Call for submissions and instructions for authors

The PNLA Quarterly publishes both peer-reviewed and high-quality non-peer reviewed articles. Please indicate whether you would like your article to go through blind peer review when you submit it.

Authors should include a 100-word biography and mailing address with their submissions. Submit feature articles of approximately 1,000-6,000 words on any topic in librarianship or a related field. Issue deadlines are

Peer-reviewed articles:

October 1 (Winter)
January 1 (Spring)
April 1 (Summer)
July 1 (Fall)

Editor-reviewed articles

October 1 (Fall)
January 1 (Winter)
April 1 (Spring)
July 1 (Summer)

Please email submissions to mbolin2@unl.edu in rtf or doc format.

Would you like to serve as a peer reviewer? Please contact the editor at mbolin2@unl.edu
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President’s Message
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"Children run from the story time room out into the library, ricocheting from shelf to shelf, slowing only to touch, and then choose, books to take home. Every one of their faces, proud and serious, as they approach the circulation desk awakes envy in me. If I were not an adult, I, too, would bounce off one shelf enroute to the next, would peruse every jacket, and smile as I opened every book I could touch. It’s how I always feel, as if the library is a place of adventure and excitement, perpetually new. But as I am an adult, I move quietly through the stacks, making selections carefully. I know that as I approach the circulation desk, I feel as serious and as proud as those children look. We know we are in the presence of something wonderful, a portal to adventure, a place where we are welcomed and assisted by librarians, individuals who love knowledge and information and who value the concept of service — our library." Author, Teddy Jones

PNLA takes pride in the fact that it is playing a role providing tools and avenues that promote increased communication, joint advocacy, networking, support, and information sharing. The annual conference, LEADS (Leadership Institute), YRCA (Young Readers Choice Awards), and job postings are just some of the ways we are accomplishing this task. Our association is made up of libraries, librarians, and library staff who value the concept of service and are eager to share their knowledge with others.

What is NEW at PNLA?

During the November Board of Directors retreat at Dumas Bay, Federal Way, the board gave full support to webmaster, Linda Frederiksen, to redesign the PNLA website. Linda worked hard with the help of a support team to accomplish this task. We are excited to announce that PNLA now has a NEW up to date, customer friendly website.

With sadness, the Board accepted the resignation of our YRCA chair, Barbra Meisenheimer. Barbra has worked hard for many years providing us with great leadership and has done an excellent job running a successful program. YRCA and Barbra have gone hand in hand, a partnership. We will miss Barbra.

YRCA, however, will keep moving forward. The Board of Directors has appointed Jocie Wilson as the new YRCA Chair. Jocie is currently a Client Services Librarian with Yellowhead Regional Library. She consults with school and public libraries on all aspects of library services. She has a passion for children's and teen literature that developed during the thirteen years she worked for Edmonton Public Library (EPL). She has been involved with YRCA for many years, promoting the program to schools while at EPL and joining the YRCA team as the provincial representative for Alberta in 2009. She is working with the YRCA community to attract new participants to the program and looks forward to the continued success of the YRCA program. Please contact her at jwilson@yrl.ab.ca regarding YRCA.

Save the Date!

Start planning now to attend the 2013 PNLA Conference in Boise, Idaho, August 14-16, 2013. The conference will be taking place at Boise's Riverside Inn, located on 14 acres of beautifully landscaped space on the Boise River. Boise is Idaho's capital city, with a strong Basque cultural tradition, great restaurants and shopping, and abundant outdoor activities.

The 5th PNLA LEADS (Leadership Institute) will be held Sunday (evening) October 13th through (noon) Friday, October 18th at Fort Worden State Park, Washington. If you are an emerging leader serving in any capacity in a library in the Pacific Northwest and have a desire to network with other leaders and increase your skills, this Institute is for you.

Facilitators for this Institute are Becky Schrieber & John Shannon, Schrieber Shannon Associates.

In conclusion, I want to take this opportunity to remind you that PNLA is the oldest regional library association in the United States and the only bi-national association in North America. Members come
from Alaska, Alberta, British Columbia, Idaho, Montana, Washington and beyond. By becoming a member of PNLA you will be able to increase your communication with other librarians and library staff from this region. You will be able to take advantage of the joint advocacy, networking, support, and information sharing which will be multi-cultural, diverse, and take you beyond your borders. Many of our members take advantage of top rated speakers and educational workshops with presenters from across our region at a reduced member rate.

To become a member of PNLA and for additional information on our programs please visit www.pnla.org

From the Editor

Mary Bolin

Welcome to 2013. This issue features a group of interesting articles on a variety of topics, including an evaluation of eHarmony from the librarian's point of view! This issue includes a number of articles by international authors, strengthening the increasingly global focus of the PNLA Quarterly. It is a great benefit for North American librarians to build relationships with librarians on other continents, and for us to gain an understanding of the values we share, the issues we are all dealing with, and the particular concerns of librarians in Africa, Asia, and other parts of the world.
A Comparison of Information-Gathering Practices of Nurses and Librarians

Paul Victor, Jr.

Paul Victor, Jr., is a reference and instruction librarian at Eastern Washington University Libraries in Cheney, Washington. He is the Coordinator of Off-Campus and E-Learning Library Services. He is also the liaison to the Veteran’s Center and academic departments including history, philosophy, anthropology, military science. He holds an MLIS degree from the University of Pittsburgh and an MA in Medieval Studies from the University of Connecticut. He can be reached at: pvictor@ewu.edu.

Introduction

Many different career fields use interviewing techniques to gather vital information and thus they are not new or unique to the library science field. In fact, Catherine Sheldrick Ross (2009) outlines in her book Conducting the Reference Interview, that all interviews follow a common structure or format: greeting and establishing rapport, general information gathering, specific information gathering, intervention and ending (which includes feedback or a summary). But although this basic structure is shared by all types of interviews, each field its own unique set of goals that will influence its ways of handling these interviews and interacting with those involved. These differences present good learning opportunities.

This article limits its scope to the information gathering techniques employed by nurses or nursing students, in order to help librarians better understand how to fulfill the information needs of their nursing patrons or to teach nurses how to better apply information seeking skills themselves (e.g., through information literacy instruction). However, there has not been an examination comparing the information gathering practices of nurses to librarians. Therefore, it is also the goal of this article to determine what effective techniques or useful behaviors nurses employ when interviewing patients that could benefit the library science field.

Library Science Sources Consulted

In order to discuss how librarians use the reference interview to gather information from patrons, it is essential to consult the Reference and User Services Association (RUSA) Guidelines for Behavioral Performance along with other library science sources (RUSA, 2004). RUSA Guideline 1.0 (2004) states that a librarian needs to be approachable so that a patron feels welcome and comfortable asking for help. The second guideline (2004) emphasizes that a librarian must show a high degree of interest in the reference transaction. Guideline 3.0 (2004) says that the librarian must have strong listening and questioning skills in order to be effective in identifying the patron’s information needs. The fourth guideline (2004) dictates that the librarian must be able to perform an effective search to find the right information to fulfill the patron’s information need. The final guideline (2004) recommends that the librarian follow up with a patron to ensure satisfaction with the information that has been provided. The library science books consulted throughout this article focus on how to conduct an effective reference interview. To limit the scope of this work, and to match the typical method of interaction that nurses use while interviewing patients, only the in-person interactions of the reference transaction are examined. The journal articles cited later in this work propose transforming the reference interview into a more collaborate effort that fully engages patrons in order to be more effective in fulfilling their information needs. It is this collaboration that is central to the nursing textbooks and a lesson from which librarians can learn a great deal.
Nursing Sources Consulted

To determine how nurses are trained to conduct an effective interview to gather health information from their patients, major nursing textbooks were consulted (Bickley, Hogan-Quigley, Palm, & Bates, 2012; Estes, 2010). There is an expectation that nursing textbooks would espouse an ideal set of standards that nurses entering the field should strive to attain. Not surprisingly though, each nursing textbook examined takes its own approach as to how to conduct an effective interview with a patient. However, many of the essential elements of an effective interview can be boiled down to basically three phases. The first stage is called the Joining or Introductory Stage where the emphasis is on the nurse building rapport and trust with the patient. This stage is essentially the same as RUSA’s Guideline 1.0 (2004). The second phase of the nursing interview process is called the Working Stage. The goal is for the nurse to obtain patient health information, create a shared understanding of the problem and negotiate with the patient to create a plan of care. This stage has common elements to RUSA Guideline 3.0 (2004) in which the emphasis is on listening and collecting information. However, the nursing field offers a more sophisticated questioning structure, as well as a greater emphasis on acting collaboratively with the patient which will be of interest to librarians. The last phase of the nursing interview is called the Termination Stage. Similar to the final phase of the RUSA Guidelines (2004), it prepares the patient for the end of the interview, summarizes important information and clarifies the plan of care. A detailed, step by step examination of each of the two fields’ information gathering practices is provided throughout this article. Table 1 provides the reader with a visual comparison of the similarities that exist between the RUSA (2004) and nursing guidelines.

<table>
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<th>Nursing Interview Phase I: Joining/Introduction Stage</th>
<th>RUSA Guideline 1.0: Approachability</th>
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<td>Purpose: Build rapport/trust &amp; work cooperatively to establish an agenda with goals.</td>
<td>Purpose: Librarians welcome patrons and allow them to feel comfortable asking for help. Characteristics of being approachable:</td>
</tr>
<tr>
<td>· Build rapport and trust so that the patient feels comfortable sharing all relevant information.</td>
<td>· Patrons are able to identify that a reference librarian is available to help them.</td>
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<td>· Work with the patient to define the relationship. Establish an agenda with goals for the interview &amp; future interactions.</td>
<td>· Through the use of verbal and non-verbal communication, the librarian welcomes patrons and allows them to feel comfortable asking for help.</td>
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Table 1: A Comparison of Information-Gathering Guidelines for the Library & Nursing Fields

RUSA 2.0: Interest

Purpose: Librarians must show a high degree of interest in the reference transaction. How to show interest:

- The librarian demonstrates to patrons a strong desire to provide the most effective assistance possible.
- The librarian will focus full attention on the patron by facing them when speaking or listening and acknowledging their inquiries.
Nursing Phase II: Working Stage

Purpose: Obtain patient health information. Create a shared understanding of the problem & negotiate a plan of care.

- Nurse facilitates a patient centered interview.
- Collect relevant health data by inviting the patient’s story.
- Expand and clarify the patient’s story.
- Negotiate a plan of care which includes further evaluation, treatment, education, self-management and prevention.
- Nurse keeps the interview goal directed, refocuses patient & redefines goals.
- Be empathetic.

RUSA 3.0: Listening/Inquiring

Purpose: The librarian must have strong listening and questioning skills in order to be effective in identifying the patron’s information needs. The librarian has to conduct the reference interview in such a manner that keeps patrons at ease and allows for a positive interaction. How to demonstrate effective listening skills:

- Communicates in a receptive, cordial, and encouraging manner.
- Allows the patrons to fully state their information need in their own words before responding.
- Rephrases the question/request and asks for confirmation.
- Clarifies confusing terms and avoids jargon.
- Uses open and closed ended questions to accurately determine the information needs of the patrons.
- Maintains objectivity and does not judge the patrons regarding the subject matter or the nature of the questions.

RUSA 4.0: Searching

Purpose: The librarian must be able to perform an effective search to find the right information that will fulfill the patron’s information need. Characteristics of effective searching skills:

- Finds out what resources patrons have already consulted and encourages patrons to contribute ideas.
- Identifies relevant information resources that will help to fulfill the patron’s needs.
- Creates a competent search strategy and effectively searches information sources.
- Explains to the patrons the search strategy, sequence and sources used while searching. Also explains how to use sources when appropriate.
- Conducts the search within the patron’s time frame.
- Asks patrons if they require more information.

RUSA 5.0: Follow-up

Purpose: The librarian is responsible for determining if the patrons are satisfied with the information provided to them. Appropriate follow up skills include:

- Ask patrons if their questions have been completely answered and encourage them to return if they need more help.
- If appropriate, the librarian may make arrangements with the patrons to research a question after the reference transaction has concluded.
- If the patrons do not feel that their questions have been satisfactorily answered, then the librarian can refer them to other appropriate sources, subject experts or institutions.
- Be careful not to end the reference interview prematurely.

Sources: Bickley, Estes, Jarvis, RUSA, Seidel, Wilson

**Being Approachable and Building Rapport**

RUSA Guideline 1.0 (Approachability, 2004) emphasizes that the librarian must act in a manner that welcomes a patron and allows him or her to feel comfortable asking for help. The reference process starts when a patron is able to clearly identify that a librarian is available to provide assistance (RUSA, 2004). A patron must also be able to perceive that the librarian is...
ready and available to help (RUSA, 2004). For example, the librarian is not buried in paperwork or staring at a computer screen. The best possible scenario is that the librarian is not otherwise occupied, but actively scanning the area and ready to help a patron. However, in the real world, librarians are often forced to multi-task to fulfill various work obligations. But all is not lost as long as all work related activity ceases when a patron approaches for help (RUSA, 2004). More importantly, the librarian’s behavior must allow a patron to feel welcome and comfortable with approaching and asking for help. Non-verbal communication skills such as establishing eye contact, smiling, and other positive body language are important signs that the librarian acknowledges a patron and is willing to help (RUSA, 2004). The librarian can also give verbal acknowledgement by using a friendly greeting to help encourage a patron to ask for help (RUSA, 2004).

Phase I (Joining/Introduction Stage) of the nursing interview has the same basic goals as RUSA Guideline 1.0: to greet the patient and build rapport (RUSA, 2004). Establishing rapport, trust and a feeling of acceptance is important because it means that the patient will feel free to share all relevant health information during the interview (Jarvis, 2012). It is recommended that nurses shake hands and greet the patient warmly (Bickley et al., 2012; Estes, 2010; Kennedy-Sheldon, 2009). Nurses should also greet a patient by his or her formal name (Bickley et al., 2012; Estes, 2010; Kennedy-Sheldon, 2009). Some authors suggest asking the patient how she wants to be addressed (Estes, 2010; Kennedy-Sheldon, 2009; Seidel, 2010). Many of the nursing textbooks also recommend that nurses acknowledge and greet other people (e.g. family members) who may accompany patients to their appointment (Bickley et al., 2012; Jarvis, 2012; Kennedy-Sheldon, 2009; Seidel, 2010). This advice makes sense from a common courtesy perspective, but it may also help to put the patient more at ease and willing to share information. The acknowledgement of others is good advice for library employees as well since reference librarians may be so focused on helping the patron asking the questions that they may ignore others accompanying her.

To continue to build rapport with patients, nurses should introduce themselves, discuss the purpose of the interview and explain the nurse’s role to the patient (Jarvis, 2012; Kennedy-Sheldon, 2009). Perhaps librarians could pick up some good ideas from nurses in this regard. Since patrons may be confused as to the role of the reference librarian, and what help they can expect to receive, it might be a good idea to convey this information to patrons verbally at the time assistance is rendered.

During the interview, the nurse may choose to engage in small talk. An older version of the Kennedy-Sheldon (2005) text emphasizes using small talk to ask about neutral topics such as a patient’s hobbies or interests. The newer version of the Kennedy-Sheldon (2009) text glosses over these points, even though it’s an important method nurses can employ to show interest in the patient as a person and to build trust. Some librarians may already employ similar small talk as a useful tool for building rapport with regular patrons. Although employing this approach may not always be possible (i.e. when the reference desk is busy), it is a useful method to build a good relationship and encourage patrons to return for more help.

**Demonstrating Interest**

RUSA Guideline 2.0 (Interest, 2004) says that a librarian must demonstrate a high degree of interest in helping a patron to ensure satisfaction with the interaction. This interest is demonstrated through both verbal and non-verbal communication. During the reference transaction, the librarian should face the patron when speaking or listening (RUSA, 2004). The librarian also demonstrates interest by focusing full attention on the patron (RUSA, 2004). The librarian also maintains or re-establishes eye contact with the patron throughout the transaction (RUSA, 2004). Finally, the librarian signals an understanding of the patron’s needs through verbal or non-verbal confirmation (e.g. nodding of the head, RUSA, 2004).
Unfortunately, RUSA Guideline 2.0 (Interest) doesn’t fit neatly into the nursing interview structure. But, although the nursing texts do not widely discuss or elaborate upon this topic, it probably bears closest relation to Phase I (Joining/Introduction Stage) since it plays a part in building rapport and trust. Bickley et al. (2012) say that a nurse should provide the patient with undivided attention. When interviewing patients, Wilson (2009) also suggests that nurses show “a genuine interest in them and in what they are saying” (16). Jarvis (2012) talks about the various types of non-verbal communication and how they may influence the interview. For example, maintain a steady, easy gaze with the patient to show that you are interested and paying attention. Other relevant aspects include things like maintaining a relaxed, calm body posture as well as an attentive and interested facial expression (Jarvis, 2012).

When comparing the two fields’ methods for interviewing, a question presents itself: why is Guideline 2.0 included in the RUSA (2004) standards? The strongest evidence points to the nature of the librarian’s work at the reference desk. Due to the nature of today’s online environment (e.g. databases, catalogs, Web sites), a reference librarian is often seated in front of a computer and must interact with online search tools in order to help the patron. While the librarian is searching for the information, the patron may feel ignored. Worse yet, the librarian’s focus on a computer screen can give the appearance of an “I don’t care” attitude. In order to insure a positive customer service experience, Guideline 2.0 reminds librarians that they must continue to engage with patrons by using good verbal and non-verbal communication skills (RUSA, 2004).

Active Listening

RUSA Guideline 3.0 (Listening/Inquiring, 2004) outlines how important it is for the librarian to communicate effectively and be good at active listening in order to identify the patron’s information needs. However, this process begins by putting the library user at ease through the use of verbal and non-verbal communication. By acting in a receptive and cordial manner, the librarian encourages the patron to communicate freely (RUSA, 2004). Next, the librarian must use open and closed-ended questions, as well as rephrasing, to gather accurate information from a patron and discover the true information need (RUSA, 2004). If the person’s true information need isn’t properly identified during this Listening/Inquiring phase, then the rest of the process (searching, patron satisfaction, etc.) is for naught.

The main goal of Phase II (Working Stage) of the nursing interview is to collect the patient’s health information, work collaboratively with the patient to create a shared understanding of the problem and negotiate a plan of care. Just like librarians, this goal is accomplished by using good listening and communication skills.

The individual knows everything about his or her own health state, and you know nothing. Your skill in interviewing will glean all the necessary information as well as build rapport for a successful working relationship. (Jarvis, 2012, 29)

Nurses use various questioning techniques to gather complete and accurate data. The nurse also acts as a facilitator by keeping the interview goal-directed, refocusing the patient and redefining goals (Estes, 2010). But the information gathering process is not just about coldly collecting factual information for a health history. What is unique about the nursing field is its emphasis on the interview being patient-centered and a collaborative process in which the patient plays a vital role. Bickley et al. (2012) take it a step further by attempting to humanize the information gathering process by looking at it as inviting the patient’s story. It is through this collaborative process that a nurse can work with a patient to create a plan of care that is not only correct, but also one in which the patient accepts shared ownership.

RUSA Guideline 3.0 (2004) emphasizes the important task of gathering all pertinent information from a patron. Thus, it is essential that a reference librarian is good at listening and not interrupt people. The librarian should allow the library user to fully state his or her
information need in his or her own words before attempting to respond (RUSA, 2004). Bickley et al. (2012) recommend the same approach for nurses: “encourage the patient to tell his or her story in his or her own words” (42). Bickley et al. (2012) also suggest that nurses not interrupt patients during the initial sharing of their health problems or concerns because doing so can have negative consequences. First, the nurse can negatively bias the patient’s story (Jarvis, 2012). Next, the patient will likely shut down and no longer freely share information about his or her true health concerns.

Intervening too early or asking specific questions prematurely risks trampling on the very information being sought. Once interrupted, patients usually do not return to telling their stories. (Bickley et al., 2012, 42)

These points are just as important in libraries. Ross et al. (2009) point out that not listening (e.g. talking too much) and interrupting are two of the Six Common Causes of Communication Accidents that can cause the reference interview to go wrong. Jarvis (2012), in the Ten Traps of the Interview, mirrors this same sentiment by saying that nurses should not talk too much or interrupt a patient. The consequences of these behaviors result in the nurse being “so preoccupied with your own role as the interviewer that you are not really listening” (Jarvis, 2012, 36). More fundamentally, “you cannot fully understand what the person says” unless you are using active listening skills (Jarvis, 2012, 36).

Active listening skills are of the utmost importance in an interview situation. Estes (2010) defines active listening as “the act of perceiving what is said both verbally and non-verbally” (22). This statement emphasizes the importance of paying close attention to body language because it can also be a valuable source of information (Kennedy-Sheldon, 2009). For example, if the patient is hugging her stomach during the interview, then it might indicate pain or perhaps apprehension. By being perceptive to these signs, the nurse can try to determine what’s wrong and attempt to put the patient more at ease (Bickley et al., 2012).

What Do They Really Want?

Even when engaging in active listening, there are still difficulties in information gathering. During the reference interview, patrons often can’t or don’t ask for the information that they truly want (at least not initially). The reasons for this behavior are many, but it may be because patrons either don’t know what they need or are too intimidated to ask the librarian for help. A similar situation can occur when a nurse is trying to discover the patient’s main health concerns. Bickley et al. (2012) points out that patients may also withhold their true concerns in up to 75 percent of acute care visits (42). The nurse needs to know when to ask good follow-up questions such as “Is there anything else?” or “Have we got everything?” to determine the patient’s full agenda or “real reason” for the visit (Bickley et al., 2012, 41). Both fields have their methods of questioning that must be employed effectively in order to gain pertinent information needed to help the other person.

Effective Questioning

A vital component of RUSA Guideline 3.0 (Listening/Inquiring, 2004) addresses the librarian’s ability to ask good questions to determine the patron’s true information need. The process begins with the librarian rephrasing a patron’s question to make sure that it is properly understood (RUSA, 2004). Ross et al. (2009) also recommend paraphrasing and summarizing the information received from the library user in order to make sure it is correct and to avoid miscommunication. As part of this process, the librarian must clarify any confusing terminology and avoid the use of library jargon that the patron may not understand (RUSA, 2004). Some of the nursing texts concur with this sentiment and advise nurses to avoid jargon so that they don’t confuse patients (Bickley et al., 2012; Estes, 2010; Jarvis, 2012).
Librarians also use open ended questions to get patrons to expand upon their information request or to encourage them to give additional information (RUSA, 2004). Asking patrons to provide more information about what they want, or how much information they need, would be examples of open ended questions (RUSA, 2004). Librarians can also use closed or clarifying questions to narrow down the search query (RUSA, 2004). Asking questions like what types of sources are needed for the assignment or what she has found for sources so far would be examples of clarifying questions. Finally, RUSA (2004) recommends that librarians maintain objectivity during the reference interview process by making sure not to interject their own value judgments about the subject matter being discussed.

Virtually all of the nursing texts also recognize the importance of using open and closed-ended questions, as well as the advantages of using them during the interview. But, compared to the library questioning procedures, the nursing sources go into much greater detail regarding specific questioning techniques nurses can use to elicit useful information from patients. It would be helpful for librarians to spend time familiarizing themselves with such a wide variety of questioning techniques and how they can be used for particular situations. In other words, librarians would have more tools in their toolboxes and therefore be more effective at helping patrons.

Estes (2010) breaks the types of questions nurses can use during the interview into two distinct categories: Listening Responses and Action Responses. The first category of Listening Responses allows the nurse to “accurately receive, process and then respond to patient messages. They provide one way for the nurse to communicate empathy, concern, and attentiveness” (Estes, 2010, 25-6). There are over a half dozen different types of Listening Responses used by nurses (which are also used by librarians) include restating, clarifying and summarizing (Estes, 2010). Restating repeats or rephrases the main ideas discussed by the patient and it shows that the nurse has been listening (Estes, 2010). Clarifying questions attempt to clear up any misunderstandings and to reach an agreement about exactly what is meant. Summarizing is a brief review of the important points covered during the interview. It is usually done at the end of the health assessment and it helps the patient organize his or her thoughts (Estes, 2010).

Action Responses are the second type of effective questioning techniques that nurses can use during their interview (Estes, 2010). These types of questions are designed to challenge “patients to make some change in their thinking and behavior” (Estes, 2010, 28). Examples of Action Responses are focusing, informing, limit setting and collaborating (Estes, 2010). Focusing allows the nurse to concentrate on a specific point the patient has made (Estes, 2010). It’s particularly useful when a patient is jumping from topic to topic during the interview (perhaps because of confusion or nervousness). Since patrons could exhibit the same type of behavior at the reference desk, the librarian could use focusing techniques to redirect attention to the most important or relevant aspects of the interview. Informing is an effective way for nurses to provide patients with needed information (Estes, 2010). Examples include explaining to patients what they may need, or what will happen, regarding certain medical tests or procedures. Effective librarians will often inform patrons what they are doing while searching and teach them about the appropriate resources to consult (more on the teaching role of librarians later). Nurses also use limit setting as a way to set specific limits on patients who are displaying inappropriate behavior (e.g. hostility, sexual advances; Estes, 2010). If a patient is asking personal questions, then the nurse can point out the inappropriate behavior and then provide guidance by calmly, clearly and respectfully telling the patient what behavior is expected (Estes, 2010). Limit setting is another questioning technique that has direct application to librarians. Patrons can display inappropriate behavior (asking personal questions, sexual advances, etc.) and librarians can use limit setting techniques to address this behavior immediately and professionally. Finally, collaboration allows the nurse to encourage the patient to become actively involved in his or her own information gathering, goal setting and overall healthcare (Estes, 2010).
The Importance of Collaboration

What is particularly valuable about the nursing literature is the acknowledgement of the importance of the patient’s role during the interview and the collaborative nature of this partnership. Estes (2010) promotes the valuable lesson that the role of the interview is a collaborative dialogue between the patient and nurse: “The nurse is the facilitator of the interview and thus collaborates with the patient in establishing a mutually respectful dialogue” (Estes, 2010, 18). Furthermore, she states that the role of the patient is that of an equal participant during the interview: “The patient is an active and equal participant in the interview process and should feel free to openly communicate thoughts, feelings, perceptions, and factual information” (Estes, 2010, 19). Bickley et al. (2012) also emphasize the importance of collaboration, and the central role of the patient in this process, when suggesting that nurses “invite the patient’s story” (41). A recent article from the United Kingdom also emphasizes the importance of focusing on the patient and working collaboratively during the nursing interview:

At the core of successful history taking is skilled and patient-centered communication through which a rapport is established between the nurse and patient, who work together to achieve a shared understanding of the nature of the problem and how best to address it. (Fawcett & Rhynas, 2012, 42)

This philosophy of patient centered care allows the nurse and patient to establish a trusting relationship so that sufficient information can be gathered and a mutually agreed upon plan of treatment can be established (Fawcett & Rhynas, 2012).

The nursing field’s emphasis on the importance of patient participation and collaborative partnership is usually seen as very different from the role of the librarian and patron during the reference interview. Librarians often see themselves as information experts who have a strong desire to help hapless patrons. After all, librarians are experts in finding information and know what resources are available in the library. This sentiment is sometimes warranted. For example, a common example might be a student who approaches the reference desk to get help with an assignment. The student may not have read (or have a copy of) the assignment, know what types of resources are expected, or even have a firm grasp of his or her topic. The lack of this important information makes it much harder for the librarian to properly help the patron. However, there are plenty of times when patrons do have a better understanding of what they want, but they don’t (or can’t) communicate that need to the librarian. It is up to the skill of the librarian to get to that true information need via the reference interview. Otherwise, the librarian may make incorrect assumptions as to what the patron wants and thus give the right answer to the wrong question. At which point the patron will probably leave feeling dissatisfied and not willing to come back for further help.

However, a small minority of librarians actually see the reference interview as a truly collaborative process instead of a lop-sided relationship. Doherty (2006) wrestles with the issue of whether librarians should consider themselves the information expert running the reference interview or whether it should be a collaborative process amongst equals.

Instead of assuming that a user does not know what information is needed, the interaction could be a dialogue of equals wherein the librarian assumes the more empowering role of partner as opposed to information guru. (Doherty & Cox, 2006, 107)

Mabry (2003) also views the reference transaction as an equal collaboration between the librarian and patron:

We need to emphasize that librarian and user are actually equals in the interview process. Although the librarian knows more about the library, the user is the expert in what she needs to know about the subject.
This sentiment is in complete accord with Jarvis’ (2012) statement that a patient “knows everything about his or her own health state, and you know nothing” (29). It is through this collaboration that the expertise of both individuals can be put to best use and lead to a good outcome. The library field should learn from the nursing field and look at the reference interview as more of a collaborative process.

**Privacy**

One barrier that may affect the sharing of information during the reference interview involves privacy (or lack thereof). Reference desks are usually in an open, public environment so that library users can clearly identify where they can go to get help. However, this environment can offer a severe hindrance to patrons. If they want to ask a question of a personal nature, then it is likely that other patrons or library employees will overhear it. Susan Knoer points out this lack of privacy and how it differs from other fields: “Reference desks seldom give the patron any privacy, unlike the offices and consulting rooms of other professionals, so they may be telling you it’s personal” (Knoer, 2011, 6). Librarians can try to mitigate this disadvantage by trying to match their interview style to their patron’s demeanor (using a soft voice, etc.). But this approach is still less than ideal and the public space generally contributes to the reluctance of library users to be forthcoming with their information needs. Furthermore, public libraries are often highly utilized resources and librarians have many customer service responsibilities. There may be ringing phones, long lines of patrons waiting for reference help or other distractions that may discourage patrons from seeking help.

Due to the sensitive nature of health information and various privacy laws (e.g. HIPAA), the nursing field has a distinct advantage over the library field. Many of the nursing texts discuss the importance of privacy when interviewing a patient (Bickley et al., 2012; Estes, 2010; Jarvis, 2012; Seidel, 2010). The best possible environment for a health interview is a private room. However, such an environment is not always possible. Bickley et al. (2012) suggest some useful ideas such as trying to move to an empty room or more private area instead of talking to a patient in a public area like a waiting room. If the patient is in a hospital bed with another person in the same room, then the nurse can try to create “psychological privacy” by using privacy curtains (Jarvis, 2012, 53). Jarvis also has the most detailed recommendations of how to maintain privacy and create an optimal environment for the patient to share information. Some of the suggestions are basic such as having a comfortable temperature, sufficient lighting, reduced noise and removing distracting equipment (Jarvis, 2012). Other useful recommendations include arranging a face-to-face interview position, maintaining appropriate distance (to not invade personal space) and arranging for equal-status seating (Jarvis, 2012). Bickley et al. (2012) also suggest removing any physical barriers such as desks. Librarians have taken some of these environmental factors into account when working with patrons. But because of the nature of the nursing interview, there are distinct advantages to the patient’s privacy that are often difficult to have in a library setting. Perhaps librarians can follow some of the nursing techniques by taking patrons to a private setting (if possible) when they realize the private nature of the interview. With the increasing use of one-on-one research consultations (especially in academic settings), perhaps this disadvantage can be reduced.

**Finding Information and the Teachable Moment**

RUSA Guideline 4.0 (Searching, 2004) states that the librarian must be able to perform a competent search to find the appropriate information to fulfill the patron’s information need. The librarian begins by determining what sources have already been consulted and encouraging the patron to contribute ideas (RUSA, 2004). Although Guideline 3.0 (Listening/Inquiring, 2004) is the most active phase for collaboration, participation in the searching phase is another way for patrons to remain involved in the reference transaction. So
Guideline 4.0 (2004) is basically an action phase because it is the moment of truth in which the reference librarian must take all of the information gathered throughout the previous steps and put it to good use. The librarian needs to create a competent search strategy and effectively search pertinent information sources (RUSA, 2004). But that’s not all. Good reference librarians often go a step further to use the searching phase as a “teachable moment” (Havighurst, 1953, 5). The goal is to educate the patron on what information sources are the best ones to use as well as how to effectively use them (RUSA, 2004). At the end of the searching process, the librarian can then ask the patron if any more information is required to assure that no stone is left unturned (RUSA, 2004).

Because of the very different occupational roles of librarians and nurses, it is easy to see that RUSA Guideline 4.0 (Searching, 2004) doesn’t translate neatly into the phases of the nursing interview. However, there is one aspect in Phase II (Working Stage) that is common to both fields: an educational component. One aspect of Phase II is to establish a plan of care for the patient and part of this plan includes educating the patient. However, when it comes to elaborating on the nurse’s educational role, many of the nursing texts either skip over it completely or only briefly mention it. For example, Bickley et al. (2012) include a chart showing the phases of a health interview which includes an educational component (37). However, the details elaborating on the nurse’s teaching role is oddly not discussed in the corresponding chapter. Jarvis (2012) gives a few more details about the purpose of teaching patients in her chapter on interviewing. She recommends teaching patients about their health state so that they can help in identifying their problems (Jarvis, 2012). The other important (and expected) role for a nurse is to teach patients about health promotion and disease prevention (Jarvis, 2012). However, other than these brief mentions of teaching in the beginning of the chapter on interviewing, Jarvis (2012) follows the same trend as Bickley et al. (2012) of not elaborating further on the teaching role of the nurse.

The best example and explanation regarding the teaching role of the nurse comes from the book *Nursing: Scope and Standards of Practice* (American Nurses Association [ANA], 2010). Standard 5B specifically covers nurses promoting and teaching patients about health topics such as healthy lifestyle, reducing risky behavior, activities of daily living and preventive care (ANA, 2010). Standard 5B also directs nurses to take into consideration a patient’s level of understanding and then adjusting the instruction according to the situation. Factors influencing such decisions include a patient’s values, beliefs, developmental level, needs and ability level (ANA, 2010). It also suggests that nurses take into consideration aspects such as socioeconomic status, spirituality, language preference, cultural values and beliefs (ANA, 2010). Because the nursing field has such a well-developed set of guidelines for respectfully accommodating cultural aspects of patients, librarians could benefit from further study in this area.

As has been discussed previously, librarians are adept at identifying appropriate sources that are relevant to a patron’s query (RUSA, 2004). Librarians also teach patrons how to use sources and how to create an effective search strategy (RUSA, 2004). However, the RUSA Guidelines (2004) seem to skirt the issue of picking resources according to the developmental level of the patron. It’s not to say that librarians don’t match up the type of information that is appropriate for that particular patron. Otherwise, you would find a public librarian who would hand a copy of *War and Peace* to a five year old child. But the RUSA Guidelines don’t directly address this important issue. It would be advisable for the library field to learn from the nursing standards and add another criterion to Guideline 4.0 (2004) regarding this topic. Doing so would reinforce the importance and appropriateness of matching the proper source to the developmental level of the patron.

Standard 5B further dictates that nurses should use information technology to communicate health promotion and disease prevention to patients (ANA, 2010). This recommendation has a strong correlation to a librarian’s use of databases, mobile devices and other information technology to fulfill a patron’s information needs.
Evaluating Online Resources

Another strong similarity exists between nurses’ and librarians’ use of a common technology tool: the Internet. Standard 5B discusses how the nurse must evaluate health information resources (specifically the Internet) for accuracy, readability and comprehensibility (ANA, 2010). Readability and comprehension play directly into Standard 5B’s emphasis on teaching to a patient’s developmental level that was previously discussed. But evaluating the accuracy of Internet resources in Standard 5B has a direct relation to librarians and library research guides that teach how to evaluate Web pages. Typical criteria, such as those found on the University of Maryland’s Web site include evaluating authority and accuracy, purpose and content (what some library sites alternatively call objectivity), currency, as well as design, organization and ease of use (University of Maryland Libraries, 2011). Librarians tend to put a lot of importance on criteria like authority, objectivity, purpose and content. Basically, librarians want to ensure that information found online is reliable. So students or patrons are taught to determine who wrote it, the author’s qualifications, why the content is there, if bias is present and if it’s current and accurate. Some of the library evaluation criteria also take design, organization of the content and ease of use into consideration (University of Maryland Libraries, 2011). After all, a Web site can have the most valuable information in the world, but it won’t help people if they can’t find it.

Comparing these robust evaluation criteria that librarians use when evaluating information (in this case, Internet resources specifically), why doesn’t the nursing literature place more emphasis on evaluating Internet sources? Perhaps because it is already assumed that the nurse will access trusted content from medical or governmental Web sites written by doctors and other qualified medical practitioners. However, there are still plenty of questionable Web sources out there that require scrutiny. Without the proper training, it will be more difficult for nurses to distinguish good quality resources. Therefore, it would be beneficial for nurses to adopt some of the criteria for evaluating information developed in the library science field. Nurses could then feel confident that the resources they are recommending to patients are of good quality.

Finding Closure

RUSA Guideline 5.0 (Follow-up, 2004) states that the librarian is responsible for determining if a patron is satisfied with the information that she has been provided. A librarian should ask the patron if her questions have been completely answered and encourage the patron to return if more help is needed (RUSA, 2004). If the patron does not feel that his or her questions have been satisfactorily answered, then the librarian can make a referral to other appropriate sources, subject experts or institutions (RUSA, 2004). Finally, the librarian needs to be careful not to end the reference interview prematurely (RUSA, 2004).

During Phase III (Termination Stage) of the nursing interview, the nurse summarizes information provided throughout the interview, the patient provides clarification and a plan of care is reviewed before the end of the interview. The Termination Phase is structured to warn the patient that the end of the interview is approaching. It allows the nurse the chance to summarize the important information that has been provided. This review of information gives the patient the chance to provide additional information, clarify any mistaken information or ask final questions. The final step of Phase III clarifies the patient’s plan of care. In a truly collaborative spirit, Bickley et al. (2012) also recommend that the nurse “make sure the patient understands the mutual plans you have developed” (46).

An obvious similarity between RUSA Guideline 5.0 (2004) and Phase III is to facilitate the process of closure for the interview process: The patron has the answer she seeks and the patient a plan of care that will address her health concerns. Another parallel can be drawn to the reference referral process. The referral of a library patron to better resources or further
help from subject experts could correspond to Phase III of the nursing interview in which a patient might be referred from one healthcare provider (e.g. a general practitioner) to a specialist (e.g. a cardiologist). However, there seems to be a greater emphasis in the library field to assure that the patron is satisfied with the results of the reference transaction than the nursing field is with gauging patient satisfaction. This topic might warrant further exploration.

