Interactive website on information dissemination

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Article Info

ABSTRACT

A school is an educational institution for imparting knowledge to children. In an age where information acquisition about a school is assuming astronomical heights, the need for cost-effective and efficient information transmission methods cannot be overemphasized; hence the use of the website of a school to disseminate information is advised. This study examines the process of disseminating information on a school website using a college in the Northcentral of the six-geopolitical zone in Nigeria as a case study. A prior study of manually or locally dissemination of information in a school was carried out and its limitations are highlighted. A website that is able to handle processes like admission, comment, and newsletter has been analyzed and developed using hyper-text language, cascading style sheet, hypertext preprocessor. The study results in solving the information dissemination problem in the college with the development of an educational interactive website.

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1. INTRODUCTION

Over the past decades, the Internet has become a staple in students in and out of lives. There had been an Internet revolution with the computer and communication world like never before with the invention of telephones, the radio, satellites, and computers. The Internet has become a possessed with the broadcasting capability, information dissemination mechanism and a channel for interactions and collaborations between individuals and their devices without any regard for geographic location [1]. A vast computer network linking the internet globally has a complex history and is involved in technological, organizational and community aspects which influence the technical field of computer communication through the society as we move towards increasing the use of online tools to accomplish electronic commerce, information acquisitions as well as community operations [2].

The presence of internet has conveyed an exceptional transformation to human's way of life [3]. The ability to disseminate and promote work, study, research, and information is an important component of managing and communicating information [4]. Information is daily needed in schools [5]. Information transfer among individuals, secondary school students, university students [6, 7] or personnel remains a challenge for many institutions [8]. Information flow is necessary for maximizing profits and performance within a school [9]. An advantage of social interaction is the access to knowledge that is provided [10-13]. Information

dissemination crosswise the web is a serious facet which has to be concentrated on in research [14]. Internet of things (IoT) signified a system of organized gadgets, items or tools which can connect and interchange information through entrenched sensors along with the internet [15, 16]. In an economy, information dissemination can take place on numerous platforms [17, 18]. Information channel is referred to as a means of transmitting information in a specific flow that is one-way flow [19]. At the core of all technological expansions is the growing use of the internet [20-22] and The use of information and communications technologies (ICT) benefits all levels of society [23]. Web and interface designer, organizer, builder, the publisher is some of the skills and roles that are performed in the 21st century [24-30].

The contemporary improvement and pervasive utilization of the World Wide Web have conveyed new community, whereby a portal website can be developed for schools to manage school activities such as disseminating vital information, checking session's results online, calendar of event, extra-curricular activities and let people know the school policy. The statement of the problem of this study is the manual way of disseminating information to the public. Until now, the conventional way of placing an advertisement is either with the use of posters at strategic locations, distribution of flyers to passersby or by going through the media house e.g. announcing on a radio station, and television advertisement. all these forms of advert still have problems. The problems are getting the advert across to the people at different geographical location and cost of transportation and effectiveness. Interactive website design has made a breakthrough on publishing information and content to the general public without geographical limitation, the problem of transportation or even the effectiveness. The work aimed to provide a web-based environment for students and staffs to interact with the co-operate data system, knowledge discovering, and communication mechanism of the schools. This will also allow the extension of its environment to supports the many stakeholders of the school alumni, prospective students, the research community, and journalist.

The objectives to attain this aim are as follows:
− To facilitate the creation of the web-enabled schools
− To foster school communication mechanism for the efficient delivery of school news, administration support issues, and to deliver an online community to foster relationships on and off school hours.
− To empower the use of technology effectively to help students achieve high academic standards.
− To foster greater collaboration between the school and the entire public.
− To develop a standardized content management system for the delivery of school-wide information based upon a mixed conscript sub-script model.

The major significance of the research is providing innovation to enhance management of academic activities, dissemination of vital information, checking of sessions, result online to achieve high academic standards. It enhances student to be engaged in internet-based forms of reading and writing. More so, it is a tremendous assistance to students in the area of vocabulary development as well as English writing since they are allowed to submit journal, articles for online newspaper publications. Administrative information, parent teacher association (PTA) meeting days and other information about students can be checked anywhere anytime. The proposed system

The proposed system involves the use of internet which has no geographical boundary, allows updating of urgent and new information quickly and accurately. With the proposed system, the information on a web page is easy to amend and manipulate and it has a graphical user interface which makes the web pages easy to collect information from and navigate between pages. The benefit derived from the implementation of the new system includes:
− Enables the school authorities' to discharge their duties effectively and efficiently.
− Allows easy access to information.
− Students can access their school information from anywhere in the world, at any time of the day.
− It reduces cost in the long run: intending students can register for admission anywhere without having to come down to the school.
− The new system provides management decision support since they can contact the school about any concern always without going through the stress of having to come down to the school premises.
− The new system is consistent, reliable and accurate.

