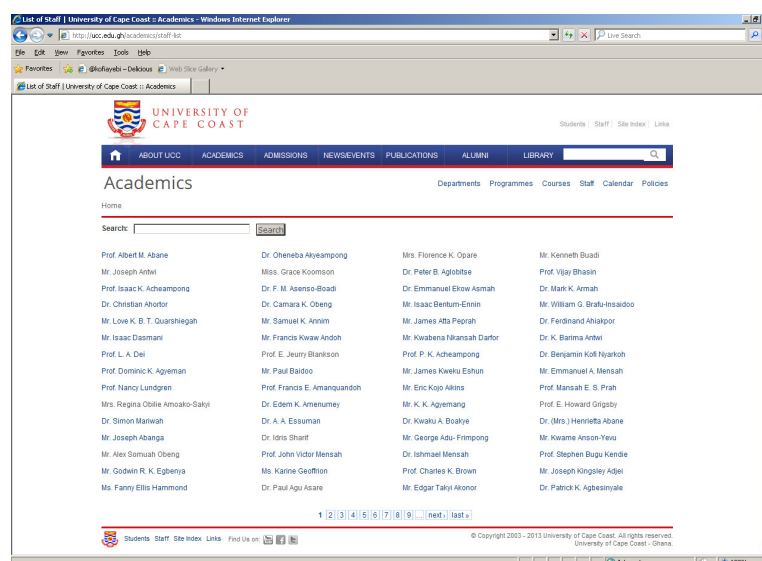


Figure 4. List of staff of the university

The names of the staff displayed were often hyperlinked to their respective blogs. Some of the names were not hyperlinked to webpages. The blog of a staff when clicked displayed tabs such as 'Personal Information', 'Educational Qualification', and 'Work Experience' among others. The 'Home' tab of most staff displayed the information 'Welcome to my blog' 'Posted on (date) by (name of staff)'. Most of the dates posted were in 2011. In most instances when the tabs are clicked the information 'This page is currently under construction ...' was displayed as shown in Figure 5. The age of document on a page is important as documents that are recent as frequent changes are in a webpage are favored (webconfs.com, 2013).

The email addresses of staff were neither displayed on the staff list nor on the blog of staff. There was no other webpage where email addresses of staff were displayed. This may have been done to prevent email addresses from being harvested by bots. A notice can be displayed prohibiting the use of the email addresses for uses such as batch mailings, renting, distributing, or selling for commercial purposes by visitors to the website.

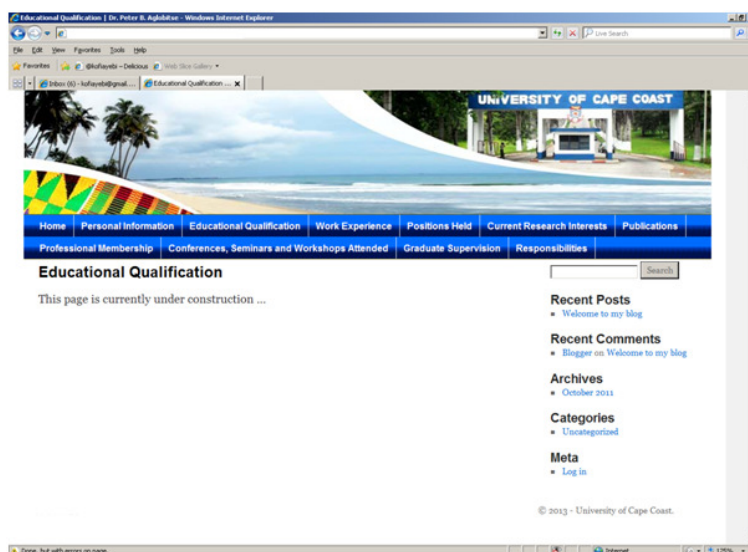


Figure 5. Page currently under construction

Some of the webpages displayed conflicting information. There was an instance as shown in Figure 6 when on a department's website an academic is listed as both a senior lecturer and an Associate Professor. Other academics have not had their current ranks updated on their respective departmental webpages. As discovered by Watch (2005) the quality of information on the WWW has always been a major concern for Internet users. Accuracy of information on a webpage is thus essential.