**Conclusion**

A number of similarities exist between the information gathering practices of nurses and librarians. Nurses are encouraged to be friendly, build rapport and earn a patient’s trust to make it easier to gather valuable health information. Likewise, librarians are encouraged to welcome patrons and allow them to feel comfortable asking for help (RUSA, 2004). Both fields also use questioning and active listening techniques. Both nurses and librarians realize the importance of getting to the true needs of the patient or patron. The two fields also have a final phase to terminate the interview and bring positive closure to the information transaction.

However, some distinct differences also exist between how the nursing field handles interviewing patients that the library field can certainly benefit. The library field focuses its questioning on basic open and closed ended questions. By contrast, the nursing field has a much more sophisticated system of specific types of questioning techniques that could be used in a variety of different scenarios. Having more in-depth training on how to ask the right question in a given situation would be very valuable to the library field when helping patrons.

Another important difference is the nursing field’s emphasis on a collaborative partnership between the nurse and the patient. Nurses believe it is important to involve the patient more in his or her own treatment. Librarians should follow the advice of Bickley et al. (2012) to “invite the patient’s story” when working with patrons (41). Librarians need to work collaboratively with patrons as equal partners to arrive at an acceptable resolution regarding their true information needs. This collaboration will help to insure the greatest measure of success for the reference transaction. The nursing field employs effective interviewing techniques to gathering information. It stands to reason that there may be other fields that could bring fresh perspectives. Further study needs to be devoted to determine what other fields might offer new insights and opportunities for librarians to grow as information professionals.

**References**


Security Practices in Nigerian University Libraries

Chimezie P. Uzuegbu

Caroline A. Okoro

C.P. Uzuegbu has his first (BLIS) and second (MLIS) degrees in Library and Information Science and also has a Post Graduate Diploma in Education (PGDE). He is currently the head of Digital Library department, MOUAU library. He can be reached at: forteneews@yahoo.com

C. A. Okoro has her first degree in Economics (Bsc.) and second degree in Library and Information Science (MLIS) and currently the head of Reference department, MOUAU library.

Introduction

Security refers to a process designed to protect something or somebody against danger. It is an act of preventing crime, where in the case of library resources, it prevents un-authorized removal or loss of materials, usually as a result of intruders’ or thieves’ interference (Ajegbomogun, 2004). Conceptually, it means the overall manner in which policies, programmes, procedures, or measures are deployed to mitigate risk and ensure access to a
particular resource feared to disappear. Relatively, a security practice simply refers to the different types of actions, measures or practices adopted to stop a crime.

Libraries in Nigeria are performing a great portion of their activities traditionally. A recent study has shown that crime against library collections, otherwise known as information resources, is on the increase in a number of Nigerian university libraries. It was observed that there was no significant relationship found between the security measures adopted and the rate of crime - theft and mutilation of information resources - in some Nigerian university libraries (Uzuegbu, 2011). In avoidance of a situation where new or existing libraries would move to employ or depend on the security measures investigated and found unsuitable to check theft and mutilation crimes in university libraries, this paper is poised at publishing the security practices employed in some Nigerian university libraries. The Nigerian university libraries under study are: Abia State University Library, Uturu (ABSU); Michael Okpara University of Agriculture Library, Umudike (MOUAU); Evan Enwerem University Library, Owerri (EEU); and Federal University of Technology Library, Owerri (FUTO).

Literature Review

Library services can only be achieved through the availability of library collections. Nkiki and Yusuf (2008) observe that information is an essential part of a nation’s wealth and access to it is a basic human right. A university library houses a wide variety of information resources. Information is not only a national resource but also a medium for social communication. Thanuskodi (2009) observes that the rate of declining budgets and a higher subscription cost facing academic institutions is making it seemingly impossible for libraries to meet the rising information needs of university students, let alone allowing the available collections lost. As a matter of fact, criminal activities against information resources are a formidable obstacle to information access and use - not only posing a serious problem that needs urgent attention, but also constituting a big cost to scholarship (Ugah, 2007; Ratcliff, 1992). Chaney and MacDougall (1994) reason that university library collections are at risk to one form of abuse or the other. Their contents and value, even their worth financially, which may not be attainable for many classes of the user public, among other things can lead to their being eyed wrongful. The effect of this anomaly can be traced back to the pains taken by the ancient Babylonian scribes to recopy lost library items. The effect then is still equal to a loss of a contemporary university library material, irrespective of whatever we think modernity has given humanity in terms of multiple printing. Thompson (1977) realized how great a loss of material could be to an archives house and records that, even though the rate of crime then was relatively low, there were varied punishments for withholding over-due library books or damaging them, let alone stealing them. Thus the surging rate of theft, mutilation, and all manner of crime against library collections is almost in tandem with the volume of availability of the materials, not failing at all to result in greater scarcity and deprivation of free knowledge, save for the availability of computer aided information access, which Anunobi and Okoye (2008) also agree not to be safe as well.

Consequently, different libraries have adopted varying security measures for their collections’ safety. McComb (2004) writes that physical (non-electronic) security, electronic security and security policies/procedures are substantial methods for securing information resources of all kinds of libraries. Physical security includes architectural considerations, the use of personnel, and security hardware to prevent crimes against library collections. Electronic security system refers to the use of equipment which typically provide alarm notification to the appropriate authority on entry control and site surveillance. Major elements of the electronic security system include burglary protection, collection security (hidden on materials), access control (systems that directly "read" unique personal characteristics such as voice quality, hand geometry, identity cards, etc.), and video surveillance, particularly the CCTV system. Sensors (detectors) to detect an intrusion and alarms (to notify appropriate authorities) are the
facilities that make this type of security electronic (www.alarm.org). On the other hand, security policies and procedures include all created and implemented security policies, procedures, and plans for the library. These should, at least, include entry and exit procedures, room registration procedures, personal belonging restrictions, special collections use policies, and entry key management procedures (McComb, 2004).

In another perspective, Nwalo (2003) argues that library crime may not be prevented or checked to its minimal state as long as the security personnel are not directly under the library department. He states that the security men are loyal to the security department rather than to the library authority. This situation makes it difficult for the librarians to control security matters in their library as their orders may be flouted. He concludes by arguing that aside from the divided loyalty experiences which result in poor security in the library, the security personnel, mostly the ones in Nigerian university libraries, are not literate enough to understand the full import of their duties. In support, Hinks (1992) and Macdonald (1992) posit that staff training is very important, especially providing grounds where the staff will have the opportunity to discuss both the acceptable behaviours as well as the tolerance level of every staff in any aggrieved situation. They agree also that not only does the training expose staff to the nature of the problem and how to handle them, it can also avail them many other things like acquainting them with the modern trend of security gadgets and how they can be operated or worked with. However, Oder (2004) strongly maintains that security measures such as supervision, patrolling, and surveillance are lacking in libraries while keys to various collection halls are kept unsecured, if not in plain sight of the users. Although Brown (2007) suggests coordinated policies as a means of addressing general library threats, there seems to be a greater need for constant security measures which a good and comprehensive library user education can surmount to a great extent.

Meanwhile, Olorunsola (1987) reveals that the growth of universities in all perspectives relates to the rate of crime experienced. It is worthy of note that not all crimes in academic libraries are committed by patrons. Most crimes, he says, are done by the staff. Lorenzen (1996) agrees with this, arguing that since library employees know how to defeat the security system, they can equally accomplish crimes that would be difficult to prevent. Meanwhile, Ives (1996) believes that library staff and patrons remain the greatest potential threats to university collection security. It is also noted by Bello (1998) that whenever users’ demand on a library material is far more than the supply and availability of such materials, criminal acts proceed. This results in competition for resources, which invariably tempts users to steal, mutilate, or engage in illegal borrowing. Some library criminal acts that appear to be universal include: mutilation, theft, disruptive behaviours, disaster, and poor personnel security. Lorenzen (1996) says that what most times causes mutilation is that most students do not consider the needs of other students nor are they familiar with the roles of the library as to know they are committing crime by engaging in those acts. In a separate view, Momodu (2002) and Ajegbomogun (2004) maintain that library crimes also include varying degrees of delinquency, while Thomas (2000) and Oder (2004) agree that security personnel inefficiency is also a big avenue to library crime, especially in academic libraries. Hence, as the price of library materials continue to escalate, and library budgets do not usually keep pace with inflation, the importance of securing our collections takes on ever increasing importance (Johansson, 1996).

Relevantly, Olorunsola, (1987), Bello (1998), Nwogu and Anunobi (2002), Ugah (2002) and Adewuyi and Adekanye (2011) agree that security measures in Nigerian university libraries vis-à-vis theft and mutilation crimes are:

- Buildings made of concrete
- Protecting windows with wire gauze
- The use of porter at entrance and exit doors of the library
- Employing security personnel
Other researches have shown that the use of personnel, electronic devices, building, facilities, verbal communication/written communication (policies), mutual relationship (staff/patron agreement), amongst others are security practises that can curtail varying kinds of crime done to library collections (Van Gage-Babcock, 1963; Nwamefor, 1974; Nicewamer and Heaton, 1995; Abifarin, 1997; Susanna & Matheson, 2000; Ajegbomogun, 2004; Ajala and Oyeboade, 2008; Nort, 2010; Martell, 2010; Maidabino, 2010).

In sum, the literature review points at personnel, infrastructure, physical facilities, electronic devices and security policies as acclaimed methods of preventing crimes against library collections. Of course, the reason why security must be enforced in university libraries is not limited to the increasing growth rate of university community members but also relates to the surging price of library materials daily. This is why Nigerian university libraries adopt varying security measures to safeguard their library collections. Nevertheless, it is observed that there is no literature, as at the time of this study, which provides detailed information on the varying security practices employed in Nigerian university libraries. Against this backdrop, it is hoped that this study shall contribute to fill the gap by showing the security practices in ABSU, EEU, MOUAU and FUTO libraries.

**Methodology**

The survey research design was adopted for the study. Uzuegbu’s (2011) work - a Master’s degree dissertation completed and scored in November 2011 - was surveyed and the unarranged security practises employed in the four university libraries studied were extracted. The libraries are ABSU, EEU, MOUAU and FUTO. However, for the sake of the gap in time of dissertation submission and date of this paper (August, 2012), the researchers went a step further to increase the value of the data in the dissertation work by visiting the studied libraries to re-field the questionnaire instrument and interview some of the staff of the libraries. The population of the study consists of all the one hundred and sixty-eight (168) library staff members of the four libraries. This figure does not include the secretarial staff members in these libraries. The entire population was used because they are accessible. The table below summarizes the distribution of the population according to their institutions.

**Table.1: Distribution of the Study Population According to the Institutions.**

<table>
<thead>
<tr>
<th>University Libraries</th>
<th>Staff Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSU</td>
<td>21</td>
</tr>
<tr>
<td>EEU</td>
<td>19</td>
</tr>
<tr>
<td>MOUAU</td>
<td>39</td>
</tr>
<tr>
<td>FUTO</td>
<td>89</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
</tr>
</tbody>
</table>

*Source: i) Staff of the libraries of ABSU and MOUAU. ii) Students’ handbook of EEU, and Library bulletin and accession list of FUTO.*

A four-point-scale or modified Likert questionnaire was the instrument for data collection. The questionnaire was fielded to all staff of the libraries. Each questionnaire comprised of thirty-seven (37) questions intended to extract information on the type of security practices adopted by the libraries under study. Respondents were requested to tick on one of the following: SA
= strongly agree, A = agree, D = disagree, SD = strongly disagree, which the researcher weighted as 4, 3, 2 and 1 points respectively. Data collected from the questionnaire were presented and analyzed using mean scores and frequency tables on the Statistical Package for Social Science (SPSS 16.0). The percentage formula used is:

$$\frac{\text{N} \times 100}{\text{P}}$$

Where N = number of respondents, P = total population of study.

The mean was calculated as: \( \frac{4 + 3 + 2 + 1}{4} = 2.5 \) (at one decimal place)

The decision was that any item with a mean of 2.5 and above will be accepted as ‘Agreed’ (A) while, any item with a mean below 2.5 was considered Disagreed (D).

**Data Presentation and Analysis**

Data are analyzed together for all institutions with the SPSS 16.0 package (See Appendix). Out of one hundred and sixty eight (168) copies of the questionnaire distributed, one hundred and eight (108) were valid for data analysis. The collected instrument is 64% of the total instrument and as such is used for data presentation and analysis. The distribution of data instrument collection is shown in table 2 below:

<table>
<thead>
<tr>
<th>University Libraries</th>
<th>Number of Copies Distributed</th>
<th>Number Returned and Valid for Analysis</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSU</td>
<td>21</td>
<td>17</td>
<td>80.9</td>
</tr>
<tr>
<td>EEU</td>
<td>19</td>
<td>15</td>
<td>78.9</td>
</tr>
<tr>
<td>MOUAU</td>
<td>39</td>
<td>30</td>
<td>76.9</td>
</tr>
<tr>
<td>FUTO</td>
<td>89</td>
<td>46</td>
<td>51.6</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>108</td>
<td>64</td>
</tr>
</tbody>
</table>

The researchers proceeded to find out the security practices, with their level of acceptance, adopted by each of the libraries in their attempt to tackle crime against information resources. In ABSU library, the security practices adopted are clearly presented in table 3 below in order of the degree of acceptance.

<table>
<thead>
<tr>
<th>S/N Security Practices</th>
<th>Acceptance Level (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The library has a secured place, guided by a porter, where all users of the library keep their bags and boxes before entering the library</td>
<td>3.6</td>
</tr>
<tr>
<td>2 The library employs one entrance door and one exit route for its users</td>
<td>3.6</td>
</tr>
<tr>
<td>3 The windows of the library are fortified with strong wire gauze</td>
<td>3.6</td>
</tr>
<tr>
<td>4 The library staff check users ID cards and record their data before they are allowed to use the library</td>
<td>3.5</td>
</tr>
<tr>
<td>5 The library has a written statement against library crime and corresponding punishments</td>
<td>3.3</td>
</tr>
<tr>
<td>6 The library has photocopy services very close to the reader services units (main circulation, reference and serials units)</td>
<td>3.3</td>
</tr>
<tr>
<td>7 The library ensures that all users are searched thoroughly at the library exit</td>
<td>3.1</td>
</tr>
<tr>
<td>8 The library uses bill boards, leaflet, orientations, etc. to remind library users of the punishments for stealing or destroying a library material</td>
<td>3.1</td>
</tr>
<tr>
<td>9 The library always bans anybody caught in stealing or destroying library materials from using the library for a period of time</td>
<td>2.9</td>
</tr>
<tr>
<td>10 In the library, the porters are supervised by a librarian or library officer</td>
<td>2.8</td>
</tr>
<tr>
<td>11 The library sensitizes users on dangers of stealing or destroying materials of the library</td>
<td>2.7</td>
</tr>
</tbody>
</table>
The library usually asks the university management to expel or suspend students caught stealing or destroying library materials

The library punishes any staff that colludes with library criminals

Staff examines each reading material users consulted

Evident on table 3 above, fourteen (14) security measures are practiced in ABSU library.

Table 4: Security Practices in EEU Library

<table>
<thead>
<tr>
<th>S/N</th>
<th>Security Practices</th>
<th>Acceptance Level (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There is a photocopy service very close to the reader services units (main circulation, reference and serials units)</td>
<td>3.5</td>
</tr>
<tr>
<td>2</td>
<td>The university security unit posts their staff to the library for every day supervision</td>
<td>3.3</td>
</tr>
<tr>
<td>3</td>
<td>Staff ensures that all users are searched thoroughly at the library exit</td>
<td>3.3</td>
</tr>
<tr>
<td>4</td>
<td>Staff walk round the reading hall continuously to monitor readers and ensure that there are no foul practices going on at various reading carrels</td>
<td>3.3</td>
</tr>
<tr>
<td>5</td>
<td>There is only one entrance door and one exit route for its users</td>
<td>3.3</td>
</tr>
<tr>
<td>6</td>
<td>The windows are fortified with strong wire gauze</td>
<td>3.3</td>
</tr>
<tr>
<td>7</td>
<td>Staff examine each reading material users consulted</td>
<td>3.2</td>
</tr>
<tr>
<td>8</td>
<td>The porters in the library are on ground from opening of library to its closing of each day’s service</td>
<td>3.2</td>
</tr>
<tr>
<td>9</td>
<td>There is a secured place, guided by a porter, where all users of the library keep their bags and boxes before entering the library</td>
<td>3.2</td>
</tr>
<tr>
<td>10</td>
<td>Users are sensitized on the dangers of stealing or destroying materials of the library</td>
<td>3.1</td>
</tr>
<tr>
<td>11</td>
<td>The entrance and exit routes are fortified with iron that may not be easily broken forcefully at night</td>
<td>3.0</td>
</tr>
<tr>
<td>12</td>
<td>There is a-24hr security patrol in the library block</td>
<td>2.9</td>
</tr>
<tr>
<td>13</td>
<td>The university security personnel that are posted to the library are able-bodied men</td>
<td>2.7</td>
</tr>
<tr>
<td>14</td>
<td>Staff check users ID cards and record their data before they are allowed to use the library</td>
<td>2.7</td>
</tr>
<tr>
<td>15</td>
<td>There are at least two porters or security personnel in every reader services unit of the library</td>
<td>2.6</td>
</tr>
<tr>
<td>16</td>
<td>The porters are supervised by a librarian or library officer</td>
<td>2.6</td>
</tr>
<tr>
<td>17</td>
<td>Punishments are given to any staff that colludes with library criminals</td>
<td>2.5</td>
</tr>
<tr>
<td>18</td>
<td>Users are in most cases, the people that report the stealing or destroying acts of their fellow users to our staff</td>
<td>2.5</td>
</tr>
<tr>
<td>19</td>
<td>There is restriction of access to most collections</td>
<td>2.5</td>
</tr>
</tbody>
</table>

In EEU library, the table above shows that a total of nineteen (19) security methods are adopted to check crimes against library collections.

Table 5: Security Practices in MOUAU Library

<table>
<thead>
<tr>
<th>S/N</th>
<th>Security Practices</th>
<th>Acceptance Level (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There is a CCTV cable mounted in the main library and monitored in University Librarian’s office</td>
<td>3.6</td>
</tr>
<tr>
<td>2</td>
<td>Staff ensure that all users are searched thoroughly at the library exit</td>
<td>3.4</td>
</tr>
<tr>
<td>3</td>
<td>The university security unit posts their staff to the library for every day supervision</td>
<td>3.4</td>
</tr>
<tr>
<td>4</td>
<td>There is only one entrance door and one exit route for its users</td>
<td>3.3</td>
</tr>
<tr>
<td>5</td>
<td>The windows are fortified with strong wire gauze</td>
<td>3.2</td>
</tr>
<tr>
<td>6</td>
<td>There is a secured place, guided by a porter, where all users of the library keep their bags and boxes before entering the library</td>
<td>3.2</td>
</tr>
<tr>
<td>7</td>
<td>Punishments are given to any staff that colludes with library criminals</td>
<td>3.1</td>
</tr>
<tr>
<td>8</td>
<td>The porters in the library are on ground from opening of library to its closing of each day’s service</td>
<td>3.1</td>
</tr>
<tr>
<td>9</td>
<td>Staff examine each reading material users consulted</td>
<td>3.0</td>
</tr>
<tr>
<td>10</td>
<td>The librarian usually asks the university management to expel or suspend students caught stealing or destroying library materials</td>
<td>3.0</td>
</tr>
<tr>
<td>11</td>
<td>Users caught stealing or destroying library materials are barred from using the library for a period of time</td>
<td>2.9</td>
</tr>
<tr>
<td>12</td>
<td>There is a-24hr security patrol in the library block</td>
<td>2.9</td>
</tr>
<tr>
<td>13</td>
<td>There are at least two porters or security personnel in every reader services unit of the library</td>
<td>2.8</td>
</tr>
</tbody>
</table>
library

14 The identity of patrons who commit theft and mutilation are exposed to the university community 2.8
15 Users are sensitized to the dangers of stealing or destroying materials of the library 2.8
16 The porters are supervised by a librarian or library officer 2.7
17 Staff check users ID cards and record their data before they are allowed to use the library 2.7
18 There is a written statement or policy against library crime and corresponding punishments 2.6
19 There is restriction of access to most collections 2.6

In MOUAU library, a total of nineteen (19) security measures are enforced to safeguard the collections of the library. This is less than the number shown in Uzuegbu’s (2011) work (18 security practices). It is observed that CCTV Cable is the new practice here, which is not contained in his research. A respondent told the researchers that the CCTV cable was installed recently.

Table 6: Security Practices in FUTO Library

<table>
<thead>
<tr>
<th>S/N</th>
<th>Security Practices</th>
<th>Acceptance Level (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The porters in the library are on ground from opening of library to its closing of each day's service</td>
<td>3.6</td>
</tr>
<tr>
<td>2</td>
<td>There is a photocopy service very close to the reader services units (main circulation, reference and serials units)</td>
<td>3.6</td>
</tr>
<tr>
<td>3</td>
<td>There are at least two porters or security personnel in every reader services unit of the library</td>
<td>3.5</td>
</tr>
<tr>
<td>4</td>
<td>Staff ensure that all users are searched thoroughly at the library exit</td>
<td>3.5</td>
</tr>
<tr>
<td>5</td>
<td>There is only one entrance door and one exit route for its users</td>
<td>3.4</td>
</tr>
<tr>
<td>6</td>
<td>There is a secured place, guided by a porter, where all users of the library keep their bags and boxes before entering the library</td>
<td>3.3</td>
</tr>
<tr>
<td>7</td>
<td>The windows are fortified with strong wire gauze</td>
<td>3.3</td>
</tr>
<tr>
<td>8</td>
<td>Users are sensitized to the dangers of stealing or destroying materials of the library</td>
<td>3.2</td>
</tr>
<tr>
<td>9</td>
<td>There is a written statement or policy against library crime and corresponding punishments</td>
<td>3.2</td>
</tr>
<tr>
<td>10</td>
<td>The university security personnel that are posted to the library are able-bodied men</td>
<td>3.1</td>
</tr>
<tr>
<td>11</td>
<td>Staff that collude with library criminals are punished</td>
<td>3.1</td>
</tr>
<tr>
<td>12</td>
<td>The porters are supervised by a librarian or library officer</td>
<td>3.1</td>
</tr>
<tr>
<td>13</td>
<td>Staff walk round the reading hall continuously to monitor readers and ensure that there are no foul practices going on in various reading carrels</td>
<td>3.0</td>
</tr>
<tr>
<td>14</td>
<td>Users caught stealing or destroying library materials are barred from using the library for a period of time</td>
<td>3.0</td>
</tr>
<tr>
<td>15</td>
<td>The entrance and exit routes are very fortified with iron that may not be easily broken forcefully at night</td>
<td>3.0</td>
</tr>
<tr>
<td>16</td>
<td>The university security unit posts their staff to the library for every day supervision</td>
<td>2.8</td>
</tr>
<tr>
<td>17</td>
<td>Bill boards, leaflet, orientations, etc. are used to remind library users of the punishments for stealing or destroying a library material</td>
<td>2.8</td>
</tr>
<tr>
<td>18</td>
<td>There is restriction of access to most collections</td>
<td>2.7</td>
</tr>
<tr>
<td>19</td>
<td>Staff examine each reading material users consulted</td>
<td>2.6</td>
</tr>
<tr>
<td>20</td>
<td>The readers always hold a minimum of ten copies of every reading material that is daily sought by users</td>
<td>2.6</td>
</tr>
<tr>
<td>21</td>
<td>Staff check users’ ID cards and record their data before they are allowed to use the library</td>
<td>2.6</td>
</tr>
<tr>
<td>22</td>
<td>There is a-24hr security patrol in the library block</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Meanwhile, in FUTO library, twenty-two (22) security measures are adopted to safeguard the information resources of the library.

So far, it is clear that out of an exhaustive list of thirty-seven various (37) security practices fielded to respondents of each library to indicate the ones practised in their libraries, only fourteen (14) are adopted in ABSU library, nineteen (19) practised in EEU library, nineteen (19) in MOUAU library and twenty-two (22) in FUTO library. It is also observed that within the period of 5 months (assumed gap in Uzuegbu’s (2011) dissertation and period of this research) security practises have remained the same except in MOUAU library where the use of CCTV cable was introduced.

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Note that while some good security measures like the use of electronic devices such as CCTV (for EEU, ABSU and FUTO libraries), alarm door system, turnstile systems, amongst others are not practised in the libraries. Although none of the libraries engage men and women above forty (40) years as porters, there has not been corresponding increase in porters for adequate policing as the population of each of the university is growing, neither are there trainings for the available porters. Other security practices generally not adopted by the libraries include users signing in and out on each visit, establishment of users club, making staff submit their bag for search before going for the day, and keeping detailed records of all criminal activities and incidents in the libraries, amongst others.

**Conclusion and Suggestions**

This study has successfully shown the various security practices in ABSU, EEU, MOUAU and FUTO libraries. It is observed that the security practices implemented in libraries vary in number. Already, Uzuegbu (2011) has shown that there is no relationship between the security practices and theft and mutilation of the library collections. But, no one is sure as to say that: the higher the security practices the lower the rate of crimes against library collection. Thus, the researchers suggest that a study can be conducted to find if the number of security practices enforced in a library influences the extent of criminal occurrences and incidence in the library.

**References**


Nwamefor, R. (1974). Security problems of university libraries in Nigeria. Library Association Record 76 (12); 244-245


Use of Electronic Information Resources by University Lecturers in Edo State, Nigeria

Dr. Stephen Osahon Uwaifo

Mr. Kennedy Arebamen Eiriemiokhale

Dr. Stephen O. Uwaifo is an Associate Professor and Head, Department of Library and Information Science, Delta State University, Abraka, Nigeria. He holds BLS and MLS from Bayero University, Kano, Nigeria and PhD (LIS) from University of Ibadan, Nigeria. His research interests are in library automation, networking and ergonomics of Information Technology (IT). He can be reached at: stephenosahon@yahoo.com

Mr. Kennedy A. Eiriemiokhale is an Assistant Lecturer, Department of Library and Information Science, Delta State University, Abraka, Nigeria. He holds a B.Sc. (LIS) from Ambrose Alli University, Ekpoma, Nigeria and MLS from Delta State University, Abraka, Nigeria. His research interests are in Library software development, networking and library automation.

Introduction

The limited access to up-to-date materials in university libraries in Nigeria is a main problem that impedes research and teaching. In the last couple of years, lecturers in Nigerian tertiary institutions have increasingly demanded and preferred access to electronic sources delivery and networked information from their respective libraries (Covi & Cragin, 2004). Timely information is required by all categories of people in the different organizations of the society and one of such organizations is the university. University lecturers equip students with skills in reading, inquiry and independent thinking and strive to develop students’ creativity, insight and analytical skills. All these necessitate seeking and use of information from various sources such as books, journals, periodicals, to mention a few.

University education is changing rapidly (Toner, 2008). Bennet (2003) identified a major shift in education- The revolution in information technology is changing delivery of education. This dramatic change includes the way in which information is provided to the university community. Universities through a number of ways embrace the electronic provision of
information to facilitate study programmes and research. With the integration of online information services, electronic books, electronic document delivery services and digital libraries in its library systems, university lecturers can now access information from various sources.

Electronic information resources include resources that are available and can be accessed electronically through such computer-networked facilities as online library catalogues, the internet and World Wide Web, digital libraries and archives, government portals and websites, CD-ROM databases, online academic databases such as Medline Online, or commercial databases such as LEXIS and NEXIS (Ekwelem, 2009).

The objectives of this study are to:

i. identify the benefits the university lecturers in Edo State derive from using electronic information resources;

ii. find out the available facilities for using electronic information resources by the university lecturers in Edo State.

Arising from the objectives, the following research questions were raised to guide this study:

i. What are the benefits derived from the use of electronic information resources by the university lecturers in Edo State?

ii. What are the available facilities for using electronic information resources by the university lecturers?

Literature Review

According to Ani and Ahiazu (2008), the emergence of electronic information resources has tremendously transformed handling and management of information in Nigerian academic environments, and university libraries in particular. These dramatic changes include the way in which information is provided to the university communities. Parameshwar and Patil (2010) identified the facilities used by faculty members and research scholars at Gulbarga University to include “departmental computer laboratory, university e-library, personal computers at home, personal computers in the office and some handheld devices such as android, palmtops and blackberry”. Similarly, Ilo and Ifijeh (2010) added that university lecturers in Nigeria accessed electronic information resources from the library media centre, cyber cafes on campus, personal computers at home and handheld devices.

A number of electronic resources initiatives have been put in place in Nigeria to assist in the development, training and use of electronic resources in a number of academic institutions among which are the Mortenson Centre for International Library Programmes acting on behalf of McArthur Foundation to support some selected grantee university libraries in Nigeria; The Electronic Information for Libraries Network (EIFL.Net) and MTN foundation. Their fundamental objective has been to create interfaces with the global knowledge systems (Ani & Ahiazu, 2008).

Recognizing the importance of a new mode of information access, academic librarians took responsibility for automating their libraries. Funding bodies such as the Federal Ministry of Education in Nigeria introduced the Virtual Library Project, which pulls together resources electronically, connecting all the academic libraries in Nigeria, with the hub at the National Universities Commission (Federal Ministry of Education, 2000). Many authors have written about internet connectivity in Nigeria. According to Adeya and Oeyinka (2002), internet connectivity is far below that of developed countries. This is improving as a result of many universities and other institutions achieving direct access through wireless connections. As access grows, Nigerian researchers, scholars, and the general public will have the opportunity.
of learning, and doing other activities via the internet (Adeya & Oyeyinka, 2002). Manir (2007) reported that most of the higher education institutions in Nigeria are connected with the internet at their university computer centres. Most of the universities have a base station with at least a 150 foot mast/station around campus. Jagboro (2003) had also emphasized the emerging reliance and attitude of users to electronic resources. In a study she conducted in some Nigerian universities, it was found that 45.2% of the respondents accessed electronic resources from cyber cafés. Though this attitude, according to her is due to the proximity of cyber cafés to user facilities.

Okello-Obura & Magara (2008) investigated electronic information access and utilization at the East African School of Library and Information Science, Makerere University, Uganda. Out of the 250 targeted students, 190 responded, giving a response rate of 76%. The study revealed that users were satisfied and derived a lot of benefits from electronic resources gaining access to a wider range of information and improved academic performance as a result of access to quality information.

According to Anunobi and Okoye (2009), digital technology has revolutionized not only the way information is packaged, processed, stored, and disseminated but also how users seek and access information. Campbell (2006) observed that numerous creative and useful services have evolved with academic libraries in the digital age: providing quality learning spaces, creative metadata, offering virtual reference services, teaching information literacy, choosing resources and managing resource license, collecting and digitizing archival materials, and maintaining digital repositories.

Bhati (2010) reported that faculty members of Islamia University, Pakistan use electronic information resources for “preparation of lecture notes, gaining subject knowledge, research, leisure, sending short text messages, sports, entertainment, communication, online discussion and for receiving news”. Electronic information resources make it possible for users to have access to large volumes of information irrespective of their geographical location (Adika, 2003). Okonofua (2008) also lamented that the inadequacy of current and relevant information for teaching, learning and research had been the bane of university education in Nigeria. It was in this light that electronic information resources were introduced into the educational system to bridge the prevailing information gap. Electronic information resources have become an integral part of university education as they play an indisputable role in meeting information and communication needs of staff and students.

Electronic information resources have made it possible for scholars at different locations on the globe to exchange ideas on various fields of study and also allow students and lecturers to communicate both within and across international borders (Luambano & Nawe, 2004). Commenting on the advantages of electronic information resources, Dadzie (2005) wrote that “electronic information resources are invaluable research tools that complement the print-based resources in a traditional library setting”. Their advantages according to her include: access to information that might be restricted to the user due to geographical location or finances, access to more current information, and provision of extensive links to additional resources related contents. This rapid emergence and development of electronic information technologies therefore makes it possible to envision radically different ways of organizing the collection and services the library has traditionally provided. While libraries approach a crisis point in financing collection development, these new technologies offer possible ways to mitigate cost and revolutionize ways to access information. Speedy access to publications and availability on the desktop are the key advantages that attract research scholars.

Electronic information sources offer today’s lecturers different opportunities from their predecessors. Brophy (1993) detailed the advantages of networking for the user as being: “the information needed can be delivered from the most appropriate source to the user; the user can re-specify his or her need dynamically. The information is obtained when it is wanted, so becomes just in time rather than just in case; the user selects only the information.
needed to answer the specific question and finally, the information is only stored should the user wish”. Electronic information can therefore provide a number of advantages over traditional print-based sources. These advantages according to Ray & Day (1998) include the fact that electronic information sources are often faster than consulting print indexes, especially when searching retrospectively, and they are more straightforward when wishing to use combination of keywords. They open up the possibility of searching multiple files at one time, a feat accomplished more easily than when using print equivalents. Electronic resources can be printed and searches saved to be repeated at a later date. They are updated more often than printed tools. One main advantage especially to distance learners or those with limited time to access the library is their availability from outside the library by dial-up access. The importance and wide ranging scope of electronic resources for general communication, information retrieval and instructional delivery to support teaching and research activities in tertiary educational institutions is acknowledged world wide (Ray & Day, 1998).

Research Methodology

This study utilized the descriptive survey method of research design. The questionnaire was the instrument for data collection. The population consisted of all the lecturers in four universities in Edo State, comprising of Ambrose Alli University, Ekpoma, Benson Idahosa University, Benin city, Igbinedion University, Okada and University of Benin, Benin city. A sample of 380 lecturers was drawn from two faculties in the universities using the purposive sampling technique. Three hundred and eighty (380) copies of questionnaire were distributed to lecturers in the four universities. Of these numbers, 313 were duly completed and retrieved.

Data Analysis and Discussion

Results and Discussion

The analysis of data pertaining to the universities which the lecturers belong to is shown in Table 1.

Table 1: Institutions of the respondents

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Number of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Benin, Benin city.</td>
<td>108</td>
<td>35</td>
</tr>
<tr>
<td>Ambrose Alli University, Ekpoma.</td>
<td>98</td>
<td>31</td>
</tr>
<tr>
<td>Igbinedion University, Okada.</td>
<td>60</td>
<td>19</td>
</tr>
<tr>
<td>Benson Idahosa University, Benin city.</td>
<td>47</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>313</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 shows the number of lecturers used in the institutions selected for the study. It indicates that majority of the respondents that is 108 (35%) lecturers responded from the University of Benin, Benin city, 98 (31%) lecturers responded from Ambrose Alli University, Ekpoma, 60 (19%) responded from Igbinedion University, Okada, while 47 (15%) lecturers responded from Benson Idahosa University, Benin city.

The gender of the respondents is shown in Table 2.

Table 2: Gender distribution of the respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>No. of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>242</td>
<td>77</td>
</tr>
<tr>
<td>Female</td>
<td>71</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>313</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 2 reveals that 242 (77%) males and 71 (23%) females respectively constitute the gender distribution for the study. It is evident from the above that majority of the respondents were males.

The analysis of data regarding the job status of the respondents is shown in Table 3.

Table 3: Job status of the lecturers.

<table>
<thead>
<tr>
<th>Job status</th>
<th>No. of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate assistant</td>
<td>21</td>
<td>6.7</td>
</tr>
<tr>
<td>Assistant lecturer</td>
<td>59</td>
<td>19</td>
</tr>
<tr>
<td>Lecturer II</td>
<td>72</td>
<td>23</td>
</tr>
<tr>
<td>Lecturer I</td>
<td>65</td>
<td>21</td>
</tr>
<tr>
<td>Senior lecturer</td>
<td>36</td>
<td>11.5</td>
</tr>
<tr>
<td>Reader</td>
<td>32</td>
<td>10</td>
</tr>
<tr>
<td>Professor</td>
<td>28</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>313</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3 shows that 21 (6.7%) of the respondents were graduate assistants, 59 (19%) were assistant lecturers, 72 (23%) were lecturers II, 65 (21%) were lecturers I, 36 (11.5%) were senior lecturers, 32 (10%) were readers, while 28 (9%) were professors. It is shown from the analysis that majority of the respondents were lecturers II.

Benefits derived from using electronic information resources by lecturers are depicted in Table 4.

Table 4: Benefits derived from using electronic information resources by university lecturers

<table>
<thead>
<tr>
<th>Benefits from using electronic information resources</th>
<th>Agree No.</th>
<th>Disagree No.</th>
<th>Undecided No.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>306</td>
<td>2</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Subject knowledge</td>
<td>295</td>
<td>18</td>
<td>6</td>
<td>100</td>
</tr>
<tr>
<td>Preparation of lectures/teaching notes</td>
<td>271</td>
<td>13</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>News</td>
<td>230</td>
<td>27</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Leisure</td>
<td>190</td>
<td>39</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Entertainment</td>
<td>189</td>
<td>40</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Communication</td>
<td>160</td>
<td>49</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Online discussions</td>
<td>150</td>
<td>52</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Sending short SMS</td>
<td>144</td>
<td>54</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Sports</td>
<td>111</td>
<td>65</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Commercial</td>
<td>96</td>
<td>31</td>
<td>17</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4 shows the benefits derived from using electronic information resources by university lecturers in Edo state. It revealed that they are predominantly used for research with 306 (98%) respondents as it ranked highest. In a descending order, they are used to gain subject knowledge, with 295 (94%) respondents, for preparation of lectures/teaching notes with 271 (87%), for news with 230 (73%), for leisure with 190 (61%) and for entertainment with 189 (60%) respondents and for communication with 160 (51%) respondents. This finding is in conformity with Husain (2006) who revealed that electronic resources are mostly used for communication, research and publication by saving time and finding up-to-date information, and cooperate with their colleagues.