Related works

The [31], considered knowledge enlightenment dissemination through the use of daily newspaper along with its roles in educational guidance. Content analysis technique was applied to gather datasets and a general information schedule was established for the study process. Chi-square and percentage technique were the techniques used to scrutinize the dataset gathered. The study concluded that the telegraph that is Calcutta edition provides only a partial and unstructured educational guidance to the students that is not consistent and all-inclusive. The researcher intended to generate the possibility of expending newspaper as an instrument for

educational supervision as well as provide assistance to the publishers of the newspaper to appraise their current content to also originate essential amendments.

The [32], designed an interactive website for a higher institution, Uyo state, Department of Physics utilizing tools such as hypertext markup language (HTML). The system includes configuring, programming and test. The website would assist the Department to collect, develop, accumulate as well as circulate contemporary information to the entire globe on an educational program, investigation events as well as the activities of the Department. The scheme made provision for other Department in the University. The authors also stated that the execution was accomplished in the period of the restricted services of the chargeless server. The [33], designed and implemented a mobile application which was able to publicize scholars' grades of their exams. The tools used by the authors for the development of their application are Java, phased model, and Android. The processes used for the research are data gathering, reporting, dialoguing and inspection. The authors established the developed application was effectively executed using phased model methodology.

2. RESEARCH METHOD

The system design, program specification, and algorithms were explained in this session. The method used in gathering facts for the study is through interview and surfing the internet. A thorough investigation of the system was conducted via the help of the vice-principal. The data and information required to develop a web-based school portal were supplied by various departments. Other information relevant for the development of the website was extracted from the school magazine and internet.

2.1. Analysis of existing system

The existing system focused on how information is being disseminated in the private school in North Central Nigeria. The approach used to distribute information to students, staff and the general public is the traditional method, which is mainly paper-based information dissemination. Since the inception of the school, various means have been used to pass information across to students, alumni, and parents. One of the methods as earlier stated is paper-based, while another method is by using an oral presentation to disseminate information and the use of TV or radio media to broadcast urgent information. The school notice board served as a means of disseminating information to various departments, classes and at times circulars are pasted to remind staff or parents about the forthcoming meetings and also to inform them about the latest changes in academic events. An academic calendar that shows event for the whole session is made available in the form of paper-based, likewise, other information pertaining the school admission advertisement, sports events, student registration process, and student report sheet are mainly paper-based.

Oral presentation of information is most common in school. The principal through staff meeting passes information to the teachers, which is later relayed to the students in their various classes. A yearly magazine produced by the school editorial board is also used to impart knowledge, show work and pass vital information that promotes the school standard and culture to the students in particular and the society at large. Furthermore, TV and radio media are used to pass impromptu information; the school makes use of the mass media to pass information to parents about important issues like an extension of holidays, PTA meetings, admission advert, holiday coaching and about graduation day.

- Oral information passed to students by teachers may not be accurate when relaying it.
- Mode of sending circular to parents and other important personalities in society is very slow.
- Paper-based information is tedious to amend whenever there is a mistake in the print out at large.
- The mistake in the printout of paper-based information such as report sheet or magazine leads to wastage of resources; time and it also incur debt.
- The cost associated in using TV or Radio media and paper-based approach to disseminate information is very expensive at long run to compare to web-based information dissemination.

2.2. System design

This involves the transition from a manual system to a computerized system. It involves the interface of the designed system, the school blog, the input form, and the output phase. The system design shows us how the website of the school looks and what it is contained, the school website contains the following like contact us, the newsletter, admission form, facilities of the school, and so on. Figure 1, which is the flowchart of the developed system describes how the whole system works.
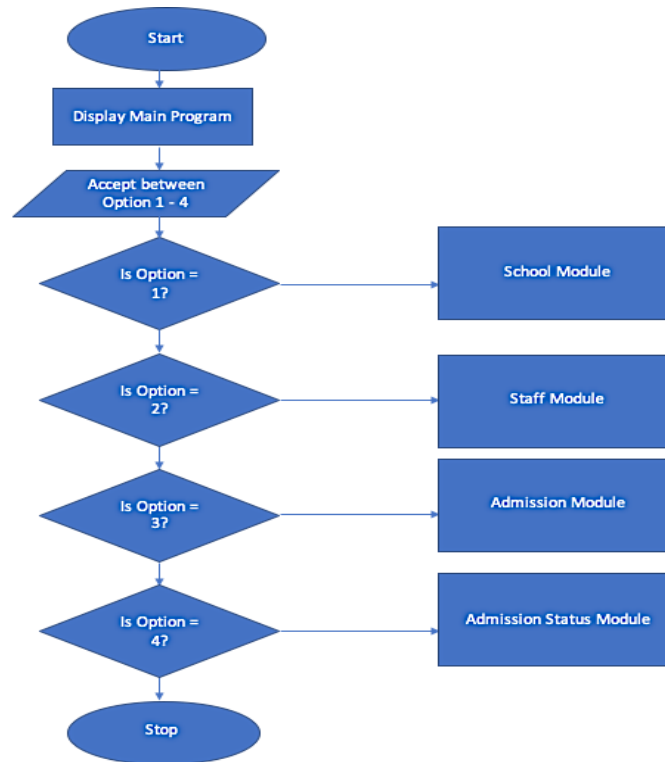
Figure 1. The system flowchart

