

Using Information Communication Technologies (ICTs) for Safeguarding the Libraries from Threats of Insurgency in Nigeria

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ABSTRACT

Libraries were set up to cater for the educational, cultural, research, recreational and informational needs of their particular community users. They are established to safeguard all human cultural heritages, tangible as well as intangible. Most of the time libraries try hard to protect the intellectual content of the libraries against artificial and natural disasters. But apart from the inevitable natural causes of decay as well as natural hazards such as earthquakes, floods, landslides, wildfires, and tsunamis, another worst danger is the threat posed by the insurgents, terrorists, criminal group, and angry crowds. Insurgents can as well be library patrons who employ political weapon often using religion to cover up on their terrorist activities. The library staffers, users, information resources, facilities, as well as the library building itself are not safe due to the fear of unknown which need to be protected. This calls for concerted efforts on the part of the library authorities to get prepared for any tragedy, which can happen at any time and unexpectedly too. With the advent of Information and Communication Technologies (ICTs) through the use of sophisticated storage devices, Closed Circuit Television-CCTV, 3M/ Radio Frequency Identification (RFID) library security gates system, and cloud computing technologies coupled with manual security systems will strengthen the library security as well as ameliorate the devastating consequences of terror attacks. This study employed the systematic review method in carrying this research where related literatures were reviewed on how ICTs contribute toward safeguarding the libraries. The findings revealed that insurgency posed a serious threat to the library, its users, staff and the collections; while manual security systems is not enough to curtail the nefarious acts of insurgency; and using ICT security systems in checkmating any criminal activities will really help. The study based on the findings recommends that: the library should constitute a disaster management team/committee, which will not only serve as disaster monitor within the library; adequately train should be given to both staffers and security guards on counter-terrorism; and library should leverage on cloud computing technologies in order to safeguarding the library resources from annihilation by the insurgency.

Keywords: Libraries, Insurgency, Surveillance Cameras, Cloud Computing and ICTs.

INTRODUCTION

Libraries were set up to cater for the educational, cultural, research, recreational and informational needs of their users by processing, organizing, preserving and disseminating for the purpose of societal development. But the evil acts of the insurgency attacks on the organizational structure are posing a threat to the existence of these intellectual reservoirs of knowledge. The library staffers, users, information resources, facilities, as well as the library building itself are not safe due to the fear of unknown. The library staffers, users, information resources, facilities, and its building need be protected. This calls for concerted efforts on the part of the library

authorities to get prepared for any tragedy, which can happen at any time and unexpectedly too. Though, the libraries usually used manual security systems such as security guards at strategic places, physical checking, locks & key system, user ID cards, installation of grills on windows, single door entry-exit for staff & user more especially in developing countries to checkmate book theft and mutilation.

This will not adequately solve the current issue at hand hence, there is need to strengthen the manual security system in order to win users' confidence by incorporating Information and Communication Technology (ICTs) to curtail the potential threat posed by the insurgency. The

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term 'Information and Communication Technology' (ICT) first appeared in the mid-1980s and was defined as "All kinds of electronic systems used for broadcasting telecommunications and mediated communications", with examples including personal computers, video games, cell phones, internet and electronic payment systems etc. (Parvez, 2011). Riyasat & Fatima, (2008) defined ICT as the integration of computing, networking and information processing technologies and their applications. Ogbonyomi, (2011) recommend the use of ICT security systems as used in advanced countries to check any criminal activities despite the fact that they are too expensive for many average libraries in Nigeria.

Various library security technologies and systems are available today in market; surveillance cameras (Closed Circuit Television-CCTV), 3M library security system (electronic gates), Radio Frequency Identification (RFID) system, perimeter alarm system, movement detectors, cloud computing technologies, etc. The use CCTV will aid the security operator on duty to view from different cameras, the various activities taking place at the various sections of the library simultaneously while the electronic gates can dictates any suspicious items. This helps in strengthen the library security but however, the information resources can be secured from destruction of the insurgence by employing cloud computing technologies to serve as back-up facility for the libraries. Using ICTs will provide maximum and adequate security for both the library employees, patrons, resources, equipment as well as the entire library building thus, it is necessary that these telecommunication systems and devices are made available in the library.