It also aligned with Mulla (2011) who examined the use of electronic resources by faculty members in HKBK, India. The finding revealed that all the faculty members used electronic information resources for finding relevant information in their specialization and teaching purpose, followed by 58% of faculty members who used it for research purpose and for subject and general knowledge. This finding is also supported by Renwick (2005), who found that most faculty members used e-resources for research and professional growth. Similarly, Bhati (2010) had reported that faculty members of Islamia University, Pakistan showed
enthusiastic attitude towards the use of electronic information resources for teaching and research purposes. Manmart (2001) found that e-resources are used by academic staff as a tool for teaching preparation, research and academic work.

The available facilities for using electronic information resources are identified in Table 5.

Table 5: Available facilities for using electronic information resources

<table>
<thead>
<tr>
<th>Available facilities for using e-resources</th>
<th>Agree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departmental computer laboratory</td>
<td>86</td>
<td>27</td>
<td>227</td>
<td>100</td>
</tr>
<tr>
<td>The university’s e-library</td>
<td>250</td>
<td>80</td>
<td>214</td>
<td>100</td>
</tr>
<tr>
<td>Personal computers at home</td>
<td>301</td>
<td>96</td>
<td>122</td>
<td>100</td>
</tr>
<tr>
<td>Personal computers in the office</td>
<td>91</td>
<td>29</td>
<td>222</td>
<td>100</td>
</tr>
<tr>
<td>Faculty computer laboratory</td>
<td>38</td>
<td>12</td>
<td>275</td>
<td>100</td>
</tr>
<tr>
<td>Institution’s ICT centre</td>
<td>241</td>
<td>77</td>
<td>222</td>
<td>100</td>
</tr>
<tr>
<td>Cyber cafes on campus</td>
<td>62</td>
<td>20</td>
<td>218</td>
<td>100</td>
</tr>
<tr>
<td>Cyber cafes outside campus</td>
<td>74</td>
<td>24</td>
<td>239</td>
<td>100</td>
</tr>
<tr>
<td>Hand held devices (smart phones and palmtops)</td>
<td>280</td>
<td>89</td>
<td>33</td>
<td>100</td>
</tr>
<tr>
<td>Neighbouring institutions’ ICT centre</td>
<td>11</td>
<td>4</td>
<td>205</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 5 has to do with the available facilities for using electronic information resources by university lecturers in Edo State. Personal computers at home were the highest with 301 (96%) respondents. Hand-held devices such as smart phones and palmtops followed with 280 (89%) respondents. While the university’s e-libraries with 250 (80%) respondents and the institution’s ICT centre with 241 (77%) respondents followed respectively. This finding is supported by Manhas (2010) who revealed that majority of the dental teachers and students have their own personal computers and laptops at home. However, Mahajan (2010) contradicted this finding when he stated that 80% of researchers in Panjab University use the electronic information resources provided in their respective departments. Parameshwar & Patil (2010) reported most academics at Gulbarga University access electronic information resources from their departmental computer laboratory and from offices.

**Conclusion and Recommendations**

The study concludes that the university lecturers in Edo State derive several benefits from the use of electronic information resources. However, the available facilities for using electronic information resources are not encouraging. Except for the fact that university lecturers have personal computers at home coupled with handheld devices and the universities’ e-libraries, the universities do not have departmental computer laboratories not to talk of personal computer at their offices.

The researchers provided the following recommendations:

i. The university managements should provide well equipped computer laboratories for all the departments and provide personal computers in the university lecturers’ offices.

ii. The university managements should provide funds for subscription to more primary and secondary electronic sources. Reasonable investment should be made on the university’s e-library so as to be able to subscribe to several databases and provide internet services to lecturers free of charge.

iii. There is the urgent need for all the universities in Edo State to be properly funded by their financiers (federal and state governments as well as private organizations). Huge financial investment in ICTs by the universities will positively impact on the lecturers.

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References


Use of Health Information Sources by Undergraduates at the University of Abuja, Nigeria

A.O. Omotoso

T.O. Bello

A.A. Akadiri

A.O. Omotoso and T.O. Bello are librarians at Nimbe Adedipe Library, Federal University of Agriculture, Abeokuta, Nigeria. A.A. Akadiri is a librarian at Redeemers University, Mowe, Nigeria. A.O. Omotoso can be reached at: akinmotosho@yahoo.com

Introduction

Information is essential for human existence. According to Mabanwonku (2006), information is an important resource used by all individuals at one time or another to carry out their functions. It equips a person with the power to choose from all possible options. Nwalo (2000) posits that information can be widely used to mean an idea communicated from one person, group or organization (source) to another person, group or organization (receiver). Aina (2003) concurs that information increases the state of knowledge of a recipient, help in resolving uncertainty and is of value in decision making. Information is useful to the society because it help in decision making.

The health information needs of undergraduates have been largely ignored. In many countries, there is a lack of information and services available to help them to understand their general well being and sexuality, including sexual and reproductive health, and to protect them from unwanted pregnancies and sexually transmitted diseases, including HIV/AIDS (Omotosho, 2005). Rolison (1998) defined health information as “information on a continuum between health education and health promotion. Therefore access to health information may contribute to health education and promote healthy lifestyle choices”.

In the National health policy declaration of the Federal Republic of Nigeria, the Federal, state and local government of Nigeria committed themselves and all the people to intensive action to attain the goal of health for all citizens by year 2000 and beyond, that is a level of health that will permit them all to lead socially and economically productive lives at the highest possible level. Young people are central to any discussion on health issues because of their population. There are about 1.2 billion young people on the world; the proportion of young people will continue to increase especially in developing countries where more than 80% of the world’s young people live (World Youth Report, 2003).

Around the world, adolescence is a time of opportunities as well as vulnerabilities to risk-associated behaviors that can have lifelong consequences for health and well-being (Barker, 2007). Around half of the world’s inhabitants are under the age of 20. As evidence from statistics and the experience of youth-serving Non Governmental Organizations show, adolescents who are healthy and happy are better equipped to contribute to their communities as young citizens despite the major shifts occurring in the world they are about to inherit.(World Youth Report, 2003) Young people in some parts of the world suffer from poor health as a result of societal conditions, including such factors as customary attitudes and harmful traditional practices and, in some cases, as a result of their own actions. Poor health is often caused by an unhealthy environment, by missing support systems in everyday life for
health promoting patterns of behavior, but mainly by lack of information and by inadequate or inappropriate health services.

The information needs of adolescents tend to be diverse and not less complex than the average adult; however, there is a complexity to the methods used by adolescents. Many Nigerian undergraduates seek information regarding curriculum, lifestyle decisions, and health, they need everyday information to grow and to fully mature into adulthood. Leaving sources of information to chance encounters and alternative methods creates a vacuum between the Nigerian undergraduates and authoritative sources of information, leaving the finished adult with only selective information sources.

**Statement of the Problem**

The health information needs of undergraduates in a developing country like Nigeria require critical evaluation. It is essential for all those involved in the development and implementation of health policies in the nation. Health information may not be readily accessible, and hence not well used. Challenges include inadequate access to the Internet, absence of health education in their curriculum, unreliable information from peers and family, inadequate understanding of medical terms, absence of adequate materials in the library and resource centers, inadequate knowledge of how to seek out information in the library and internet, and resistance to consuming health information.

**Objectives of the Study**

The broad objective of this study is to investigate the needs of health information needs of undergraduate students in Nigerian universities with special focus on the University of Abuja. The specific objectives of the study include:

1. identify the health information needs of undergraduates in University of Abuja, Nigeria.
2. determine the level of access to health information sources by the undergraduate students.
3. establish the problems that the undergraduate students encounter in seeking and meeting their health information needs.
4. identify the various sources of health information being consulted by the undergraduate students in meeting their health information needs.

**Research Questions**

The study considered the following research questions:

i. What are the various health information needs undergraduate students in University of Abuja?

ii. What sources of information are being consulted by the undergraduate students in meeting their health information needs?

iii. How accessible are the health information sources by the students?

iv. What are the challenges being encountered by undergraduate students in obtaining health information?
Significance of the Study

Generally there is an increased awareness and commitment towards increasing health information and improving the health status of the people of the Nation. To actualize this commitment, there is a need to take advantage of the relationship between health and information. Necessary information such as understanding the health information need of different categories of people such as the youth will help in channeling the right resources towards the development and implementation of the health policy beneficial to the different categories. Therefore, this study would provide useful information on the health information need of the undergraduate students and the various challenges being faced in meeting this need.

This study explores the health information needs, attitudes towards acquiring health information and challenges encountered by undergraduates in obtaining their health information needs. It is expected that the findings of this study will go a long way in helping government, non-governmental organizations and other stakeholder to understand health information needs of undergraduates and then know how to make the necessary provision in meeting this need. Meeting these needs will have an overall effect on the health status of the people of Nigeria.

Literature Review

All people need health information. Health is greatly affected by information. Advances in the provision of health information can raise the level of public health. Doctors and other medical personnel will be better informed, and will know more about their patients and they will have ready access to much more information about diseases and their treatments. They will also be able to gain access to medical specialists in other towns or even other countries, consulting them on unusual cases. Secondly, there will be much better systems for epidemiology – "the scientific study of disease origin and spread also the pattern of disease development" so that we shall be able to trace many of the environmental causes of diseases more easily. Improved medical record will also make it much easier to track and monitor undergraduates, alerting them if need be of new treatment options as they become available. Finally, improved consumer health information will enable us all to take better care of our own health. This allied to better provision of information about the content of foods, the tar level in cigarettes, etc., enables us to adjust our behavioral pattern to improve our health (Moore Nick, World, 1998). Rolison (1998) defined health information as, "information on a continuum between health education and health promotion. Therefore access to health information may contribute to health education and promote healthy lifestyle choices". "Information is the first step to every healthy choice. Improvements in our health depend on us taking control over, and responsibility for, health as an important component of our everyday lives. This active participation requires full and continuing access to information: information about our bodies, their workings in health and illness, and the services available to us in treatment and care, support and co-operation" (Gann, 1986) Health Information Need of the Youth

According to the World Youth Report of 2005, young people in some parts of the world suffer from poor health as a result of societal conditions, including such factors as customary attitudes and harmful traditional practices and, in some cases, as a result of their own actions. Poor health is often caused by an unhealthy environment, by missing support systems in everyday life for health promoting patterns of behavior, by lack of information and by inadequate or inappropriate health services. Problems include the lack of a safe and sanitary living environment, malnutrition, the risk of infectious, parasitic and water-borne diseases, the growing consumption of tobacco, alcohol and drugs, unwarranted risk-taking and destructive activity, resulting in unintentional injuries. Many young people bear the burden of poor health owing to the effects of accidents and injuries including those caused by insecurity, war and occupation. In all countries, whether developing, transitional or developed, disabilities, acute and chronic...
illnesses are often induced or compounded by economic hardship, unemployment, sanctions, embargoes, poverty or poorly distributed wealth. According to Thomson (2002), report of an evaluation of regional youth programme, the cumulative toll of violence, HIV/AIDS and now tuberculosis on youth is adding to the already heavy price still being paid by child victims of malaria and vaccine-preventable diseases. All of this exists in stark contrast to the many gains made through the efforts of national authorities, young people themselves and the local communities in which they live, supported by the achievements of international development agencies working to ensure that the special needs of this important population and their right to good health are understood and met. Global interest in the health of adolescents and youth has manifested itself in the many expressions of commitment to their healthy personal, spiritual, social, mental and physical development. Making carefully considered informed choices at the policy and programme levels can have profound long-term effects. In every culture and economic setting, a sound evidence base enables policy makers, religious and community leaders, NGOs, and medical and legislative bodies to ensure inter-sectoral intervention and strong sectoral responses to save young lives and meet the needs of young people. Also, national demographic patterns notwithstanding, youth represent a large global client base with evolving needs in the areas of health services, information and counseling, which has implications not only for the present but also in terms of future requirements for a reformed health sector (Barnett & Schueller 2000). Within this context, youth constitute an important resource base for improving their own health and that of society, contributing to global development and intergenerational solidarity (United Nations, 2002) The youth population is burgeoning in some countries, and in these areas and elsewhere adolescents are confronting new situations and threats to their present health, (WHO,2001)) moving towards a future in which their health status is likely to be compromised. The health, education and social sectors are called upon to devise, test and make wider use of effective new approaches, including operational, social science and community-based research, clinical studies and longitudinal surveys focused on adolescents and youth. Often slow to recognize the essential value of the inter-sectoral approach in meeting the needs of the population, public health institutions in particular need to provide services and train personnel to ensure that no young person slips through the cracks in health care. There is room for optimism about the health sector’s ability to overcome its conservatism and respond to the needs of youth, adapting to new local realities, if for no other reason than cost-effectiveness. According to Palmer (2002), helping youth make decisions that will positively affect their health and their prospects for the future is a challenge for communicators and educators. A variety of means must be used to reach young people, a group characterized by great diversity; they have had a wide range of experiences and have different needs and lifestyles. Health information and knowledge about diseases and about bodily conditions and functions are evident determinants of health status and outcomes. UNICEF, Multiple Indicator Cluster Surveys (1999-2001) however, found that as information (learning to know) is only useful if reinforced by positive attitudes (learning to be) and useful skills (learning to do), the ability to recognize a potential problem must be accompanied by the will and the identification of the means necessary to avoid it. UNESCO (1994) describes life skills as abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life. This includes the ability to negotiate and exercise good judgment, maintain self esteem and handle pressure. <b>Availability of Health Information Source for the Youth </b> All young people should have access to basic health services in the interest of all and of society as a whole. It is the indispensable responsibility of each Government to mobilize the necessary awareness, resources and channels. These measures should be supported by a favorable international economic environment and by cooperation In the face of increasing substance abuse, physical inactivity with concomitant obesity and other forms of risky behavior among adolescents, (Centre for Diseases Control (CDC) 1992), the initial confidence about the ability to influence adolescent lifestyle and thereby later health has gradually become more realistic. Until recently, prevention programs primarily aimed at increasing knowledge, rather than influencing behavior(Palti, et al., 1995
Knowledge, attitudes, and behavior are tenuous, and that increased knowledge does not necessarily lead to a change in behavior. Empirical evidence moreover, has consistently shown the ineffectiveness of programmes focusing on increasing knowledge, and some were even associated with increased drug use by stimulating students’ curiosity (CDC, 1992).

According to Shamai and Coambs (2007), the relative autonomy of schools and educational interventions for substance abuse prevention, sex education, and gender stereotyping. Many drug-use prevention programs have relied almost exclusively on adverts or public service announcements to impact attitudes and behavior. Evaluative research is frequently non-existent, strategy is not well formulated and audience segmentation is forgone. Even high-profile and costly programs, such as DARE (Drug Abuse Resistance Education) in the USA showed only limited effect on preventing drug abuse, if at all, but are nevertheless continued because they are highly valued by society. Moreover, messages about healthy lifestyles are confusing and often conflicting, leading to behavior often contrary to what was intended by the health promotion professionals (Kelly, 1995).

Although as reported by United State Agency for International Development (USAID) (2005) there are some minor differences, developments in Nigeria are virtually the same as those in other African countries, both in regard to the increase in substance abuse as to the development, implementation and effectiveness of prevention programs. Sexuality lessons are first learned from parents who have the primary responsibility for providing sexuality education for their children (Synovitz, et al 2002). As a child starts primary and secondary schooling, the responsibility expands to engage teachers. The community as well has an obligation to provide sexuality education programs.

According to the World Health Organization (WHO) there are more than 50% new Human Immunodeficiency Virus (HIV) infections occurring among the 15-24 year-olds. Approximately 17 million girls younger than 20 years give birth each year in developing countries (Silberschmidt & Rasch, 2001). Substantial numbers of youth are still engaging in high-risk sexual practice such as unprotected sexual intercourse. A recent WHO global review of research exploring sexual practices concluded that the most successful approaches are those which do not focus exclusively on the cognitive processes of the individual but also take into account the social world in which the behaviour happens (Mitchell, Debbie & Watson, 2000).

**Health Information Seeking Behaviour of Adolescents**

To understand why young people seek health information, and what health information they seek, requires understanding how adolescents define their need, in addition to understanding the perceptions and biases of parents, service providers, policy-makers and other adults. While internalized gender norms have different manifestations depending on context and culture, gender norms are key to understanding the health information-seeking behavior of adolescents, and to the nature of social supports offered, and must be considered when studying and promoting adolescent health information-seeking. Use of, and access to formal health and other social services. In Bangladesh, for example, young girls report that they are frequently put off using available health services due to shyness and fear, especially if the doctors are male (Mitra et al., 1997). Indeed, in many Asian countries, young women are likely to face family and community censure, are shyer or more embarrassed about accessing services and are more likely to face negative attitudes from providers. In some countries, married adolescent women face specific barriers to service use related to seclusion norms, a lack of decision-making authority with their spouse or with the extended family setting they live in as observed in the Northern part of Nigeria and Muslim dominated settlement and resources to make use of services. In some, while internalized gender norms have different manifestations depending on context and culture, gender norms are key to understanding the health information-seeking behavior of adolescents, and to the nature of social supports.
offered, and must be considered when studying and promoting adolescent health information-seeking.

Adolescents may trust or rely on their parents for certain needs while not relying on them for other needs, those related to autonomy, to conflicts within the family itself or sexual relationships. Among others, adolescents may be in conflict with their parents and turn to other sources of support. For example, in many developing country settings, adolescents are more likely to say they trust an extended family member or a source of formal support like a health educator rather than their parents when they seek health information related to sexual health (Newton, 2000; WHO, 1997). Health information is sought to alleviate distress by using one's informal (e.g., family and friends), formal (teachers, psychologists, etc.) and environmental sources of support (Broadhurst, 2003; Nadler, 1990; Offer & Schonert-Reichl, 1992; Rickwood, 1995).

Seeking health information enhances solving the problem but may be perceived as personal weakness and an inability to cope on one's own (Al-Krenawi, Graham, & Kandah, 2000). The "psychological cost" of health information seeking, in the form of admission to incompetence and feelings of worthlessness, may threaten the adolescent's self-esteem (Broadhurst, 2003; Nadler, 1986, 1991; Vogel & Wester, 2003) both admitting to a need or challenge and actually seeking health information can be embarrassing; both underscore the social side of health information-seeking, which is influenced by culture and youth culture.

Health information-seeking behavior can be defined as any action or activity carried out by an adolescent who perceives herself/himself as needing personal, psychological, affective assistance or health or social services, with the purpose of meeting this need in a positive way. This includes seeking health information from formal services for example, clinic services, counselors, psychologists, medical staff, traditional healers, religious leaders or youth programmes as well as informal sources, which includes peer groups and friends, family members or kinship groups and/or other adults in the community. The health information provided might consist of a service (for example a medical consultation, clinical care, medical treatment or a counseling session), a referral for a service provided elsewhere or for follow-up care or talking to another person informally about the need in question.

**Research Methodology**

This study adopted a descriptive survey type of research design while the questionnaire was adopted as a major instrument of data collection. The target population is made up of undergraduates from the University of Abuja, Nigeria consisting of over 1,500 undergraduates undergoing full time and part time programmes. The undergraduates of University of Abuja are of diverse background characteristics, varying in age, sex, discipline, grade and level. Some of them are also involved in full and part-time studies.

A sample size of 150 undergraduates of the University was used for this study. The sampling technique made adopted was simple random sampling. Questionnaire was distributed within the different departments in the ten faculties to get a representative sample of the target population. A simple random sampling was used to select undergraduates in different departments. The study was able to represent every faculty with at least ten students, our sample was chosen to represent all faculties of the university. The disciplines represented in this study are arts (20 students), social sciences (22 students), education, (16 students), management sciences (14 students), engineering (12 students), law (10 students), agriculture (10 students), sciences (24 students), medicine and veterinary medicine (20 students).
Data Analysis and Discussion of Findings

A total of 150 copies of the questionnaire were distributed to the undergraduates consisting of 80 male and 70 female undergraduate students of the University of Abuja, Nigeria. However a response rate of 120 was achieved (80%). This is acceptable for this research. The data were analyzed using simple descriptive statistical technique like tables and percentages.

Background Information on Respondents

The information from data analysis revealed that the respondents were predominantly male (58.3%) and female (41.7%). Their mean age was 19. Their age distribution is presented in Table 1; All respondents were enrolled in full or part-time courses at the University of Abuja.

Table 1: Distribution of respondents by age group

<table>
<thead>
<tr>
<th>Age group in years</th>
<th>Frequency</th>
<th>Percentages (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20</td>
<td>72</td>
<td>60</td>
</tr>
<tr>
<td>21-25</td>
<td>19</td>
<td>15.8</td>
</tr>
<tr>
<td>26-30</td>
<td>21</td>
<td>17.5</td>
</tr>
<tr>
<td>31-35</td>
<td>8</td>
<td>6.6</td>
</tr>
<tr>
<td>36 &amp; above</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The distribution presented in Table 1 shows that majority of the respondents are in their youthful age, 16-25 with 91 or 75.8% response rates. This is line with the age requirements for undergraduate students in Nigerian universities.

Table 2: Distribution of their level of study

<table>
<thead>
<tr>
<th>Level of study</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>12</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>200</td>
<td>30</td>
<td>9</td>
<td>39</td>
</tr>
<tr>
<td>300</td>
<td>18</td>
<td>20</td>
<td>38</td>
</tr>
<tr>
<td>400</td>
<td>8</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td>500</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>70</td>
<td>50</td>
<td>120</td>
</tr>
</tbody>
</table>

Information gathered from table 2 revealed that there are more male students among the respondents than female. This may mean that there are more male undergraduate students in Nigerian universities than female.

Research question 1: What are the various health information needs among Nigerian undergraduates?

Table 3: Frequency distribution of undergraduate students’ health information needs

<table>
<thead>
<tr>
<th>Health needs</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual issues</td>
<td>90</td>
<td>75</td>
</tr>
<tr>
<td>Medications</td>
<td>69</td>
<td>57.5</td>
</tr>
<tr>
<td>Illness prevention</td>
<td>70</td>
<td>58.3</td>
</tr>
<tr>
<td>Diet and exercise</td>
<td>103</td>
<td>85.8</td>
</tr>
<tr>
<td>Alternative therapies</td>
<td>21</td>
<td>17.5</td>
</tr>
<tr>
<td>Diagnosed medical condition</td>
<td>85</td>
<td>70.8</td>
</tr>
<tr>
<td>Drugs/alcohol/smoking</td>
<td>73</td>
<td>60.8</td>
</tr>
<tr>
<td>Allergies</td>
<td>39</td>
<td>32.5</td>
</tr>
<tr>
<td>Eye and Dental care</td>
<td>50</td>
<td>41.7</td>
</tr>
</tbody>
</table>

Table 3 presents information on the respondents health information needs and it revealed information on diet and exercise (103 or 85.8%), information on diagnosed medical condition (85 or 70.8%), and information on drugs/alcohol/smoking as topping the list of health
information needs of the respondents. This implies that the major health information needs of the undergraduate students are diet and exercise information, diagnosed medical condition information, and drugs/alcohol/smoking information. This corroborated Palmer (2002) views that health information needs of youth are diverse and continually changing.

Table 4: Frequency of undergraduate current health information needs

<table>
<thead>
<tr>
<th>Description of current health information needs</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urgent/Immediate concern</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Ongoing/Chronic Problem</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Maintaining good health</td>
<td>72</td>
<td>60</td>
</tr>
</tbody>
</table>

Table 4 presents information on the current health information of the undergraduate students and it revealed that majority of the undergraduate students affirmed “maintaining good health” (72 or 60.0%) as their current health information need. This finding is at variance with Baker (2001) findings that emphasised that Undergraduates health needs is often centered on sexual issues.

Research question 2: What are the sources of information being consulted by the undergraduate students in meeting their health information needs?

Table 5: Information sources being consulted by undergraduate students in meeting their health information needs

<table>
<thead>
<tr>
<th>Sources of Health Information</th>
<th>Frequently</th>
<th>Occasionally</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Television</td>
<td>53</td>
<td>49</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>II Radio</td>
<td>45</td>
<td>35</td>
<td>32</td>
<td>8</td>
</tr>
<tr>
<td>III Hospital / Health centre</td>
<td>23</td>
<td>58</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>IV Library/Information centre</td>
<td>12</td>
<td>36</td>
<td>27</td>
<td>45</td>
</tr>
<tr>
<td>V Newspapers/Magazines/Journals/Booklets</td>
<td>55</td>
<td>25</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td>VI Poster, Billboard, and other visual aids</td>
<td>67</td>
<td>13</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>VII Interpersonal discussion with families and Peer</td>
<td>22</td>
<td>8</td>
<td>12</td>
<td>78</td>
</tr>
<tr>
<td>VIII Health outreach</td>
<td>45</td>
<td>23</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>IX Lectures</td>
<td>65</td>
<td>24</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>X Voluntary group and agencies</td>
<td>11</td>
<td>2</td>
<td>32</td>
<td>53</td>
</tr>
<tr>
<td>XI Patent medicine sellers</td>
<td>33</td>
<td>34</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td>XII Religious institutions</td>
<td>2</td>
<td>4</td>
<td>23</td>
<td>73</td>
</tr>
<tr>
<td>XIII Internet</td>
<td>50</td>
<td>30</td>
<td>22</td>
<td>18</td>
</tr>
</tbody>
</table>

Table 5 presents information on the sources of information being consulted by the undergraduate students in meeting their health information need and it reveals that majority of the respondents affirmed sources such as Posters, Billboards and Visual aids (67), Lectures (65), Newspapers/Magazines/Journals/Booklets (55), Television (53) and Internet (50) as major sources being frequently used in meeting their information needs. This implies that the students make use of oral, electronic and print sources in meeting their health information needs.

Research question 3: How accessible are the health information sources by the students?

Table 6: Respondents’ opinion on the accessibility of Health information sources.

<table>
<thead>
<tr>
<th>Sources of health information</th>
<th>Accessible</th>
<th>Not accessible</th>
<th>Not sure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Television</td>
<td>90</td>
<td>30</td>
<td>0</td>
<td>120</td>
</tr>
<tr>
<td>II Radio</td>
<td>110</td>
<td>0</td>
<td>10</td>
<td>120</td>
</tr>
<tr>
<td>III Hospital/Health centre</td>
<td>73</td>
<td>33</td>
<td>14</td>
<td>120</td>
</tr>
<tr>
<td>IV Library/Information centre</td>
<td>44</td>
<td>45</td>
<td>31</td>
<td>120</td>
</tr>
<tr>
<td>V Newspapers/Magazines/Journals/Booklets</td>
<td>89</td>
<td>24</td>
<td>7</td>
<td>120</td>
</tr>
<tr>
<td>VI Posters/Billboards and visual aids</td>
<td>110</td>
<td>9</td>
<td>1</td>
<td>120</td>
</tr>
<tr>
<td>VII Interpersonal discussion (with families and peers)</td>
<td>75</td>
<td>26</td>
<td>19</td>
<td>120</td>
</tr>
<tr>
<td>VIII Health outreach</td>
<td>34</td>
<td>19</td>
<td>67</td>
<td>120</td>
</tr>
</tbody>
</table>
Table 6 presents information on the respondents’ opinion on the extent of accessibility of health information sources available to them and it reveals that majority of the students affirmed Radio (110), Posters/Billboards/Visual aids (110), Television (90), Newspapers/Magazines/Journals (89), Patent medicine sellers (87), Interpersonal discussion (with families and Peers) (75), and Hospital/health centre (73) as major health information sources accessible to them. This implies that the students attested to the accessibility of print, electronic and oral health information sources available to them.

Research question 4: What are the challenges encountered by undergraduates in obtaining health information?

Table 6: Distribution of factors affecting accessibility of health information with age

<table>
<thead>
<tr>
<th>Factors constraining students’ access to health information</th>
<th>15-20</th>
<th>21-25</th>
<th>26-30</th>
<th>31 &amp; Above</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate knowledge of how to use health information sources</td>
<td>43</td>
<td>9</td>
<td>11</td>
<td>4</td>
<td>67</td>
</tr>
<tr>
<td>Unreliability of Health Information sources</td>
<td>12</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>High cost of obtaining information from health information sources</td>
<td>10</td>
<td>7</td>
<td>6</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>Problem of accessing the health information sources</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>19</td>
<td>21</td>
<td>8</td>
<td>120</td>
</tr>
</tbody>
</table>

Table 6 presents information on the factors hindering the students’ access to health information sources and it clearly shows the problem of “inadequate knowledge of how to use health information sources” as the major challenge as attested to by majority (67) of the students. This implies that the students lack adequate knowledge on how to search for and use information retrieved from health information sources. The table further revealed that the lack of adequate knowledge is more pronounced among the age range of 15-20 years.

**Conclusion**

The aim of this study is to investigate the needs for health information among undergraduates in Nigeria. The study observed that health information needs of the undergraduates are diverse in nature just as the attitudes of the Nigerian Undergraduates towards acquiring health information from a source depend on their confidence in it. The sources of health information available to them include internet, library, health institution, Parents and peers, health professionals, multi media. The challenges encountered in accessing health information include knowledge of how to access the health information, cost of accessing the information, ease of understanding of the terms used and reliability of information obtained from the sources. All this affect their health information accessibility.

The study concludes that in spite of all the health information sources and services such as library, health institution, interpersonal discussions, internet and multimedia available to undergraduates, their health information needs is not adequately attended to. Health information needs of undergraduates are diverse and it varies from sexual issues, exercise, medications, dental care, eye care, alcohol, body care and many others. However, the accessibility of most of these sources and the usage of this source remains very low despite their health information needs. Although young people generally constitute one of the healthiest population groups, poor health resulting from disease, accidents or injury and ignorance greatly affect them.

Factors that influence the health of young people are numerous and interrelated. Consequently, successful health policies for this group must be interdisciplinary and intersectoral, taking into account not only their physical condition, but also their personal,
social, emotional and mental development. It is therefore imperative that national youth health policies and strategies extend beyond the health sector. Understanding the actual needs of information users and taking steps to satisfy them is the first step towards effective service provision.

**Recommendations**

In view of the findings, the following recommendations are made;

- Health care delivery system in the Nigerian Universities should be improved to increase its accessibility. This will ensure prompt response to their health information needs
- Since interpersonal discussion with Parents and peers constitute a major source of Health information in the Nigerian Universities, the introduction of health education into the curriculum of all the disciplines will encourage the transmission of reliable health information and the development of healthy behaviour. Information centres should be established in all the schools to foster information dissemination in the communities.
- Health information disseminated through the multimedia should be censored to prevent the dissemination of contradicting health information.
- Since there is high utilization of the internet, internet services should be provided at a subsidized rate within the university environment.
- More health campaign should be encouraged more within the University as it increases access to health information, and necessary questions can be asked and answered immediately. Also, peer counseling should be encouraged by those organizing the campaign because they will be more free with their peers that have been trained in peer counseling.

**References**


Stella C. Nduka is a librarian at the University of Lagos Library, Lagos, Nigeria. She can be reached at: stellacnduka@gmail.com

Introduction

Library resources and services are important component of any educational experience. The provision of quality library services to those who learn at a distance is undoubtedly one of the most exciting and challenging development that has occurred in modern librarianship (Watson, 1999). Distance education has impacted not only on the discipline of education, it has also affected services and profession that support distance learning and distance education.

Distance education no doubt has revolutionised and democratised the delivery and accessibility of education, it has also affected services and professions that support distance learning and distance education. Distance learning according to Fulcher and Lock (1999) is basically about access to educational opportunities for learners who do not wish or are not able to attend programmes offered on-site.

Distance education according to Watson (1992) is a method of study that is pursued by students who are physically separated from their tutors and institutions of instruction for the greater part of their study. United States Distance Learning Association (1998) defines distance education as the acquisition of knowledge and skills through mediated information and instruction, encompassing all technologies and other forms of learning at a distance. These two definitions of distance education have shown that provision of quality and up to date services to those who learn at a distance is a challenge to the library. One of the main goals of distance education programme is to make sure that the knowledge and skills acquired positively affect the behaviour of the students. Similarly, the California Distance Learning Project (CDLP) (2011) defines distance learning as an instructional delivery system that connects learners with educational resource, provides educational access to learners not enrolled in educational institutions and can augment the learning opportunities of current students. The implementation of DL is a process that uses available resources and will evolve to incorporate emerging technologies.

The provision of quality library services to distance learning students will continue to experience global change as long as the need to provide effective and quality services that meet the needs and aspiration of citizens, decision-makers and distance learners is a long standing goal of the information profession. Suffice to say that the use of information technology is one of the proactive ways through which libraries can deliver their services more effectively so as to enhance users’ satisfaction.

In providing library services to distance learners, Watson (1999) opined that it is important that libraries should collaborate with agencies that are external to the library because it would be impossible to provide quality library and information services to distance learners without their assistance. She emphasized that library should expand the use of technology in providing library services to distance learners. These technologies have served to reduce the barriers to library and information services that distance learners experience due to distance. It saved time, improved cost-efficient and also improved service delivery (Osorio, 1997).
Slade and Kacus (1998) cited in Cassner and Adams (1999) predicted that four trends will shape the future of providing library services to distance learners. These trends are as follow:

(i) First, they believe there will be an increased global reliance on technology and distance education. For example, libraries are expected to rely increasingly on the internet in linking distant learners with available resources and services.

(ii) The second, trend will involve further collaboration and cooperation to increase quality, equity and access for remote learners. This collaboration will involve partnerships between librarians and other stakeholders, such as faculty, administrators, information systems experts and other institutions.

(iii) The third trend is that off-campus and on campus boundaries will continue to blur.

(iv) Finally, they believe that the distance learning paradigm will continue to change as the knowledge base expands due to growth in literature related to library support for the distance learners.

In summary, an inference can be made that the provision of quality library services to distance learning students most especially in a digital environment will continue to experience a global change as long as the need to provide effective and quality library services that meet the needs and aspiration of citizens, decision-makers and distance learners is a long standing goal of the information profession. Suffice to say that the use of Information Technology is one of the proactive ways through which libraries can deliver their services more effectively so as to enhance users’ satisfaction. The advancement in telecommunications and rapid growth in distance programme have had great effects on the educational materials and distance education practices.

Librarians, distance educators and administrators must therefore, ensure that new strategies are adopted and quality library services are available to distance learners. These new strategies must be applied to every aspect of library and information services. One of these strategies is that library management should develop relationship with other service providers who are associated with the delivery of distance education programmes, courses and support services. These other service provider include information technology units – particularly when library services are delivered via this methods; telecommunications agencies whose services are used to deliver library services, materials production units whose services are used to develop library related distance education materials and member of academic staff who are involved in the development and delivery of distance education programmes and courses.

**Statement of the Problem**

Library services and resources are often not used to their full extent by distance learners and this could be attributed to the fact that, there is a physical separation between the distance learners and their instructors or institutions. Another barrier could be the absence of information technology as a medium of delivery library services to distance learners. In most develop countries; it is commonly observed that the expanded use and role of technology is the delivery of library and information services that are experienced by distance for these students. In order to take library services to distance learners many libraries in higher education institutions have placed most of their services on-line. In Nigeria it is observed that most academic libraries do not make provision for distance learners. To buttress this, investigation has shown that libraries are not meeting the needs of the distance learning students in terms of the opening hours, provision of relevant materials and technology availability in the delivery of quality library services to the distance learners. In the light of the foregoing, the study examines the delivery of library services to distance learning students in University of Lagos. This is with a view to determining how effectively and strategically libraries could enhance the delivery of library services to distance learning students.
Objectives of the Study

The following objectives guided this study:

1. To find out library use pattern by the distance learners
2. To find out information sources mostly consulted by the distance learners
3. To examine the reasons for the use of the library by the distance learners
4. To determine the ICT skills possessed by distance learners for using the library.
5. To identify constraints to the use of the library by the distance learners.

University of Lagos

The University of Lagos was established by an act of the Federal Parliament in April 1962. The University is made up of two campuses; the main campus at Akoka, Yaba and the College of Medicine at Idi-Araba. The primary objective of the University at its inception was the preparation of professionals for the post-independence manpower needs of the Country.

University of Lagos has over the years grown by leaps and bounds both in the areas of physical development but also in the diversification of programmes available. The students’ population has risen from the modest intake of 131 in 1962 to more than 39,000. The vision statement of the University is to be a top-class institution for the pursuit of excellence in knowledge through learning and research as well as in character and service to humanity while its mission is to provide conducive teaching, learning, research and compete effectively with their counterparts nationally and internationally in terms of intellectual competence and zeal to add value to the world. The University is made up of many arms but only two of the arms that are considered necessary to this paper shall be discussed i.e., The Distance Learning Institute and the University of Library.

Distance Learning Institute

The Distance Learning Institute was established as part of the primary objective of the University at its inception and as pronounce clearly in the Ashby Commission that “the provision of facilities for part-time studies in such fields as Business Studies, Accounting, Law and Education through Correspondence and Distance Learning techniques”. It was in the actualization of this objective that the Correspondence and Open Studies Unit (COSU) was established in 1973. In 1983, a decade latter COSU transform into the Correspondence and Open Studies Institute (COSIT) with the granting of some measure of autonomy and enhances scope of operations.

Due to global advances in Open Studies and Distance Learning mode of study, the University Senate in 1997 effected some re-structuring and streamlining towards achieving the pure Distance Learning mode of education delivery and to reflect the Distance Learning philosophy all its ramifications changed the name from COSIT to DLI (Distance Learning Institute). The Distance Learning Institute (DLI) constituted now has enhanced status as that of the University. The Distance Learning Institute statistics show that the students’ population is approximately 18,000.

The Institute in some years back maintained some study centres in selected towns nationwide in order to reach out to her numerous students working or living outside Lagos. There were adequate and qualified part-time teaching staff and liaison officers to handle student’s tutorials and counselling. These centres have been phased out in compliance with the
directives of the Federal Ministry of Education abolishing such centres and constraining all institutions running programmes in study centres to their immediate environments.

**University of Lagos Library**

The University of Lagos Library was established in 1962. Presently, it has a collection of more than 500,000 accessioned volumes of books, 30,000 periodicals titles and numerous electronic databases such as AGORA, HINARI JSTOR, MEDLINE, OARE, ERIC, etc., and a wide range of e-books and e-journals covering a variety of subjects.

