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## USE OF DIGITAL SIGNAGE IN ACADEMIC LIBRARIES IN NIGERIA

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### Abstract

The application of information and communication technologies (ICTs) in libraries has been expanding all over the world. All the functions and services that academic librarians used to provide manually are now being provided through the use of ICTs which can do things better and faster. Most modern day libraries are interested in the various infrastructure networks that serve as major channels for the transmission of information. ICTs include a variety of rapidly evolving technologies such as telephony, cable, satellite, television and radio, video conferencing, computers, information networks, and software applications. However, most of the libraries have not explored the use of digital signage for the dissemination of information to their patrons. As computer technology continues to evolve and the demand for hard copy materials reduces, the desire to visit academic library is on the decline. In order to make library more relevant in this era of ICT, digital signage, which is one of the telecommunication technologies can be used as a channel to provide information that will attract lecturers, students, researchers, and the academic community to the library. This paper highlighted the benefits that can be derived from the use of digital signage in improving the provision of library and information resources and services and also the challenges. It also advocated that digital signage should be introduced to the academic libraries, because of the benefits that can be derived from its usage.

**Key Words:** Use, Digital, Signage, Academic, Libraries, Nigeria.

### Introduction

Librarians all over the world are increasingly aware of the existence of information technology and they feel that in order to improve and streamline their services, the application of computers and information technology is crucial. Significant changes have taken place in libraries in the developed world due to the application of information communication technology (ICT) in automated cataloguing, circulation systems,

online information retrieval, electronic document delivery, and CD-ROM databases (Eguavoen, 2011). According to Maine (2011), technological advances are forcing constant changes in libraries across the nation. The change brought by new technologies is having a significant effect on the way people live, work and play worldwide (Ekong et al, 2005).

University library, which is the hub around which teaching, research and learning

activities revolve can benefit tremendously from the facilities provided by ICT. Libraries are interested in the various infrastructure networks that serve as major channels for the transmission of information. According to Fatoki (2005), most academic libraries in Nigeria are now exploring the viability of the internet technologies in order to adopt them to improve library operations. As technology continues to evolve, and the demand for hard copy materials depletes at a rapid pace, the desire to visit academic library is on the decline. In order to bring new members into libraries, motivate the old members and entice them to habitually visit, digital signage which is one of the telecommunication technologies can be used as a channel to provide information that will be of interest and motivate them to revisit the library.

All the functions and services that academic librarians used to provide manually can be provided now through the use of ICTs, which can do things better and faster. Anasi (2005) reported that libraries and information centers have realized that marketing of information products and services is an integral part of administration, which can be used as a means for improving user satisfaction and promoting the use of services by current and potential users. Digital signage in the university library can be used as channel for advertising the library. According to Aina (2011), the advent of Information and Communication Technology (ICT) brought remarkable transformation into the development of information. These changes are obvious in the information handling process such as generation, processing, storing, evaluation of use, dissemination, and disposition. According to Haliso (2011), ICTs include a variety of rapidly evolving technologies such as telephony, cable, satellite, television (TV) and radio, video conferencing, computers, information networks, and software applications.

In the word of Capron (2000), mail, telephone, TV and radio, books, newspapers and periodicals are common ways to send and receive information. The application of

computers and computer networks initiates the use of communication tools such as internet, e-mail, etc. (Ekong et al, 2005). However, many university libraries in Nigeria are yet to harness all these technological devices especially the use of digital signage. Technology plays a major role in coordinating activities and disseminating information to the patrons of university libraries just like any other establishment. The Library is an institute that students, lecturers, researchers and members of the community are likely to visit on regular basis, because of the services provided such as quiet place to study, and have access to books and non book materials, etc.

According to the Platt Retail Institute (2011), universities are increasingly adopting digital signage networks (DSNs) for a variety of compelling reasons, such as being a source of feedback from the universities. Digital signage is an evolving technology and young college students are receptive and comfortable with it. According to NEC White Paper (2008), the use of digital signage is rapidly spreading throughout numerous markets including retail, higher education, healthcare, hospitality and finance. Academic libraries need to keep abreast of the dynamically changing needs of their patrons. According to Cullen (2001), the two major threats facing academic libraries are a global digital environment and increasing competition. In order for the academic libraries to survive these threats, the quality of their services should be improved.