3. RESULTS AND ANALYSIS

The system will educate people on its usefulness, how people can apply for admission, purchase form, view admission status. The knowledge of what an individual can use the proposed system for is very essential. This will be an advantage to someone who wants to apply for admission into the private school in North Central of Nigeria. This website work is based on a server, which has an IP address ''local host''. This enables the website to work as when hosted; it has to work on the server usually the wamp server. To enter into the site, the server must be started and then the first page you enter when you click on the site folder on the local machine is tagged 'index'. The title of the index page is Adeola College (The private School in North Central, Nigeria), which is the main page. A visitor need information generally about the school, they will be called from the database, and the database consists of different tables with different data. This is a site that lots of people will visit always, as they will be looking for how they can get tangible information about the school before they can enroll in their children. Those who know the school website name will log in to the site through the proposed domain name.

3.1. System interfaces

The newsletter box shown in Figure 2 is an area where information seeking person input his or her email to enquire information about the school. This kind of information is sent from the school anytime something new about the school comes up. The newsletter is located at the right corner of the school website. This enables anybody to subscribe to the school for any latest updates about the school fees, Admission information, Arising needs and general information among others. Figure 3 shows the side bar box interface which includes some vital features in the developed interactive school website and it is like a shortcut to navigate through the website developed. This side bar con-sists of the newsletter, the highlight of the school information, and the school contact. Figure 4 shows the home page interface and this consists of links to other parts of the system, from the homepage; visitor can access the information about the school.

Figure 5 shows the school news interface which consist of the news about the school, this is a web page that's displays any latest news about the school. This technically means you can retrieve information and news about the school off your reach. Figure 6 shows the school staff interface and this web page consists of the staffs of the school, which we have the academics and the management staffs, the web page displays the name of those staffs with the sub-jects they take. The sex of the staff is also included in this section of the developed website. Figure 7 shows the contact us interface where questions from the enquirer are being answered from the school, it is a form like page, where inputs of name of the enquirer, email address of the

enquirer, and the question of the enquirer can be filled, the enquirer clicks on send and automatically the question/questions is/are being forwarded. This is a web page that displays a form to be filled by you in order to contact the school whenever you want to enquire.