The University of Lagos Library provides students and faculty access to information on various disciplines. The distance learning students can also access these resources through the university website ([http://www.unilag.edu.ng](http://www.unilag.edu.ng)) or through the library website ([http://www.library.unilag](http://www.library.unilag)) and also browse the library catalog. The University library presents a picture of a modern library. The library has just acquired Millennium innovative software to help in making the library collections and services rendered fully automated.

The library collection can be accessed through the OPAC system with workstation located within the library. The library from 1995 has experienced unprecedented development from holding only traditional print materials to designing gateways to networked information (Zaid, 2012). The introduction of distance education in the University of Lagos was a turning point in the era of library and information service by the University of Lagos library. The library is complementing the traditional library setting with online services. The library also provides 24 hours library services to both the on-campus and distance learning students during examination period.

**Literature Review**

Aina (2008) identified that inadequate library and information service support is the most fundamental problem affecting the quality of distance education programme in Africa. A distance learner without quality library service support would have little or no experience in conducting research. Oladokun (2000) posited that the introduction of information literacy skill (ILS) to the distance learners will make them confident and competent in using any library information facilities, this is because these category of students need the understanding of ILS more than the on-campus students who have the opportunity to walk in to request and obtain readily available assistance from the librarians.

Supporting Watson (1999), Oladokun (2000) was of the opinion that distance will be narrowed if modern technology is fully exploited in providing library services to distance learners. The distance in this case is the barrier hindering distance learners from getting quality library services. Oladokun (2009) studied library and information needs and barrier to the use of information sources by continuing education students at the University of Botswana and discovered that the University of Botswana library does not adequately cater for the library and information needs of the students. In a study conducted by Msuya and Maro (2002) on the provision of library and information services to distance learners in the open university of Tanzania (OUT), and to know the extent these services are meeting the needs of the learners. The study found that the library and information provision for the students is not well developed to support the academic programmes. The study also revealed that due to lack of proper library services, some of the learners withdraw from the programme.

Mabawonku (2004) in a study of library use in distance learning surveyed three universities and found out that adequate arrangement were not made by the libraries for the students to use. The study recommended that Universities should make adequate provision for the students to have access to library and information resources. Information literacy skill (ILS) should be introduced to the distance learners.(Oladokun, 2000) and (Mabawonku, 2004).
Aina (2008) proposed that library association of each country should formulate guidelines which will serve as a framework for the provision of library and information services to distance education. The Association of College and Research Libraries (2008), a division of the American Library association has revised its official document ACRL Standards for distance learning library services to include the provision of library support to distance learners. A summary of the guidelines include core elements like philosophy of providing services, management, financial responsibility for services, facilities, personnel, library resources and services. Distant learners and faculty according to Cassner and Adams (1999) should have access to the following library services and resources:

a) Reference assistance- librarians should provide answers to reference questions and the questions may be to know about the library services and resources available in the library.

b) Bibliographic Instruction and information services-Distance learners should be provided with instruction on how to access the library electronic resources and services. The students should also be provided with basic library skills as well as information on how to search the library’s online catalog for books and citations for journal articles independently.

c) Access to library materials- Distance learners and faculty should be entitled to borrowing facilities through the institution offering classes. The users should be provided with the option of receiving materials through document delivery service or inter library loan in a shortest time.

d) Means of contacting librarians and staff- Users should be provided with the means of contacting librarians and library staff which may include, phones, emails or fax machine. In this age of information communication technology (ICT), social media sites or network are now been use as a means of contacting librarians and library staff.

e) Documented policies and procedures- This means that students should have access to current documented library policies and procedures, this include; print handout and/or web pages/homepages that mainly address library services for distance learners and faculty.

Watson (2003) identified basic library and information services distance learners needs, these needs are:

(i) Access to information resources such as texts, supplementary reading and reference services
(ii) Learning how to find the information needed from the information available
(iii) Develop ways of applying the information sourced and to make sound, information-based decisions.

The Role of Technology to in Library Services to Distance Learners

The emergence of technology has offered institutions running distance education programmes different options in the delivery of library and information services. The use of technology has reduced the barriers experienced by distance learning students in accessing library and information resources.

In order to provide library services to distance learning students, many libraries in developed countries are already using ICT as their main method of delivering library services and information resources through online chat rooms, e-mails services, teleconferencing, free online databases and reference services. Students are also able to search electronic databases and access the online catalogues (OPAC), examine abstract and to some extent read full text documents.
Another use of technology in the provision of library and information services to distance learners is in the delivery of library services such as information literacy, bibliographic instruction and references skills as on-line courses (Watson 1999). The telephone, computer technology and internet are technologies that have been used in the evaluation of distance learning, from correspondence courses to interactive video and virtual learning environment.

Institutions in some developing countries do not rely on ICTs to provide access to library services to their distance learners due to the high cost of the technology and also a large number of distance learners would not be able to participate fully or benefit from it (Watson, 2003). Bill and Melinda Gates foundation provide grants to help bridge the technology divide such as helping to provide computers in libraries in developing countries. Information and communication technologies affect learning and also enable new methods of delivery. It allows and encourage new forms of interaction and connections between one learner and others learners, between learners and tutors, between a learning community and its learning resources. This term is regarded as “networked learning” which is use to described this range of educational approaches (Brophy, 2001) as cited in Rio (2003).

Rio (2003) opined that technology has a close relationship with the teaching of distance education because it intervenes in the separation between teacher and learners through the use of print, radio, telephone, tapes and computers. Digital and networked technologies according to Al-Oraini and Kaur (2007) has been a very important development in making it possible for instructors and students to access a wealth of information quickly, easily and interactively in both face –to –face and remote education settings. These technologies have proved time saving, cost effectiveness and delivery.

Methodology

At the time conducting this research, the Distance Learning Institute was running two programmes, Accounting and Business Administration programmes. Public Administration and Economics programmes currently in place were recently floated. The study therefore was conducted among students in Accounting and Business Administration programmes. Questionnaire was the main instrument used in gathering data for this research. The questionnaire consisted of four-page closed ended questions. The questionnaire was administered to the students during their residential programme because that was the only period that brings the students together on campus. A total of two hundred and fifty (250) copies of a questionnaire were administered to the students in the library and lectures halls. Twenty-one copies of the questionnaire were eliminated because they were not properly completed. Two hundred and twenty-nine (229) copies of the questionnaire were duly completed and this formed 91.6 percent response rate. Descriptive statistics of frequency count and percentage were used to analyse the data collected for the purpose of this study.

Findings

Section A: Demographic information

A total of 229 students completed the questionnaire; consisting of 138 (60.3%) male and 91 (39.7%) females. This implies that there are more males respondents than females respondents. It was revealed that more than half of the respondents, 156 (68.1%) were between the ages of 20 and 30 years. 57 (24%) of the respondents claimed to be between the ages of 31 and 40 years, 14(6.1%) also claimed to be between 41 and 50 years while 2 (0.9%) were 51 years and above. 127 (55.4%) were from the department of Accounting while 102 (44.6%) were from the department of Business Administration.

Section B: Library Use pattern
Table 1: Frequency of library use by the respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Often</th>
<th>Always</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please indicate the frequency of your use of the library</td>
<td>78 (34.1%)</td>
<td>56 (24.5%)</td>
<td>82 (35.8%)</td>
<td>13 (5.7%)</td>
</tr>
</tbody>
</table>

Table 1 above presents the frequency use library services by the respondents. The table indicates that 78 (34.1%) of the respondents used the library often. 56 (24.5%) used the library for one thing or another always. The highest percentage of the respondents, that is, 82 (35.8%) rarely used the library while 13 (5.7%) of the respondents never used the library.

Table 2: Most likely time of using the library by the respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Revision period</th>
<th>Examination period</th>
<th>During semester break</th>
<th>When writing my assignment</th>
<th>When writing my final project</th>
</tr>
</thead>
<tbody>
<tr>
<td>When do you mostly like to use the library?</td>
<td>74 (32.3%)</td>
<td>106 (46.3%)</td>
<td>13 (5.7%)</td>
<td>23 (10.05)</td>
<td>13 (5.7%)</td>
</tr>
</tbody>
</table>

Table 2 above revealed that the respondents 106 (46.3%) made use of the library mostly during examination period. Also 74 (32.3 %) respondents use the library during their revision period. 13 (5.7%) make use of the library during semester break. 23 (10.5%) when writing assignment and 13 (5.7%) when writing final project were not popular among the respondents. Therefore, it could be deduced that most of the respondents rarely make use of library services.

Table 3: Respondents reasons for using the library

<table>
<thead>
<tr>
<th>S/N Variables</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 To write assignment</td>
<td>125 (54.6%)</td>
<td>104 (45.4%)</td>
</tr>
<tr>
<td>2 To read lecture notes</td>
<td>134 (58.5%)</td>
<td>95 (41.5%)</td>
</tr>
<tr>
<td>3 To consult textbooks</td>
<td>66 (72.5%)</td>
<td>63 (27.5%)</td>
</tr>
<tr>
<td>4 To consult journals (hard copies)</td>
<td>82 (35.8%)</td>
<td>147 (64.2%)</td>
</tr>
<tr>
<td>5 To use the e-resources</td>
<td>72 (31.4%)</td>
<td>157 (68.6%)</td>
</tr>
<tr>
<td>6 To read for examination</td>
<td>180 (78.6%)</td>
<td>49 (21.4%)</td>
</tr>
<tr>
<td>7 To consult reference materials</td>
<td>136 (59.4%)</td>
<td>93 (40.6%)</td>
</tr>
<tr>
<td>8 To photocopy material</td>
<td>49 (21.4%)</td>
<td>180 (78.6%)</td>
</tr>
<tr>
<td>9 To make use of the internet</td>
<td>72 (31.4%)</td>
<td>157 (68.6%)</td>
</tr>
</tbody>
</table>

From the result presented in table 3 above, it is inferred that the respondents make use of library for the following reasons: 180 (78.6%) respondents use the library when they want to prepare for examination.136 (59%) respondents visit the library to consult reference materials while 134 (58.5%) respondents use the library to read lectures notes and 125 (54.6%) respondents make use of the library to write assignment. The least reasons for the usage of library as indicated by the respondents were to consult journals, textbooks, to use the e-resources, internet and to photocopy information materials.

Table 4: Most consulted information resources

<table>
<thead>
<tr>
<th>S/N Materials mostly consulted</th>
<th>Always</th>
<th>Occasionally</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Reference Materials</td>
<td>52 (22.7%)</td>
<td>106 (46.3%)</td>
<td>35 (15.3%)</td>
<td>36 (15.7%)</td>
</tr>
<tr>
<td>2 Textbooks</td>
<td>102 (44.5%)</td>
<td>83 (36.2%)</td>
<td>25 (10.9%)</td>
<td>19 (8.3%)</td>
</tr>
<tr>
<td>3 Newspaper</td>
<td>26 (11.4%)</td>
<td>65 (28.4%)</td>
<td>48 (21.0%)</td>
<td>90 (39.3%)</td>
</tr>
<tr>
<td>4 Journals</td>
<td>22 (9.6%)</td>
<td>63 (27.5%)</td>
<td>65 (28.4%)</td>
<td>79 (34.5%)</td>
</tr>
<tr>
<td>5 Electronic databases</td>
<td>27 (11.8%)</td>
<td>53 (23.1%)</td>
<td>48 (21.0%)</td>
<td>101 (44.1%)</td>
</tr>
<tr>
<td>6 Thesis/Dissertations</td>
<td>4 (1.7%)</td>
<td>38 (16.6%)</td>
<td>64 (27.9%)</td>
<td>123 (53.7%)</td>
</tr>
<tr>
<td>7 Internet</td>
<td>47 (20.5%)</td>
<td>60 (26.2%)</td>
<td>26 (11.4%)</td>
<td>96 (41.9%)</td>
</tr>
</tbody>
</table>

The table 4 above revealed that 102 (44.5%) respondents make use of textbook and is the most highly consulted information resources by the respondents. This is follow by 52 (22.7%) respondents who made use of reference materials while 47 (20.5%) respondents used internet sources. 27 (11.8%) respondents make use of electronic databases, 26 (11.4%)
respondents used Newspaper, 22 (9.6%) respondents make use of journals while 4 (1.7%) respondents uses theses/dissertations are the least information resources used by the respondents.

Table 5: Rating of information needs by the respondents

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variables</th>
<th>Low Extent</th>
<th>Moderate Extent</th>
<th>Great Extent</th>
<th>Very Great Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Information on class assignment</td>
<td>32 (14.0%)</td>
<td>75 (32.8%)</td>
<td>75 (32.8%)</td>
<td>47 (20.5%)</td>
</tr>
<tr>
<td>2</td>
<td>Information concerning my course</td>
<td>27 (11.8%)</td>
<td>69 (30.1%)</td>
<td>83 (36.2%)</td>
<td>50 (21.8%)</td>
</tr>
<tr>
<td>3</td>
<td>Information from the internet</td>
<td>69 (30.1%)</td>
<td>63 (27.5%)</td>
<td>58 (25.3%)</td>
<td>39 (17.0%)</td>
</tr>
<tr>
<td>4</td>
<td>Information on reading lists from my lecturers</td>
<td>60 (26.3%)</td>
<td>67 (29.3%)</td>
<td>63 (27.5%)</td>
<td>39 (17.0%)</td>
</tr>
<tr>
<td>5</td>
<td>Information on current affairs</td>
<td>74 (32.3%)</td>
<td>94 (41.1%)</td>
<td>47 (20.5%)</td>
<td>14 (6.1%)</td>
</tr>
<tr>
<td>6</td>
<td>Information on personal development</td>
<td>45 (19.7%)</td>
<td>73 (31.9%)</td>
<td>61 (26.6%)</td>
<td>50 (21.8%)</td>
</tr>
<tr>
<td>7</td>
<td>Information on e-resources from the library website</td>
<td>113 (49.3%)</td>
<td>66 (28.8%)</td>
<td>33 (14.4%)</td>
<td>17 (7.4%)</td>
</tr>
<tr>
<td>8</td>
<td>Information on scholarly publication in journals</td>
<td>128 (55.9%)</td>
<td>60 (26.2%)</td>
<td>29 (12.7%)</td>
<td>12 (5.2%)</td>
</tr>
<tr>
<td>9</td>
<td>Information to help prepare research proposal</td>
<td>72 (31.4%)</td>
<td>68 (29.7%)</td>
<td>62 (29.7%)</td>
<td>27 (11.8%)</td>
</tr>
<tr>
<td>10</td>
<td>Information to help in conducting research</td>
<td>74 (32.3%)</td>
<td>65 (28.4%)</td>
<td>57 (24.9%)</td>
<td>55 (14.4%)</td>
</tr>
</tbody>
</table>

Table 5 revealed that the highest number of respondents, that is, 128 (55.9%) seek for information on scholarly publication in journals to a low extent, follow by 113 (49.3%) of the respondents that seek for information on e-resources from the library website also to a low extent. The table also shows that 55 (14.4%) of the respondents seek for information to help in conducting research to a very great extent. This implies that distance learning students don’t use the library and its information services like the on-campus students.

Table 6: Computer literacy skills level of the respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Low</th>
<th>Average</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have a low computer literacy level</td>
<td>24  (10.5%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have average skill in computer use</td>
<td>135 (59.0%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am highly skilled in the use of computer</td>
<td>70  (30.6%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6 above reveal that 135 (59%) of the respondents possessed average skill in computer literacy skill, 70 (30.6%) are highly skilled while 24 (10.4%) have low computer literacy skill. From the result, it could be deduced that most of the respondents have average skill in the use of computer.

Table 7: Respondents’ Level of satisfaction with the library services and resources

<table>
<thead>
<tr>
<th>Variable</th>
<th>Very Satisfied</th>
<th>Satisfied Not Very Satisfied</th>
<th>Indifferent</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the level satisfaction of library services and sources</td>
<td>48 (21.0%)</td>
<td>114 (49.8%)</td>
<td>13 (5.7%)</td>
<td>229 (100%)</td>
</tr>
</tbody>
</table>

Table 7 above shows that 48 (21.0%) and 114 (49.8%) of the respondents were satisfied with the library services and resources while 54 (23.6%) respondents were not satisfied. However, 13 (5.7%) were indifferent to the statement. This implies that most of the respondents were satisfied with the services and resources obtained from the library.

Having observed the level of satisfaction of library services and resources by the respondents, the researcher then wanted to know from the respondents if there was any major constraint they encounters in accessing information resources in the library.

Table 8: Constraints to the use of library information resources

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variables</th>
<th>Agreed</th>
<th>Disagreed</th>
<th>Indifferent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The library opening hours are not helpful</td>
<td>40 (17.5%)</td>
<td>145 (63.3%)</td>
<td>44 (19.2%)</td>
</tr>
<tr>
<td>2</td>
<td>Library staff are not cooperative</td>
<td>38 (16.6%)</td>
<td>147 (64.2%)</td>
<td>44 (19.2%)</td>
</tr>
</tbody>
</table>
Table 8 above shows that 145 (63.3%) of the respondents disagreed that library opening hours are not helpful and 40 (17.5%) agreed that it is not helpful while 44 (19.2%) were indifferent. 147 (64.2%) did not agree that library staff were not cooperative while 38 (16.6%) agreed with the statement and 44 (19.2%) were indifferent. Also from the table, 150 (65.5%) did not identify incessant power supply as a constraint, 43 (18.8%) identify it as a constraint while 36 (15.7%) were indifferent. 97 (42.4%) did not indicate obsolete information material as a constraint, 82 (35.8%) indicated obsolete material as a constraint in accessing information material and 36 (15.7%) were indifferent. 80 (34.9%) disagreed that materials in the catalogue are not usually found on the shelves, 73 (31.9%) agreed with the statement and 76 (33.2%) were indifferent. This implies that majority of the respondents don’t make use of the library catalogue or do not know how to use the catalogue to access information materials and that is why there is a high response rate of respondents’ being indifferent with the statement. 93 (40.6%) of the respondents disagreed that inadequate information on material needed is a constraint and 84 (36.7%) agreed while 52 (22.7%) were indifferent. 75 (32.8%) of the respondents identified erratic internet connectivity as one of the constraints while 70 (30.6%) disagreed. 98 (42.8%) indicated lack of access to some e-resources as a constraint and 59 (25.8%) disagreed while 72 (31.4%) were indifferent. However, 117 (51.1%) of the respondents could locate information materials while 76 (33.2%) could not. Finally, 121 (52.8%) of the respondents agreed that there is no provision for distance learning students in the library and 77 (33.6%) disagreed with the statement.

Discussion

One of the primary observations of this study was frequency of gender distribution of the respondents. Out of the total respondents, 138 (60.3%) were male while 91 (39.7%) were female. This revealed that there are more male students than female students at the Distance Learning program at the University. Another significant observation was on the age distribution where the largest percentages of the respondents were between 20 and 30 years. This implies that the Distance Learning programme is now made up of young students unlike in those days when such programme was made up of older students and also because of the difficulties of securing admission into full time programme.

The study also revealed that not all the students make use of the library, this support Mabawonku (2004) position that a student could graduate without using libraries because there is no library use instruction giving to the students. Also study revealed that textbooks and reference materials are the materials mostly conducted by the respondents. The study further revealed reasons for the use of library and its services by the respondents; it was revealed that the majority of the students use the library and its services to read for examination.

The study found that that majority of the respondents have average skill in computer use. This is a pertinent fact that the use of technology has overtaken most academic activities in most countries in the world with the introduction of communication technologies like mobile phones, internet facilities, social network media, etc. The respondents use for this study are
using one form of technology or another and this has helped the students to develop their computer skill.

Interesting outcome of this study are the constraints the respondents encounter when accessing information resources in the library. No provision for distance learning students in the library (such as registration, loaning facilities), lack of access to some e-resources, inadequate information on materials needed, obsolete information and not been able to locate information materials needed and erratic internet connectivity constituted significant constraints to the respondents out of the ten constraints listed in the study. However, the overall picture that emerged from this study is the cry of the respondents for increase provision of library services for distance learning students in the library. The respondents want to be able to register in the library and also to be able to loan information materials. The students want the same services given to the on-campus students.

**The Way Forward**

Libraries and academic staff where distance learning programmes are offered should work closely. This is because library is suppose to provide library services that are comparable to the services provided to on-campus learning to the distance learners. Academic libraries role in the developing of strategies that will enhance library and information services is to provide the best possible support to distance learning students. One of these strategies is the ease at which distance learners can access library materials needed to accomplish their research. The support services that makes the students to achieve this success includes reference services, bibliographic instruction and document delivery services and the successful implementation of these services depends entirely on library staff attitude to project traditional ethos of services to their users to also include the distance learning students (Hufford, 2007). The distance education programme is different from the on-campus programme. Therefore, distance learning students should be equipped with information literacy skills (ILS) more than the on-campus students who could walk into the library to request and obtain the needed information easily from the library. These information literacy skill (ILS) skills will assist the students to know how to seek information concerning their courses, assignments and examinations and researches. It will make them confident and competent to use library resources and facilities when, where and how they choose.

University libraries should consider the application of information technology in the delivery of library services to distance learners, such as, the use of OPACs, internet services for searching online information, E-mail facility for easy communication and as a means of sending and receiving information relating to their information needs, online systems and services, networked databases. Most libraries in developed countries have librarians who provide library services for distance learning students. These librarians among the titles they are called Distance Education Librarians, Off- Campus Librarians, Continuing Services Librarian or Support Service Librarian depending on the nomenclature each of the University libraries wants (Watson, 1999).

The present researcher is not aware if such nomenclatures exist in Nigerian libraries. Libraries in Nigeria libraries should have librarian whose duties is to provide library services to distance learners. These librarians should be given necessary training and requisite skills in order to meet the information needs of their users. It is important for librarians, administrators and facilitators to include other modalities in their delivery of information services. This is important because access to technology is not universal and not all technological systems are equal. Consequently, librarians should collaborate with distance education administrators in designing library services to distance learners because it would be impossible to provide library and information services without their input.
Conclusion

This research was conducted in order to gain some insights into the library and information services the University of Lagos is providing to the Distance Learning students. The University of Lagos is already well-positioned to serve distance learners and the librarians are ready to partner with Distance learning administrators to provide the distance learners with quality library services they expect from the library.

In view of this, the library has recently acquired a library software “Innovative Millennium” that will enable the library to pursue its goal of meeting the information needs of its users including the distance learners. In order to take library services to distance learners, the library has placed most of its services and resources on the library web page. There is a 24-hour library service provision to both on-campus and distance learning students during their examination period. The library also made provision for users to make contact with the library anytime they want information regarding the library services or resources. These are strategies the library has developed to meet the information needs of distance learning students.

The study revealed that there is still a big gap existing in services rendered to distance learners when compared to on-campus. The students want equal library services as that given to their contemporaries in full-time programmes, services like registering in the library and loaning services. University management should consider these issues and devise a method that would give equal library services to distance learners. In addition, university management, faculty staff and librarians should be involved in the planning and designing of library services to distance learners. Nigeria Library Association (NLA) should formulate a set of standards for distance learning library services; it is in line with Aina (2008) position that the library associations of each country should formulate a set of guidelines for distance education learning library and information services.

Finally, the result of this study might be of importance to the university management, distance education administrators as well as to librarians providing library services to Faculty, staff, and students in distance learning programmes and also to explore possible ways the library can provide efficient library services to distance learners.

References


Government Intervention in the Funding of Nigerian University Libraries: The Role of the Tertiary Education Trust Fund (TETF)

Lolade F. Osinulu

C. F. Daramola

Lolade F. Osinulu holds a Masters in Library Studies, B.Sc. and Postgraduate Diploma in Education (PGDE). She is a doctoral student at the University of Ibadan, Ibadan, Nigeria. She is an experienced professional Librarian and author in Library and Information studies. Her areas of interest include knowledge management and information use. She has contributed to knowledge and published in both national and international journals. She is currently head of cataloguing and classification department at the Olabisi Onabanjo University, Agoiwoye, Ogun State. Nigeria. She is a member Nigerian Library Association and incumbent chairperson of the Association. She can be reached at: osinulolade@gmail.com.  C.F. Daramola holds a Bachelors degree in Education and Master in Library Studies. She is currently in charge of the Serials Section at the Federal University of Technology, Akure, Ondo State. Nigeria. She is a member of the Nigerian Library Association Ondo State Branch. She can be reached at: funmydara@yahoo.ca

Introduction

Nigerian universities, private and public, are growing by the day. Universities are grouped into four generations in Nigeria. The first generation universities such as the University of Ibadan, University of Lagos, University of Nigeria, Nsukka, Ahmadu Bello University, Zaria and the Obafemi Awolowo University, Ile-Ife (formerly University of Ife) were those established by the colonial government and the post-independence governments of the first republic between 1948 and 1962.

The second generation universities which include University of Benin, University of Jos, University of Maiduguri, Usmanu Danfodiyo University, Sokoto among others were established by the military regime in 1975 while the third generation universities were those established by the federal and state government during the second republic (1979-1983) as well as those established under the following military regime (1984-1999) while the fourth generation universities were established during the fourth republic (1999 to date) including the private universities established by individuals and organisations by virtue of licences granted them by the National Universities Commission (Arikewuyo & Ilusanya, 2010).

As a result of this development, the number of universities in Nigeria has increased tremendously. Currently there are 117 universities in Nigeria. Of this number, 45 are private, 36 are state-owned while 36 are owned by the Federal government (The Nation, 2011).

University libraries occupy a central position in higher education with the mandate to acquire, organise and disseminate learning resources and services in support of the teaching and research programmes of their institutions. Hence, their major function is the provision and dissemination of information, both print and non-print, which flows from collection development. Olorunisola (2000) asserts that the quality of library resources and facilities is an important component in the reputation of any institution. The quality and effectiveness of academic programmes are measured in part by the quality of the library. However, it is depressing that libraries could not discharge their roles effectively owing to poor funding.
According to Okonofua (2011), poor funding is the principal challenge that most Nigerian universities currently face which limits their ability to rate high in global ranking of universities. He remarked that as long as the government remains the major source of funding, there will continue to be funding gaps from the government sources due to the increasing number of government funded universities. Likewise, libraries just like other higher institutions are striving to source for funds.

The craving for proper funding of libraries has forced the heads of libraries and librarians to adopt some tough measures. Several income generating ventures and coping strategies to generate additional funding have been documented elsewhere. In spite of these identified strategies, research reports coupled with the experiences of many library managers show that internally generated revenue is negligible.

**Trends in Funding Nigerian University Libraries**

The Federal Government of Nigeria evidently recognizes the important roles library play in education and research through provision of information services as recommended by the National Universities Commission (NUC), hence it recommends that a minimum of 10% of each university’s recurrent budget be spent on the development of their libraries. The instrument further stipulates that 60% of the allocation be committed to the purchase of books and journals, while 40% is set aside for personal emoluments and purchase of goods and services in the library. The fund is expected to be paid into a separate account from the normal universities funds (Omoregbe, 1998).

However, Stephen (1999) observed that there was no full compliance with these financial guidelines. This is obvious when it is realised that only 2% of the national budget is allocated to education as against 26% recommended by the UNESCO. While the Federal government sponsors and finances federal universities, the state-owned universities are financed by the State Governments. Ifidon (2006) remarked that state university libraries are more cash strapped than their federal counterparts.

In view of this appalling situation, the Federal government have in the past sought the assistance of foreign multilateral organizations such as the World Bank for credit facilities to improve education in the country. One of them was the $120 million loan secured from the World Bank for the development of federal owned universities in 1989 out of which $37.1 million was allocated for the acquisition of library books and subscription journals.

Similarly, between 2001 and 2002, some of the proceeds from the oil sector as initiated by the Petroleum (Special) Trust Fund (PTF) were spent on purchase of books for libraries. In 1993 the Federal government extended the intervention to the State universities through the European Economic Commission (EEC) agency to increase the quality of state-owned university library resources. However, while the World Bank Loan (WBL) was confirmed to be truly an effective lifeline to the federal university libraries, Odusanya and Osinulu (2004) regretted that the EEC intervention project to the state universities failed as a result of political logjam in the nation.

Consequently, the failure of donor agencies and government constant neglect of library development owing to low budgetary allocation informed the Academic Staff Union of Universities to demand for urgent intervention from the government. This gave birth to the Education Trust Fund (ETF) now changed to Tertiary Education Trust Fund (TETF).

**Statement of the Problem**

The global economic recession has increasingly devastated the effectiveness of Nigerian academic libraries in providing quality and effective services owing to paucity of funds which
has adversely affected the quality of research and learning. This study is designed to appraise the role of intervention agencies in the funding of Nigerian university libraries with reference to Tertiary Education Trust Fund (TETF) in relation to library development. The specific objective is to;

(i) Reassess the role of TETF in library development
(ii) Determine the utilisation of the funds released by the agency;
(iii) Compare the priority of participating libraries with a view to identifying problems encountered in accessing the fund.

Funding Agencies and the Tertiary Education Trust Fund (TETFUND)

Funding agencies are bodies established either by the government, individuals or non-governmental organizations (NGO) to render assistance to people/organizations to alleviate poverty or suffering in one area or the other that require immediate attention. Ifidon (2006) classified these agencies into national and international.

An example of a national donor agency is the Tertiary Education Trust Fund (TETFUND) which is the focus of this paper. The antecedent of the agency can be traced to the 1992 agreement between the Academic Staff Union of Universities (ASUU) and the Federal Government to enhance financial input into the educational system and improve the quality of education in Nigeria. The Education Trust Fund (ETF) recently rechristened Tertiary Education Trust Fund was set up under the Education Tax Act No. 7 of 1993 as amended by Act No. 40 of 1998. It has the mandate and objective of using funding with project management to improve the quality of education in Nigeria. The law setting up the fund stipulates that 2% education tax be imposed on the profits of all registered companies and banks in Nigeria. Its specific objectives include the following:

(i) provision of funding for educational facilities and infrastructural development;
(ii) promotion of creative and innovative approaches to education;
(iii) stimulating support and enhancing improvement of activities in educational foundation and library development;

Agunbiade (2006) highlights various library projects that have been funded by the TETF under its library development programme to include the following:

(i) Computerisation of libraries;
(ii) Provision of books, journals and reading materials;
(iii) Provision of equipment, e.g. binding materials and bindery equipment etc., and
(iv) Provision of library buildings in some cases.

To justify the vision of the Tertiary Education Trust Fund as a world class public sector intervention agency in Nigeria’s tertiary education sector, its Executive Secretary reported that in year 2008, N7 billion was disbursed among 57 universities both federal and state, where each university got N127 million made up of N57 million for project, N10million for library development with additional N60 million for academic training and staff development as well local research and publication. (The Nation, October, 29, 2009. p.2) In fulfilment of the Funds mandate in library development, Orji (2010) affirmed that under the special Library Intervention Fund, TETF has increased its yearly subvention fund from $2400 to $70000 to each benefiting university.
Metholodology

Descriptive survey research method was adopted for this study. The instrument for data collection was a questionnaire. A 15 item structured questionnaire on appraisal of Tertiary Education Trust Fund (TETF) impact on Nigerian universities libraries was prepared. The questionnaire was divided into 3 sections. Section A elicited demographic information while section B focuses on items the respondents spent money on and section C focuses on problems associated with procurement of funds. The questionnaire was administered to University Librarians who are directly involved in the administration of the fund. 12 public university libraries in the Southwest geo-political zone constitute the study population. Simple descriptive statistics (frequency and percentage) was employed to analyse the data.

Findings and Discussion

Table 1: The profile of Universities in the South West

<table>
<thead>
<tr>
<th>S/N</th>
<th>Generation</th>
<th>Year Founded</th>
<th>University &amp; Library</th>
<th>State</th>
<th>Types of Universities</th>
<th>Ownership/funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1st</td>
<td>1948</td>
<td>University of Ibadan/Kenneth Dike Library</td>
<td>Oyo/Ibadan</td>
<td>Conventional</td>
<td>Federal</td>
</tr>
<tr>
<td>2</td>
<td>2nd</td>
<td>1962</td>
<td>Obafemi Awolowo University Library, Á Ile-Ife. Hezekiah Oluwasami Library</td>
<td>Osun</td>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2nd</td>
<td>1962</td>
<td>University of Lagos</td>
<td>Lagos</td>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3rd</td>
<td>1988</td>
<td>University of Agric, Abeokuta (UNAAB)/Nimbe Adedipe Library</td>
<td>Ogun</td>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>4th</td>
<td>1982</td>
<td>Olabisi Onabanjo University, Ago-Iwoye</td>
<td>Ogun</td>
<td>Conventional</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>3rd</td>
<td>2007</td>
<td>Tai Solarin University of Education/OGD Library, Ijebu-Ode</td>
<td>Ogun</td>
<td>Special</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>3rd</td>
<td>1983</td>
<td>Lagos State University, Ojo</td>
<td>Lagos</td>
<td>Conventional</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3rd</td>
<td>1990</td>
<td>Ladoke Akintola University of Technology, Ogbomosu</td>
<td>Oyo</td>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3rd</td>
<td>1981</td>
<td>Federal University of Technology, Akure</td>
<td>Ondo</td>
<td>Technology</td>
<td>Federal</td>
</tr>
<tr>
<td>10</td>
<td>3rd</td>
<td>1999</td>
<td>Adekunle Ajasi University, Akungba-Akoko</td>
<td>Ondo</td>
<td>Technology</td>
<td>State</td>
</tr>
<tr>
<td>11</td>
<td>3rd</td>
<td>1982</td>
<td>University of Ado-Ekiti</td>
<td>Ekiti</td>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>3rd</td>
<td>2007</td>
<td>University of Science &amp; Technology, Ondo State, Okitipupa</td>
<td>Ondo</td>
<td>Technology</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>3rd</td>
<td>2006</td>
<td>Osun State University, Osogbo</td>
<td>Osun</td>
<td>Conventional</td>
<td>State</td>
</tr>
</tbody>
</table>

Source: Fieldwork

Table 1 shows the 13 public universities in the Southwest geo-political zone in Nigeria. Nearly all the universities in the zone are benefiting from Tertiary Education Trust Fund except the University of Science and Technology, Okitipupa, Ondo State established in 2007 by the Ondo State government.

TETFUND Assistance to University Libraries

Respondents affirmed that TEFT Intervention was a veritable source of development. Each of the recipients demonstrated this by the amount of money allocated to each of them. The accessible fund to each of the university libraries from 2006 to 2010 ranged from N6.5 to N20million. Table II shows the priority needs of the respondents and the quantum percentage of the fund expended on books, ICT facilities and journals while only 15% was expended on furniture and staff development. However, it was observed that 3(23%) spent the 100% of their allocation on books and nothing for journal subscription!
Table II: Use of the Intervention Fund

<table>
<thead>
<tr>
<th>Universities</th>
<th>Journal</th>
<th>Book Repair</th>
<th>IT</th>
<th>Lib. Building</th>
<th>Furniture</th>
<th>Staff development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal: UNAAB</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>OAU</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>UI</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>UNILAG</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>FUTA</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>State: OOU</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>TASUED</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>LASU</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>LAUTECH</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>ADEKUNLE AJASIN UNIV, Akungba</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>UNAAD, Ado-Ekiti</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Ondo State Uni Sc.&amp;TechOkitipupa</td>
<td>Yet To access</td>
<td>The</td>
<td>fund</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Osun State University, Osogbo</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key: Y= yes, N=no, N/A=not available; yet to access the fund

Table III: Problems Encountered

<table>
<thead>
<tr>
<th>Problems/hindrance</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Response</td>
<td>4</td>
<td>31.25</td>
</tr>
<tr>
<td>Delay in approval of proposals</td>
<td>4</td>
<td>31.25</td>
</tr>
<tr>
<td>Lack of technical skill</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Untimely payment of vendors</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Administrative bottleneck</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Procedure is cumbersome</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table III presents barriers to accessing the TETF library intervention fund. Delay in approval and administrative bottleneck are the major identified problems encountered as indicated by 31.25% and 15.0% respondents respectively.

Table IV: Prompt release of funds

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>5</td>
<td>38.5</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>54.0</td>
</tr>
<tr>
<td>Indifferent</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table III shows that 5 (38.5%) of the respondents indicated that the fund was promptly released and 7 (54.0%) of the respondents indicate that there was delay in the release of fund. Given the findings above, the Tertiary Education Trust Fund management should be more proactive and eliminate bureaucratic delay.

Table V: Increased journal subscriptions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much</td>
<td>10</td>
<td>77.5</td>
</tr>
<tr>
<td>Little</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Indifferent</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The result of the analysis above shows that 10 (77.5%) of the respondents indicated that the fund has substantially increased their journal subscriptions while 2 (15.0%) of the respondents indicated that the fund has had little impact on their journal subscriptions. However, it is observed that some of the surveyed libraries spent the whole of their allocation on books.
Table VI: Satisfaction with management and use of the fund

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied</td>
<td>11</td>
<td>85.0</td>
</tr>
<tr>
<td>Not satisfied</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Indifferent</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table VI shows the distribution of the responses on whether librarians are satisfied with how the fund is being managed and expended in their respective libraries. 85% of the respondents expressed satisfaction with the management and use of the fund. This can be attributed to the fact that the system put in place by TETF does not encourage fund swapping unlike unstable budgetary allocations.

Table VII: Assessment of the intervention programme

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>2</td>
<td>15.0</td>
</tr>
<tr>
<td>Good</td>
<td>9</td>
<td>70.0</td>
</tr>
<tr>
<td>Fair</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Indifferent</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In assessing the impact of the intervention programme as shown in Table VII above, 9(70%) of the respondents indicated that the intervention programme was good, 2 (15%) indicated that it was excellent while 1(7.5%) of the respondents were of the opinion that it was fair.

Table VIII: Respondents expectations of improvement in TETFUND operations

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase Allocation</td>
<td>4</td>
<td>31.0</td>
</tr>
<tr>
<td>Allocation should be made easy</td>
<td>6</td>
<td>46.0</td>
</tr>
<tr>
<td>No response</td>
<td>3</td>
<td>23.0</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table VIII presents the distribution of respondents’ expectation on improvement in the fund disbursement. 6 (46%) of the respondents expected easing of access to the fund while 4 (31%) of the respondents wanted increased allocation.