RESEARCH PROBLEM

Libraries are institutions set up to cater for the educational, cultural, research, recreational and informational needs of their users. But nefarious activities of the insurgence are posing a threat to the educational system in general to the extent that the libraries within these institutions are not safe. Also the library personnel and users are afraid of the unknown while the safety of library collections, facilities and building is at risk. Providing the best protection for building and collections from the most common causes of loss is a basic principle of preventive maintenance. Despite the fact that libraries recognized the need to protect their

holdings, it is assumed that proper measures are not in place against such occurrence, which could serve to ameliorate the devastating consequences of terror attacks.

RESEARCH OBJECTIVES

This research therefore attempts to examine the followings:

- To determine how insurgence pose a threat to the libraries and its environment.
- To examine how manual and electronic security systems contribute toward safeguarding the library and its environment.
- To determine how ICTs can contribute in safeguarding the library from the threat of insurgence.

REVIEW OF RELATED LITERATURE

Insurgency/Terrorism

Insurgency is a threat to the economic, political and social security of a nation and a major factor associated with underdevelopment; because it discourages both local and foreign investments. Also, it reduces the quality of life, destroys human and social capital, damages relationship between citizens and the states, undermining democracy, rule of law and the ability of the country to promote development (Akhain, 2012).

The word terrorism is globally becoming a household word as there is no nation that is completely absolved from its effect. Globalization has significantly influenced the spate of terrorism as the event in one part of the globe has direct or an indirect effect on others (Alao, Olusegun, & Alao, 2012). This explains why Horne (2002) in Rourke (2008) observes that war, terrorism and other forms of transnational political violence are in many ways more threatening today than ever before as civilian casualty has been on increase. According to Kydd & Walter (2006) define terrorism as actions focusing on harming some people in order to create fear in others by targeting civilians and facilities or system on which civilians rely. Thus, information of various types such as knowledge of how people could protect themselves in adverse situations will help the community to protect as well as detect any kind of insurgents/terrorist activities within their localities.

Liolio, (2013) posited that insurgence is not terrorism or conventional war, though they share some similarities such as the use of force, or

guerrilla tactics to achieve an end which is often political. Basically, the difference between insurgency and terrorism lies in the scope and magnitude of violence. While for instance, terrorism rarely brings about political change on its own, insurgency attempts to bring about change through force of arms. Similarly, terrorists often apply a wide range of damages when compared to insurgents. On the other hand, while conventional war involves adversaries more or less symmetric in equipment or training, insurgency involves adversaries that are asymmetric and weak. Traditionally, insurgencies seek to overthrow an existing order with one that is commensurate with their political, economic, ideological or religious goals (Gompert & Gordon, 2008).

According to Bhatti, (2010) libraries have been facing the biggest challenge of terrorism and extremism for more than a decade which is consequently affecting all walks of life including educational institutions. On September 11, 2001, terrorists bombed the World Trade Centre and the Pentagon libraries in the United States of America, destroying records, books and other documentary materials (Buchanan, 2002). A bomb caused major damage to the Oslo main public library especially the glass partition between columns at its main entrance after the neighboring government complex was struck by a terrorist's bomb. The windows all along the library's facade were also shattered, and glass fragments showered the library's books. Ceilings fell down inside the building and interior partitions were damaged as well (News in English, 2011).

Similarly, ISIS militants have reportedly ransacked Mosul library, burning over a hundred thousand rare manuscripts and documents spanning centuries of human learning. Initial reports said approximately 8,000 books were destroyed by the extremist group. However, *AL RAI's* chief international correspondent Elijah J. Magnier told *The Independent* that a Mosul library official believes as many as 112, 709 manuscripts and books, some of which were registered on a UNESCO rarities list, are among those lost. Mosul Public Library's director Ghanim al-Ta'an said Isis militants then demolished the building using explosive devices (Bachanan & Saul, 2015).

