Trending Technologies in
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CHAPTER SIXTEEN

DIGITAL SIGNAGE MEDIA IN UNIVERSITY LIBRARIES AS CATALYST FOR NATIONAL UNITY AND SECURITY

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Introduction

National unity is a relationship of community among people within the same political entity with a state of mind or disposition to be cohesive, to act together, and to be committed to mutual programmes (Ojo, 2009). In a similar vein, Morrison in Onifade and Imhonopi (2013) viewed national unity to be a process by which members of a social system become less consequential in affecting behavior. This is simply a situation whereby the different ethnic nationalities from the different angles of the nation, accept one another and live in harmony. It is only when unity is achieved that national security will be assured.

National security means the protection from hidden and hurtful disruptions in the patterns of daily life in homes, offices or communities (Otto and Ukpere, 2012). National security may also be viewed as the protection against impending danger or other activities involved in protecting a country, a building or individuals against violence, threats and danger. It is basically the policies enacted by governments to ensure the survival and presence of peace, co-existence, harmony and safety of the nation-state including but not limited to the exercise of diplomatic, economic and military power in both peace and war. Security threats are getting rifer as more citizens are getting into violent crimes and devising various means to perpetuate these crimes. Such violent crimes which are increasingly becoming common include kidnapping, arson, armed robbery, identity theft, ritual killings, inter-ethnic clashes, bombing, rape, pipeline vandalization among others. Security threats in Nigeria also involve conventional foes like other nation states, non-state actors such as violent non-state actors, narcotic cartels, multinational corporations, non-governmental organizations, natural disasters and events causing severe environmental damage.

National unity therefore attempts to erode the presence of micro-nationalities in place of a spirit of nationhood. The issue of national unity has been an issue of concern in Nigeria since its independence from the Great Britain in the year 1960. It would be recalled that the geographical entity now called Nigeria was not in place until 1914 with the amalgamation of the Northern and Southern protectorates. After one hundred and three years of the amalgamation, there is still the question of whether the nation should remain united or split into different countries (Obot, Bamgboshe and Okoro, 2018). The authors stated further that recently, there have been serious agitations structured along ethnic cum regional persuasions thus; militant groups like Movement for the Emancipation of the Niger Delta (MEND), Niger Delta AVENGERS (which is a militant group in Nigeria's Niger Delta). This group attack oil producing facilities in the Niger Delta region and agitate for control of the resources in this region. Often, their activities jeopardise the Nigerian economy. Also, the South Eastern part of the country has been agitating secession under the aegis of Movement for Actualisation of Sovereign State of Biafra (MASSOB) and Indigenous Peoples of Biafra (IPOB). South Western Nigeria's Odua People's Congress (OPC) from time to time thrust forward the idea of separateness from the Nigerian union. In Northeastern Nigeria, a jihadist terrorist organization known as Islamic State in West Africa (commonly known as Boko Haram until March 2015) is equally active in Chad, Niger and Northern Cameroon. Most recently,

communities in Northern and Central Nigeria have experienced violence and killings occasioned by alleged Fulani Herdsmen and _bandits'. With all these insecurity situations in Nigeria, adequate information should be provided as and when due in order to create an environment where unity and security can thrive.

Statement of the Problem

National unity and security is paramount in every nation and it requires concerted effort by all. Over the years, there have been conflicts in various parts of the country. Various individuals, bodies and groups have agitated for the unity of the nation using various multimedia technological platforms. Digital signage media are utilized by organizations in reaching out to a vast majority of people around their immediate environment. University libraries in developed countries utilize digital signage media to display information on security, peaceful co-existence and unity. This is however not obtainable in developing countries like Nigeria. Although this remains speculative as there is no empirical evidence on this, this research seeks to provide answers to the following questions: are digital signage media available in Nigerian Libraries? If yes, are they utilized to foster national unity and security?

Purpose of the Study

The purpose of this study is to: ascertain the digital signage media made available and utilized in federal university libraries in South-South Nigeria.

Research Question

Are the digital signage media made available and utilized in federal university libraries in South- South Nigeria?

Research Method

The design of this study was the survey research design. The area of the study was South-South Nigeria. The zone comprises six states namely, Akwa Ibom, Bayelsa, Cross River, Delta, Edo and Rivers, with (6) federal universities, one in each state. Data for this study was collected using an observation checklist. The observation was carried out by the researcher personally to authenticate the availability and utilization of digital signage media in libraries. This instrument has the three (3) points likert style type of responses ranging from Available and Utilized (AU), Available and Not Utilized (ANU) and Not Available (NA). Percentage was used to answer the question that is based on observation on the availability and utilization of digital signage media in federal university libraries in South-South Nigeria.