Table IX: Funds received from 2005-2010 and change in collection size

<table>
<thead>
<tr>
<th>Parameter</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much did your university receive in 2005</td>
<td>13</td>
<td>1993750.00</td>
<td>2695791.47</td>
</tr>
<tr>
<td>How much did your university receive in 2006</td>
<td>13</td>
<td>2406250.00</td>
<td>3104935.58</td>
</tr>
<tr>
<td>How much did your university receive in 2007</td>
<td>13</td>
<td>3062500.00</td>
<td>3198306.84</td>
</tr>
<tr>
<td>How much did your university receive in 2008</td>
<td>13</td>
<td>5718750.00</td>
<td>6022094.73</td>
</tr>
<tr>
<td>How much did your university receive in 2009</td>
<td>13</td>
<td>1562500.00</td>
<td>4366062.29</td>
</tr>
<tr>
<td>How much did your university receive in 2010</td>
<td>13</td>
<td>5937500.00</td>
<td>11138334.705</td>
</tr>
<tr>
<td>What is the size of your book collection before the intervention of ETF</td>
<td>13</td>
<td>8250.4375</td>
<td>14525.638</td>
</tr>
<tr>
<td>What is the size of your book collection after the intervention of ETF</td>
<td>13</td>
<td>40819.188</td>
<td>117664.658</td>
</tr>
</tbody>
</table>

Table IX shows the average amount the universities received from 2005-2010 and the size of their library collections before and after the TETF intervention. The result shows that the average collections in the surveyed libraries before the intervention was about 8, 250 volumes which increased to 40,819 volumes during the period covered. The respondents agreed to the fact that the Intervention has improved the strength of their collections as well as their acquisition of IT facilities.
Conclusion and Recommendations

This study appraised the Tertiary Education Trust Fund intervention in the development of Nigerian university libraries. The findings show that the TETFUND agency came at the right time to alleviate the inadequate funding experienced in the education sector and university libraries in particular. Acquisition of learning resources such as journals and ICT facilities by the participating libraries in the Southwest have been reinforced and greatly enriched. Overall, the respondents expressed satisfaction with the intervention programme as a timely and critical lifeline to university libraries especially in state owned universities with limited funds. However, the bureaucratic procedures involved in processing the funds have been identified as very cumbersome and often resulting in avoidable delays in accessing the funds and late payment of book vendors.

TETF Invention has over the last year ten years been the major source of library funding since the collapse of 10% National Universities Commission (NUC) stipulated Library Development Fund (LDF). It is therefore recommended that relevant stakeholders should contribute more towards library development in their various institutions. Such contributions should be channelled towards priority projects while librarians explore the TEFT special intervention programme to take care of other library infrastructures such as modern library buildings, furniture and training. TETF Management should be convinced to consider allocation of fund for staff development given the fact that it would not serve any purpose when the staffs is ignorant of the use of the facilities and equipment acquired through the fund. In summary, future interventions must involve the end users-librarians and library administrators so that the best can be realised as (Akindojutimi, Adewale and Omotayo 2010) suggested.

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Social Metadata Use in Art Museums: The Case of Social Tagging

Linda Zajac

Linda Zajac is a MLIS candidate at San José State University and can be reached at: lindazajac@shaw.ca

Introduction

Social tagging and other forms of user-generated or social metadata are becoming increasingly prominent on the websites of libraries, archives, and museums (LAMs). What role does tagging play in these cultural heritage organizations, particularly art museums? In this paper, I review theoretical, empirical, and practical literature about social tagging in LAMs, with a focus on art museums. I also investigate how two particular art museums, the Philadelphia Museum of Art and Your Paintings, have each considered social tagging’s role in the museum’s mandate and managed social tagging on their websites.

I adopted the definition of social metadata that was proposed in the Online Computer Library Center’s (OCLC) recent wide-ranging study of social metadata for libraries, archives, and museums. Social metadata is “Addition al information about a resource resulting from user contributions and online activity—such as tagging, comments, reviews, images, videos, ratings, recommendations—that help people find, understand, or evaluate the content” (Smith-Yoshimura & Shein, 2011, p. 10). User-generated content (UGC) consists of different types of media content produced by end-users. “User contributions” include both social metadata and “user-contributed content” such as uploaded texts, images, audio or video that supplement the existing content of the site” (p. 10).

Until the early 2000s, the description, indexing, searching, and retrieval of library, archive, and museum resources was based solely on metadata developed by information professionals. Shatford (1984, 1986) and Layne (1994) demonstrated that analyzing and describing a “picture” or image in order to construct metadata is a complex task requiring specialist subject knowledge and professional information skills. In art museums, information standards such as Categories for the Description of Works of Art (CDWA) and Cataloging Cultural Objects (CCO) are being used, and image access benefits from the application of controlled vocabularies and thesauri such as the Art & Architecture Thesaurus (AAT), the Union List of Artist Names (ULAN), Thesaurus for Graphic Materials (TGM), and the Getty Thesaurus of Geographic Names (TGN) (Baca, 2002; Harpring, 2010). Recently, however, social metadata has become popular alongside professionally created metadata.
Statement of the Problem

Art museums are incorporating a range of social media into their websites and soliciting related user-generated social metadata. New types of metadata are being invented by users and taking a place along with traditional metadata created by curators, librarians, and subject specialists. Social tagging is one example of social metadata that is becoming a component of many art museum sites to attract and sustain virtual and in-person visitors. There can be tension between the uncontrolled, often ambiguous or idiosyncratic, metadata created by users and the controlled metadata produced by professionals. How can these two different kinds of metadata co-exist well?

Literature Review

Social Tagging

In the early 2000s, tags became a favoured type of user-generated metadata on websites. A tag is an informal keyword or term that can be assigned to a digital resource to assist resource description, browsing, and searching. Social tagging refers to the collaborative activities in which individuals contribute tags to describe a digital image or object. The collection of tags associated with a resource is known as a folksonomy, a term invented by Vander Wal (2007, ¶ 9):

Folksonomy is the result of personal free tagging of information and objects (anything with a URL) for one’s own retrieval. The tagging is done in a social environment (usually shared and open to others). Folksonomy is created from the act of tagging by the person consuming the information.

A large robust body of general literature has examined the nature of tags, social tagging, folksonomy, and social tagging systems (e.g., Bruce and Hillmann, 2004; Golder & Huberman, 2006; Gupta, Li, Yin, & Han, 2010; Makani & Spiteri, 2010; Trant, 2009a). Bruce and Hillmann (2004) proposed a theoretical methodology for studying metadata quality, which took the form of a “systematic, domain- and method-independent discussion of quality indicators” (p. 238). They recommended seven broad practical characteristics of metadata quality, along with questions to assess quality criteria and examples of compliance indicators. Quality measures included: completeness, provenance, accuracy, conformance to expectations, logical consistency and coherence, timeliness, and accessibility.

Golder and Huberman (2006) investigated patterns of users, tags, and URLs that emerged at the collaborative tagging system del.icio.us. The researchers believed collaborative tagging “has the potential to exacerbate the problems associated with the fuzziness of linguistic and cognitive boundaries” (p. 201). Results revealed stable patterns in user activity, tag quantity, kinds of tags, “bursts of popularity” in bookmarks, and a notable uniformity in tag proportions in a particular URL.

Makani and Spiteri (2010) examined the potential benefits of collaborative tagging for enterprises. They found that collaborative tagging can contribute to “enhanced vocabulary” useful to a knowledge management system. User-generated tags can be placed alongside professional indexing, can lessen the accrued costs of creating controlled vocabularies by information professionals, and can personalize collections. The authors concluded “Collaborative tagging as an organisational method opens up possibilities for knowledge representation, knowledge discovery, knowledge retrieval and knowledge dissemination that were previously impossible” (p. 101).

Authors have also published literature reviews about social tagging research. In their survey, Gupta, Li, Yin, and Han (2010), for example, summarized a range of methods being used to study social tagging. Topics included why people tag and what tags mean, tag generation

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models, tag analysis, visualization of tags, tag recommendations, indexing, and tagging problems. Trant (2009a) presented a more extensive literature review of the origins and evolution of tagging, folksonomy, and social tagging systems. Trant identified and examined three main approaches to studying tagging: the study of folksonomy and the function of user tags in indexing and information retrieval, the study of user behaviour, and the study of social tagging or socio-technical systems.

Social Tagging for Libraries, Archives, and Museums

Literature has also addressed social tagging in the context of cultural heritage organizations (e.g., Cairns, 2011; Chae & Kim, 2011; Dalton, 2010; Ellis, Gluckman, Cooper, & Greg, 2012; Van Hooland, Bontemps, & Kaufman, 2008). OCLC conducted the most wide-ranging investigation of social metadata for LAMs. During 2009-2010, the OCLC Research Library Partnership (RLP) Social Metadata Working Group reviewed 76 websites of libraries, archives, and museums that supported social metadata (Smith-Yoshimura & Shein, 2011). The most popular user-generated metadata were comments or annotations, followed by tags. Smith-Yoshimura & Shein indicated that “Tagging...does not seem to attract as much user attention as commentary, at least for text-based resources...Tagging is most useful when there is no pre-existing metadata (for example, photos, videos, and audio). Tagging has more value when aggregated across collections” (p. 11). In addition, from October to November 2009, the Working Group surveyed site managers and analyzed results from the 42 respondents about the motivations for creating a site, moderation policies, staffing and site management, technologies used, and criteria for assessing success (Smith-Yoshimura, Godby, Koffler, Varnum, & Yakel, 2011). The objective of both study components was to “take advantage of user contributions to enrich the descriptive metadata created by libraries, archives and museums (LAMs) and expand their reach into user communities” (Smith-Yoshimura et al., p.8).

Much literature has looked at social metadata use in particular art museum environments such as the Victoria and Albert Museum (Lewis, 2011), or collaborative projects such as the joint effort between the Public Catalogue Foundation (PCF) and the British Broadcasting Company (BBC) (Ellis, Gluckman, Cooper, & Greg, 2012) and the Steve Museum Social Tagging Project (Trant, 2006, 2008, 2009b). Ellis et al. described the ongoing joint project between the Public Catalogue Foundation and the BBC. The purpose of the project was to put about 3,000 painting collections from across the United Kingdom, containing over 200,000 paintings, online on one website. Tagging volunteers from the public were given software and metadata training and then assigned random images, which they tagged with their own keywords as well as terms selected from defined options. The project was a combination of free-text tagging by non-specialists, a modified controlled vocabulary to capture genres of paintings, and the controlled vocabulary supplied by the various collections.

From October 2006 and December 2008, the Steve Museum Social Tagging Project, a collaborative effort between several American art museums, was an in-depth experiment about the role of tagging in the museum environment (LaPlante, Klavans, & Golbeck, 2011; Trant, 2006, 2008, 2009b). User tagging led to a folksonomy containing almost 40,000 terms (Trant, 2008). Analysis of tags indicated that 86% of tags were not in museum documentation, and 88% of tags were evaluated as useful for searching by staff. Trant concluded that, “tags offer another layer that supplements and complements the documentation provided by professional museum cataloguers” (p. i).

Other literature presented conceptual models of how tagging might work in the art museum. Cairns (2011), for example, explored the potential value of folksonomies to museums. She showed that incorporating folksonomies with traditional classification systems provides the museum with another means to preserve and increase its relevance. By comparing data from art museum visitor studies, Smith (2006) examined “how effective non-specialist art
keyworders can be in capturing (“tagging”) potentially useful concepts and terms for use in art information retrieval.” In contrast to Cairns, Smith concluded that social tags cannot be meaningful links between visual elements and more complex meaning in artworks, stating “non-specialist viewer preferences (for example, for more realistic artworks) and their relatively undeveloped skills of verbalizing about art are likely to have an impact on the quality, consistency, and coverage of the keywording they provide” (p. 13).

Chae and Kim (2011) developed and evaluated a model for a faceted social tagging system for museums in an effort to “reduce the semantic gap between curators and audience.” The system consisted of six facets: background, identification, theme, association, emotion and figure. The authors tested the system using images from the Gyeonggi Museum of Modern Art and compared social tags with faceted tags. Results showed the faceted system could effectively categorize image tags and convey the curators’ perspective, but might be inconvenient for users and the facets could cause ambiguity.

Van Hooland (2006) offered an unusual perspective by emphasizing the changing role of the user from a passive “spectator” or consumer of information to a proactive “annotator” who interacts with a digital image and contributes to the information retrieval process. The author analyzed a sample of 355 user comments in the image database of the National Archives of the Netherlands and identified six categories of comments. The categories were: correcting displayed metadata (46%), including a narrative about the image (31%), connecting the user’s own history to the image (9%), pointing out a incorrect or poor display of the image (3%), giving and opinion (3%), and posing a question to the organization or other users (1%). Van Hooland concluded that the constructive character of comments indicated the user community could play a role in the indexing and cataloguing of digital images.

Van Hooland, Mendez Rodrigues, and Boydens (2011) enlarged on Van Hooland’s earlier research by analyzing both theoretical and empirical approaches to the potential positive and negative long-term consequences of user-generated metadata on digital collections. The authors argued that, on the one hand, the Web could be viewed as a catalyst for the commodification of cultural heritage. On the other hand, user engagement with digital cultural objects can generate knowledge. Again, Van Hooland et al. preferred and promoted user comments over social tagging as a vehicle to “enhance the social relevance of cultural heritage collections by engaging them in a process of coherence” (p. 712-713).

Van Hooland, Bontemps, and Kaufman (2008) examined metadata quality within the museum sector. They applied an open source general-purpose data-profiling tool to identify and assess problems in almost 70,000 records with 13 metadata fields for an ethnographic collection at the Royal Museum for Central Africa. The profiling process led to a report, which gives a definition, domain for values, and referential integrity rules for each metadata field.

Finally, one of the newest research areas addressed multilingual social tagging for art images. Eleta and Golbeck (2012), for example, analyzed tags in English and Spanish, which were assigned to 33 images of paintings on two language versions of a website. Results indicated there was a small group of frequently used “power tags” that indicated consensus of users and that were often exact translations in English and Spanish. A common tag found in only one language suggested cultural differences. The authors concluded:

Multilingual social tagging of images, and of digital objects, could facilitate access for a linguistically and culturally diverse population. At the same time, multilingual tagging could enrich the meaning of digital objects with different perspectives and cultural backgrounds. In particular, when artworks have cultural significance for one group, social tags could provide a new context for viewers of other cultures (p. 703).

Research Question
In their report about OCLC’s investigation of LAMs and social metadata, Smith-Yoshimura and Shein (2011) argued that social metadata:

[I]s evolving as a way to both augment and recontextualize the content and metadata created by LAMs. User-contributed content can enrich existing metadata and can be integrated with or separated from the content of LAM sites. Enriching LAM metadata improves the quality and relevancy of users’ search results and helps people to understand and to evaluate the content (p. 9).

Given these potential benefits of social metadata, I asked, how are art museums using user-generated metadata along with conventional visual art metadata created through standard metadata schemes and controlled vocabularies? How are the two types of metadata being combined?

**Methodology**

I implemented the methodology used by the OCLC study of libraries, archives, and museums (Smith-Yoshimura & Shein, 2011) to review and analyze social metadata at two art museum websites. The OCLC working group conducted an environmental scan of 76 LAM websites from around the world. It was followed by detailed reviews of 24 typical sites and third-party hosted social media sites in order to identify how LAMs can encourage users to contribute social metadata. Social media/networking was defined as, “Ways for people to communicate with each other” (p. 10). Social media included social networking sites (e.g., Facebook), video-sharing sites (e.g., YouTube), and image-sharing sites (e.g., Flickr) as well as wikis (e.g., Wikipedia, blogs (e.g., internal, Blogger, WordPress), and microblogs (e.g., Twitter).

The working group identified seven categories of user-generated metadata that could augment existing metadata at LAMs, arguing, “Enhancing metadata improves the quality and relevancy of users’ search results” (Smith-Yoshimura & Shein, 2011, p. 13). The authors provided detailed descriptions of practices along with examples of organizations that exemplified those practices (pp. 14-36). The categories are:

1. Data to improve description;
2. Data to improve subject access—one vehicle to enhance subject access was metadata created by social tagging;
3. Collection and content construction;
4. Rating and reviews, which represent subjective opinions;
5. Sharing and facilitating research;
6. Networking and community building; and,
7. Promoting activities beyond the website.

The number of websites, however, represented a tiny sample of LAMs in general and art museums in particular. I wanted to continue the exploration of social metadata use by concentrating on one type of information organization. I narrowed my focus to only art museums and their application of social tagging and use of third-party hosted social media sites. Specifically, I examined the implementation of social tagging and other social media by the Philadelphia Museum of Art and the Your Paintings websites. The Philadelphia Museum of Art is integrating tagging with the traditional visual art metadata. Your Paintings is a newly established online museum, which is founded on and depends completely on the use social tagging tools.
Results

The results of my two website reviews are presented with the same format and descriptive categories used by the OCLC study.

Philadelphia Museum of Art

Website: http://www.philamuseum.org/

Figure 2. Screenshot of a portion of the online record for *Rain* by Vincent van Gogh (captured May 6, 2012).

**Location:** Philadelphia, Pennsylvania, United States

**Sponsoring institution:** The Philadelphia Museum of Art is a registered not-for-profit corporation in Pennsylvania.

**Site type:** The site includes archives, library, and museum components. OCLC defined community as “Content provided primarily by individual volunteers.” or “if content provided by individuals is significant (e.g., editing text, uploading images, etc.). Simply the availability of social media features, such as tagging of images, does not qualify a site for inclusion in this category.” (Smith-Yoshimura & Shein, 2011, p. 69). Based on OCLC’s definition, the Philadelphia Museum of Art would not qualify as a community site since professionals not volunteers provide most content.

**Single or collaborative:** The site is owned and managed by a single institution.
Site description: The Philadelphia Museum of Art identifies itself as “one of the largest museums in the United States” with a collection of over 227,000 works. The Museum has a comprehensive, visually simple, and pragmatic website (Figure 1). It has been designed to attract and keep the attention and interest of users by including many types of social media opportunities to interact with and learn about the Museum’s collections, activities, and events.

In 2001, the Museum started to digitize its collection and established its online database. Currently, 54,795 objects are available online under the concept of ART 24/7, a deliberate effort to make as much of the collections as possible accessible online to the public. Users can search the collections by keywords, artist/maker, classification (type of object), origin of work (country), curatorial department, and accession number. Users can also filter results by selecting only records that include provenance or audio files.

Audience: General audience and scholars. User-generated content solicited: The Museum has fully incorporated social tagging into the standard metadata record of each object available online (see Figure 2). To educate users, a specific search page is devoted to social tagging. A clear definition is provided:

Social Tagging, or a folksonomy, is a user-generated taxonomy used to categorize and retrieve web content, such as Web pages, photographs, and Web links, using open-ended labels called tags. The Philadelphia Museum of Art now offers online visitors the ability to "tag" objects in the online collection in an attempt to improve access to these works of art for themselves and others (Philadelphia Museum of Art, 2012).

Users can browse the online collection by selecting from the list of user-contributed tags.

Digital objects are presented in a straightforward simple format. The online record for Van Gogh’s Rain exemplifies a standard record for objects in the online database (Figure 2). The record includes art historical metadata that would be in fields belonging to the Visual Resources Association (VRA) Core 4.0 or Dublin Core metadata schemes. (The website does not state what scheme the Museum uses.) In addition, there is an audio recording, and links to a lengthy biography, other works in the collection by the artist, classification, curatorial department, and a map with the country of origin. Social features include a link to “People who love this also love.” (Rain is the most loved object in the online collection; 284 people love Rain.) Social tags added by viewers are shown in a distinct pale blue box and can be easily added or deleted. An account or membership is not needed.

Web 2.0 features explicitly offered: The site includes links to its pages at Delicious, Digg, Facebook, StumbleUpon, tumblr, and Twitter, which allow users to “stay informed.” Users can create a My Museum account to set up an individualized view of Museum collections and activities.

Users can subscribe to four RSS feeds about general Museum news, current exhibitions, Art After 5 (food, drinks, and entertainment on Friday evenings), and press headlines. Users can also view video clips and listen to or download audio mp3s on the Museum site and subscribe to Museum podcasts and receive automatic updates through iTunes.

Social media features used: There is no indication how many people are tagging, although viewers can see how many “love” an object. There is also no way to see how many use My Museum or RSS feeds. Twitter has about 43,000 followers, and there are about 38,500 likes on Facebook, but it’s not possible to know how many individuals are represented.

Registration: Anyone can create a My Museum profile “to personalize your Museum of Philadelphia experience.” The account allows the user to “Put together private galleries of your favorite objects from the Museum’s online collection, customize your own tour, and share your discoveries with friends.” In addition, the user can track upcoming events on a personal My
Calendar. Registration requires an email address, password, personal name user name, birth date, and postal code.

I started to create a My Museum account, but decided not to continue when I saw that the Create My Profile form required an exact birth date. It stated, “Birth Date is required for privacy reasons as we do not collect or maintain information from children.” I consider the requirement an infringement of privacy for anyone, regardless of age.

Moderation: The site does not indicate if or how social tagging is monitored. I added the tag “flowers” to the object Every Touch without any registration requirement. Tags can also be readily deleted.

Privacy policy: The Museum has a detailed easy to understand privacy and security policy available at http://www.philamuseum.org/privacy.html

Potentially useful to libraries, archives, and museums: The website is well organized and straightforward to navigate via clearly delineated subject tabs. Incorporating social tagging, My Museum, downloadable podcasts, and RSS feeds seem to be methods the Museum has adopted to attract its audience and to monitor the public's interest. The site contains excellent in depth art-historical information about art objects in a range of media. There are opportunities to learn and participate through both conventional in-person events and social media.

Your Paintings and Your Paintings Tagger

Website: http://www.bbc.co.uk/arts/yourpaintings/ and http://tagger.thepcf.org.uk/

Figure 3. Screenshot of a portion of the Your Paintings home page (captured May 3, 2012).

Figure 4. Screenshot of a portion of the Your Paintings Tagger home page (captured May 4, 2012).

Country: United Kingdom (UK)

Sponsoring institution: The Public Catalogue Foundation, a registered charity, in partnership with the British Broadcasting Corporation (BBC) and Arts Council England, which “champions, develops and invests in artistic and cultural experiences that enrich people's lives,” and about 3,000 participating collections and museums across the UK.

Site type: Archives, community, libraries, museums

Single or collaborative: Collaborative

Site description: Launched in June 2011, Your Paintings and Your Paintings Tagger are all about encouraging public participation through social tagging. “Your Paintings is a website which aims to show the entire UK national collection of oil paintings, the stories behind the paintings, and where to see them for real. It is made up of paintings from thousands of museums and other public institutions around the country.” Ellis et al. (2012) presented a valuable overview of the project, its metadata structure, and progress to date for the project.

Your Paintings includes an informative Frequently Asked Questions page and glossary of art-related terms, resources for teachers, and video tours by UK celebrities. A search box allows users to search by artist name, painting title, and tag. Each painting image is accompanied by metadata supplied by the collection where the work is housed: title, artist, date, medium, size, collection name, accession number, and acquisition method. A separate distinct area below the image contains assigned tags.

The two links “Help us to tag the nation’s paintings” and “Start tagging paintings” lead to the Your Paintings Tagger page (Figure 4) where members of the public are encouraged to contribute. Sections of the page are dedicated to a video tagging tutorial, information about
what has been achieved, the latest painting updates, the latest tweet, the newest taggers to become involved, and the top 10 taggers in the last seven days and since the beginning of the project as well as the number of pictures they have tagged. The figures about taggers have introduced an element of friendly competition.

**Audience:** General public, scholars, and participating organizations.

**User-generated content solicited:** The primary goal of the project is education and to solicit public participation to eventually tag all 200,000 paintings.

**Web 2.0 features explicitly offered:** Your Paintings Tagger is devoted to tagging by the public. The site also includes links to Facebook and Twitter.

**Social media features used:** In the first six months of operation, traffic was approximately 100,000 unique browsers per month (Ellis et al., 2012, p. 2). As of May 2, 2012, the Your Paintings website had 124,901 paintings available online. The project appeals to a wide audience. It entices the art lover and anyone interested in history or the UK to volunteer to tag paintings.

A volunteer can tag any number of works, which are randomly assigned. Tag categories include things, people, places, and events. When entering a potential tag, a user is presented with a controlled list of possible meanings for the term to choose from. There are six tagger levels: green, yellow, red, blue, gold, and master. A table lists the top 10 taggers and how many paintings they have tagged (Figure 4). Your Paintings Tagger indicated there are 6,610 taggers, 7,000 pictures have been tagged, 2,131,353 tags have been applied, and 20,259 are being tagged (on May 7, 2012).

As of May 7, 2012, Your Paintings had 1,048 followers on Twitter. No statistics are available about how many have viewed the Your Paintings educational video tours or Taggers video tutorial on tagging.

**Registration:** A person must register before tagging. Registration requires an email address, personal name, screen name, and password. Taggers with specialist knowledge of art history can volunteer to do advanced tagging tasks. If someone does not want to register, the user can try out the tagging process by tagging four sample pictures.

**Moderation:** Tagging is moderated; all tags are analyzed using algorithms developed by the Citizen Science Alliance at the Astrophysics Department at the University of Oxford, with contributions from the Art History Department at the University of Glasgow.

**Privacy policy:** The BBC governs the terms of use and provides a privacy statement for The Your Paintings site. The Your Paintings Tagger site includes its own statement of terms and conditions at [http://tagger.thepcf.org.uk/footer/506](http://tagger.thepcf.org.uk/footer/506), which gives limited privacy rights to users and taggers, and grants intellectual property rights for tags to the Public Catalogue Foundation.

**Potentially useful to libraries, archives, and museums:** Your Paintings Tagger gives participating institutions an excellent opportunity to add tagging metadata to their collection records.

**Discussion**

The Philadelphia Museum of Art and Your Paintings/Your Paintings Tagger represent two examples of how art museums can use social tagging to augment traditional visual art metadata. Both websites have solicited user-generated tags to improve object description and subject access, enhance awareness of collections and collection access, facilitate research, build communities, and promote activities beyond the website. Unfortunately, an evaluation of
the quality of tags and value of their contribution to already existing metadata cannot be made from the websites and is necessary to determine a measure of success of the two sites.

The Philadelphia Museum of Art has taken a conservative approach to tagging. It placed tags alongside its conventional metadata; tags are one more type of metadata collected, but they don't dominate the website. In addition, specific tags may reflect an ambiguous and idiosyncratic nature (e.g., the terms ‘awesome’ and ‘you can hear it’ for the painting Rain(Figure 2)). Tagging is a way to capture visitors’ attention and encourage them to engage with the online collections, but seems to have attracted modest attention from online visitors. The website does not state how many people have visited the site, contributed to tagging or how many tags exist.

Your Paintings/Your Paintings Tagger is a more sophisticated and dynamic site with a clear definite short-term goal that appeals to an interested audience. The project seems to have invested more resources than Philadelphia in encouraging and engaging users in the tagging process. Perhaps, more to the point, Your Paintings has a strong marketing campaign led by influential supporters. It would be informative to know how marketing has contributed to taggers' participation. The Tagger site supports Smith-Yoshimura & Shein's (2011, p. 11) assertion that tagging is most useful when there is no pre-existing metadata (e.g., photos, videos, and audio) and has more worth when combined across collections.

Both the Philadelphia Museum of Art and Your Paintings exemplify the dual nature of digital culture as proposed by Van Hooland, Mendez Rodrigues, and Boydens (2011). The authors argued that the Web could be viewed as a catalyst for the commodification of cultural heritage, but, at the same time, user engagement with digital cultural objects can generate knowledge.

**Conclusion**

Social tagging is an emerging type of user-generated metadata that has a role to play in art museums. The Philadelphia Museum of Art and the Your Paintings project showed that tagging could contribute to the enhancement of cultural heritage collections as well as the public’s awareness of and participation in museum activities. Before implementing any social tagging project, art museums must clarify their goals and develop a clear plan within the organization’s mandate.

**References**


http://conference.archimuse.com/mw2011/papers/can_social_tagging_be_a_tool


Gupta, M., Li, R., Yin, Z., & Han, J. (2010). Survey on social tagging techniques. ACM Special Interest Group on Knowledge Discovery in Data (SIGKDD) Explorations Newsletter, 12(1), 58-72. doi: 10.1145/1882471.1882480


Consequences of the Restrictions on Mobile Phones among Undergraduates in Nigerian Universities

Thomas. A. Ogunmodede

Oludayo John Bamigbose

Thomas Ayinla Ogunmodede holds Bachelor and Master degrees from the Department of Library, Archival and Information Studies, University of Ibadan, Ibadan, Nigeria. He is currently an Assistant Librarian at Olusegun Oke Library, Ladoke Akintola University of Technology (LAUTECH), Ogbomoso, Oyo State, Nigeria. His research interests include information management, Information use and Library resource management. He can be reached at: tamodede@yahoo.com. Oludayo John Bamigbose is a graduate of Library and Information Studies, University of Ibadan, Ibadan, Nigeria. He is currently a law student in the same university. His research interests include copyright studies and information ethics. He can be reached at: oludaryor@yahoo.com

Introduction

One of the realities of the 21st century is the advancement in the sector of the information and communication Technologies (ICTs) such that man’s way of life has been tremendously impacted by this development. This phenomenon has elicited reaction particularly impacted by this development. This phenomenon has elicited reactions particularly from those who profited from their relevance in the pre-ICT age, but who have no choice than to embrace the birth of Technology if they indeed, will like to be relevant in the scheme of things in the ICT driven age.

To Okunle and Akanmu-Adeyemi (2010), the application of I.C.T to almost every sphere of life is no longer a new phenomenon as man’s survival now relies on the extent at which man is able to adapt to this. Librarians, Information brokers, knowledge managers and other information practitioners who are custodians of human knowledge, records of civilization and the evolution of mankind from the different ages of history to the present one are important stakeholders in the preservation and retrieval of development centered resources if properly utilised (Aina 2004). Many countries, both developed and developing are now investing in I.C.T for improving their life styles and business practice (Veli and Mostert, 2010, Atinmo, 2000, Minishi-Mayanja, 2000).

The GSM Revolution

The introduction of Global System Mobile (GSM) to Nigeria was after the liberalization of the Telecommunication in Nigeria which saw to healthy rivalry championed by the South Africa Telecommunication provider MTN who were given the license by the Federal Government of Nigeria to operate in Nigeria. This liberalization broke the monopoly of NITEL who was the sole provider of telephone services in Nigeria. Now, over forty million Nigerians now have mobile phones a number arguably greater than the number of literate Nigerians.

Right to Telephone Conversation in Nigeria

The 1999 constitution of the Federal Republic of Nigeria (CFRN) in its section 37 guarantees the privacy of telephone conversation in Nigeria. The constitution which is itself, the chief
source of law in Nigeria is supreme and its provisions binding on all persons and authorities in
Nigeria. In the event of conflict between the provision contained therein and any other law(s)
the provision of the constitution shall prevail (section one, constitution of the Federal Republic
of Nigeria, 1999). The import of this provision is that privacy of telephone conversation is not
subject to any other law.

In its 37th section, the constitution states unequivocally that “The privacy of citizens, their
homes correspondence, telephone communication is hereby guaranteed and protected”.
Perhaps, it is germane to state that privacy in telephone conversation can be distinguished
from the right to use ones mobile phone in a particular environment. In the same vein, where
this right guarantees as “sacred” and never-to-be-infringed upon ones right of privacy of
telephone conversation, such protection does not empower a telephone user to use his/his
phone where there is restriction of phone calls.

Use of Mobile Phones in the Library

There have been debates on whether public policy should override an individual interest over
a particular issue which affects both the society and the individual. It has however being laid
to rest that, where the interest is of the general public and its conflict that of an individual, the
interest of the generality of the society should be considered first. It is against this
background that restriction is given on the use of mobile phones at some strategic places.
These include the libraries, hospitals, filling stations, worship centers, banks, security offices
and some other places, where if permitted, the use of telephone may be counterproductive to
the attainment of the goals and objectives of the centre. Usually, inscriptions are labeled at
the entrance to inform people of the existence of such restrictions.

Most libraries in Nigeria in the realization of the distraction occasioned if the library patrons or
clienteles are permitted to use mobile phones, have expressly prohibits library users not to
use mobile phones in the library environment particularly the reading /studying area. The
restriction ranges from outright prohibition of the use of mobile phones to placing the ringing
mode on silence or vibration mode such that the ringing of the phone does not shift the focus
of the users form reading. One of the fundamental issues that this paper will address is this
regulation on use of mobile phone in the libraries and its attendant consequences.

Literature Review

Mutula (2005) studied the use of cell phones (GSM) by Library and Information Studies and
other humanity students in the University of Botswana and found that most of the students
owned cell phones, that cell phones were mainly used for communication purposes and there
was little difference in the patterns of cell phone use by LIS and other humanity students.
Though the menace of the use of GSM was not investigated, the fact that most of the students
owned GSM handsets suggests that the use of cell phones in the library might be a problem.
Garuba and Ujuanbi (2005) reported that the influx of GSM subscribers to about 16 millions in
the late 2005 has greatly affected the increase in noise level and distractions in most librari
as majority of library users are now cell phone owners. Alao, Ajala and Makinde (2007)
reported that the menace of GSM use was very high in the seven academic libraries
investigated. The authors discovered that four among the seven academic libraries studied
does not have a written policy guiding the usage of mobile phones in their libraries and that
there were no designated center where students can make calls in the library. The study of
Utulu, Alonge and Emmanuel (2010) on the use of mobile phones for project based learning
revealed that 512 (96%) of the sampled population of selected private universities students in
Southwestern part of Nigeria had mobile phones, whiles 12(2.3%) did not have mobile
phones.
Methodology

There were three academic libraries selected for the study, each from Federal, State and Private universities located in Oyo state, Nigeria. Data were collected from all the three academic libraries with the aid of questionnaire. Three hundred questionnaires were distributed to the respondents. One hundred copies of the questionnaire each randomly distributed to the users in each academic libraries. Two hundred and thirty (230) copies of questionnaire were returned and found valid for analysis, leaving the response rate at 76.7%.

The names of the academic libraries selected are: Olusegun Oke Library, LAUTECH, Ogbomoso, Kenneth Dike Library, UI, Ibadan and Lead City University Library, Ibadan, Oyo State, Nigeria. The responses of various items of the questionnaires were analyzed using frequency counts, percentages Pearson moment correlation and Chi-Square.

Research Hypotheses

The followings are the hypotheses for this study:

H01. There is significant relationship between frequency of library use, accessibility to mobile phone and the number of calls received daily.

H02. There will be no significant relationship between since registered in the library and specific time calls are received.

H03. There will be no significant difference in the attitude of users of the library between those using one and those using two phones respectively.

Results, Analysis, and Discussion

Demographical Variables

Table 1: Distribution of the respondents by Sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>112</td>
<td>48.7</td>
</tr>
<tr>
<td>Female</td>
<td>118</td>
<td>51.3</td>
</tr>
<tr>
<td>Total</td>
<td>230</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 2: Distribution of the respondents by Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-19</td>
<td>80</td>
<td>34.8</td>
</tr>
<tr>
<td>20-29</td>
<td>147</td>
<td>63.9</td>
</tr>
<tr>
<td>30+</td>
<td>3</td>
<td>1.3</td>
</tr>
<tr>
<td>Total</td>
<td>230</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 3: Distribution of the respondents by Level

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>62</td>
<td>27.0</td>
</tr>
<tr>
<td>200</td>
<td>83</td>
<td>36.1</td>
</tr>
<tr>
<td>300</td>
<td>51</td>
<td>22.2</td>
</tr>
<tr>
<td>400</td>
<td>20</td>
<td>8.7</td>
</tr>
<tr>
<td>500</td>
<td>13</td>
<td>5.7</td>
</tr>
<tr>
<td>600</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Total</td>
<td>230</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4: Access to Mobile Phones

<table>
<thead>
<tr>
<th>Statements</th>
<th>Options</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
</table>

PNLA Quarterly 77:2 (Winter 2013) 80
Do you have Mobile Phones

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>228</td>
<td>99.1</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>0.9</td>
</tr>
</tbody>
</table>

If yes, how many phones do you have?

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>150</td>
<td>65.2</td>
</tr>
<tr>
<td>Two</td>
<td>75</td>
<td>32.6</td>
</tr>
<tr>
<td>Three+</td>
<td>5</td>
<td>2.2</td>
</tr>
</tbody>
</table>

How many calls do you receive daily on the average?