Adamu, & Nassarawa (2017) posited that there were instances where insurgence attacked educational institutions and their establishments such as laboratories, libraries and research

centers. A good example is the attack on collage library at Federal College of Education, Kontagora Niger State and that of Federal College of Education, Kano State.

This implies that the nefarious activities of insurgence pose a threat to educational system globally. As incidents of violence against students, teachers, union, schools and government officials are on the rise worldwide. When people feel insecure, their appetite for education reduces and this will definitely affect libraries in one way or the other. The Boko Haram insurgency in Nigeria, deliberate threat against students, academics, teachers and education facilities thereby create barrier to accessing quality education for all. There were instances where schools including their libraries are completely burned down or seriously damage and where there is a relatively peace, students and staff are frightened of the unknown. Thus, to be secured is to be free from fear of unknown and from want which requires adequate measures to be put in place to protect as well as detect insurgents/terrorist activities within a locality.

Library Building and its Environment

The library and its environment could be viewed as all human and non-human materials, things, time and services that are needed and necessary for the fulfillment of library information centre's vision, mission, goals, objectives, needs and expectations.

That is, they are physical, digital and electronic materials, environment and facilities, funds, staffers, time, and other infrastructure used and mobilized to achieve the objectives establishing library and information centre where ever (Mohammed, 2013).

The first step in securing library assets includes physical (non-electronic) deterrents. These include architectural considerations, the use of security personnel, and security hardware (Ferdinand, Patrick, & Nneka, 2015). They remains the umbrella sheltering both human and material resources and the engine propelling the educational and research goals of any university.

Hence, the features of a good library building should include openness, multifunctional, flexibility and artistry (Okwor & Ezeji, 2011). Physical damage to the collection could arise from damage to the building (e. g. structural failure or storm damage) resulting in damage to

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the collection, or from unauthorized entry leading to theft or vandalism of library resources.

Site planning and landscape design issues should be considered when planning for a safe and secure library and site lighting at vehicular and pedestrian entrances and circulation areas should be continuous and sufficient to support a secure atmosphere as well as support appropriate surveillance.

Appropriate and clear signage should be provided, including off-site and entrance signage as well as on-site signage that should include directional, cautionary, and parking signs for employees, visitors, service vehicles, and pedestrians. Signs should generally not be provided to identify sensitive areas.

Landscaping elements should enhance security by deterring unwanted entry while not allowing criminals to conceal themselves from security personnel and CCTV systems. Vehicle control is important; a specified distance from the library building to unscreened vehicles and parking should be appropriately set. Various types of buffers and barriers should be evaluated to enhance the landscape design while still providing the appropriate protection. These buffering features could include walls, fences, trenches, plantings, trees, static barriers, sculptures, and street furniture. Vehicular entrances should be designed to prevent high speed approaches Crowe, (2000).

According to Lynn (2001), the following areas of the library generally pose threat when discussing security issues unless they are appropriately addressed in the design:

- Exterior entrances.
- Archive and special collection storage spaces.
- Special collection reading areas.
- Children's library area.
- Critical building component locations such as electrical switchgear, communication and security equipment, and building control centers.
- Public toilets.
- Loading docks, mailrooms, and shipping/receiving areas.
- Stairwells.
- Office locations.
- Roof access.

Entrances and exits from the library are a particular concern with regard to theft of library materials. When designing a new library, the ideal arrangement is a single point of entry to the secure area of the facility. Magnetic theft detection devices are placed at this location to sound an alarm if unchecked library materials are taken through this point of control. Occasionally, however, it may be desirable for external planning reasons to allow patrons to approach and enter the library from opposite directions, resulting in two points of entry to the building. This could result from site features, required location of parking areas versus public transportation locations, or urban design considerations (Ferdinand, Patrick, & Nneka, 2015). The building and collection must be secured both during and after normal working hours. Unauthorized entrance to the building and unauthorized removal of collection material from the building must be prevented. The perimeter of a building can be protected in various ways, ranging from the use of door and window locks to more expensive strategies like the posting of security guards and/or installation of an automated security system (Brown & Patkus, 2016).