Literature Review

The Nigerian civil war of 1967-1970 led to the creation of the National Youth Service Scheme (NYSC) in 1973 whose primary objective was to enhance national unity in the country (Obot, Bamgboshe and Okoro, 2018). In line with this, Alapiki (2005) rightly noted that the National Youth Service Corps (NYSC) scheme, the Unity Schools, the Federal Character Principle and states creation are examples of state policies intended to achieve this goal. Over the years, the outcome of these unifying policies and programmes in Nigeria did not seem successful as ethnic biases have further torn the nation apart. However, more still needs to be done to address the issue of national unity and security. The recurring communal clashes and the alleged frequent attacks of the Fulani herdsmen on communities are classical illustration of the dire need for better unity amongst different ethnic groups and linguistic persuasions. This therefore exacts on us the need to unify the distinct ethnic groups by being informed through modern technological tools. It is essential for all and sundry to join the efforts that would bring about the nation's

development, hence the need to examine the role that the digital signage media plays in the ensuring unity and security of a nation such as Nigeria.

Information technological advancements have necessitated the total involvement of libraries in sustaining unity among ethnic groups and securing lives and property. Since a well-equipped university library is the driving force for the accomplishment of the objectives of a university, there is need for a university library with its availability of information resources and trained staff to offer higher level information services through digital signage media. Therefore, the proliferation of information and media of disseminating information in this digital era have necessitated university libraries to adopt various digital media to match up with the sophisticated information needs of its users and to maintain its place as a reliable repository of knowledge that could bolster national unity and security.

One of such media adopted by libraries is the digital signage media. This media is used to convey important and current information such as news, advertising, and news on security, or displaying new arrivals in the library and so on. According to Khan (2009), digital signage is a network of customizable displays that can be controlled electronically using a computer, allowing content to be changed remotely for the most targeted audience. In the words of Morgan (2014), digital signage is the use of modern flat-panel video devices, typically Liquid Crystal Display (LCD) or plasma televisions connected to a small computer or network device to display a wide range of informational and marketing material using various media formats, including technologies such as flash. There are also state of the art digital signage frameworks that go beyond providing basic information even as common digital signs, maps and directional aids remain in force. These include applications like

Bluetooth-driven Beacon systems and cellular Wi-Fi systems, digital graphics in shelf labels, wall visuals, floor graphics and directory signage which can now be used to help users navigate library space in a more profound way and to enjoy richer, more fulfilling way finding experiences (Cody, 2016; Lammhults Design, 2015) and also get information and updates on national issues.

Global trend in the provision of digital signage systems emphasize that patrons are provided with the information they require as well as the tools (signage systems) to access and utilise the resources for their individual needs. Access role has to replace custodial role as librarians make full use of information and multimedia technology in the design of signage systems (Emmanuel, 2012). Globally, librarians adapt to new and emerging technology in the provision of signage services for libraries to be relevant in this technological era. In the United States, digital signage and directory systems for a single building or for an entire campus is obtainable (TouchStone, 2017). This is used to communicate a clear, consistent message while maintaining your systems through an easy-to-use web interface with add way finding, announcements, and many other helpful apps. Digital signage has gained popularity in the US over the last decade because of the effective display of information (Research and Markets, 2018). The author explicated further that, compared with traditional signages, digital signages are better at drawing the attention of the target audience.

Fig 1: Tucker (2016) Digital Signage Interactive Display

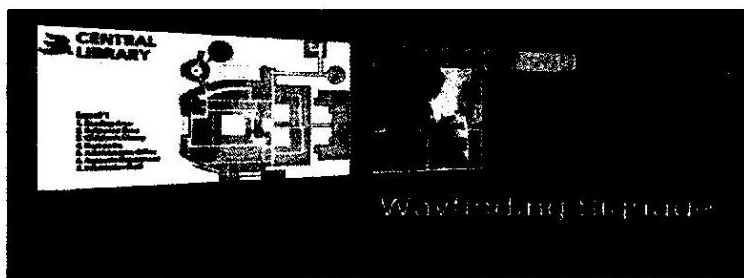*Fig.3: Enis, (2016) Digital Signage Interactive Display*

Fig 2: Enis (2016) Digital signage Display

In a similar vein, the University of California (UC) avoided going down the path of a library overrun with ugly, ineffective, and unwelcoming signage. So the UC-Merced Library planner zeroed in on digital signage as a way to avoid the failings of traditional print-based signage, and certainly more than a piece of technological bling to adorn a shiny new building, open new doors for communication, learning and engagement among the campus community (Barclay, 2010).

In Australia, a design thinking approach that uses the processes of empathy, problem definition, solution ideation, prototyping, and testing is employed to help libraries make significant and meaningful changes that can be adopted at relatively low cost (Luca and Narayan, 2016). Also, Artefacto (2017) has chronicled the use of digital signage thus: Stanford Libraries documented how they used digital signage to provide digital, participatory content in their libraries using *Oalla*. Bristol Culture has shared their approach to digital signage design for their museums, including developing custom software for managing displays. University of Houston libraries have also documented their use of digital way finding signs which is another increasingly common usage.

The ability to adapt, connect disparate stakeholders and knowledge creators to share resources and physical space creatively and harness new technologies through digital signage systems will need to be part of librarians' arsenal to help them face the future head on (Griffith, 2015). Librarians' relevance in Nigeria therefore lies in embracing challenges and widening their technological skills set on the design, operation and library user experience of digital signage systems over the next few decades.