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>24</td>
<td>10.4</td>
</tr>
<tr>
<td>1-5</td>
<td>113</td>
<td>49.1</td>
</tr>
<tr>
<td>6-10</td>
<td>93</td>
<td>40.4</td>
</tr>
</tbody>
</table>

Is/are there phone calls you receive unexpectedly

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>192</td>
<td>83.5</td>
</tr>
<tr>
<td>No</td>
<td>38</td>
<td>16.5</td>
</tr>
</tbody>
</table>

Is/are there specific time you receive calls

<table>
<thead>
<tr>
<th>Options</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>51</td>
<td>22.2</td>
</tr>
<tr>
<td>No</td>
<td>179</td>
<td>77.8</td>
</tr>
</tbody>
</table>

Table 5: Use of Library

<table>
<thead>
<tr>
<th>Use of Library</th>
<th>Options</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since when have you registered with the library?</td>
<td>1-6 months</td>
<td>52</td>
<td>22.6</td>
</tr>
<tr>
<td>6 month – 1 yr</td>
<td>32</td>
<td>13.9</td>
<td></td>
</tr>
<tr>
<td>1+ years</td>
<td>146</td>
<td>63.5</td>
<td></td>
</tr>
<tr>
<td>How often do you use the library in a week?</td>
<td>Once a week</td>
<td>54</td>
<td>23.5</td>
</tr>
<tr>
<td>Twice a week</td>
<td>61</td>
<td>26.5</td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>115</td>
<td>50.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Awareness on the Restriction of the use of GSM

<table>
<thead>
<tr>
<th>Awareness on the Restriction of the use of GSM</th>
<th>Options</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you aware that the library prohibits the users from receiving calls in the library?</td>
<td>Yes</td>
<td>212</td>
<td>92.2</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>7.8</td>
<td></td>
</tr>
<tr>
<td>Have you been cautioned for using mobile phones in the library?</td>
<td>Yes</td>
<td>78</td>
<td>33.3</td>
</tr>
<tr>
<td>No</td>
<td>132</td>
<td>66.1</td>
<td></td>
</tr>
<tr>
<td>Have you been embarrassed by library staff for using mobile phones in the library?</td>
<td>Yes</td>
<td>21</td>
<td>9.1</td>
</tr>
<tr>
<td>No</td>
<td>209</td>
<td>90.9</td>
<td></td>
</tr>
<tr>
<td>Have you witnessed/heard of any sanction meted on anyone receiving calls in the library?</td>
<td>Yes</td>
<td>93</td>
<td>40.4</td>
</tr>
<tr>
<td>No</td>
<td>137</td>
<td>59.6</td>
<td></td>
</tr>
</tbody>
</table>

Table 7: Attitude of Users of the Library

<table>
<thead>
<tr>
<th>Attitude of Users of the Library</th>
<th>Options</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>To me, the regulation is unnecessary</td>
<td>Yes</td>
<td>48</td>
<td>20.9</td>
</tr>
<tr>
<td>No</td>
<td>182</td>
<td>79.1</td>
<td></td>
</tr>
<tr>
<td>Sometimes, I receive calls in the library while not disturbing anybody</td>
<td>Yes</td>
<td>138</td>
<td>60.0</td>
</tr>
<tr>
<td>No</td>
<td>92</td>
<td>40.0</td>
<td></td>
</tr>
<tr>
<td>I speak in a low tone each time I speak in the library</td>
<td>Yes</td>
<td>199</td>
<td>82.2</td>
</tr>
<tr>
<td>No</td>
<td>41</td>
<td>17.8</td>
<td></td>
</tr>
<tr>
<td>Sometimes, I see other receiving calls in the library</td>
<td>Yes</td>
<td>183</td>
<td>74.3</td>
</tr>
<tr>
<td>No</td>
<td>57</td>
<td>25.7</td>
<td></td>
</tr>
<tr>
<td>Sometimes, I am discouraged from using the library because of the unnecessary disturbance from the library staff</td>
<td>Yes</td>
<td>177</td>
<td>79.2</td>
</tr>
<tr>
<td>No</td>
<td>47</td>
<td>20.8</td>
<td></td>
</tr>
<tr>
<td>Users are generally discouraged from using the library as well</td>
<td>Yes</td>
<td>183</td>
<td>79.2</td>
</tr>
<tr>
<td>No</td>
<td>57</td>
<td>20.8</td>
<td></td>
</tr>
<tr>
<td>I will like to visit the library more frequently if I can receive calls in the library</td>
<td>Yes</td>
<td>177</td>
<td>77.0</td>
</tr>
<tr>
<td>No</td>
<td>47</td>
<td>23.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 8: Way out: Solutions to the negative attitude of users towards usage of mobile phone in the library

<table>
<thead>
<tr>
<th>Solutions to the negative attitude of users towards usage of mobile phone in the library</th>
<th>Options</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re-orientation of the users</td>
<td>Yes</td>
<td>205</td>
<td>89.1</td>
</tr>
<tr>
<td>No</td>
<td>25</td>
<td>10.9</td>
<td></td>
</tr>
<tr>
<td>Staff should be more polite and friendly</td>
<td>Yes</td>
<td>205</td>
<td>89.1</td>
</tr>
<tr>
<td>No</td>
<td>25</td>
<td>10.9</td>
<td></td>
</tr>
<tr>
<td>Staff should lead by example by not receiving calls as well while in the library</td>
<td>Yes</td>
<td>192</td>
<td>83.5</td>
</tr>
<tr>
<td>No</td>
<td>38</td>
<td>16.5</td>
<td></td>
</tr>
</tbody>
</table>
Instead of advocacy for switching off mobile phones, it could be placed on silence/vibration mode. There can be call centres in the library where emergency calls can be made. Staff should keep their phone on vibration mode. Re-orientation of staff.

### Research Hypotheses

**H0 1:** Relationship between Frequency of Library Use/Accessibility to mobile phone and Number of calls received daily

Table 9: Frequency of library use/ Accessibility to mobile phone.

<table>
<thead>
<tr>
<th>Frequency of Library Use/Accessibility to mobile phone</th>
<th>Number of calls received daily</th>
<th>Total</th>
<th>$X^2$ Crit</th>
<th>$X^2$ Cal.</th>
<th>DF</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>1-5</td>
<td>6-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Once</td>
<td>28</td>
<td>20</td>
<td>9.49</td>
<td>5.015</td>
<td>4</td>
<td>.286</td>
</tr>
<tr>
<td>Twice</td>
<td>24</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>61</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>93</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table above showed that there is significant relationship between Frequency of Library Use/Accessibility to mobile phone and Number of calls received daily ($X^2$ crit = 9.49, Cal. = 5.015, df = 4, P > .05). It was observed that the $X^2$ crit was greater than the $X^2$ cal.

The null hypothesis is accepted.

**H0 2:** There will be no significant relationship between since registered in the Library and Specific times calls received

Table 10

<table>
<thead>
<tr>
<th>Cost of since registered in the Library</th>
<th>Specific times calls are received</th>
<th>Total</th>
<th>$X^2$ Crit</th>
<th>$X^2$ Cal.</th>
<th>DF</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1-6 months</td>
<td>8</td>
<td>3.441</td>
<td>5.99</td>
<td>2</td>
<td>.179</td>
</tr>
<tr>
<td></td>
<td>6 months – 1 year</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt; 1 year</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>51</td>
<td>230</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table above showed that there was no significant relationship between since registered in the Library and Specific times calls are received ($X^2$-Crit = 3.441, $X^2$-Cal = 5.99, df = 3, P > .05). The X2-Crit is less than the X2-Cal.

The null hypothesis is rejected.

**H03.** There will be no significant difference in the attitude of users of the library between those using one and those using two phones respectively.

<table>
<thead>
<tr>
<th>Attitudes of Users of the Library</th>
<th>N</th>
<th>Mean</th>
<th>Std.Dev.</th>
<th>Crit-t</th>
<th>Cal-t DF</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>150</td>
<td>10.9600</td>
<td>1.4967</td>
<td>.96</td>
<td>.065</td>
<td>223.948</td>
</tr>
</tbody>
</table>

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The above table showed that there was no significant difference in the attitudes of users of the library between those using one and those using two (Crit-t = 1.96, Cal.t = .065, df = 223, P > .05 level of significance).

The null hypothesis is rejected.

**Discussion of Findings**

The study found that females use the library more than their male counterparts. This was consistent with the earlier finding of Ogunmodede and Emeahara (2010) that female undergraduate students use academic libraries more than the male students. The study also revealed that 147 (63.9%) respondents fall between the age bracket 29-29, this was in line with the stance of Aalo, Ajala and Makinde (2007) while studying the use and control of GSM handsets in some academic libraries in Nigeria. It was also discovered that majority of the respondents have access to mobile phones, received an average daily calls of between 1-5 times and received unexpected calls in the library, this submission was in line with the findings of Mutula, (2005); Zulkefly and Baharudin, (2010) and Utulu, Alonge and Emmanuel, (2010) respectively.

The study shows that the level of awareness of the restrictions of the use of phone in the library was very high, 212 (92.2%), this may account for why majority of the respondents had never been embarrassed or cautioned by the library staff. The level of the knowledge and attitude of the respondents revealed that majority of library users received calls in the library without disturbing others, speaks in a low tone and that they were not being necessarily disturb by their colleagues receiving phones in the library. The tested hypotheses revealed that there is significant relationship between frequency of library use/accessibility to mobile phone and that there was no significant difference in the attitudes of the users of the library between those using one and those using phones respectively.

**Conclusion and Recommendations**

Based on the findings of the study, the following conclusion are drawn:

- The use of mobile phone by the readers in the libraries studies was high.
- The readers in the understudied libraries received calls unexpectedly.
- Though the level of the awareness of the probation of user from receiving calls in the library was high, yet there were few users who defile the orders and constitute a menace.

In the light of the findings, the authority of the library studied and indeed any academic libraries authority need to do more to effectively address the menace of mobile phone use. There should be re-orientation of library users from time to time on the subject matter, library staff should also show leadership example by not receiving calls in such a way that it will create disturbance in the library. Instead of advocating for switching off mobile phones, it could be placed on silence/vibration mode. Authority of academic libraries can as well establish call centers in the library where emergency calls can be made.

**References**


Constitution Federal Republic of Nigeria


Consequences of Non-Formulation of National Information Policy (NIP) on Library Development in Nigeria

Tukur Abba

Isa Sali Song

Tukur Abba holds a Bachelors of Library Science and Masters of Library Science from University of Maiduguri, Nigeria, and is presently a doctoral student at the same University. He started his career at Ibrahim Babangida Library, Modibbo Adama University of Technology Yola, Nigeria, as a Library Assistant in 1985. Areas of research interest include Digital and Electronic Librarianship. He is presently lecturing at the Department of Library & Information Science, Modibbo Adama University of Technology, Yola. He is married with six children. He can be reached at: tukur_abba@yahoo.co.uk ortukurabba@gmail.com. Isa Sali Song holds a Bachelors of Library and Information Science from Ahmadu Bello University Zaria (ABU) and Masters of Library and Information Science from Bayero University, Kano. He has been a librarian for 13 years with the Modibbo Adama University of Technology, Yola. He is now acting university librarian, Federal University, Dutse, Jigawa State, Nigeria. Areas of research interest include information user, information science, library automation, technologies in libraries and library management. He is happily married and blessed with children. He can be reached at: issong2008@yahoo.com

Introduction

Information is recognised as a valuable and powerful commodity for the survival of individuals and the overall development of any nation. Informed nation’s progress faster and achieve political, health, education and socio-economic advancement leading to an enhanced standard of living for its citizenry. Oladele (2001) explains that Information is a strategic resource and a pivot around which the growth and development of individuals, organisations and nations revolve. The significance of information in nation building cannot be over emphasised since the amount of information available to a nation, if properly managed and utilised determines its scientific and technological position among the comity of nations.

Ogunsola and Aboyade (2005) argue that information has always played a very significant role in human life, and maintained that, in the mid-20th century, the role of information increased immeasurably as a result of social progress and the vigorous development in science and technology. In the words of Shafique (2009) Information is a vital resource for national development. A society that consumes and generates the most knowledge and information is the strongest society.

The value of information resources towards socio-economic, political, and technological development is believed to be of serious concerned to nations. Thus, Nwalo(2000) views information to be a fifth factor of production which by no means inferior to land, labour, capital, and the entrepreneur. This view strengthens the need and urge for countries to have NIP formulated for sustained developmental programmes, projects and progress.

The word policy may differ in meaning. Generally, it's a guiding principle or rule. Accordingly, McClure and Jaeger (2008) assert that Policy at any level is the set of government directives intended to shape decisions and actions of individuals, organizations, and government agencies. As such, policy can be established by legislation, executive orders, judicial rulings, guidelines and regulations, rulemaking, agency memos, signing statements, agency circulars, and other types of official statements. In the same vein, Uhegbu (2008) opines that Policy can

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be viewed as a plan of action, a statement of aims and objectives, especially when made by government.

National information policy lay down guidelines to regulate information through management, access, storage, retrieval and timely dissemination to target users or consumers. Similarly, Duran (1991) considers national information policy to mean a set of interrelated principles, laws, guidelines, rules, regulations, and procedures, guiding the oversight and management of the information life-cycle: the production, collection, distribution / dissemination, retrieval, and retirement of information. While Reitz (2004) defines information policy as a set of principles, action plan established by either accompany, government establishment or its organ in order to guide and control information resources and technology utilization.

Jaeger (2007) asserts that Information policy includes a range of issues related to freedom of information, privacy, secrecy, security, intellectual property, and information and communication technologies (ICTs). Oladele (2001) puts it that conceptually; NIP is a framework for developing the information holdings of a country. It is a statement of mission or intention on how the information resources are to be harnessed, processed, and channelled for development processes of a country with the main aim of putting order into the chaotic webs of information.

While McClure and Jaeger (2008) view information policy to:

Include a range of issues, such as those related to privacy, secrecy and security of government records; information access, retrieval, and use; freedom of information legislation and government transparency; intellectual property; e-government; veracity of government information; ICTs and information management. (p.153)

Information policy can be formal as well as informal. Formal information policy is usually articulated into document that is made available to individuals to lay their hand on, while informal information policy is not codified but implied. Martin (1988) opines that the issue of information policy is something that has to be resolved on a much wider level, involving economic and political action at a worldwide level. In this sense, Oladele (2001) further expatiates that elements of the policy are scattered across other sectoral policies. This latter aspect assumes that information activities in such an environment will naturally emerge and take their rightful positions in the economy.

Arnold (2004) proposes six considerations for the development of national information policy. Thus:

(i) socio-economic development;
(ii) public policy on the application of information;
(iii) access to and the availability of information;
(iv) social factors; and
(v) economic factors.

Arnold maintains that governments need to consider all of these factors when they develop national information policy that will benefit socioeconomic development.

Stressing the perception and significance of information and national information policy among various nations, Arnold (2004) maintains that:

The increasing awareness of information as a valuable national resource since the period after the Second World War has influenced many countries to develop national information policies. The national information policies that have been developed tend to have a particular focus and aim according to the circumstances of each country and in
accordance with the approach of each country’s government. Such a policy is also a reflection of how information is valued by the particular government as a commodity or resource. (p.200)

Uhegbu (2008) also elaborates on the importance of national information policy for the Nigerian economy. Thus:

A national information policy would ensure that information is provided to the right person, at the right time, and in the right format. It would ensure that appropriate information is provided to all Nigerians in all spheres of activities by properly-equipped libraries and information centres. It would also encourage the provision of minimum standards of operation in acquisition, accommodation, personnel, equipment, and quality of services. It would ensure that the right technology, information-generating resources, publishing materials, and facilities are allowed into the country. (p.3)

It is pertinent therefore that with the emergence of ICTs in the information sector is now well pronounced more especially in libraries and this needs to be regulated to allow for proper usage. According to Yilmaz (1998), library services and of course the right to information can be thought as a part of the national information policy and asserts that most of the least developed and developing countries generally do not have national information policies. Yilmaz further maintains that lack of a national information policy in a country affects library services and the right to information negatively.

The reason for the formulation of NIP in the country arose from the need to control and regulate all the activities and services of libraries and information centers. This is obvious from the prevailing conditions which Uhegbu (2004) observes as lacking proper coordination with respect to the appropriateness of information and information resources for various categories of Nigerians. This is due to the ad hoc nature library and information services are grouped, coupled with the haphazard and uncoordinated way information is managed and provided. Therefore, there is the cogent need for the Nigerian government to harness all aspect of library and information service across the country through the formulation of a viable NIP in order to bring together all the bits and pieces of information services scattered across into other sectors in one place.

The objectives of the study are to determine the various efforts made by different bodies towards the formulation of national information policy in Nigeria; to determine the effects of non formulation of such policy in the country and to recommend workable solutions towards the effective formulation of a national information policy in Nigeria.

Role of the National Library in Information Policy Development

The first impetus towards the development of library and information services in Nigeria was trigged off by the UNESCO seminar on public library development in Africa held in Ibadan between 27th July and 21st August, 1953 (Opara, 2008). This however led to the promulgation of various library legislations, laws, edicts and enactments by the then Eastern, Western and Northern regional governments in 1955, 1957 and 1964 respectively.

These efforts are however intended towards the development of library and information services in the country for the purpose of socio-economic and national development. Irving (1992) asserts that the development of a nation might be judged not by its politics and economics but its access to information and education. This assumption revealed that no matter the political and economic strength of a nation, the amount of information at its disposal is very critical and vital to its continuous and successful existence.

Information policy development can be achieved through the provision of laws/legislations, viable copyright laws and a sound National Library (NL) that can manage and coordinate
research outputs within the country through preservation, timely retrieval and quick dissemination of information in all forms and formats for the purposes of socio-economic development of the nation.

The National Library of Nigeria (NLN) established in 1964 was saddled with the responsibility of serving as a national depository and copyright center. All materials published or printed in the country are expected to be deposited in the NLN through the enactment of the Deposit law in 1970. According to Okiy (1998), the legal depository functions of the National library, are geared towards the acquisition and preservation of the intellectual output of the nation in all its formats for all Nigerians. The role of the NLN enables it preserve and disseminate all research findings/output of the country for the purpose of socio-economic development.

While UNESCO (2002) maintains that:-

Most countries in the world have legislation that regulates the area of legal deposit for publications offered to the public. There are several motives for this, but the most important one is normally to preserve the cultural heritage. Other motives are to create a base for national bibliography or a desire to support libraries with published materials. (p.34)

Through the bibliographic activities (control) of the NLN, records of all published materials about the country are harness towards proper utilization. Access to deposited materials with the NLN might only be achieved through provision of such legislations as the deposit and copyright laws. These enactments are expected to provide control over acquisition, use and dissemination of needed information services and resources.

Efforts towards NIP formulation in Nigeria

Over the years concerted attempts has been put in motion towards the formulation of NIP for the country but to no avail. Uhegbu (2004) maintains that it has not materialised due to amalgamation of economic, social, political, attitudinal and infrastructural factors. Similarly, Oladele (2001) observes that the non-existence of the policy at the national levels of most countries is usually explained in terms of low level of human and material capacity to formulate and implement the policy on a sustainable basis.

Lundu and Mbewe (1993) acknowledge the efforts of international organisations like the United Nations Educational, Scientific and Cultural Organizations (UNESCO), International Federation of Library Associations and Institutions (IFLA), the International Development Research Centre (IDRC), The Information Science Division, during the past two decades towards helping library and information professionals from developing countries to formulate institutional and national information policy.

International, national and local attempt to formulate NIP for Nigeria started in 1980. Some African governments through the Organization of African Unity (OAU), with the support of the United Nations Economic Commission for Africa (UNECA), created the Pan-African Development Information System (PADIS) and charged with the responsibility of assisting African member States to develop information and documentation infrastructures. Such necessitated and accelerated the conception and formulation of policies on health, trade, transport and culture in the country.

The nations quest for NIP that has been existing for quite some time was greatly reinforced again in 1985 following the NIP guidelines issued by UNESCO through The Division of the General Information Programme (PGI) and UNISIST (Uhegbu, 2004). Such policy guidelines clearly highlight the framework for formulation in cognizance of local situations and specific countries’ circumstances. Regional economic groupings in Africa such as Economic Community of West African States’ (ECOWAS) Information and Communication Division and Economic

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Commission for Africa/Pan African Documentation and Information System (ECA/PADIS) have consistently extolled the relevance of NIP in national development (Uhegbu, 2004).

Yusufu (2007) notes that since 1990’s efforts are being intensified locally for the formulation of information policy. He maintained that the Nigerian Library Association (NLA) has organized several seminars, workshops and conferences with a view to produce a blue-print to enable the government formulate a national information policy for the country.


(i) All information must be available to all people, in all formats purveyed through all communication channels and delivered at all levels of comprehension.

(ii) All types of information resources and services produced in Nigeria constitute a vital investment in the national development efforts. Such information should be systematically collected, preserved and effectively managed as basic inputs to national development efforts at all levels.

(iii) Endogenous information and indigenous knowledge must be regularly integrated with externally generated information on Nigeria’s development, as well as with relevant information on the development of other countries.

(iv) Nigeria’s information resources and services must be organized in space and time so that waste is avoided or minimized. In particular, the acquisition, storage and sharing of information resources and services must be rationalized to ensure the optimal utilization of human, material and fiscal resources in national development.

(v) Information resources in all forms—oral, book, serial, print, electronic media, etc. must be harnessed and repackaged, using the most cost effective processing, communication and transport technologies available to deliver appropriately targeted information to all categories of Nigerians, and especially the illiterate and rural population who constitute more than 80% of the population.

Unfortunately, Nigeria as the most populated and popular nation in the African sub-continent failed to develop a single NIP document that will enable it control and coordinate its information acquisition, access, retrieval and dissemination mechanisms within and across its border with the rest of the world so as to foster global interaction for the purposes of national development and integration.

These recommendations and other similar efforts made before it would have formed the basis for a good national information policy for the country had the government show interest. Uhegbu (2004) concludes that more than a decade after UNESCO organized seminars, conferences and workshops to encourage member nations to develop National Information Policies and Systems (NATIS) to cover libraries, archives and other information services; Nigeria is yet to formulate hers.

The role of international and national organisations in promoting the formulation of NIP especially in sub-Saharan Africa was highlighted by Oladele (2001) that, the concept of national information policy in Africa particularly in the sub-Saharan region became an issue not necessarily as a result of any conscious efforts on the part of most of the countries but as a result of persistent promotion from multilateral agencies like UNESCO, UNDP, ECA and national agency like IDRC of Canada. The inability of the Nigerian government to facilitate the immediate formulation of the NIP brought about some negative consequences on the nation’s libraries and information centres.
Consequences of Non-formulation of NIP in Nigeria

Violation of copyright laws

Violation of copyright law is seen as one of the major effects of non-formulation of information policy in the country. Copyright legislation is intended to protect an author/publisher or producer from the unauthorised usage of his literary or artistic work. Okwilagwe (2001) opines that:

The concept of copyright was devised for the society for two main purposes; to encourage creative people to produce works of culture and to provide incentives for the effective dissemination of these works. The copyright law is not designed to limit public access to information but to ensure that the public has access to it by protecting the economic and moral rights of authors. (p.153)

Aiyetan, Sodipo and Omoniyi (as cited in Aguolu & Aguolu, 2002) pointed out the weakness of the existing machinery for enforcing the law and recommend sustained enlightenment campaigns by the Nigerian Copyright Commission to sensitize all participants in national book development to the provision of the copyright law. The criminal liabilities for copyright violation also does not seem to protect the author/publisher or artist as the stipulated penalties is only sever on the printers and publishers while booksellers and unauthorised distribution attracts less sanction.

National Book Policy for Nigeria (as cited in Aguolu & Aguolu, 2002) states that most Nigerians are ignorant of the copyright law and the significance of copyright. This situation generates into serious infringements such as indiscriminate photocopying, plagiarism, reproduction and translating of literary works into other languages without authorisation or due acknowledgment of copyright owners. Aguolu and Aguolu (2002) maintain that the administrative structure of the Nigeria Copyright Act, the Nigerian Copyright Commission, appears too weak and ineffective to check the prevailing flagrant abuse of copyright. A study conducted by the World Bank revealed that 70% of all legitimate primary and secondary school books in Nigeria were being pirated by unscrupulous booksellers and printers (as cited in Aguolu & Aguolu, 2002).

With this development, a well articulated NIP could have taken care of all the lapses that are noticed in the effective implementation and enforcement of the copyright law. The issue of plagiarism, piracy and other copyright infringements should have been properly addressed by the NIP.

Uncoordinated Nature of Information Environment

Another effect of lack of national information policy is the uncoordinated nature of information environment. The placement of libraries either under the supervision of ministries of education or information has been a problem for long. Both parent ministries have taken the development of libraries with some kind of flippancy. Those placed under the ministries of education have nothing to show in terms of school libraries/learning resource centres and underdeveloped, dilapidated, under stocked public library services without internet connectivity. While those under the supervision of the ministries of information are seen as media out fits and treated as such. This Diso (2005) observes that all of these media organisations have media libraries, at least at their headquarters, but few of them have other collections (books, newspapers, magazines, etc.), apart from video or audiocassettes.

Similarly, Nigeria's information environment is a risky area, unstable and uncoordinated, especially with unhindered global access to all sorts of information and its resources. Nigeria's information environment is open to all sorts of information and information-generating

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products; however, not only are some of them irrelevant to the information needs of Nigerians, but character-destroying facilities (Uhegbu, 2004).

There is the need to harmonise the supervision of the nation’s libraries and its resources under a single arm or body of government. Libraries should either be under the control of state ministry of education or information, than being allowed to scatter between the two ministries.

The NIP as a document and tool for information planning and management would be in a better position to decide where to place libraries. This assertion is in line with the views express by Oladele (2001) that NIP is a framework for developing and managing information resources, infrastructure and institutions, and maintains that if African countries had given adequate attention to the development of their information infrastructure and institution within the NIP framework, the information scene of the continent could have been a lot better. NIP will help to streamline both the nature and format of information resources that will be made available to Nigerians, and will also help to strengthen information infrastructure by specifying how resources will be organized and managed (Uhegbu, 2008).

**Underdevelopment of libraries and Information centres due to underfunding**

Another effect is in the area of underfunding. This led to the underdevelopment of libraries and information centres. Libraries and its services in the country are not given the serious attention need by governments at national, state and local levels. A look at the state of public libraries and their services nationwide will no doubt be convincing a reason to belief that they are in total collapse due to lack of basic collections and ICT facilities for internet connectivity.

The school library system on the other hand is not any better in terms of staffing, library buildings, collections and other essential services and facilities. The government does not provide operational guidelines. However, libraries were left to operate under the UNESCO manifestos and guidelines which are not even strictly adhered to. The situation in the school libraries revealed by Diso (2005) that there are few public schools (primary, secondary, and teacher training) with libraries or resources centers and fewer still with good ones.

Libraries in tertiary institutions are the most affected as they are not funded to meet their main aim of providing materials for teaching, learning and research activities. Most university libraries do not have even book vote for collection building and the provision of basic and essential library services. Although Library Development Fund (LDF) that is sent in a meagre amount which is meant to sustain library development and provide better library services, is either misused or mismanaged by the university librarians or university authorities. Instead, the Education Trust Fund (ETF) has now become the main source of funding for tertiary institutions including their libraries in the country.

The role of each level of government should have been specified clearly in the NIP so as to serve as an operational document for each type of library and its parent institution. The policy could have provided for the development, maintenance and sustainability of all the types of libraries and these services across the Nigerian nation.

**Censorship and free flow of information**

The effect of non-formulation of information policy affects censorship and free access to information resources. A society that have value for information and want to make effective use of it for the purpose of national development, emphasis should be placed on the kind and type of information that is allowed to flow.

Truly, some information need to be censored from public view and glare in a civilized community due to its volatile and unpalatable nature as it could easily lead to complete
breakdown of law and order. This type of information can be negative for national development. In fact, the disadvantage of disseminating this type of information to members of a community totally out weights its advantages, if any.

Other forms of information are considered too vital for public consumption. This brought about the issue of “information bill” recently in the country. Through these bills governments try to suppress certain information from reaching the citizenry and brand them as “classified information.” A well formulated and articulated NIP will determine which type of information is fit for public consumption.

Nwokocha (as cited in Uhegbu, 2008) reveals that:

A national information policy will help ensure proper packaging of information by determining the nature and format of information resources to meet local needs. Book and non-book material that violates local content specifications will no longer be allowed into the country. Internet service providers could no longer expose young Nigerians to inappropriate content. One way of ensuring maximum use of information is by packaging it in a form that the target audience will appreciate. This involves understanding the literacy level of the country, its ethics, norms, and values, gender and age composition, and numbers and kinds of physically-challenged persons. (p.3)

**Importation of low-cost books and other educational materials**

The effect of non formulation of information policy in the county has manifested in the importation of low-cost educational materials. Indigenous authors/publishers are not given the much needed support and incentives by government or the organised private sector to write and publish their literary works. Instead emphasis is placed on the importation of duty free educational materials that are irrelevant in curriculum content and of poor and low quality. Uhegbu (2008) maintains that Association of Nigerian Authors (ANA) revealed that it is no longer profitable to write and publish books in Nigeria because of low reward system, cheaper foreign publishers, poorly-developed Nigerian publishing infrastructure and technology, high cost of publishing, and piracy. The role of the National Book Development Council when integrated into the NIP would provide the much desired result and serve as a protective shield for the country’s authors and publishers.

**Non-compliance with legal deposit laws**

Disregard and non-compliance with the provisions of the legal deposit laws also constitute an effect for non-formulation of information policy in the country. Deposit legislation mandates the National Library of Nigeria (NLN) and its branches all over the country to receive copies of authors, printers and publishers works to be kept for custody. The NLN may have the mandate as stipulated in the legal deposit law of the country to carry out such function but it lacks the ability and will to execute and as well implement it since compliance is not effective. Couple with lack of functional operational base or arm of the NLN in some states of the federation to enforce such legislation. NIP as a document will clearly spell out the function of the NLN in the area of the legal deposit and address the existing lacuna.

The national deposit law was hardly complied with by printers and publishers from the initial stage. Aguolu and Aguolu (2002) explain that many publishers do not comply with legal deposit provisions, partly because they regard the deposit law as an unnecessary bureaucratic interference in their business, if not an unjustified punitive measure, to reduce their sale and profits.
Conclusion

This review revealed that lack of information policy in Nigeria leads to underdevelopment of libraries and information centres which have negative effects on the areas of national information development policy such as; violation of copyright laws, uncoordinated nature of information environment, underdevelopment of libraries and information centres due to underfunding, censorship and free flow of information, importation of low-cost books and other educational materials, and finally non-compliance with legal deposit laws. These effects have negative impact on national development programmes of the various Nigerian governments since the attainment of independence in 1960.

Recommendations

This study provides the following recommendations for a way forward towards the formulation of a national information policy for the country:-

1. The nation’s copyrights laws should be reviewed so as to provide punitive measures against all violators and also to serve as deterrent to pirates.

2. Government should develop a single document to be known as “National Information Policy for Nigeria” so that all library and information services and activities can be coordinated and harmonised for the purpose of national information development.

3. The government should set up a stabilization fund to cater for the development of the nation’s libraries and information centres at all levels.

4. The issue of censorship should be given due consideration when formulating information policy. This would determine what type of information can be made accessible to the public.

5. The government should as a matter of urgency provide incentives such as interest free loans to indigenous authors/publishers and artists with their associations serving and standing as guarantors, hence the stoppage of the importation of sub-standard educational materials.

6. Government must ensure that stakeholders in the library and information services comply with the provisions of the legal deposit law. To this effect the NLN should be empowered to rightly out prosecute offenders.

References


Introduction

Online social networking has become a global phenomenon, with online communities such as Facebook and LinkedIn reporting user figures in hundreds of millions. Although the use of online social networks (OSNs) cuts across professionals and non-professionals alike, librarians in particular are responding to their popularity and expanding role in the creation, use, and sharing of information (Murphy and Moulaison, 2009). A search of Librarians on Facebook groups by Martine (2008) actually affirmed that librarians constitute the three largest groups on Facebook. While this search includes librarians from all over the world, studies by Ezeani (2010) and Olasina (2011) confirm that librarians in Nigeria are visible on OSNs.

Notwithstanding the numerous OSNs available on the internet today, many library associations such as Nigerian Library Association (NLA) and American Library Association (ALA) have also established online forums to cater for the professional needs of their members. While some library associations may restrict membership on their online forums, others such as ALA connect though basically for American Librarians, welcomes librarians from all parts of the world. Known as non-members to the forum, librarians without any affiliation to American Library Association can register to create a free account, but will only be able to view and add to public content (ALA Connect, 2010). Other online forums, such as Library Networking Group (LNG) though not attached to any library association, uses its space as a meeting point for information professionals from all over the world. As a result of these developments, many librarians now have profiles in various types of OSNs which necessitated the need for this study.

Attempts would therefore, be made by this study to find answers to the following research questions:

1 What reasons exist for librarians use and non-use of OSNs in university libraries in Nigeria?
2 To what extent do librarians in university libraries in Nigeria use the OSNs under study?
3 Which online social network provides more useful work related information for librarians in university libraries in Nigeria?

Scope of the Study

This study covered only librarians in university libraries in Nigeria. The choice of limiting the study to university libraries was based on the fact that the university library is the most advanced type of library in Nigeria. University libraries are also most likely to make use of...
modern technology. The study also covered eight OSNs: Facebook, Twitter, MySpace, LinkedIn, Nigerian Library Association (NLA) online forum, America Library Association Online Discussion Forum (ALA Connect), Chartered Institute of Library and Information Professionals (CILIP) online forum and Library Networking Group (LNG). The choice of Facebook, Twitter, MySpace and LinkedIn was based on their world wide popularity as they reportedly form the top list of most popular online social networks worldwide (About.com, 2010; eBizMBA 2011). The choice of Nigerian Library Association (NLA) online forum, America Library Association Online Discussion Forum (ALA Connect), Chartered Institute of Library and Information Professionals (CILIP) online forum and Library Networking Group (LNG) was based on the fact they are the professional online social networks that librarians in Nigeria would most likely belong to.

Review of Literature

Librarians’ use of OSNs span through different areas of their social and professional life, as acknowledged by a number of researchers (Secker 2008; Cook and Wiebrands 2010; Olasina, 2010; Atulomah and Onuoha, 2011). An investigation by Hendrix, Chiarella, Hasman, Murphy, and Zafron (2009) in health libraries revealed that librarians use Facebook mainly to market the library, push out announcements to library users, post photos, provide chat reference, and have a presence in the social network. ALA (2011) confirms that U.S. libraries make increasing use of OSNs to connect with library users and to market programs and services.

A survey of over 2000 Facebook users by Lampe, Ellison and Steinfield (2006) revealed that Facebook is primarily used for social searching. Although most OSNs fall into this category, evidence suggests that they also have work related uses. Twitter was found by Zhao and Rosson (2009) as a tool that is not only used to provide personal updates, but also for business communications. Cook and Wiebrands (2010) in a study of Librarians’ use of OSNs for current awareness found out that Twitter is the most used social network by librarians as affirmed by 125 (91.2%) respondents out of 137 respondents, followed by Facebook by 119 (86.9%) respondents, others such as FriendFeed and Ning reported low usage of 27.7% and 26.3% respectively. The study also revealed that Twitter is considered to be the most useful for professional information as indicated by 68% of the respondents. In a similar study involving the use of three online social networks, namely: Facebook, Twitter and Linkedin by librarians in Nigeria, Atulomah and Onuoha (2011) found out that Facebook was the most used online social network as affirmed by 36 (90%) of the 40 respondents. Majority of the respondents 24 (65%) affirmed that they are able to identify experts in different areas of librarianship using the social network as against 15 (40%) who are unable to do so. While 24 (65%) of the respondents can find solutions to research problems using online social networks, 14(37%) find it difficult to do so.

Allen (2010) reported the findings of a study on librarians’ attitude towards social media in European libraries. The findings affirmed that some of the respondents, specifically (41%), feel that OSNs take too much time to maintain. Other barriers to use from the study were found to be restrictive internal policies, information security and confidentiality. Atulomah and Onuoha (2011), in a similar study found out that (67%) of the study’s respondents do not use any online social network. Among the reasons given for non-use were: worries about privacy issues and seeing online social networking as a waste of time. Likewise, Gray (2004) in a study of informal learning in an online community of practice found out that the major factors mitigating against the use of online forum are lack of familiarity with online technologies and subsequently a lack of understanding or interest in how online communication could assist work.
Methodology

The descriptive survey design was used for the study. The study population was made up of an estimated 1,137 librarians in university libraries in Nigeria. The exact number of librarians in university libraries in Nigeria was not easily ascertained due to the fact that a comprehensive directory listing out the names of the entire librarians in university libraries in Nigeria did not exist at the time of carrying out this study. However, extrapolating from the available estimate of 317 librarians in 29 university libraries, the researchers’ projected a total of 1,137 librarians in the 104 university libraries in Nigeria as at the time of the study. While this may not provide the exact figure, it does, however, give an idea of the total number of librarians in university libraries in Nigeria. Considering the large geographical area covered, the exact number of the population can, however, be excused.

Multistage sampling technique was adopted for this study. Sampling was done by first dividing the country (Nigeria) along the existing geopolitical zones (North East, North West, North Central, South East, South West and South South). Purposive sampling technique was used afterwards to select three out of the six geopolitical zones. The zones selected are North West, South West and South East. Having identified the geo-political zones to take part in the study, the next stage of the multistage sampling was to identify the universities in each geopolitical zone and classify them according to ownership (see table 1).

Table 1: Number of Universities in Selected Geopolitical Zones

<table>
<thead>
<tr>
<th>Geo-political zone</th>
<th>Federal universities</th>
<th>State universities</th>
<th>Private universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>North West</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>South East</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>South West</td>
<td>3</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>15</td>
<td>23</td>
</tr>
<tr>
<td>Grand total</td>
<td></td>
<td></td>
<td>47</td>
</tr>
</tbody>
</table>


Random sampling technique was thereafter used to select 60% of the universities in all three categories (federal, state and private). See table 2.

Table 2: List of Selected Universities/Libraries

<table>
<thead>
<tr>
<th>Geopolitical zone</th>
<th>Federal universities</th>
<th>State universities</th>
<th>Private universities</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>North West</td>
<td>Ahmadu Bello University</td>
<td>Kano University of Science and Technology, Kaduna State University</td>
<td>Kastina University</td>
<td>5</td>
</tr>
<tr>
<td>South East</td>
<td>Michael Okpara University of Agriculture</td>
<td>Abia State University</td>
<td>Madonna University</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Federal University of Science &amp; Technology, Owerri</td>
<td>Enugu State University of Science &amp; Technology</td>
<td>Caritas University, Renaissance University</td>
<td></td>
</tr>
<tr>
<td>South West</td>
<td>University of Agriculture, Abeokuta</td>
<td>Adekunle Ajasin University</td>
<td>Achievers University, Bells University</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>University of Lagos</td>
<td>Ekiti State University of Science &amp; Technology</td>
<td>Babcock University, Caleb University, Covenant University</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ladoke Akintola University of Technology, Lagos State University</td>
<td>Joseph Ayo Babalola University, Lead City University</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Redeemer's University, Wesley University of Science &amp; Technology</td>
<td></td>
</tr>
<tr>
<td>Overall total</td>
<td></td>
<td></td>
<td></td>
<td>29</td>
</tr>
</tbody>
</table>

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In order to arrive at the sample size for this study, the researcher paid personal visits to some university libraries, visited the websites of some, and attended the Nigerian Library Association (N.L.A) cataloguing, classification and indexing seminar / workshop going on at the time at Akure, Ondo State (October 25th – 29th, 2010). At the seminar / workshop, the researcher solicited the help of attendees from different university libraries who furnished her with information concerning the number of librarians in their respective libraries. The number of librarians in the 29 selected university libraries totalled 317. The sample size for this study therefore, consisted of all 317 librarians in the 29 university libraries selected to participate in this study. A questionnaire titled “Online social networking questionnaire” was used for data collection. Descriptive statistics was employed to analyse data collected. The analysis included the use of frequencies, tables, charts and percentages.