In general, the space planning of collections areas and their support spaces should be determined as part of the overall security design features. The arrangement of the special collections service desk with regard to the reading areas and any book stacks should be planned so that a clear line of sight exists between the desk and the reading tables. Flat open tables are preferred to enclosed furniture or carrels, so that surveillance can be maintained at all times. If book stacks are located in the reading areas, they should not be positioned so that the visibility of any patron workstation is blocked. Toilets or other enclosed spaces that cannot be readily monitored should not be located within collection areas. It may also be desirable to institute a checking procedure for personal belongings and bags before a patron is allowed to enter these sensitive areas. This policy requires the location of a locker space near the entrance to the special collection room or suite (Ferdinand, Patrick, & Nneka, 2015).

The literature on security shows that security breach often happen when the library premises are left unsecured. This is because unsecured premises might entice all form of crimes and vices which can have impact to staff, users, building, and its collection. In many instances,

library premises are without proper security measures Maidabino (2012). Oder (2004) maintained that, security measures such as supervision, patrolling, surveillance and the like are lacking in libraries. Library premises design has effect on security of library collection, staffers and users. This however remained challenge to librarians and the library managers, as such library at times consider renovating or remodeling parts of the library which pose to security breach. Postulated the problem of poorly secured premises to be as a result of library premises design which has effect on security of library collections and services.

Library buildings are not ordinary buildings; they are designed to shelter both staffers, patrons, and store intellectual knowledge that is very valuable to the human society, which could easily be vulnerable to insurgence attacks. It implies that libraries are first and foremost a place, and our physical space must be safe and trusted by the community in order to accomplish any of our strategic goals and plans.

Thus, it's established that putting adequate security measures in place within the proximity of the buildings will minimize the chance of destroying and annihilating the library resources, facilities, and building from criminals' activities.

Library Collections

Library collections constitute the bedrock for services provided to the community and serve as important assets to the library. As such, securing and protecting the collections can help libraries provide an effective service in response to the information needs of the university community.

Collection security implies the need for libraries to provide, maintain and secure its collection to ensure longevity, accessibility and effective provision of services to users. To achieve this noble objective however, libraries need an effective strategy to assess the degree of collection security, breaches they are facing and establish an acceptable level of collection security implementation (Maidabino & Zainab, 2011). Libraries are a vital asset to our culture and society. Libraries play a huge role throughout our lives, offering us research materials, books, and internet, all for free and for universal use.

Ferdinand, Patrick, & Nneka, (2015) cited Paolo & Resca (2008) opined that for any information bearing materials and system to serve its

purpose, the materials, the system and the information contained in them must be available when it is needed. This means that the physical materials such as books carrying the information, the computer systems used to store and process the information, the security controls used to protect it, and the communication channels used to access it must be functioning correctly.

Library resources could be seen as printed and non-printed materials that are available in the library such as books, journals, e-resources, CD ROMs, DVDs, magazines, games, computers, internet, wireless access, routers, audio-visual materials, atlases and maps and so on which are very important in libraries. Gama (2012) pointed out that printed resources include newspapers, magazines, journals, books, etc, which information users can read and become informed while non-printed resources are broadcasting media like radio, television, etc, the Internet, CDs, microforms, cassettes, tapes, flashes, etc.

In affirmation of the above statement, the University of Kent Library articulates the different types of resources and services render to its users as e-Journals, CD-ROM databases, online databases, news resources, references, official publications, multimedia, theses and dissertations, statistics and maps, past exams papers, computers, internet, wireless, WiFi, reading tables, e-books, web based infrastructures and a variety of other electronic resources which are fast replacing the traditional resources in the library because the library switched over to ICT infrastructures at an accelerated pace (Kent, 2015). Also, Olaofe (2013) opined that, resource materials that need institutional support are modern instructional resources such as public address system, internet facilities, audio-video clips, CDs, DVDs, class websites, URLs, podcasts, power point, slide presentations, smart boards, e-conferencing facilities, computer and computer software, online, offline, print, non-print materials, online grade books, online quizzes and exams, threaded discussions, and other tools for managing large courses. Library collections are changing rapidly as more and more electronic resources become available. The proliferation of electronic resources does not mean that printed resources will disappear. Ferdinand, Patrick, & Nneka, (2015) citing Aina (2004), that library resources or materials must be safe; hence security devices must be made available by libraries to ensure that the materials are not