There has been a growing interest in the usage of digital signage in higher education; places where this is used include halls of residence, academic buildings, libraries, student union buildings, and other campus environment. Most university libraries have started exploring the viability of the ICT with a view of adopting such to improve the library operations. Despite the fact that libraries are interested in various effective and efficient channels through which information can be disseminated to their patrons, it seems digital signage has not been

widely explored in the university libraries in Nigeria. Digital signage in the university library is an informational platform aimed at communicating, in real time, current events happening at the library and the university. It signage makes sense for libraries based on the principle of making information accessible to people and enabling them to efficiently promote their resources while keeping down marketing and advertising costs.

### **The Concepts of Digital Signage**

Digital signage is the use of electronic displays or screens such as LCD, LED, plasma or projector to deliver entertainment, information, advertisement or other messages in public or private spaces. It is a communication platform which provides different types of media and visual formats for more effective and dynamic communication with library patrons. According to Morgan and Mori (2008), the digital signage is the use of modern flat-panel video devices, typically LCD, or Plasma TVs connected to a small computer or network device, to display a wide range of informational and marketing material, using different types of media formats, including web-based technologies such as Flash.

The digital signage is being called different names, such as digital out-of-home (DOOH) advertising, digital communications networks, place-based media and digital merchandising. In the word of Levangie and Detorie (n.a.), digital signage is an electronically display of content and messages targeted to a particular audience at specific locations and times. These electronic devices are normally installed in public spaces. It can equally be defined as the display of multimedia content on electronically control displays. NEC White Paper (2008) refers to digital signage as a network of digital displays that are centrally managed and addressable for targeted information, entertainment, and merchandising and advertising. Each display

could be a TV, plasma, LCD, projector, or computer monitor.

Digital Signs are usually found in banks, healthcare offices, fitness facilities, retail stores, transportation waiting areas, schools and libraries, etc. A diverse group of companies and organizations are deploying digital signage systems to display customized and dynamic messages to their customers, prospects and employees. This system provides a unique opportunity to reach a relatively captive audience at the point-of-decision (within the store), point-of-purchase (at the register) or point-of-wait location with targeted brand, product and service information. Digital signage systems are often located in venues filled with distractions.

According to WireSpring Technologies (n.a.), the concept of out-of-home messages is not new, with the widely use of billboards, window treatments and point-of-purchase displays for out-of-home advertising, and the use of bulletin boards, flyers, faxes, memos, and e-mail to send corporate communications and educate employees for decades. It was observed that true dynamic signs first came into popular use with the advent of in-store closed circuit television networks in the 1970s. Anybody who needs to display dynamic content in a public environment can benefit from digital signs. Digital signage displays are most commonly controlled by personal computers or servers, through the use of either proprietary or public-domain software programs.

The content provided through digital signage can be static, dynamic, interactive, and non-interactive and it can comprise media types which can be in form of simple text and images or high definition video. The digital signage is an informational platform that is aimed at communicating, in real time, what's happening at the library to academic community. It keeps the public informed about important events, resources, and services by featuring text, graphics, video, web images, and campus-wide news bulletins on flat-screen monitors that is strategically

located. Digital signs are part of a campus-wide emergency alert programme. In case of emergency, alert messages will take precedence over the library content. In the event of an emergency, institution's public safety will take over all displays connected to the digital signage network.

### **The Benefits of Digital Signage in Academic Libraries**

The goals and results of effective digital signage systems can be as diverse as the library deploying the systems. The benefits of digital signage systems include:

- (i) Digital signage has the capability of projecting libraries image and core values. The advantage of digital signage over traditional static signs is that the content can be customized and targeted to specific locations and audiences and updated almost instantly. Content can be presented as dynamic animation and graphics as well as full motion video and sound.
- (ii) It can be used to present different types of information about the library, such as building history, upcoming events such as library orientation and exhibitions, library opening hours, library services, rules and regulations of the library, new manuscript releases, directions, emergency alerts (like emergency procedures and protocols) and digital sign building map layout.
- (iii) Digital signage in library centers can help to relay an important announcement to any public audience. It can be used to broadcast vital messages in libraries.
- (iv) It can be used to show news announcements or events information throughout the library via LCD television monitors (Maine, 2011). Students,

researchers, lecturers, and academic community can learn about the library from the slides.