Presentation of Findings

A total of 317 copies of the study questionnaire were distributed out of which 259 were returned giving a response rate of 81.70%. Out of the study respondents, 113 were male while 146 were female.

![Figure 1: Age bracket of respondents](image)

Figure 1 indicates that respondents within the ages of 21 – 30 were 52 (20.08%), ages 31 – 40 were 93 (35.91%) making them the highest age groups among the respondents. This was followed closely by those aged 41 – 50 who were 77 (29.73%) in number. This shows that over half of the librarians in university libraries in Nigeria are 40 years or below (56%), while a mere 2.70% are 61 years and above.

![Figure 2: Section of work](image)

Figure 2: Section of work
Indications from Figure 2 affirm that 74 (28.57%) which form majority of the respondents work in the reference/readers’ services followed closely by cataloguing section 64 (24.71%). 50 (19.31%) of respondents work in the e-library/computer section, 34 (13.13%) work in the serial section, 21 (8.11%) collection and acquisition while those who work at the bindery section constitute only 7 (2.70%). However, 9 (3.47%) respondents stated that they work in indexing and documentation department which was not included in the data collection instrument.

Research question 1 asked “what reasons exist for librarians use and non-use of online social networks in university libraries in Nigeria?” In order to find out the answer, respondents were first asked to indicate if they OSNs. Among the respondents, 154 (59.46%) affirmed that they use OSNs, while 105 (40.54%) indicated that they do not. Among the users of OSNs, reasons indicated for use are seen in table 3.

**Table 3: Reasons for use**

<table>
<thead>
<tr>
<th>Reasons for use</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socializing with friends</td>
<td>150</td>
<td>97.40%</td>
</tr>
<tr>
<td>Exchanging photographs with friends</td>
<td>149</td>
<td>96.75%</td>
</tr>
<tr>
<td>Getting updates from family members</td>
<td>136</td>
<td>88.31%</td>
</tr>
<tr>
<td>Locating experts within the library profession</td>
<td>113</td>
<td>73.38%</td>
</tr>
<tr>
<td>Getting current information on the library profession</td>
<td>100</td>
<td>65%</td>
</tr>
<tr>
<td>Publicizing library events</td>
<td>74</td>
<td>48.05%</td>
</tr>
<tr>
<td>Finding people to collaborate with</td>
<td>72</td>
<td>46.75%</td>
</tr>
<tr>
<td>Acquiring new ideas for research</td>
<td>70</td>
<td>45.45%</td>
</tr>
<tr>
<td>Finding solutions to work related problems</td>
<td>67</td>
<td>43.51%</td>
</tr>
<tr>
<td>Interacting with library users</td>
<td>43</td>
<td>27.92%</td>
</tr>
</tbody>
</table>

N=154

Majority of the respondents 150 (97.40%) affirmed using OSNs for socialising with friends, exchanging photographs with friends 149 (96.75%) and getting updates from family members 136 (88.31%). On the other hand, 113 (73.38%) use OSNs for locating experts within the library profession, getting current information on the library profession 100 (65%) and publicizing library events 74(48.05).

Among the 41% who do not use any online social network, reasons for not using are listed in table 4.

**Table 4: Reasons for non – use of online social networks**

<table>
<thead>
<tr>
<th>Reasons for non – use</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>My supervisor does not allow the use of those networks during office hours</td>
<td>38</td>
<td>36.19%</td>
</tr>
<tr>
<td>Discouragement due to erratic power supply</td>
<td>34</td>
<td>32.38%</td>
</tr>
<tr>
<td>Worried about privacy issues</td>
<td>31</td>
<td>29.52%</td>
</tr>
<tr>
<td>Consider it a waste of time</td>
<td>26</td>
<td>24.76%</td>
</tr>
<tr>
<td>Don’t know about online social networks</td>
<td>23</td>
<td>21.90%</td>
</tr>
<tr>
<td>Don’t have access to the internet</td>
<td>20</td>
<td>19.05%</td>
</tr>
<tr>
<td>I do not have formal training in the use of computers</td>
<td>16</td>
<td>15.24%</td>
</tr>
</tbody>
</table>

Although several reasons were also found to be associated with non-use of OSNs, the issue of supervisors’ not allowing use during office hours topped the list as indicated by 38 (36.19%) of non – users, followed by the discouragement faced due to erratic power supply 34 (32.38%).
Table 5 indicates the level of use associated with the OSNs under study.

**Table 5: Level of use associated with specific online social network**

<table>
<thead>
<tr>
<th>Online social network</th>
<th>FREQUENCY (%) of use level</th>
<th>N=154</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 Non-use</td>
<td>1 Least use</td>
</tr>
<tr>
<td>NLA online forum</td>
<td>34 (22.1%)</td>
<td>16 (10.4%)</td>
</tr>
<tr>
<td>Face book</td>
<td>31 (20.1%)</td>
<td>24 (15.6%)</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>82 (53.2%)</td>
<td>21 (13.6%)</td>
</tr>
<tr>
<td>ALA Connect</td>
<td>105 (68.2%)</td>
<td>17 (11.0%)</td>
</tr>
<tr>
<td>CILIP online forum</td>
<td>79 (51.3%)</td>
<td>17 (11.0%)</td>
</tr>
<tr>
<td>Twitter</td>
<td>95 (61.7%)</td>
<td>22 (14.3%)</td>
</tr>
<tr>
<td>MySpace</td>
<td>115 (74.7%)</td>
<td>23 (14.9%)</td>
</tr>
<tr>
<td>Library Networking Group</td>
<td>51 (33.1%)</td>
<td>28 (18.2%)</td>
</tr>
</tbody>
</table>

Findings from table 5 reveal that NLA online forum had the highest level of use as indicated by 87 (56.5%) of the respondents who use it between the range of 3-5 against 67 (43.5%) who use it between the level of 0-2. This is followed closely by Facebook as 81 (52.6%) of the respondents indicated using it between the range of 3-5 against 73 (47.4%) who use it with the range of 0-2. 65 (42.1%) of the respondents affirmed using LNG within the range of 3-5. Other social networks ranked more in terms of low level of use. MySpace had the highest score for low level of use as 143 (92.8%) indicated their use level to be within the range of 0-2. Likewise, ALA connect scored high on the low use scale with 130 (84.4%) of the respondents affirming using it within the range of 0-2. This was followed closely by Twitter as affirmed by 129 (83.8%) of the respondents who indicated their use level to be within the range of 0-2.

Findings from Figure 3 reveal the online social network that librarians in Nigeria consider most useful for acquiring work related information.
Indications from Figure 3 point out that respondents considered NLA online forum as an online social networking site that offers more useful work related information with 45(29.2%) of the respondents attesting to that. This was followed closely by Facebook as affirmed by 24 (15.6%), Library Networking Group 11 (7.1%). The online social networking sites rated low in terms of providing work related information for librarians in university libraries in Nigeria were LinkedIn 9 (5.8%), ALA connect 7 (4.5%), Twitter 4 (2.6%), CILIP 3 (1.9) and MySpace 2 (1.3%). It was however not all the respondents that responded to this item in the questionnaire, 49 (31.8%) did not respond.

Discussion of Findings

The study found out that there are various reasons responsible for the use of OSNs among librarians in university libraries in Nigeria. Reasons for use were, however, more social than professional in nature. The findings are in agreement with the findings of Cook and Wiebrands (2010) whose study revealed that librarians use OSNs mostly for getting social information as opposed to work related information. The finding may be associated with the presence of friends and family members on both general and professional OSNs.

Several reasons were also found to be associated with non use of OSNs, however; the issue of supervisors’ not allowing use during office hours topped the list followed by the discouragement faced due to erratic power supply. Others reasons were worries on privacy issues, seeing online social networking as a waste of time, lack of adequate knowledge on what OSNs are all about, access to the internet and lack of formal training in the use of computers. The findings are consistent with those of Atulomah and Onuoha (2011) whose study found out that reasons for non- use of online social among librarians in Nigeria include lack of knowledge about OSNs, worries about privacy issues and the perception of OSNs as time wasters. The findings were also in agreement with the findings of Gray’s (2004) study on informal learning in an online community of practice which revealed that the major factors militating against the use of online forum were lack of familiarity with online technologies and subsequently a lack of understanding or interest in how online communication could assist work.
NLA online forum was found to have the highest level of use among the respondents followed by Facebook. The high level of use associated with Facebook affirms the findings of Atulomah and Onuoha (2011) which found out that Facebook was the most used online social network as affirmed by 90% of the study respondents. It is also in agreement with studies by Ezeani (2010) and Olasina (2011) which confirm that librarians in Nigeria are visible on general and professional OSNs. The high level of use associated with Facebook equally gives credence to the findings of Martine (2008) which revealed that librarians constitute the three largest groups on Facebook. This by implication suggests that Facebook is a meeting point for librarians from all over the world which offers explanation for the high level of use associated with it. The high level of use associated with NLA online forum can be credited to the fact that NLA online forum is designed mainly for librarians in Nigeria and as such, provides a good ground for librarians in Nigeria to meet and share professional experiences.

Findings from the study revealed that NLA online forum ranked highest in terms of providing more useful work related information followed by Facebook. This is, however, in contrast with the findings of Cook and Wiebrands (2010) who also studied librarians’ use of online social networks in which Twitter was found to be the network that offered most in terms of professional information as indicated by 68% of the respondents. It is also in contrast with the findings of Atulomah and Onuoha (2011) who found out that Facebook was the most used online social network for work-related purposes as affirmed by 90% of the study respondents. The contrast in the findings could, however, be attributed to the fact that the previous studies were restricted to the use of general OSNs, and, did not take into consideration professional OSNs that are restricted to librarians.

**Conclusion and Recommendations**

Online social networking is a modern day phenomenon facilitated by advancement in technology. While the use of OSNs cuts across different age groups and professions in every society, it is of particular interest to librarians because their work as information professionals demands an in-depth understanding of information technologies.

Based on the findings, the study recommends that supervisors understand the implication of inhibiting subordinates’ use of OSNs, while subordinates need to be trained on appropriate use in order to avoid work conflict. Library managers can also come up with policies to guide the proper use of OSNs as this would help to ensure appropriate use. On issues pertaining to worries about privacy and lack of training in the use of computers, librarians should take up challenge to develop themselves in those areas. Most especially as we are in the age of information technology when users even look up to librarians as information professionals to educate them on such issues.

**References**


Retrospective Conversion of the Card Catalogue at Obafemi Awolowo University Library

Francisca N. Okoroma

Francisca N. Okoroma is a librarian at Kenneth Dike Library, University of Ibadan, Nigeria. She can be reached at: frankaonyeka@yahoo.com.

Introduction

The organization of bibliographic records of library resources has evolved over the years. The middle of the nineteen-century saw the birth of an international movement towards the unification of catalogue constructions. This process was aided by the advent of computers and other information technologies such that by the 1970s, the International Standard Bibliographic Description (ISBD) rules to harmonize cataloguing rules emerged. This harmonization not only led to the emergence of machine readable bibliographic format, it brought some element of compatibility with the 1976 international Universal Machine Readable Catalogue (UNIMARC) format, which standardized the different varieties of MARC format in use in the USA and several European countries (Belaid, 1998). It has since spread to Asia, Africa, and other parts of the developing world.

But due to the digital divide between the developed and developing economies, the adoption rate of retrospective conversion of card catalogue to machine-readable catalogue (RECON) has been very uneven with the developing world, especially African countries, lagging behind. Though high rates of RECON adoption do exist in some African countries like Botswana, Malawi and Nigeria (Ehikhamenor, 1990; Adeniran, 1997; Edoka, 2000), the bulk of the countries in the continent are yet to introduce RECON to their library systems. Even in countries where RECON has been adopted, only a handful of their libraries have converted their services to varying degrees of automation and are still moving at very slow pace. For example, in Nigeria where some elements of computerization of the serial catalogue began in the 1970s, very few libraries out of over 500 libraries in the country are RECON compliance (Nwalo, 2000). This dismal record of RECON adoption is not surprising because automation efforts have been persistently frustrated by lack of man power, funds, computing facilities, poor maintenance culture, destructive interruption of electric power and other infrastructural factors (Menou, 1983, Thomps, 1984; Eres, 1985; Ehikamenor, 1990; Idowu and Mabawonku, 1999; Faniran and Oyemakinde, 2000). Furthermore, only a few libraries have a clear automation goal that seems realistic presently (Ehikhamenor, 1990). But in spite of these problems, RECON has been successfully adopted in a number of Nigerian libraries like: Kenneth Dike Library (University of Ibadan), Obafemi Awolowo University library, International institute for tropical Africa (IITA), Ibadan, Centre for Management Development (CMD) Lagos, Central Bank of Nigeria (CBN), National library of Nigeria, Lagos and Abuja. Nonetheless, there is still the glaring need to speed up the rate of RECON adoption not only in Nigeria but also across Africa.

A logical first step in boosting the rate of RECON adoption is to review the success steps and problems encountered by those libraries that have fully implemented RECON in spite of the overwhelming problems encountered in developing economies and to proffer solutions to the problems, for the benefit of those libraries that are still looking forward to the actualization of their dream of automation. For this reason, the purpose of this current study is to provide a detailed review of the success story of RECON adoption and implementation at Obafemi Awolowo University (OAU) in order to resolve issues and problems slowing down RECON.
adoption in this part of the world. Such a focus is apt for a number of reasons. First, the world has long moved beyond card cataloguing such that RECON implementation in Africa is no longer a luxury but critical for easy retrieval of information, library networking and uniformity, integration of new and varied operations and services and helps to eliminate repetitive boring library activities, backlog of unprocessed materials, in addition to saving time, cost, and space.

Siror (2010) ascertained that automation helps in solving the greatest challenge and weakness of manual based verifications. For a successful automation, libraries need to learn by examples and for them to learn in this way there must be documents to fall back on so as to know what worked and what did not yield good result. Secondly, it will eliminate some of the erroneous believes about what library automation/RECON entails, thereby, facilitating adoption rates in those parts of the world that are still IT challenged. The specific objectives of this study include to:

- Investigate the processes/approaches adopted by OAU in retrospective conversion and period of time taken.
- Determine the hardware and type of software best suitable for this system.
- Identify the problems encountered in the process of retrospective conversion and how such problems were resolved.
- Determine the effectiveness of the new system in comparison to the old manual card catalogue.
- Determine the financial implications of retrospective conversion (RECON) and the human resources needed for a successful retrospective conversion.
- Assess user satisfaction with the OPAC system.

The rest of this paper is divided into five sections. The next section is the historical background to Obafemi Awolowo University Library RECON. Section two is literature review, followed by a short presentation of the research method adopted, while section four is the research finding and section five is the summary and conclusion.

**Historical Background**

Obafemi Awolowo University library was established in 1962. Presently the library has a total collection size of 700,000. According to Jagboro (2003) attempts at the computerization of Hezekiah Oluwasanmi library (HOL) were made in the 1970s and 1980s. This project was embarked upon in realization of the fact that a library must be computerized if it were to satisfy its clients various information needs in the midst of information explosion and the development of Information Technology (IT) in the last three decades of the 20th century.

The initial attempts did not yield the desired fruits. A renewed attempt was made in the early 1990s with the setting up of a computerization committee within the library. The work of the committee led to the commissioning of a feasibility study by the library. The study culminated in the advertisement of the invitation to Tender (ITT) by the university and finally the award of the H.O. Library computerization contract. Unfortunately the contract was later terminated by April 1995 due to non-performance on the part of the contracting firm.

The contract was later awarded to Projeklink Konsult. The contractor moved to site in February 1997 and by September 1997 the job has been completed and handed over to the library.

The implementation of the project was divided into phases. The phase one which was completed and handed over. involved the computerization of the cataloguing section and part of circulation section as well as the laying of the backbone (cables) for the computerization of the entire library.
At the first phase, the library had eleven computers in the network consisting of one server, one backup server, three intelligent workstations and six Diskless Workstations with a 16-port Hub providing the central link. The peripherals attached to the network are two Laser Laser printers, one Epson 2170 printer, one HP Scanjet 4C flat bed scanner and one Hand-held scanner. One ICL 386 computer system initially supplied by the NGC also exists as a stand-alone.

At the onset of the network, the library network was originally manned by a system Analyst, a computer graduate, who left within a year. Aware that it was difficult to retain a computer graduate on the job, a librarian was granted permission to undergo a postgraduate diploma course in computer science within the period. The network had since been managed by the trained Librarian. Two more librarians had also been encouraged to undergo the same training in order to meet the manpower need of this section.

**RECON**

Though upgrading was given highest priority due to it provides the bases on which other developments will be built. However, reconversion of the existing card catalogue records to machine-readable format was considered second in priority. This was because the database must be built before circulation and other services can go on.

The library started the process of RECON in 2003 and had about 60,000 bibliographic records in its database.

**Changes in Software**

In 1999 the library went Internet, as a result of the network system which has two servers: the main library server which runs on Novel Netware uses the SMIP protocol while the Linux and the internet use the TCP/IP protocol for communication. The incompatibility of these protocols slowed down the library's access to the Internet. This necessitated the library changing its server operating system to one that uses TCP/IP protocol to enhance Internet accessibility. The library eventually settled down to the use of Linux. The change to Linux resulted to change from TINLIB to Ansyltec e-library. The reason behind software change was that Ansyltec e-library is custom built and it can run on Linux.

**Literature Review**

In the light of the foregoing, the literature has been reviewed under the following subheadings:

- The need for retrospective conversion.
- Decisions over acquisition of programme software for libraries.
- Planning and procedures for RECON.
- Approaches to retrospective conversion of card catalogue.

Kesner and Jones (1984) as cited in Oketunji (2000) suggested that in choosing an automated library system the library should do a need analysis so as to review the existing system; its strengths and weakness. It has however been identified that retrospective conversion of library system to computerized or automated system is of tremendous benefits both to the users and the library staff. Some of the benefits as outlined by Tedd (1984) include:

The provision of online access, ability to access with ease more information via the online, saves time and cost, and makes for more accurate completion of tasks.
Cochrane (1992) list of advantages of information technology complements this. They are summarized as easy integration of various activities, facilitates cooperation, helps to avoid duplication of efforts, eliminates repetitive work; saves money and increases efficiency.

Mabawonku (1999) noted that a computerized cataloguing system enables the use of centrally produced bibliographic record, and thus saves time and ensures uniformity of cataloguing procedures as well as standardization of cataloguing rules and procedures. Indeed, computerization of libraries will not only facilitates globalization of information, but will make for effectiveness and efficiency in information handling.

Nwalo (2003) adds that computerization of libraries in Africa will permit the acquisition and use of literature on CD–Rom, which has immense benefit both in terms of cost and durability. It collapses time, space as well as reduces the incidence of mutilation, defacing and theft of library materials.

Edoka (1992) highlighted the advantages of using computers in libraries as speed; improved performance, permanent storage of information, dependability and creation of new services.

Generally, computerization enhances various operations and services in the library such as acquisition, serials, catalogue, circulation and information networks as well as library management.

Ajala (1997) stated that the great flood of information and the need to avoid keeping backlog of unprocessed materials, the increase in the volume of research activities resulting to mass of materials as well as the need to make bibliographical information accessible to researchers in remote site and satellite campuses have necessitated new and fast techniques of processing information.

In consideration of the inadequacies and dissatisfactions associated with manual system, it is obvious that retrospective conversion is a need that should be embraced by every library, hence the saying of Aramide (1974). "Mechanization has proved its superiority over traditional method in terms of accuracy speed and consistency. Manjunath (2004) added that automation eliminates cumbersome job of printing the cards, enhance simultaneous access to the same database as well as quick and remote access to information on the network.

From the afore written, there are two basic objectives of automation: to enhance efficiency and effectiveness in what is already done and to offer more services, which could not be achieved manually. This has been summed up in the statement of Adeyemi (2001).

"Today, the librarian can rely on the computer to perform all the functions of a cataloging system and more. Using an appropriate software, cataloguers can input data for each piece of item on pre-designed work-sheets resident on the system, as well as edit or revise such entries....... Besides, it is now possible to go beyond the traditional fields of information on the catalogue card to provide additional access points using other criteria like the affiliation of authors, key words in the title, or thesaurus descriptors which the economics of manual cataloging and classification did not encourage”.

Retrospective conversion is simply “a need not a luxury”, hence libraries are really about providing quick and easy access to information.

A paramount decision to be taken in automation are the hardware and the software requirements, and which of software development and use of software packages should be adopted in the automation process. Gibbarelli (1996) suggested that an automation exercise should start with the acquisition of software.

From the study conducted by Valantin (1981) CDS/ISIS possesses the following attributes:

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The CDS/ISIS is able to handle variable length records, variable length file, variable occurring fields, sub-fields and long descriptive abstracts.

It uses more than one index per file to generate the inverted file in order to ensure rapid access to stored data; the user specifies the field to be indexed. According to Shirley, Perry and Willet (1983), the inverted file consists of a set of lists each of which contains pointers to the document records, which have been previously indexed by one particular term in the set of terms used for the characterization of the documents in the collection.

Manjunath (2004) advised that if a library wants to make a beginning; CDS/ISIS is best suited as it involves minimum investment on both hardware and software. He advocated the following criteria that will help in software selection:

To identify the developers, whether they are institution, reputed company or few individuals (The preference is for institution). Also to find out how many times the software has been revised since the time of its first launch and the number of parameters available for each module. He went further to say that there is also need to find out whether the software has facility to import bibliographic data in 1802709 format and similar export of data in this format; And whether there will be training and guidance after use as well as availability of such software on the major operating systems.

From the study conducted by Ajala (1997), Tinlib seems to be the toast of libraries most especially university libraries. He continued that despite the fact that CDS/ISIS is given free of charge, it is still not as used as Tinlib. Tinlib is more user friendly, versatile, and takes care of all library operators and so suitable for large academic libraries. Nevertheless CDS/ISIS is distributed free of charge and so libraries with limited resources can make adequate use of the software and it can also be used to meet peculiar needs of the library.

Apart from choosing the appropriate software, another decision that has to be made in connection with retrospective conversion is to decide whether to adopt in-house software development or buy existing software package. In-house software development is the designing programming, documenting and testing a system locally from the scratch (Eyitayo, 1990).

Marron and Fifa (1976) lamented that there is no definite formula for choice of microcomputer software due to software choice is ultimately dependent on each individual situation.

Pratt (1980) noted that there does not seem to be anything (software) presently in the market aimed at libraries. Thus it is necessary for libraries to write their own programs suitable for the purpose. This view was supported by Lundeen (1980) that much of the application software being marketed for micro-computers is of mediocre quality, and it is often very poorly documented. He pointed out that the librarian who is contemplating using microcomputers to automate should realize that the programming is not likely to be a trivial task. These views must have been expressed as a result of prevailing situation then.

However, by 1982 more software writer began to realize that astonishing numbers of companies (including libraries) are frenetically anticipating their services. This led to a tremendous growth in the number of software packages suitable for creating in-house databases (Swanson, 1982, Garoopian, 1982).

Gordon (1982) and Schuyler (1982) supported packaged software on the ground that expertise needed to program sophisticated application software is quite substantial, time consuming and also expensive; so it is clear that small libraries cannot afford such an investment.

The ready-made package or the buying of existing software has been preferred by Nigerian libraries (Ajala, 1997). According to him the reason may not be unconnected with the fact that
the in-house development is difficult, time consuming and even on the long run the software may work no better than the available packages would have done. The ready-made software packages also can be installed within a very short period.

Planning is deciding in advance what to do, how to do it, when to do it and who is to do it. Planning is the process of establishing objective and suitable causes of action before taking action. According to Koontz, O’Donnell and Weihrich (1980) planning has four important goals: to offset uncertainty and change, to focus attention on objectives, to gain economic operation, and to facilitate control. Since planning has to do with making decisions that will affect the future it must be done with much care.

In respect of retrospective conversion, thorough and adequate planning must be put in place if it was to be successful. Lack of proper and adequate planning and focus had led to the failure of some Nigerian libraries in the process of RECON (Ehikhamenor 1990).

Kesner and Jones (1984) as cited in Oketunji (2000) reported that in choosing an automated library system, the following guidelines could be considered:

- The library should do a needs analysis.
- The library manager should consider the various alternatives available.
- In the selection process, the library manager can ask for proposals from the computer vendors.
- The financial implications should be properly examined as well as the financial options.
- When a decision has been made, the library manager should consider the contract.
- The library manager should keep all the records of the transactions on the purchase or lease of the computer system.

All these can only be put in place with effective planning. Diloreto (2004) highlighted seven questions to consider as you work through automation process.

1. When do I need a library automation consultant? You need a consultant for a quick start and quick result and when your budget will not support additional staff.

2. How do I select a reliable consultant? Ask other librarians who have automated their libraries. Formal education can be basis for confidence in consultant’s ability. A library science degree (an MLS or MSL degree) from an accredited college and courses in automation or information managerial can be an indication of knowledge; however experience can be more relevant than education, especially in this quick evolving field.

3. How can I minimize the cost? Ask for consultants’ advice on software and this can be provided by them free of charge. Beware of the consultants who would create elaborate or overly customized system for your library. Seek simplicity. Your arrangement should be based on mutual trust.

4. What are the “ground rules”.

5. What are my responsibilities over the consulting bagains? Communication is the keyword – keep track of the consultants’ progress.

6. What should I expect from my consultant? The person should be willing to present a summary of the project to your manager.

7. How can I ensure good results? Calculating your goals and expectations can help you ensure success. Ask your consultant to help you clarify your needs and identify the options they can provide to solve them.

Ola (2000) suggested that proper planning is imperative in RECON, to spell out quite clearly the focus of the exercise, the way to go about it, to identify a team of competent staff, to
make funds available; to weigh and evaluate different options of RECON, to make management responsible for monitoring the progress made; to ensure that moderate marginal latitude is given to accommodate mistakes or errors among other considerations. He went further to highlight five important areas to consider in planning viz identification of records, organizing the record, costing and funding, staffing and equipment. Deloreto (2004) summed it up by saying “All library automation projects should have a project implementation plan”.

Having identified the need for proper planning in RECON, it is also expedient to move forward to the step-by-step procedures in RECON. The following methods are adopted for RECON: Keying manually, Optical character recognition, Resource database and finaly Editing (Ola 2000).

The process of retrospective conversion can be handled in different ways. The options available in retrospective conversion according to Ola (2000) are basically three;

(1) In-house retrospective conversion. This means applying all the necessary tools for the exercise using the staff and materials on ground internally.

(2) Using vendors and/or agencies: these agencies include Saztec Europe LTD, OCCC Europe, North- West data systems, Ebsco, the periodicals subscription agents. The best of these agencies in Sabtec.

(3) Shared retro-conversion. This is a situation where the two options identified above are adopted. Some part of the records can be sent to agencies to handle while the remaining records can be handled in-house by staff.

Adeyemi (2001) grouped retrospective conversion into two broad approaches viz in-house approach and getting the records converted by reputable library consultancy service, which is properly equipped to handle the task in accordance with the data structure in use by the library.

In support of this view Diloreto (2004) added that when the time or the staff for building the knowledge and skills for the automation challenge aren’t available, let your consultant be your guide”.

**Method**

The basic information about OAU RECON conception and implementation were obtained through a face-to-face interview of some library staff knowledgeable about the RECON process. They included the system librarian, cataloguers and those involved in the retrospective conversion of card catalogue in the library. A total of five library staff were interviewed. Twenty-three questions were directed at the selected library staff. The questions sought information on identifying and determining the processes involved in retrospective conversion of card catalogue (RECON), financial/material implications of RECON as well as human resources necessary for a successful retrospective conversion.

Information about users’ experience was obtained through a questionnaire survey of registered patrons of the library, especially those directly involved in the use of the new OPAC system. The categories of users included undergraduate and graduate students. A total of 25 users were randomly selected for questionnaire administration. The questionnaire was randomly distributed to the selected users, with adequate instructions given to assist them in completing the questionnaires. The researcher waited for all the respondents to return the completed questionnaires at the circulation desk. A hundred percent return rate of the completed questionnaire was achieved. The user experience questionnaire collected information on the efficiency and effectiveness of the OPAC in comparison with the old card catalogue.
Also, the researcher was present to observe the catalogers and the procedures involved in retrospective conversion of card catalogue, e.g., manual data entering. In addition, secondary data such as the university calendar and other publications relevant to the study were utilized. The sole method of data analysis is the use of simple frequency analysis and percentages.

**Findings**

The presentation and analysis of the research findings are discussed under the following headings below to meet the research objectives.

This section deals with the profile of the library in study as revealed by the interview respondents. Such background knowledge include the year of establishment of the library, total collection size, time the institution started RECON amongst others.

**Table 1: Collection size and Period of time taken in RECON**

<table>
<thead>
<tr>
<th>Year of library establishment</th>
<th>1962</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total collection size</td>
<td>700,000</td>
</tr>
<tr>
<td>Time started</td>
<td>2003</td>
</tr>
<tr>
<td>Time ended</td>
<td>Still on</td>
</tr>
</tbody>
</table>

The finding revealed that OAU library was established in 1962 and started her RECON in 2003 with collection size of 700,000 volumes. This date of RECON take off was contrary to literature, which ascertained that OAU RECON started in the 80s (Jagboro 2003). The researcher is of the view that the respondents based their judgment on the time serious effort was channeled towards the RECON. The process was still on as at the time of study. That means RECON process takes quite some time.

**Processes and Approach**

**Table 2: Processes/approaches in RECON**

<table>
<thead>
<tr>
<th>RECON approach</th>
<th>Contractor/consultant (OCLC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for the approach</td>
<td>To relieve cataloguers</td>
</tr>
<tr>
<td>Methods of RECON</td>
<td>Keying manually and resource database</td>
</tr>
<tr>
<td>Reason for choice of method</td>
<td>No need to re-invent the wheel</td>
</tr>
</tbody>
</table>

Table 2 revealed that OAU library’s RECON approach was contractors/consultants. The reason behind this approach was to relieve cataloguers.

OAU employed both keying manually and Resource Database on the ground that such method saved cataloguers time.

**Hardware and Software**

**Table 3: Number of hardware/type of software**

<table>
<thead>
<tr>
<th>No. of computers started with</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of computers now</td>
<td>30</td>
</tr>
<tr>
<td>Software in use</td>
<td>Ansythec E-library</td>
</tr>
<tr>
<td>Reason behind software in use</td>
<td>Custom built</td>
</tr>
</tbody>
</table>

From table 2 OAU started the RECON with 11 and progressed to 30 workstations. That means that any number of computer is good enough for a library to start the process of RECON, from that point, such library can move forward.
OAU made use of Ansythec E-library due to it was custom built and also in consideration of prevailing situation. From this point it can be inferred that the software a library can adopt will to some extent be determined by circumstances and peculiarity of the library, as noted by Marron and Fifa (1976). From the background of OAU RECON, one could realize the issues that necessitated them to change from Tinlib to Ansythec E-library (see OAU RECON History).

**Table 4: Identification of Human/financial resources involved**

<table>
<thead>
<tr>
<th>Type of staff</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional staff</td>
<td>20</td>
</tr>
<tr>
<td>Para-professional staff</td>
<td>7</td>
</tr>
<tr>
<td>Other staff</td>
<td>105</td>
</tr>
<tr>
<td>Cost of RECON</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

The overall operational costs have been described by the top management staff of the university as moderate and sustainable. The data in table 4 also revealed that a reasonable number of professionals are needed for a successful RECON. The library had twenty professionals, 7 paraprofessionals and 105 support staff. OAU was able to achieve such number of professionals because of constant training and retraining of the staff. Thus, an appropriate mix of staff and materials as achieved at OAU has helped to clear an erroneous believe of many that RECON is very expensive. RECON at OAU shows that it is affordable and external funding sources are still available for RECON, especially for libraries in developing economies.

**Table 5: Retrospective Conversion Problems/ Solution**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of fund</td>
<td>External support fund</td>
</tr>
<tr>
<td>Erratic electric supply</td>
<td>Purchase of stand by generator</td>
</tr>
<tr>
<td>No staff training</td>
<td>Staff training, retraining and experience</td>
</tr>
<tr>
<td>Frequent technological change</td>
<td>On-the-job workshops by vendors</td>
</tr>
<tr>
<td>Poor maintenance</td>
<td>Budgeting for system maintenance</td>
</tr>
<tr>
<td>Cultural barriers</td>
<td>Constant workshops on how to minimize cultural barriers</td>
</tr>
</tbody>
</table>

Table 5 revealed that OAU experienced varied crises situations in the process of RECON, including lack of fund, skilled manpower, interruption of electricity, change in technology, poor system maintenance and cultural barriers. This was in agreement with the reasons behind frustrated automation efforts as cited in Menon 1983, Thomps, 1984, Eres 1985, Ehikamenor, 1990, Feniran and Oyemakinde, 2000, Idowu & Mabawonku, 1999. They overcame these barriers through external funding, purchase of stand by generator, on-the-job workshops, maintenance budget as well as training and retraining of staff.

**Background Information on Users**

This section presents findings (from questionnaire responses) on personal data of the users, with particular reference to their sex, age, academic qualification, library-users membership, computer literacy and the use of the library.

**Table 6: Distribution of Respondents by Age**

<table>
<thead>
<tr>
<th>Age</th>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) 15-25</td>
<td>6</td>
<td>24.0</td>
</tr>
<tr>
<td>(b) 25-35</td>
<td>16</td>
<td>64.0</td>
</tr>
<tr>
<td>(c) 35-45</td>
<td>3</td>
<td>12.0</td>
</tr>
<tr>
<td>(d) 45-55</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 6 shows that majority of the respondents fall within 25 – 35 years (64%).
Table 7: Distribution of Respondents by Academic Qualification

<table>
<thead>
<tr>
<th>Academic Qualification</th>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Sch. Cert</td>
<td>1</td>
<td>4.0</td>
</tr>
<tr>
<td>(b) Diploma</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>(c) NCE/OND</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>(d) Bachelors</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>(e) Undergraduate</td>
<td>11</td>
<td>44.0</td>
</tr>
<tr>
<td>(f) M.S.C.</td>
<td>3</td>
<td>12.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From table 7, it could be seen that the respondents were more of undergraduates (44%) followed by M.Sc. (12%) and Bachelor’s degree holders (10%).

Table 8: Distribution of Undergraduates by Academic levels

<table>
<thead>
<tr>
<th>Academic level</th>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) 100</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>(b) 200</td>
<td>2</td>
<td>8.0</td>
</tr>
<tr>
<td>(c) 300</td>
<td>4</td>
<td>16.0</td>
</tr>
<tr>
<td>(d) 400</td>
<td>4</td>
<td>16.0</td>
</tr>
<tr>
<td>(e) 500</td>
<td>7</td>
<td>28.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
<td><strong>68</strong></td>
</tr>
</tbody>
</table>

Table 8 shows that most of the undergraduate respondents were 500 level students (28%), followed by 300 and 400 level students (16%). The 100 level students were missing among the respondents; the reason could be attributed to the fact that this set of students were freshers in the university as at the time of study and so they were still doing their registration.

Table 9: Computer Literacy

<table>
<thead>
<tr>
<th>O.A.U.</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>100</td>
<td>0</td>
<td>25</td>
</tr>
</tbody>
</table>

Table 9 revealed that most of the respondents were computer literate. The researcher was of the view that this finding was not a parameter to judge the library users’ computer literacy, in that it was only the users directly involved in the system that were used.

Table 10: Respondents’ Use of the Library

<table>
<thead>
<tr>
<th>Use of library</th>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Daily</td>
<td>19</td>
<td>76</td>
</tr>
<tr>
<td>(b) Weekly</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>(c) Twice a week</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>(d) Rarely</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 10 revealed that most of the respondents made daily use of the library, that shows that most of the respondents have a good reading habit.
Table 11: Respondents’ Assessment on Effectiveness of Card Catalogue

<table>
<thead>
<tr>
<th>(a)</th>
<th>Good</th>
<th>Respondents%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)</td>
<td>Very good</td>
<td>1</td>
</tr>
<tr>
<td>(c)</td>
<td>Not so good</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 11 shows respondents assessment of card catalogue. Their assessment of the card catalogue was mainly, “not so good” (60%). From the responses one could infer that card catalogue was not good enough. This finding indeed supported literature, which emphasized the need for RECON (Edoka 1992, Idowu and Mabawonku, 1999).

Effectiveness of OPAC

Table 13: Speed

<table>
<thead>
<tr>
<th>(a)</th>
<th>Slow</th>
<th>Respondents%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)</td>
<td>Fast</td>
<td>9</td>
</tr>
<tr>
<td>(c)</td>
<td>Very fast</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

From table 13, respondents were of the view that OPAC was very fast in terms of speed as most of them responded very fast and fast (60% and 36% respectively).

Table 14: Accuracy

<table>
<thead>
<tr>
<th>(a)</th>
<th>Good</th>
<th>Respondents%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)</td>
<td>Very good</td>
<td>9</td>
</tr>
<tr>
<td>(c)</td>
<td>Not good</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 14 revealed that most of the respondents ascertained that the OPAC system was good in terms of accuracy as none of the respondents ticked “not good”.

Table 15: User Friendliness

<table>
<thead>
<tr>
<th>(a)</th>
<th>Good</th>
<th>Respondents%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)</td>
<td>Very good</td>
<td>4</td>
</tr>
<tr>
<td>(c)</td>
<td>Poor</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>92</td>
</tr>
</tbody>
</table>

Table 15 showed the respondents assessment of the OPAC in terms of user friendliness. While many respondents were of the view that the OPAC was good (64), only a few users claimed that the system was poor in user friendliness.

By comparison with manual card catalogue the finding ascertained that OPAC system is better than card catalogue. This proves the point of Aramide (1974) that Mechanization has proved its superiority over traditional method in terms of accuracy, speed and consistency.