University libraries in a bid to retain their place as a reliable repository of knowledge can play an important role in the unity of the nation as well as the nation's security through the adoption of digital signage media to display information about the need for peaceful co-existence. It could also be used to display important tourist centres in a country, political events, important national news headlines, sports events, cultural festivals in different parts of the country, crises pruned areas and so on, thereby arousing security consciousness in the people. The library in a media world, where information competes for attention should find

better ways to engage the interest of its users. Digital signage as seen in malls, streets, hospitals, stadium, airports, and other public spaces are instances of the new multimedia technological trend which university libraries must key into. University libraries can also reach out to their users with digital signs that are informational, entertaining, collaborative and educational. In cases of emergency in the library where staff and users need to vacate a campus for security reasons, digital signage can be activated to give emergency instructions, guiding people to safety, disseminating vital information and instructions. Digital signage systems can be used to educate students of sensible precautions such as only taking registered taxis and not over indulging at the students' bar. This helps arose security consciousness of the students. The use of digital signage to deliver positive news helps build a sense of security within staff and students. Example could be in the case of a fire outbreak. Consequently, sports competition results and honours, celebrating the success of a department; moral boosting videos and imagery is also perfect for digital delivery (Tucker, 2018). Displaying potent information about other cultures which may seem strange or alien to people of other regions can help bring to the minds of people the existence of such culture thereby linking one culture to another or forcing one to learn about another culture. Catch phrases that carry information on national unity and security could be displayed using digital signage media. For instance phrases like —Our Unity is in Our Diversityl, —Many Colours One Peoplel, —Unity is Our Strengthl, —Nigeria Needs You, Be Your Brothers' Keeperl, —Different Tongues, One Peoplel and many more could be displayed in the library to eliminate a sense of insecurity, build and foster a sense of unity and oneness among citizens of the nation.

Seven most important benefits of digital signage as enumerated by Wright (2018) are that: patrons are free to help themselves as they get the information they need to shape their lives, displays can be changed at a moment's notice, displays can be changed automatically too, displays attract more attention from patrons, it increases greater recall and retention rates as video displays enhances higher recall rate as compared to static ads, it lowers perceived wait times as no one likes waiting in line, it is analytic ie. a software which uses displays that can even be outfitted with video cameras that records the eye movement of patrons, revealing which areas of display attract the most attention. One of the primary benefits of digital signage media is that effective communication is enhanced as the use of this digital interface and eye-catching or attention-grabbing displays showcasing ways to sustain national unity and security, influences user behaviour positively. However, the challenges associated with digital signage media include but are not limited to the following; unwillingness to adapt to new technology by librarians as well as university management and library management, poor knowledge of digital signage facilities, lack of digital signage facilities, lack of necessary orientation facilities, unhelpful environment for digital signage displays, high cost of procuring digital signage, users' ignorance of the benefits of digital signage.

Discussion of Findings
From the observation checklist for each of the six universities on the digital signage media available for utilization Table 1 above shows that there are no digital signage systems available in federal universities in South-South Nigeria. Specifically, out of the six digital signage media listed in the study, none was found to be available. These are signs showing Bluetooth-driven beacon systems 6(100%), Digital wall graphics/wall visuals 6(100%), Digital floor graphics 6(100%), Cellular wi-fi systems 6(100%), Digital graphics in shelf labels 6(100%) and digital signage interactive display 6(100%). As shown in the table above, it is seen that digital signage systems have a hundred percent (100%)

representation of non-availability and of course non utilization in all the federal university libraries under study. This finding however deviates from Barclay (2010) who purported that digital signage is a way to avoid the failings of traditional print-based signage, and certainly more than a piece of technological bling to adorn a shiny new building, open new doors for communication, learning and engagement among the campus community, as was used by the UC-Merced library planner. Patrons feel more at ease when they see signs that can easily inform or direct them to what they want and need to know. As such, a University library's relevance in Nigeria lies in embracing modern technological tools to improve the library user experience and widen their scope of knowledge as they become better informed citizens who will join hands in Nigeria's developmental process by realizing that the unity, strength and overall security of our dear country lies in its cultural diversity.

Conclusion

Digital signage media is an effective means of conveying all forms of information to users in university libraries because information is a sine qua non for ensuring national unity and security. It should therefore not be treated with a wave of the hand or ignored as it is a very potent means to inform, educate and regulate users' behaviour as they get in contact with the library environment and connect with the society.

Recommendations

1. Capacity building programmes sponsored by various libraries in terms of training and retraining of librarians on the use of digital signage media should be made a regular feature in the form of seminars, workshops and on the job training to enhance the competency of librarians in the universities.

2. Government should encourage university libraries make available the required services, especially as it has to do with the provision of modern technological signage facilities, by increasing financial allocations to libraries.

3. In a bid to make librarians competent participants in the provision of digital signage systems in the 21st century, the university library management should ensure that librarians are ICT compliant in planning for the implementation stages of the digital signage provision in order to foster national unity and security.

4. A special section in the library should be created to display cultural artifacts of other regions of the country so as to create the awareness of their existence to library users who are not from that region and should be showcased digitally through digital signage media. This will go a long way in bringing on a feeling of oneness in individuals as they get to acquaint themselves with what they see and learn about.

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