stolen or mutilated. Although libraries have been providing some level of security measures, for example, making available security staff that is always at the entrance of a library to ensure that all library materials taken out of the library are checked. So also most libraries do not allow patrons to bring their bags and briefcase into the library. In spite of these precautions, library materials are still not safe. Therefore there is need for librarians to devise a very concrete physical means of securing the materials available in the library and to have telecommunication or electronic security systems which will help to provide a safe and secure facility for library resources and equipment. To provide adequate security using telecommunication, electronic systems such as building alarm systems, access control systems, video surveillance, tele-surveillance etc. can be adopted in the library.

Securing the Library through Manual Security Systems

Traditional or manual security system are security guards, patrolling of the library, well building, security lighting, ID cards, physical checking, door checkers, access control etc. As part of the security plan, the library security team should evaluate the value and need for security personnel, during both normal working hours as well as after the library is closed. Security personnel typically patrol within the facility as well as on the grounds. The security guards may also be used to enforce appropriate library access at the main lobby (Ferdinand, Patrick, & Nneka, 2015). The use of security guards may be appropriate in some situations. All staff members (including general staff, management, custodial workers, grounds keepers, and volunteers) will still need to participate in maintaining security, but guards can be a valuable supplement to staff efforts and their presence alone may deter suspicious activities. Ogbonyomi, (2011) lamented poor security in Kano State College of Education where the college librarian conformed that the library was grossly understaffed. He claimed that the library has only two security personnel who run the morning and evening shifts and this implies that at any time the library is opened; only one security man is on duty. This is seriously inadequate in a library which serves about three thousand student users.

There are many types of window security including locks, guards, grilles, bars, screens, and films. Window locks should be fitted to all

windows that can open and are accessible without the means of a ladder. For best control, these windows should be secured by key-operated locks (not just a simple latch). This includes all ground floor windows, windows above garages or other roof tops, windows near to walls or pipes or other structures, which could be used to access the window (Ferdinand, Patrick, & Nneka, 2015). Kumbhar & Veer, (2016) found that the most useful security system are locks-key and grills for windows reported 100% used in libraries and very less 9 (10.71%) libraries have appointed security guards for patrolling, while 0% physical checking of user as per the ranking order. If the security risk assessment investigation determines that the library location has the potential for burglary through windows or vandalism to the windows, then guards, grilles, bars, security screens, or security films should be installed. Securing the window through the use of guards, grilles, or bars is not always architecturally acceptable, although they can be a cost effective solution in certain circumstances (Cherdantseva & Hilton 2013).

Door protection includes cylindrical locks, deadbolts, mortise locks, and gates. A cylindrical lockset fits into a large hole bored into the door's face with the keyhole in the door knob. The latch assembly is locked and provides the securing of the door, though this type of lock provides the least amount of security in door protection. The addition of a deadbolt provides enhanced protection by increasing the metal support into the door jam. The throw of the deadbolt should be at least one inch. A mortise lockset fits into a rectangular pocket in the door's edge and usually has a deadbolt that is an integrated part of the locking mechanism. When you turn the key from the outside, it releases both the knob and the deadbolt. The mortise lockset is the most secure locking mechanism for a door. If the security risk assessment investigation determines that the library location has the potential for burglary through accessible doors, then security gates should be considered. Securing doors through the use of gates is not always architecturally acceptable and could require special treatment to allow exiting in case of fire (Ferdinand, Patrick, & Nneka, 2015). Kumbhar & Veer, (2016) identified traditional – manual security systems as locks & key system, installing grills on windows, single door entry-exit for staff & User, security guards employed to patrol, installing after-hours security lighting, observation by library staff, fire extinguisher &

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security equipments, ID cards and access authorization, physical checking for user, signature of every user and security clearance procedure. This implies that library has various security systems from its establishments. Traditional systems are totally based on human station in various sections both within and outside the library building. It established that this system can help prevent unauthorized removal of collections and feasible monitoring and detection of criminal elements within the library environment.