- (v) Digital signage could help newcomers find their way around by informing them where different sections are located.
- (vi) It can be used to streamline communication. This will benefit both staff and patrons.
- (vii) Digital signage can be used to enlighten patrons and help them to find their way, or share information.
- (viii) Most educational institutions also rely on digitized boards to convey memorandums directly to target viewers. The campus-wide notices, weather advisories, librarian contact information can be supplied on TVs to familiarize the public with resource aids.
- (ix) The communication performed on electronic televisions in a library can in a great way form a connection between the student body, school employees and other satellite campuses.
- (x) Whenever rules change and events take place, the library staff can conveniently swap out any message and imagery from the layouts.
- (xi) It enables libraries to reach out to visitors with signs that are informational, entertaining, collaborative and educational.
- (xii) Digital sign saves a considerable amount of money. It can also reduce an organization's carbon footprint. The content of layouts can be quickly modified and substituted on these platforms so as to appeal to routine visitors.
- (xiii) Libraries can offer flexible digital signage advertisement opportunities to local businesses to market future events, sales,

- newly acquired products and service details.
- (xiv) The use of screens instead of posters and flyers implies that the library does not incur any cost every time it decides to update its message. This could happen several times a day. The fact that it reaches the most interested audience with the latest news represents a more efficient use of the marketing budget.
- (xv) Libraries can convey unique information about the access and services they provide through digital signage. According to Ana (2011), digital signage informs visitors about the latest events such as a book launch, orientation, etc. where they matter and to whom they matter the most for maximum impact.
- (xvi) The communication via the screens can also streamline the booking process such as informing the library patrons about the newest resources such as books, magazines, journals available as well as informing them about the necessary steps to take in consulting those they might want to consult.
- (xvii) Digital signage software also enables librarians to choose the appropriate screen (player) and time when they want a certain message to show thus enhancing their message relevance and consequently, its impact.
- (xviii) It can help the library to harmonize its communications, enforce and enhance the visibility and usefulness of other channels.
- (xix) The screen can be used to remind library patrons to check their e-mails, mobile phones or library websites to register or get more information about the upcoming events.
- (xx) Finally, digital signs can be updated at will by remote control while paper signs require individual replacement and physical travel to sign sites by personnel. Because digital signs require no paper or paint, they are more environmentally friendly than traditional signs. Digital signs can be animated and can deliver sound as well as visual content (Rouse, 2006).

### **Challenges of Digital Signage in Academic Libraries**

The challenges in the deployment of a digital signage system in an academic library include the following:

- (1) Content creation and management: The content must be appropriate, attractive, engaging, and above all continually refreshed. Content must be regularly updated to ensure that the correct and current messages are being displayed. If a display shows the same content over and over, it will eventually fade into the background (Morgan and Mori, 2008). The objectives of using digital signage in libraries can only be achieved if deplorers recognize that relevant contents are updated on a consistent and frequent basis with the eye-catching and eye-holding screen. Often times, deplorers fail to recognize this. Digital signage must rely on useful content if it is to work effectively.
- (2) It is expensive to start, but cost effective. This explains why many organizations make a significant investment in the technology and its deployment.
- (3) The greatest challenge is uninterrupted power supply which is hardly possible in most developing countries. Most libraries in such countries rely heavily on stand by electric generators to supplement the

hardly available electricity. Content should continue to run even when there is no network connection and should automatically start running again when power is restored after an electrical outage to make the digital signage effective.

- (4) Another challenge is the political will to execute the project. Most libraries still depend largely on the traditional notice boards.

### Conclusion and Recommendations

The use of digital signage is gaining increasing acceptability in most libraries, perhaps because it is cost effective and attractive. The libraries and librarians need to cope with the demands of an information society. The librarians must have the knowledge, skills and tools in handling digital information so as to be efficient creators, collectors, consolidators and communicators of information. Those librarians that have the knowledge, skills and tools required of information professionals in an information society will be the key success factors in enabling the library to perform its role as an information support system for society in this computer age. Digital signage continues to evolve by offering more than the traditional static message boards. The complementary technologies that can invoke a reaction and provide instant benefits and positive experiences for the user and the network owner are being embraced in the modern age.

Appropriate policies should be put in place to address the constraints facing the use of this technology in libraries. Specialists in the content creation and management of digital signage should be employed in all libraries. There should be constant supply of electricity in academic libraries, particularly now that most libraries provide twenty four hours service. There is a need to enlighten the chief executives of academic libraries for the use of digital signs in libraries. This will enable the libraries to enjoy the political will and support of the management.

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