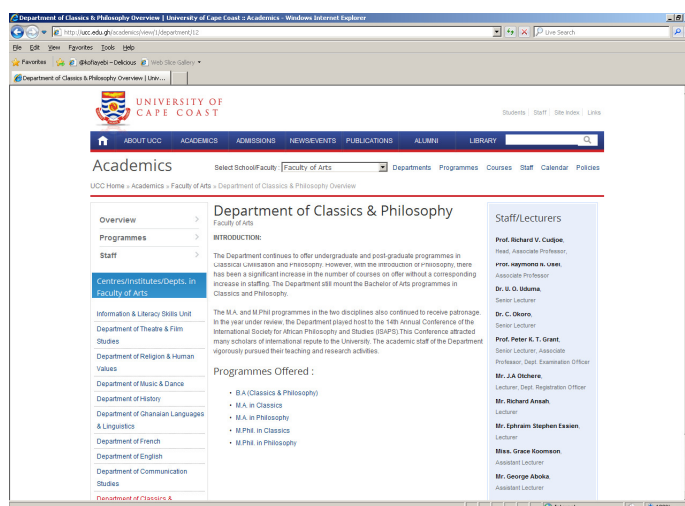


Figure 6. A webpage showing conflicting information

4. Conclusion

The level of usage of the UCC website varies and the number of backlinks appears to be minimal. The University of Cape Coast placed 93rd position in the 2013 World University Web Ranking showing top 100 Universities and Colleges in Africa. The use of WWW is not properly organized and managed. The search engine optimization score was 60/100. The date webpages were updated were not indicated on the webpages.

5. Implications for management practice

The strategic directions of the university for instance should be reflected in university's website. Members of the university need to organize their web activities to ease the understanding of their web usage characteristics and help to make the official website credible. When hyperlinks do not work it is usually an indication that the information has not been updated recently. As found from literature, poor internal linkages can cause a site to fall short of its maximum PageRank (James, 2013). Updating the official blog of academics and updating it regularly will aid in making the website more credible and increase the visibility of the academics online. The list of academics in the university could be displayed alphabetically to aid searching. It seems both at the university and departmental levels, there is no reliable mechanism for updating the contents of the website. This was evident in webpages of some departments showing conflicting and un-updated information. The format for deriving the official email addresses of members of the university such 'first letter of first name(s) lastname@ucc.edu.gh' if provided will enable visitors to derive the email address of a staff. University rankings may affect the perception of the contribution the university makes to its local community, country and increasingly the world in general (Thakur, 2007). The WWW constitutes one of the available avenues open to a university to source and provide information for purposes ranging from advertisement of its academic activities, admission processing, information dissemination to staff and students, teaching and research.

6. Recommendation

Although known fact that UCC is University of Competitive Choice in Ghana, its ranking, which appears to be determined largely by its web presence, belies that fact. If UCC wants an accurate depiction of its ranking and improve its web ranking then the following recommendations should be considered.

A staff who reports directly to the webmaster from faculties and schools and research units will most convenient. This person's duties would be to glean information from the Vice Chancellor's annual reports and have them posted on the UCC website via the departments and sections concerned. It is recommended that the University webmaster updates the university website by regularly liaising with the departments/units in the university and the Public Affairs Division of the University.

Also lecturers may be motivated to update their blogs occasionally and link their publications on their blogs on the university's website. Measures should be put in place so that by close of 2013 – 2014 academic year there will not be the phenomenon of 'site under construction'. Staff who are 'IT challenged' should be identified and their CVs collected for webmaster to upload initially per the parameters on the staff blog pages.

Reciprocal exchange of links between UCC and other institutions that the University has its hyperlinks pointing will be most beneficial. The origin of inbound links is important thus the University should strive to have reputable websites linking the University website. These websites should have good Google PageRanks. Links from .edu and .gov sites are more reputable than from com. biz, .info, etc. domains.

The University of Cape Coast can setup a searchable webpage which showcases UCC's research. Visitors to the website may then search the website for information about individual researchers, the projects they are working on, the research groups they belong to, the specialist equipment that they use, and their affiliations. The website may then provide a comprehensive view of research at UCC. Google PageRank may be increased in a website if there are keywords in the heading.

Another measure that can be adopted to make the UCC website a high quality content site include eliminating spelling, stylistic, or factual errors in web pages. Webpages must be proof-read before being published. A notice showing the last time a webpage was updated will be useful. This will help visitors know how current the information on the webpage is.

There should be a mechanism for members of the university to report errors on the university website. On

some of the webpages there is a comments section where visitors to a webpage may post new comment. However the comments section does not appear to be the appropriate place to report an error on a webpage.

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