Securing the Library through Information Communication Technologies (ICTs)

Since it is impossible to prevent all kind of criminal activities in libraries manually then it is important for a security plan in the library to employ the use of ICTs for responding to a security breach. This might help in discovering the resources lost and even expose any suspicious criminal activities within the library environment. The success of this effort will assist recovering the missing materials and to apprehend the person responsible any criminal act.

The term 'Information and Communication Technology' (ICT) first appeared in the mid-1980s and was defined as "All kinds of electronic systems used for broadcasting telecommunications and mediated communications", with examples including personal computers, video games, cell phones, internet and electronic payment systems etc. (Parvez, 2011). Riyasat & Fatima, (2008) defined ICT as the integration of computing, networking and information processing technologies and their applications. The new information technology is a facilitator of the mission, goals and the objectives of academic, national, public, school, and special libraries around the world.

In order to minimize the occurrence of crimes in the library, exit controls are necessary. Some libraries use turnstiles and guards to slow down movements of users and check patrons going out at the exit. Libraries in developed countries mostly use electric security system at their exits. Ogbonyomi, (2011) recommend the use of ICT security systems as used in advanced countries to check any criminal activities despite the fact that they are too expensive for many average libraries in Nigeria.

Some major electronic security systems that can be of immense usefulness to libraries include

electronic surveillance cameras (Closed Circuit Television-CCTV), 3M library security system (electronic gates), Radio Frequency Identification (RFID) system, perimeter alarm system, movement detectors, cloud computing technologies, etc. In his research Osayande, (2011) found that the three institutions studied have an electronic security system installed in their libraries. 28 respondents from Babcock University (100%) confirmed that CCTV camera is in the library, while 29 (100%) and 24 (100%) respondents from Covenant University and the University of Lagos respectively agreed that 3M electronic security system gates are installed in their libraries. In other words, there is an electronic security system installed in the academic libraries of the three institutions under study. He went further to observe how the closed circuit cameras (CCTV) work. With the aid of the staff and security operative on duty, he was allowed to view, from the different cameras, the various activities taking place at the various sections of the library simultaneously.

To test the effectiveness of the CCTV further, he took his personal notebook to the serials section of the library and ripped off a page from it. Then he returned to the CCTV monitoring station and was astonished to see a playback of his actions in the serials section.

Similarly Kumbhar & Veer, (2016) also stress on use of key lock, guard, lighting in campus, window and doors, physical checking, identity card for authentication circuit television (CCTV) systems, videoing and video surveillance footage whether analogue or digital; alarms; metal detectors or handheld detectors; x-ray machines and/or card reader systems. They found that the libraries under study don't use electronic security systems or devices like Closed Circuit Television (CCTV's), electronic recording, RFID system for exit detection, alarm systems, moisture sensor, glass break sensor, fire /smoke sensor, biometrics, smart card, air conditioner for humidity control to prevent paper from damage, criminal acts etc. in their libraries. Now libraries are using the Radio-Frequency Identification (RFID) to prevent the theft of library resources. The RFID is the use of an object (typically referred to as an RFID tag) applied to or incorporated into an information product for the purpose of identification and tracking using radio waves (Pravaz, 2011). Also, Electromagnetic Security (EM) is another most-used library security worldwide, protecting

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billions of books and other media from criminal activities (Cruz, 2013)

A libraries book collect is valuable. Using a surveillance system along with 3M/RFID security gates could help to prevent theft (Cruz, 2013) and criminal activities within the library. Surveillance cameras installed throughout the library helps to keep the public safe while researching, browsing or reading.

The CCTV systems composed of a Network Video Recorder (NVR) or DVR (digital video recorder) will allow libraries to monitor their security camera video over the internet. Managers and security staff can monitor the library at any time, from anywhere, should security concern arise (Randall & Newell, 2014). They further stressed that video surveillance is an ever-increasing issue in modern society. More and more security cameras and other surveillance technologies such as drones, biometric recording, facial recognition and even genetic profiling tools are becoming prevalent in our everyday lives.