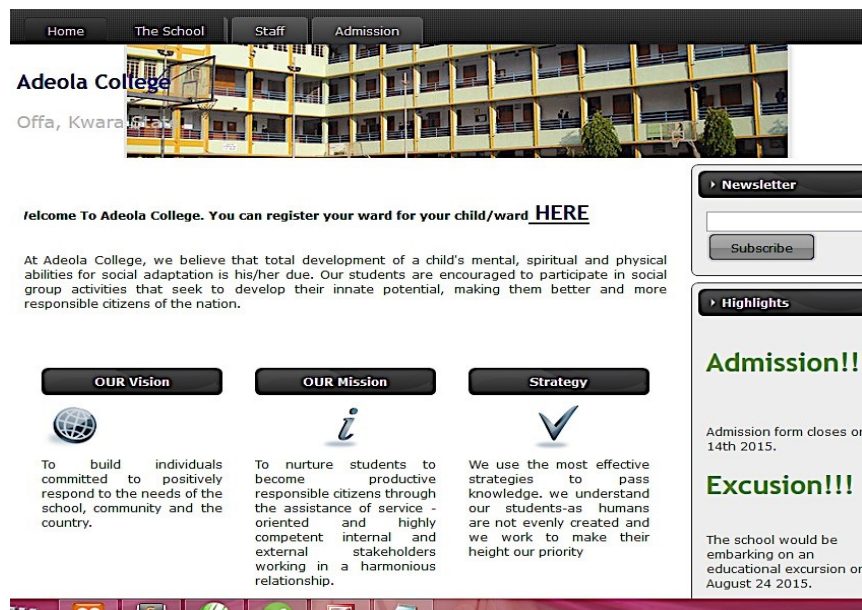Figure 2. The newsletter box

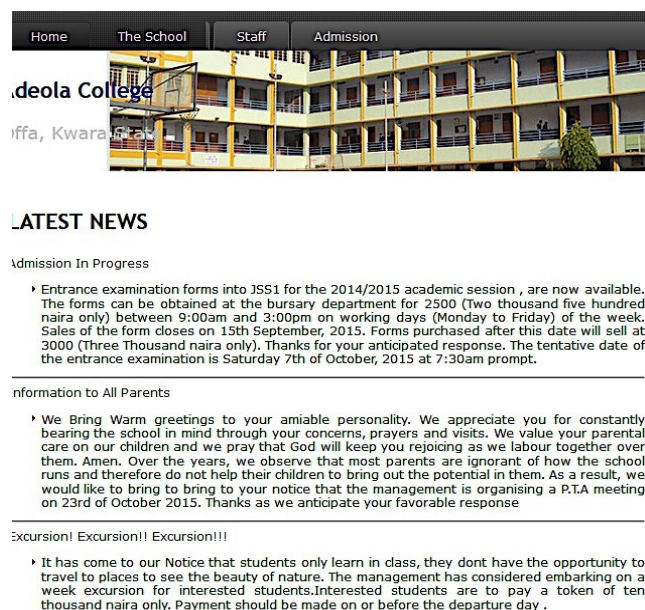Figure 3.Side bar box interface

Figure 4. The home page interface

Figure 5. School news display interface

Our STAFF

Academic staff

› Most of our teachers are professionally trained with long teaching experience. The school can bost of retaining her teachers thereby ensuring continuity in the teaching and other programmes of the school.Our Academic staff are:

› Mr Mejabi(Chemistry)

› Mr James Egele(physics)

› Mr samuel Areo(Computer/Programming)

› Mrs Funsho Garba(English)

› Mrs Jesse Musa(sport)

› Mrs Hamza Ibrahim(Mathematics)

Management Staff

› Soladoye A. O. Mrs. (Chairperson)

› Pastor Oyedepo J. A.

Figure 6. School staff display interface

Contact us

If you have any questions, please get in touch using the contact form below.

Name
name

Email Address
email

Message

Send

Figure 7. Contact us display page interface

Figure 8 shows the school facilities interface. This page tells us about the school facilities, those amenities that the school has supplied to enhance the good education to be impacted by their students. This page shows us those amenities that the school has, to enhance good educational knowledge to be impacted by their students. Those facilities include: conducive environment, fully air-conditioned classrooms, fully and neatly tiled, noise-free environment, maximum security for the students and so on. The facilities page also shows that the school has a clinic well equipped with medical facilities to enhance the student's wellbeing and their educational performances. Some competent doctors and nurses work beyond school hours. Figure 9 shows the database page interface. This consist of the table used in the database system, it shows how the database work. The database consists some vital information that are categorized in the database of the system developed.

Figure 8. School facilities page interface

Figure 9. Database displayed page

4. CONCLUSION

The aim of embarking in this research was to design an iterative website to disseminate information for a private school in North Central, Nigeria. The website provided a general information on news, sports, career talk, departmental reports, registration of students, results, frequently asked questions (FAQ), feedback reports, to mention but few. As at the time of this study, the college wasn't on the internet. The computers acquired or used in the school were stand alone-off-line system despite the status of the system being Internet ready and with all Internet facilities e.g. phone lines. Hence the researchers made the school realised importance and why she should be on Internet, and also the importance of having a website for the school. The study was also based on interactive website design for secondary schools in order to disseminate information to the public.

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Therfore, the study was conducted to augment manual method of distributing information in the school as well as to eliminate problems faced by the traditional method of disseminating information. Whenever there is full connectivity and site hosted on the Internet, the website becomes more accessible to people both inside and outside the school community. The explosive growth of the Internet service provider delivery vehicle for education the interest is utilized as a comprehensive based of understanding, which adds to the scholastic structure. Scholars and educators profits from the application of the Internet together with administration and others, separate of official teaching and learning. People don't merely learn from interest but they provide and distribute information by means of networked communities. People are not only learning from interest, but they are also contributing and sharing knowledge through networked communities. This research has really helped, to foster school news, and communication mechanism for the efficient delivery online 'community' to foster relationship on and off the College. Planning, writing, testing, and maintenance are the four horsemen of any web page. Revision of the site is required subsequently and new information updated frequently.

It is hoped that when there is full connectivity of the whole secondary schools to the Internet and the site published, the purpose of the design will be accomplished and it will serve as a piece of information back up for both the schools and user from a longer distance. If the site is to be changed in future, initial plan of the design should be considered and changes made slowly because one runs the risk of breaking links and losing track of the design if too many changes are made at once. A clock applet also included which reflects the time the site is visited.

5. RECOMMENDATION

This work is recommended for colleges to foster greater collaboration, fast distribution of information, anywhere and at any time of the day. More so, it is recommended for the college that there should be:
− Full connectivity to the internet.
− Adequate provision of software and hardware used.
− Easier accessing of vital information.

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