According to Ferdinand, Patrick, & Nneka, (2015) cited McCahill & Norris, (2002), the major benefits of using electronic security system in the library are:

- **Maximum security:** Patrons of all ages and types use libraries every day. Security cameras places around the library can help to keep safe while reading, researching and browsing as well as the information resources they are using.
- **Prevent theft:** Every part of a library's collection is valuable. A video surveillance system working in conjunction with a barcode and magnetic book control system could help prevent book theft and monitor the move of books and other resources as it moves from one user to another.
- **Flexibility:** If video systems allow users to place cameras where they are needed, and reconfigure them in a whim libraries, especially those that host community events, author readings or children book clubs, could greatly benefit from the flexible security that IP video provides.
- **Remote monitoring:** Video surveillance systems that use the cameras and network recorder (NVR) allow libraries to broadcast their surveillance footage over the internet. This allows management and security to check in on libraries at any time should

security concerns arise, the broadcast function could also be to archive speakers or special events at the library.

Therefore, security systems are integrated systems made up of different types of equipment and devices, the combined operation of which helps protect human lives, facilities, environment, and information resources.

The use of cloud computing technologies will greatly help immensely in protecting the huge and abundant information resources being destroyed on almost daily basis through all forms of destruction such as insurgency, terrorism, natural causes etc.

The libraries are now gradually moving towards cloud computing technologies without them actually knowing exactly that they are migrating to cloud environment. This evidently seen where libraries; hosted their own website, building digital repository, digital libraries, automate the library services, subscribe to internet, online digital content, and many more. In present situation every library needs a digital library where they can digitize their collections and make the available anywhere and anytime via the network. In connection to library resources security Kaushik & Kumar, (2013) postulated that since digital libraries were using different softwares (installation, configuration and customization of automation/digital library software) as such they should leverage on cloud based digital library software such as Duraspace which is having two softwares namely Dspace and Fedora Commons but they emphasised that Dspace is widely used for building digital libraries/repositories relative to Fedora Commons. They also stressed that dura cloud provides complete security solutions for developing digital libraries/repositories with standard interfaces and open source codes for the both software.

At present use of the computer technology for library keeping operation and storage becomes imperative in securing the library resources. Beside using sophisticated devices such as HP ML 350 serve or HP ML Generation 9 Servers for storing and backing-up information resources in libraries. Kumar, Murthy, Ramakrishna, & Rohit, (2012) are of the opinion that resources can be stored on hybrid cloud facilities and provide web access virtually anywhere and anytime without any special software and hardware. For instance, LOCKSS (Lots of Copies Keeps Stuff Safe), CLOCKSS (Controlled

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LOCKSS) and Portico tools are extensively used for digital preservation purpose by libraries and other organizations. They also stressed that files could be shared via the internet and a good example of such are cloud services in dropbox, googledrive, flicker, jungle disk, googledoc, sky drive and so on.

This implies that incorporating this service in library operations will safeguarding the libraries from completely losing of its resources as cloud computing facilities serve as back-up.

Computerization is the part of library automation. For library automation Kaushik & Kumar, (2013) opined that Poliris provides variant cloud based services such as acquisitions, cataloguing, process system, digital contents, and provision for inclusion of cutting edge technologies used in libraries and also supports various standards such as MARC21, XML, Z39.50, Unicode and so on which directly related to library service areas.

They further stressed that apart from this, nowadays many of the software vendors such as Ex-Libris, OSS Labs are also offering hosting of this service (SaaS approach) on the cloud to save libraries from investing in hardware for this purpose. Besides cost-benefit, the libraries will be free from taking maintenance viz software updates, backup and so on.

Cloud computing in libraries is in developmental stage. Libraries are trying to provide to users cloud based services but in real sense they are not fully successful owing to the lack of good service providers and technical skills on the part of librarian in using advanced technology. But nevertheless libraries can leverage on these new technologies to safeguard their resources from the threat of insurgency and other criminal activities.

RESEARCH METHODOLOGY

The researchers employed the systematic review method to carry out this research with a view to review related literature on how information communication technology contribute toward safeguarding the library patrons, staffers, collections, facilities, building and its environment from the threat of insurgency.

FINDINGS OF THE STUDY

- Finding from the literature review revealed that the nefarious activities of the insurgency pose a threat to the educational system globally where violence against students,

teachers, union, and government officials are on the rise worldwide. It also revealed that there were some instances where insurgency attack and destroyed approximately 8,000 books in Mosul library, another one is the attack on Pentagon libraries in the U.S.A where records, books and other documentary materials were destroyed. Also recently there was attack on college library at Federal College of Education, Kontagora Niger State, Nigeria. These pose threat to the library, its users, staff and the library collections.

- Findings revealed that manual security systems are totally based on human station both at the entrance and within the library premises with a view to check and dictate any stolen item within the library. This system uses security guards, patrolling of the library, security lighting, user ID cards, physical checking, locks & key system, installing grills on windows, single door entry-exit for staff & User. It also found that library security was grossly understaffed to the extent that only two security personnel runs the morning and evening shifts which implies that at any time the library is opened; only one security man is on duty. This is seriously inadequate in a library which serves thousands of users.
- Finding revealed that libraries in developed countries used ICT security systems in checking any criminal activities despite its expensiveness. It revealed that libraries are using storage devices such HP ML 350 serve, HP ML Generation 9 Servers, surveillance technologies (Closed Circuit Television-CCTV), 3M library security system (electronic gates), Radio Frequency Identification (RFID) system, Electromagnetic Security (EM), Network Video Recorder (NVR) and DVR (digital video recorder) in safeguarding the library resources. Finding also revealed that libraries are trying to embrace cloud based technologies but in real sense they are not fully successful owing to the lack of good service providers and technical skills on the part of librarian in using advanced technology.

CONCLUSION

Considering the consequences of terrorist or insurgency attacks on organizational structures including libraries, securing the library materials, staffers, users, as well as the library building itself is quite imperative. This becomes

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even more so in the face of global extremist phenomenon experienced today, which compounds the already worse relative-peace, experienced in Nigeria. This calls for concerted efforts on the part of the library authorities to get prepared for any tragedy, which can happen at any time and unexpectedly too. Since the use of manual security systems will not address the problem in question, thus it is imperative to leverage on information and communication technology security system and devices in libraries to provide maximum and adequate security for the library employees, resources and equipment as well patrons and the entire library building, it is necessary that these telecommunication systems and devices are made available in the library.

However, the usefulness of telecommunication security systems and devices in the library cannot be over emphasized due to the following benefits: maximum security for library building and resources, prevention of theft in the library, flexibility, remote monitoring etc. Hence, the use of telecommunication security system and devices require budgetary management support, staff support, software development and hardware upgrade for the attainment of the set goals thereby appealing to the library management to release funds that is needed to accomplish this task.:

RECOMMENDATIONS

In line with the findings of this study and the conclusion reached above, the following recommendations are hereby made:

- The library should constitute a disaster management team/committee, which will not only serve as disaster monitor within the library but also as a liaison between the library and the agencies concerned with disaster management in the community so as to be in constant touch as this will reduce threat pose by the insurgency.
- The traditional manual security system that uses security guards at strategic places; they need to be adequately train on counter-terrorism activities in order to track down the terrorist at any point in time. Therefore, there should be adequate number of security guards both within and outside patrolling the library environment besides using physical checking, locks & key system, user ID cards, installing grills on windows, single door entry-exit for staff & user as this will

strengthen manual security system and increase users' confidence.

- Telecommunication security gadgets such as surveillance technologies (Closed Circuit Television-CCTV), 3M library security system (electronic gates), Radio Frequency Identification (RFID) system, electromagnetic security (EM), Network Video Recorder (NVR) and DVR (digital video recorder) HP ML 350 serve, and HP ML Generation 9 Servers are mostly used for checkmating book theft and mutilation. Thus, there is need to incorporate insurgence activities in the library security plan. Also, library should leverage on cloud computing technologies in order to safeguarding the library resources from annihilation by the insurgence.
- There is need to provide adequate funding by all governing authorities of these libraries in order to protect them and make their services more effective.

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