Satisfaction with OPAC

Table 11: System Satisfaction

<table>
<thead>
<tr>
<th></th>
<th>Yes%</th>
<th>No%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents</td>
<td>20</td>
<td>80</td>
</tr>
</tbody>
</table>
The study revealed that many of the respondents felt satisfied with the OPAC system, only a few of them were dissatisfied. Their reasons ranged from the fact that computer terminals were very few compared to the users, and there was no computer orientation for the users. It could also be inferred that the staff of the library were effective and working harmoniously with the users in their search for information because respondents did not choose staff negligence of duty.

On the other hand the finding revealed urgent need for more computer terminals functioning, and computer orientation programme put in place for freshers.

**Conclusion**

This study was directed towards the retrospective conversion experience of OAU library card catalogue. It delved into the processes/approaches, financial/material and human implications as well as problems/solutions and effectiveness and efficiency of the OPAC.

Obafemi Awolowo University Library made use of contractors and consultants in other to relieve the cataloguers. Data entry was by input manually, augmented with resource database. The findings revealed that RECON process takes quite some time. The library started in 2003 and is still on as at the time of study.

The financial implication of RECON at OAU was described as moderate, which could be attributed to support funds from philanthropic organizations. This shows that RECON is affordable and external funding sources are still available for RECON, especially for libraries in developing economies.

The findings revealed that OAU Library started with eleven computers and now have thirty, this proves that no number of computers is too small for any library to start RECON but the library must plan to improve, as suggested by Ola (2000) that proper planning is imperative in RECON, to spell out quite clearly the focus of the exercise and how to make funds available.

The problems of RECON as revealed in this study include lack of fund, poor maintenance culture, poor skilled manpower, poor electricity supply and other infrastructural problems. This finding agrees with literature (Menou, 1983, Thomps, 1984; Eres, 1985; Ehikamenor, 1990; Idowu and Mabawonku, 1999; Faniran and Oyemakinde, 2000), that automation efforts have been persistently frustrated by lack of manpower, funds, computing facilities, poor maintenance cultures, destructive interruption of electric power and other infrastructural factors. This is also in line with Bansode, S.Y. and Periera,S. (2008) that traditional barriers like insufficient funds, lack of space, and lack of training are the problems faced by many libraries. OAU Library overcame these barriers through external funding, purchase of stand by generator, on- the- job workshops, maintenance budget as well as training and retraining of staff.

The effectiveness and efficiency of the OPAC can be measured by speed of access of information, accuracy of information retrieved and user friendliness of the system. Based on the users responses, the OPAC system was very fast, accurate and user friendly.

It could be concluded that OAU Library has made a remarkable effort as far as RECON is concerned despite the numerous inhibiting factors. The library’s OPAC had been successfully opened to users. Other libraries that are still nurturing the dream of automating their systems are here by appealed to take a leap from conceptualization stage to actualizing their ideas. If OAU Library can record such a tremendous progress in the mist of some glaring problems, any determined library can overcome barriers and achieve full automation.
References


The Use of Library Electronic Information Resources By Academic Staff at Federal University of Agriculture, Abeokuta, Ogun State, Nigeria

M.O. Salaam, PhD

B.A. Ajiboye

O.M. Bankole

Mrs. Ajiboye holds a Master’s degree in Information Science from the University of Ibadan. She’s currently a Doctoral Student of the Department of Library and Archival Studies of the same University. Her research interest is in the area of Records and Information Management, Information and Communication Technologies deployment and use. She can be reached at: bimpesanmi@yahoo.com. Mrs. Bankole holds a Master’s degree in Library and Information Science from the Department of Library and Archival Studies of University of Ibadan and she’s currently a doctoral candidate in the same department. She can be reached at: bankolebanke@yahoo.co.uk. Dr. Salaam has a Ph.D in Library studies and is currently the University Librarian of the Federal University of Agriculture, Abeokuta, Nigeria. She can be reached at: queensalaam@yahoo.com. Mrs. Ajiboye and Mrs. Bankole are both Librarian II and work the Cataloguing and Classification and Serial Sections of the Library of the Federal University of Agriculture, Abeokuta, Nigeria.

Introduction

The rapid advancement in Information and communication technology (ICT) is having tremendous impact on every aspect of our daily lives in a dramatic and inexplicable ways. It has availed developing nation’s unprecedented opportunity towards attaining vital development goals in areas such as poverty reduction, healthcare and education. It has had radical impact in the field of Library and Information Science to such an extent that access to information is now at fingertips. The adoption of ICT in library and information activities has changed the philosophy of information from unitary to global access. The technological advancement has availed librarians the options of handling varied information sources conveniently and effortlessly.

In the developed world libraries, the traditional libraries has transformed into digital libraries, and books, journals and magazines have largely been replaced with e-books, e-journals, and e-zines, respectively. Sharma (2009) posited that the application of ICT has resulted in print medium increasingly giving way to the electronic form of information materials in the libraries. Okello-Obura (2008) submitted that the growth and diversity of electronic resources has led many to predict the extinction of printed journals in the future. So as not to be left behind in
the wind of change in the information world, libraries in developing countries now acquire electronic resources in form of CD-ROMs, on-line journals, electronic books, the internet, etc. The electronic sources of information is increasingly gaining popularity within the academic community in Nigeria as means of obtaining access to information at the right time. Today, the acquisition of electronic resources by libraries has helped in resolving three of its major challenges: limited budgets, space limitation and high cost of subscription to print publications.

Worldwide, faculty members have identified electronic information resources (EIR) as valuable tools for their academic activities and thus rely on them for both teaching and research activities. EIR facilitates keeping abreast with latest developments in various subject areas, and provides for easy, better and faster access to reliable and current information materials. Convenience, timeliness, and the possibilities of searching texts were listed as the most important advantages of electronic resources over print (Lenares, 1999). Dadzie (2005) highlighted the merits of electronic resources to include access to information that might be restricted to users due to physical location or finances, access to more current information, and the ability to link to additional resources or related content. Brophy (1993) stated that the merits of electronic resources over print include speed of access, ease of use, ability to search multiple files at the same time, ability to store articles electronically, print and repeat searches, more frequent updating, and access to information from outside the library. Omotayo (2010) listed the perceived advantages of electronic information resources by academic staff of Obafemi Awolowo University, Ile Ife, Nigeria as accessibility to recent journals, better international connections to up-to-date information, and speed in processing of papers for publications.

Statement of Problem

The academic library is a key infrastructure in the advancement of knowledge, as it supports University teaching, research and learning. The major resources of the library had been in prints, but the advent of information technology has ushered in the additional responsibility of handling EIR. In order for academic libraries to select and develop appropriate EIR, it is important for the managers to have the knowledge of the user's perceptions of the usefulness, satisfaction and constraints. Buckland (2003) posited that "library services should be user-centered rather than data-centered." and that: “Only when substantially more research and development has been completed from the library user's perspective can the digital library environment begin to have the look and feel of good library service.” Since the provision of electronic library services just started in the last decade in Nigeria, not much has been documented in evaluating users’ level of utilization. Providing access to EIR would only be of value if libraries have a good understanding of how the users make use of these resources. The present study thus analyzes the use of EIR by the academic staff of FUNAAB and the constraints faced in accessing the e-resources.

The study seeks to achieve the following specific objectives:

To assess the awareness and use of the library’s EIR by academic staff of FUNAAB.

- To determine the sources through which EIR use skills was acquired
- To identify the various purposes of using library EIR
- To assess the level of satisfaction with the use of library EIR

Determine whether the electronic resources can replace the print resources in the opinion of the academic staff.

To find out the opinions of the academic staff on the contribution of library EIR to their academic career.
To identify the constraints encountered in the usage of EIR.

Background information on Federal University of Agriculture, Abeokuta, Ogun State, Nigeria

The Federal University of Agriculture, Abeokuta (FUNAAB) is located in Abeokuta, the capital of Ogun State, and is one of the three specialized Universities of Agriculture established by the Federal government of Nigeria in 1988. The institution is rated as one of the best in Nigeria; in the Universities Research Fair organized by the apex body regulating University Education in Nigeria (National Universities Commission) in 2004 and 2005, FUNNAB was rated as the best research University in Nigeria. The last Web Ranking of Universities released in 2012, FUNAAB placed in the 2nd position among Universities in Nigeria, and 35th in Africa (Ranking Web of World Universities, 2011). The FUNAAB Library named ‘Nimbe Adedipe Library, after its foundation Vice-Chancellor Professor N.O. Adedipe commenced operation immediately the University was founded in 1988 with inherited collections of print materials from its predecessors, the defunct Federal University of Technology, Abeokuta (FUTAB) and the College of Science and Technology of the University of Lagos, Abeokuta (COSTAB).

Presently, FUNAAB library makes available a wide variety of EIR for use by students and staff of the institution. Examples of these sources include:

The Essential Electronic Agriculture Library (TEEAL) also referred to as “Library in a box”: a self-contained collection that provides access to over 145 scientific journals from 68 major publishers. TEEAL provides access to current full text journal articles in the field of agriculture for libraries in low-income countries.

HINARI (Health Information Network Access to Research Initiative) [www.who.int/hinari/en], was set up by WHO together with major publishers; enables institutions in developing countries to gain access to one of the world’s largest collections in health, medicine, and related biosciences.

AGORA (Access to Global Online Research in Agriculture) [www.agInternetwork.org], an initiative of the Food and Agricultural Organization of the United Nations (FAO), provides a collection of about 1900 journals to institutions in developing countries in the fields of food, agriculture, environmental science and related social sciences.

EBSCOHOST: provides a diverse collection of resources on environmental issues that can assist with environmental protection, sustainability efforts and other green initiatives.

CAB Abstracts: covers about 12,000 journal titles in more than 50 languages along with monographs, dissertations, conferences proceedings, technical reports, and patents.

Review of Literature

Several studies on usage of e-resources have been conducted in various institutions all over the world. The use of electronic resources by library users at Shaanxi University of Science and Technology was conducted with a sample of 909 respondents (Shuling, 2007). The study found that about 80% of the respondents had little knowledge about electronic resources, while almost half of the respondents used both printed and electronic resources.

Ibrahim (2004) investigated ‘Use and user perception of electronic resources in the United Arab Emirates University’ and found low use for all types of resources among faculty members. Online reference works, e-journals, and full-text articles were more popular than e-books, online catalogue and bibliographic databases among the respondents. The reasons
adduced for low use of resources was lack of time because of the time needed to focus on teaching, lack of awareness of electronic resources provided by library, ineffective communication channels and language barrier.

Renwick (2005) examined the knowledge and use of electronic information resources by faculty at the University of West Indies. The findings showed high level of awareness (80%) of electronic resources made available by the library; but low use of the library specific resources; 83% of respondents acquired skills to use electronic resources through self teaching, and they still expressed a need for training. The highest use of electronic resources was for communication(86%), followed by research (77%), support of teaching activities(74%) and for administrative purposes(41%).

Dadzie (2005) investigated the use of electronic resources by students and faculty of Ashesi University, Ghana, and also attempted to know the level of use and the types of information accessed. The results showed that general computer access was high and the usage of information was high due to the university’s state-of-the-art infrastructure. Internet resources usage was also very high while the use of scholarly databases was quite low due to inadequate information about the existence of electronic library resources.

Kindilchie and Samarraie (2008) studied EIR use by Qatar University Faculty. The findings showed that majority of faculty members have either a very good or excellent knowledge of computer systems, with most of the respondents utilizing a wide range of electronic services for personal purposes; and highly valued all types of e-resources in developing their personal knowledge. However, most faculty members used internet-based e-resources and services for personal purposes, while the use of electronic databases for teaching and research seems more limited.

Madhusudhan (2010) determined the use of e-resources, users' skills in handling e-resources, and the purpose of their use by research scholars of Kurukshetra University, Kurukshetra, India. The findings revealed that electronic resources have become an integral part of the information needs of research scholars. That the e-resources could be good substitute for conventional resources, if the access is fast, and more computer terminals are installed to provide access to e-resources.

Ansari and Zuberi (2010) analyzed the use of electronic resources using a sample of 70 academics at the University of Karachi. The study found that only 18% of respondents agreed to know much about electronic resources, while about 80% knew little about electronic resources. Slightly over half of the respondents used both printed and electronic resources, while 42.9% used only printed sources. About one-third of the respondents used electronic resources for research, about one-quarter to one third used it to prepare lectures and gain subject knowledge.

Saratha and Mahesh (2011) investigated the use of electronic resources and the problems faced in accessing the e-resources by faculty members and scholars of affiliated Colleges of Bharathiar University, Coimbatore. The findings showed that the respondents were familiar with e-resources and used it for communication and self learning purpose, while only few respondents had difficulty in using e-resources due to lack of IT knowledge.

Tyagi (2011) investigated the use and awareness of electronic information sources at IITRoorkee, India. The response showed that 100% faculty members are aware and make use of the library electronic resources/services. All the faculty(100%) use the EIR for subject knowledge update, for writing research/review articles and for proposed research. Majority of the respondents (78.38%) believed that electronic resources have become a substitute for printed materials.

Egberongbe (2011) investigated the ‘Use and Impact of Electronic Resources at the University of Lagos, Nigeria’. The findings showed that 32(28.6%) lecturers were not aware of the library

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electronic resources, 69.8% of lecturers had received training on use of electronic resources. The electronic resources used by the lecturers include The findings further showed that 53.5% of lecturers used Science Direct, 28.6% used EbscoHost and 21.4% used Agora. 55.4% of lecturers were not satisfied with the IT infrastructures provided by library and the University at Large, and majority 53.6% are of the opinion that e-resources will never diminish the importance of traditional resources.

Electronic resources are widely used in universities. There is a positive association between computer knowledge and use of electronic resources. While some academics learnt the use through formal training, others learned through trial and error and by the advice of colleagues. Academics agreed that the use of electronic resources lead to better research and enhances scholarly communication.

Methodology

The study employed the descriptive survey research design and was undertaken between January and February, 2011. The target population of the study was the academic staff of the Federal University of Agriculture, Abeokuta, Nigeria (FUNAAB). As at the time of study, there were eight Colleges namely: College of Plant Science and Crop Production (COLPLANT), College of Engineering (COLENG), College of Natural Science (COLNAS), College of Environmental Resources Management (COLERM), College of Animal Science and Livestock Production (COLANIM), College of Food Science and Human Ecology (COLFHEC), College of Veterinary Medicine (COLVET) and College of Agricultural Management and Rural Development (COLAMRUD), The sample consisted of 166 academic staff selected by the stratified random sampling technique from the eight Colleges in the University. The questionnaire was administered to the academic staff in their offices after it was pretested.

Instrument: The questionnaire tagged 'Survey of Use of Electronic Information Resources at 'Nimbe Adedipe Library' was developed through the review of related literature. It elicited data on the demographic profiles of academic staff, self reported computer knowledge, awareness of library electronic information resources, usage patterns, purpose of use, satisfaction level of users, opinions on contribution of electronic resources to academic activities and constraints faced while using the resources.

Findings and Discussion

Respondent profile

Out of the 166 questionnaires distributed to participants, 144 validly completed were successfully retrieved giving a response rate of 86.7%. Table 1 shows that there are more male respondents (72.9%) than female respondents (27.1%). The respondents’ ages ranged from below 30 to over 55 years with those in the age bracket of 41-45 years constituting the highest proportion of 36.8%, followed by 30.6% in 36-40 years. Most of the respondents, 75% are PhD holders and the remaining 25% are Masters degree holders. On the academic rank of the respondents, 9.7% are Professors, 6.9% are Readers and 28.5% are Senior Lecturers. Regarding teaching experience, 38.2% had up to 10 years, 11-20 years, 48.6%; and 21-30 years, 11.8%. The College of Natural Science had the highest respondents (20.8%), followed by COPLANT and COLANIM with 14.6% and 13.9% respondents, respectively.

Table 1. Profile of respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Gender
Male 105 72.9
Female 39 27.1
2. Age
<30 2 1.4
31-35 10 6.9
36-40 44 30.6
41-45 53 36.8
46-50 18 12.5
51-55 8 5.6
>55 9 6.3
3. Highest qualification
PhD 108 75.0
Masters 36 25.0
4. Designation
Professors 14 9.7
Readers 10 6.9
Senior Lecturers 41 28.5
Lecturer I 42 29.2
Lecturer II 29 20.1
Assistant Lecturers 8 5.6
5. Teaching Experience
Up to 10 years 55 38.2
11-20 years 70 48.6
21-30 years 17 11.8
No response 2 1.4
6. Colleges
COLPLANT 21 14.6
COLENG 9 6.3
COLNAS 30 20.8
COLERM 18 12.5
COLANIM 20 13.9
COLFHEC 17 11.8
COLVET 11 7.6
COLAMRUD 18 12.5

Computer knowledge
The knowledge of computer has become a necessity for every profession, and has been identified as an important factor towards the use and non-use of electronic resources. Thus, the respondents were asked to rate their computer proficiency. Table 2 shows that all the respondents were computer literate. Thirty seven respondents (25.7%) rated their knowledge of computer as excellent, 35.4% rated it as very good, 31.3% good while only 7.6% assessed their computer knowledge to be fair.

Table 2. Self ratings of knowledge of computer use

<table>
<thead>
<tr>
<th>Ratings</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>37</td>
<td>25.7</td>
</tr>
<tr>
<td>Very good</td>
<td>51</td>
<td>35.4</td>
</tr>
<tr>
<td>Good</td>
<td>45</td>
<td>31.3</td>
</tr>
<tr>
<td>Fair</td>
<td>11</td>
<td>7.6</td>
</tr>
<tr>
<td>Below average</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>144</td>
<td>100</td>
</tr>
</tbody>
</table>
Awareness of library electronic information resources

Table 3 shows that out of 144 respondents, 135 (93.75%) stated that they are aware of the existence of electronic information resources in the library, while only nine (6.25%) claimed they were not aware. The major reason adduced for non use of electronic resources in most libraries has been lack of awareness and patronage of library has greatly improved as users become familiar with the availability and use of e-resources (Lwoga et al., 2007). That most of the academic staff are aware of the existence of the library electronic resources is a welcome development, but the few that claimed non awareness also need to be taken into consideration since they are part of those that should be utilizing the resources. Although, it is surprising that some academics claimed that they are unaware of the library EIR, however, Egberongbe (2011) in a very recent study also found that 28.6% of lecturers at the University of Lagos, Nigeria are unaware of the library electronic resources.

Table 3: Respondents’ awareness of library electronic information resources

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>135</td>
<td>93.75</td>
</tr>
<tr>
<td>No</td>
<td>09</td>
<td>6.25</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>100</td>
</tr>
</tbody>
</table>

Usage of library electronic information resources

The respondents that were informed about the library EIR were asked if they were using the resources and if so how often. The EIR was being used by 123 respondents (91.1%) of the scientists, while those that never used the resources constitute 8.9 % (Table 4). On the frequency of use, about half of the respondents (50.4%) indicated that they made use of the resources 1-5 times in a week, followed by 27.4% that used it 1-3 times in a month. Eight respondents (5.9%) used the resources daily. If those that made use of the resources daily and 1-5 times in a week are taking as frequent users, then 76 (56.3%) of the scientists could be regarded as frequent users of the library electronic resources.

Of the nine respondents who had not utilized the library EIR, four respondents stated that they used other sources such as the physical library to meet their information needs, three respondents each mentioned that they do not have training on how to use EIR and lack of time.

Table 4. Frequency of use of library electronic information resources

<table>
<thead>
<tr>
<th>Frequency of use</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least once daily</td>
<td>8</td>
<td>5.9</td>
</tr>
<tr>
<td>1-5 times per week</td>
<td>68</td>
<td>50.4</td>
</tr>
<tr>
<td>1-3 times per month</td>
<td>37</td>
<td>27.4</td>
</tr>
<tr>
<td>Occasionally</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Never</td>
<td>12</td>
<td>8.9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>135</td>
<td>100</td>
</tr>
</tbody>
</table>

Use of various electronic resources in the Library

The respondents were asked to indicate from the list of library EIR the products they used. Table 5 shows that the most used electronic-resources was the CAB Abstract used by 74% of respondents, 66.7% used TEEAL, 61.8% used AGORA, e-granary was used by 31.7%. and 30.9% used HINARI. The other electronic resources, EBSCOHost, AJOL, Emerald, and NUC Virtual Library were each used by less than 20% of respondents. CAB, TEEAL and AGORA are the three most used probably due to their relevance to academics in the field of agriculture.

Table 5. Utilization of various library electronic information resources

<table>
<thead>
<tr>
<th>Electronic resources</th>
<th>Frequency</th>
<th>(%)</th>
</tr>
</thead>
</table>
The Essential Agricultural Library (TEEAL) 82 66.7
CAB Abstract 91 74.0
Agricultural (AGORA) 76 61.8
Health Initiative (HINARI) 38 30.9
EBSCO (journal collections) 22 17.9
Emerald Group Publishing 17 13.8
African Journals Online (AJOL) 10 8.1
NUC National Virtual Library of Nigeria 16 13.0
E-Granary 39 31.7

Source of knowledge on how to use library electronic information resources

In response to how the academicians acquired the skills to use EIR, Table 6 shows that over half of the respondents (55.3%) acquired the skills through their personal effort by trial and error, 26.8% indicated their colleagues, 17.9% and 13.8% acquired the skills through training offered within and outside the University, respectively. Only eight respondents (6.5%) acquired the skills through guidance by library staff.

The importance of skills for efficient use of internet resources has been stressed (Luambo and Name, 2004). Kibirige and Lisa (2000) posited that users need to be trained for them to be able to optimally utilize internet information resources. According to Qari (2000), training increases the self confidence of users to efficiently make use of new information technology.

Table 6. Source of learning electronic information resources use (multiple responses) n=123

<table>
<thead>
<tr>
<th>Source</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colleagues</td>
<td>33</td>
<td>26.8</td>
</tr>
<tr>
<td>Personal effort by trial and error</td>
<td>68</td>
<td>55.3</td>
</tr>
<tr>
<td>Training offered by the University</td>
<td>22</td>
<td>17.9</td>
</tr>
<tr>
<td>Guidance by the library staff</td>
<td>8</td>
<td>6.5</td>
</tr>
<tr>
<td>Cybercafe staff</td>
<td>10</td>
<td>8.1</td>
</tr>
<tr>
<td>Training/ Workshop outside the University</td>
<td>17</td>
<td>13.8</td>
</tr>
</tbody>
</table>

Purpose of use of library electronic information resources

It is important to know the purpose of use of the electronic resources provided by the library. Table 7 shows that research was by far the major purpose for the use of EIR as almost three quarter of all the respondents (74.0%) indicated its use for this purpose. This was followed by its use for subject knowledge update (58.5%), to guide research students (37.8%) and to collect study and teaching materials (30.9%), while 22% indicated its use to write research papers/books. The other lesser use indicated by respondents were for presentation of seminars/workshops (18.7%), making contact with colleagues (12.2%) and to seek funding/grants for research (10.6%).

That electronic resources were mainly used for research and to update knowledge is in tune with the findings of Thanuskodi and Ravi (2011) who reported that academics use electronic resources for research, followed by its use for publishing articles and books, teaching and to update knowledge. The findings also agreed with that of Tenopir (2003) that showed that the heaviest use of electronic resources by academics is for research, followed by teaching and gaining current awareness.
Table 7: Purpose of use of library electronic information resources (multiple responses)

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>91</td>
<td>74.0</td>
</tr>
<tr>
<td>Collection of study and teaching materials</td>
<td>38</td>
<td>30.9</td>
</tr>
<tr>
<td>To write research papers/books</td>
<td>27</td>
<td>22.0</td>
</tr>
<tr>
<td>Making contact with colleagues across the globe</td>
<td>15</td>
<td>12.2</td>
</tr>
<tr>
<td>For presentation of seminars/workshops</td>
<td>23</td>
<td>18.7</td>
</tr>
<tr>
<td>For subject knowledge update</td>
<td>72</td>
<td>58.5</td>
</tr>
<tr>
<td>To guide my research students</td>
<td>46</td>
<td>37.8</td>
</tr>
<tr>
<td>To seek funding/ grants/awards</td>
<td>13</td>
<td>10.6</td>
</tr>
</tbody>
</table>

Overall satisfaction with library electronic resources use

In Table 8, the respondents scored their levels of satisfaction with library services as fully satisfied (29.3%), Satisfied (43.1%) and not satisfied (15.4%). Others did not respond to the item. The level of satisfaction of users is one of the crucial measures of how appropriate information resources or services are for a defined user group. An appropriate information resources or services should provide relevant and organized information that will meet the specific needs for the advancement of knowledge through research and learning.

Table 8: Overall satisfaction with library electronic resources use

<table>
<thead>
<tr>
<th>Level of satisfaction</th>
<th>Frequency Counts</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully satisfied</td>
<td>36</td>
<td>29.3</td>
</tr>
<tr>
<td>Satisfied</td>
<td>53</td>
<td>43.1</td>
</tr>
<tr>
<td>Not satisfied</td>
<td>19</td>
<td>15.4</td>
</tr>
<tr>
<td>No response</td>
<td>15</td>
<td>12.2</td>
</tr>
<tr>
<td>Total</td>
<td>123</td>
<td>100</td>
</tr>
</tbody>
</table>

Electronic resources vs the print document

The respondents were asked if they feel electronic resources could replace the print document. Ninety two respondents (74.8) responded No, while only 31 (25.2) scientists responded in the affirmatives. This clearly reveals that the scientists are of the view that electronic resources cannot replace print documents.

Table 9. Influence of library electronic resources on academic career

<table>
<thead>
<tr>
<th>Impact</th>
<th>Strongly agree</th>
<th></th>
<th>Agree</th>
<th></th>
<th>Disagree</th>
<th></th>
<th>Strongly disagree</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Easier to find information</td>
<td>79</td>
<td>64.2</td>
<td>31</td>
<td>25.2</td>
<td>8</td>
<td>6.5</td>
<td>5</td>
<td>4.1</td>
</tr>
<tr>
<td>Access to a wider range of information</td>
<td>82</td>
<td>66.7</td>
<td>33</td>
<td>26.8</td>
<td>5</td>
<td>4.1</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>Faster access to information</td>
<td>74</td>
<td>60.2</td>
<td>28</td>
<td>22.8</td>
<td>14</td>
<td>11.4</td>
<td>7</td>
<td>5.7</td>
</tr>
<tr>
<td>Internet has increased exchange of information</td>
<td>46</td>
<td>37.4</td>
<td>35</td>
<td>28.5</td>
<td>23</td>
<td>16.7</td>
<td>9</td>
<td>7.3</td>
</tr>
<tr>
<td>Access to e-resources improves my research</td>
<td>68</td>
<td>55.3</td>
<td>36</td>
<td>29.3</td>
<td>14</td>
<td>11.4</td>
<td>5</td>
<td>4.1</td>
</tr>
<tr>
<td>Access to e-resources improves my teaching</td>
<td>49</td>
<td>39.8</td>
<td>38</td>
<td>30.9</td>
<td>19</td>
<td>15.4</td>
<td>17</td>
<td>13.8</td>
</tr>
<tr>
<td>Increased number of publications added value to library services</td>
<td>52</td>
<td>50.4</td>
<td>26</td>
<td>21.1</td>
<td>22</td>
<td>17.9</td>
<td>13</td>
<td>10.6</td>
</tr>
<tr>
<td>Increased motivation to search for information</td>
<td>74</td>
<td>60.2</td>
<td>36</td>
<td>29.3</td>
<td>5</td>
<td>4.1</td>
<td>8</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Influence of library electronic resources on academic career

The information obtained from library EIR has been a great asset to the academic career of most of the scientists. Pooling together the responses ‘Strongly agreed’ and ‘agreed’ in Table 9, 89.4% believed that the use of EIR has made it easier to find required scientific
information, 93.5% are of the opinion that it provides access to a wider range of information, 83.0% thought it enables faster access to scientific information, 89.5% feels it increased their motivation to search for more information, and 84.6% felt that it has improved the quality of their research.

**Constraints in using library electronic information resources**

Table 10 shows that the use of library EIR has some problems associated with it. Eighty six of the 123 users (67.5%) indicated that they encountered at least one constraint using the library EIR. The major constraint was lack of time to use the library electronic resources due to other work demands as indicated by 23.6% of respondents. The other main constraints are frequent power outage (23.6%), slow internet access speed (22.8 %), and slow downloading speed (13.0%). respectively. That power failure and slow internet access speed are among the major constraints corroborates previous findings of Omotayo (2006) and that power failure and slowness of server are major constraints against the utilization of internet resources in Nigeria.

**Table 10: Respondents’ constraints to the use of library electronic information resources**

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of time</td>
<td>29</td>
<td>23.6</td>
</tr>
<tr>
<td>Slow internet access speed</td>
<td>28</td>
<td>22.8</td>
</tr>
<tr>
<td>Frequent power outage</td>
<td>23</td>
<td>18.7</td>
</tr>
<tr>
<td>Slow downloading speed</td>
<td>16</td>
<td>13.0</td>
</tr>
<tr>
<td>Lack searching skills</td>
<td>7</td>
<td>5.7</td>
</tr>
<tr>
<td>Uncooperative attitude of library staff</td>
<td>03</td>
<td>2.4</td>
</tr>
<tr>
<td>Information overload</td>
<td>4</td>
<td>3.3</td>
</tr>
<tr>
<td>Lack of relevant information</td>
<td>9</td>
<td>7.3</td>
</tr>
<tr>
<td>Difficulty in reading from the screen</td>
<td>07</td>
<td>5.7</td>
</tr>
<tr>
<td>Difficulty in gaining access to archival or older publications</td>
<td>9</td>
<td>7.3</td>
</tr>
<tr>
<td>Insufficient access terminals</td>
<td>6</td>
<td>4.9</td>
</tr>
</tbody>
</table>

**Respondents’ suggestions**

Respondents were asked opened-ended question to make suggestions or comments on a better way of making EIR accessible and available to them. The following were extracted from their responses:

- More terminals should be provided with more staff to attend to users;
- Due to time constraints, access points to EIR should be made available at each college for ease of access to lecturers;
- The e-library should improve on its power supply;
- NAL website should be worked upon with the library’s EIR posted to give access to the lecturers even outside the university environment.

**Major Findings**

There was a very high level of awareness (93.8%) of the existence of electronic resources at ‘Nimbe Adedipe Library among the academic staff of FUNAAB.

The library EIR was being used by 91.1% of those that are aware, with about half (50.4%) using it 1-5 times in a week, followed by 27.4% that used it 1-3 times in a month.

The most used e-resources in decreasing order were the CAB Abstract, TEEAL, AGORA, e-granary and HINARI.
Most of the scientists acquired the skills to use electronic resources on their own by trial and errors (55.3%) and through colleagues (26.8%). The librarians were not actively involved in imparting skills for EIR use on academic staff.

The scientists used EIR for various purposes; the major ones being for research (74.0%), for subject knowledge update (58.5%), to guide research students (37.8%) and to collect study and teaching materials (30.9%).

The respondents scored their levels of satisfaction with library services as fully satisfied (29.3%), Satisfied (43.1%) and not satisfied (15.4%).

Majority of the scientists (74.8%) believed that electronic resources cannot replace print documents.

The scientists believed that the library EIR has enhanced their academic activities by generally holding very positive opinions on the contribution of EIR to their job performance.

The scientists encountered various constraints in the use of EIR, the major ones being lack of time due to other work demands, frequent power outage, slow internet speed and slow downloading speed.

**Conclusion**

The rapid growth of ICT has changed the traditional methods of research, storage, retrieval and dissemination of scholarly information. Today, EIR has become the main medium for storage and retrieval of information. The librarian has the primary responsibility of providing access to accurate and timely information for its clients and the electronic information resources of this IT age is facilitating the efficient discharge of this role. The findings showed that the academic staff of FUNAAB are aware and make use of the library EIR.

**Recommendations**

Based on the findings of the study, the following recommendations are being put forward to enhance the utilization of the library EIR

Concerted efforts should be made to create more awareness among the university staff and students about the availability of EIR at NAL, and also on addition of new e resources and databses to guide against underutilization. It is also important to take steps that will encourage non users to use of the resources.

Librarians should be trained and re-trained on a continuous basis through refresher courses, symposia, meetings and workshops on the latest trend in ICT development, so that they can make useful contributions to the impartation of EIR use skills on the library users.

The library should put up training and re-training programs for optimum use of e resources since these study found that the academics learnt internet skills on their own.

Subscriptions to the library to EIR should be made in consultation with faculty members on their priorities and preferences.

The University should upgrade its bandwidth to increase the speed so as to resolve the slow connectivity and the time required to download as stated by the respondents

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Madhusudhan, M. (2010). Use of online electronic resources by research scholars of Kurukshetra University. *Electronic Library* 28.4:


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**Awareness, Attitudes, and Use of Open Access Journals by Master’s Degree Students of the Department of Library, Archival, and Information Studies, University of Ibadan, Nigeria**

**M.O. Ogbomo**

**Oghenetega Ivwhighreghweta**

M.O. Ogbomo is a Lecturer in the Department of Library and Information Science, Delta State University, Abraka, Delta State, Nigeria and can be reached at: mogbomo@yahoo.com. Oghenetega Ivwhighreghweta is the Head of the Readers Services Department at Western Delta University, Oghara, Delta State, Nigeria and can be reached at: anthonyoghenetega@yahoo.com

**Introduction**

Until the late seventeenth century, communication between scholars depended heavily on personal contact and attending meetings arranged by the early learned societies such as the Royal Society. As the membership of these societies increased, more people could not attend the meetings and so the proceedings, usually circulated as a record of the last meeting became a place to publish papers that had not been presented at the meetings at all and moved towards what we now recognize as scholarly journals (Kwan, 2003).

From the outset, the core value of scholarly communication has been sharing of knowledge without price and copyright restrictions. However, the joining and dominance of commercial publishers in journal publication as well as distribution after the World War 11 resulted into limitations to scholarly content access. The interest of commercial publishers has been on
reaping prices from journal sales rather than facilitating knowledge sharing for further growth of science and technology. Until recently, over 2.5 million of articles published annually appeared in subscription based journals making it impossible for researchers with financial limitation to gain access to such information (Moller, 2006). According to Giarlo, (2006) the exorbitant journals prices imposed by commercial publishers have forced academic institutions and libraries to reduce journal subscriptions. This resulted into access limitations as scientists may not get most of the literature deemed necessary in their scholarly work compared to scholars from well endowed countries, those from the developing countries are severely affected due to the widespread poverty in the latter nations. (Bjork, 2004) In the academia, the traditional means of disseminating research materials and scholarly published journals was found to be inadequate in terms of speed and accessibility, compared to what information seekers were getting from the Internet and World Wide Web. Not only access to a myriad of information sources from all over the world was being made possible, it was in a faster, easier and cheaper mode. The enabling information and communication technologies (ICTs) as well as the frustrating journal prices prompted scholarly community to devise an alternative scholarly publishing system whose aim is to achieve a wider distribution of scholarly content without price or copyright restrictions to end users, thus providing impetus towards the concept of open access (Bjork, 2004, and Moller, 2006).

“Open access” is the term used to describe literature that is available to any reader at no cost on the Internet. The copyright owner—usually the author—allows the user to freely read, download, copy, print, distribute, search, link to the full text of the article, crawl it for indexing, and use the article for lawful purposes,(Kwan 2003). The development of information and communication technology such as the Internet has brought enormous opportunity to bring the results of research primarily to all through digital communication (Swan and Brown, 2004). The impact of convergence of tradition and technology brings the facility of accessing information conveniently and instantaneously. Lawrence, (2001) stated that "Scientists now have almost instant access to large and rapidly increasing amount of information that previously trips to the library, inter-library loan delay or substantial effort in locating the source”

Open access literature is available in open access journals, institutional repositories, subject repositories and digital archives, yet certain factors such as awareness and attitude may influence their use. Awareness is a pre-requisite to subsequent usage of open access journals unless an individual uses it unknowingly. Attitude on the other hand is an individual’s overall effective access reaction to using a system (Venkatesh & Liew 2003). Researcher’s attitude towards the use of open access journals could influence their use positively or negatively.

**Literature Review**

Albert (2006) reported that “the scientific journal began in 1665 to enable researcher share their work quickly and widely and to establish priority of researchers investigating the same problem” Because early journal publishers then could not pay the author, the tradition of writing for impacts rather than payment prevailed. But with the passage of time ”serial crisis” rooted in subscription price barrier to information access became a serious concern to the stakeholders of scholarship. This was the remote cause of looking for an alternative model which turned out to be Open Access.

Open access journals are scholarly journals that are available online to the readers without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Some are subsidized, and some require payment on behalf of the author (Suber, 2006). Subsidized journals are financed by an academic institution or a government information center; those requiring payment are typically financed by money made available to researchers for the purpose from a public or private funding agency, as part of a research grant. There have also been several modifications of open access journals that have
considerably difficult nature; they are the hybrid open access journals and delayed open access journals (Suber, 2006).

Open Access is the alternative to Closed Access (or subscription access or toll access). Traditionally, journals have been sold on subscription to libraries. In the age of print-on-paper, this was the only model available that enabled publishers to disseminate journals and recoup the cost. Unfortunately, this meant that only researchers in institutions that could afford to pay the subscription charges were able to read journal articles. Even wealthy universities could only afford a proportion of the world’s research literature. For institutions in poorer countries this proportion is tiny or even non-existent. At the beginning of this millennium, more than half the research-based institutions in the poorest countries had no current journal subscriptions and over 20% had an average of two subscriptions (Chan, 2009). Now, in the age of the World Wide Web, it is possible for research findings to be disseminated free of charge to anyone who wishes to read them.

There is evidence of several international and national large scale surveys that investigated the researchers’ awareness attitude and usage of open access and the facilitating and inhibiting factors of open access adoption (Swan and Brown, 2004; Kim 2006 and Christian, 2008). These studies are important as they provide the findings that contribute ideas to the implementation of appropriate strategies for enhancing open access uptake. However, most of the studies failed to recognize postgraduate students as important stakeholders in the scholarly communication process. Postgraduate students are important because they are being trained to become future researchers. Also, in the process of preparing and writing their theses and dissertations, postgraduate students need access to scholarly, accurate and timely information. Furthermore the theses and dissertations produced by postgraduate students form an important output for open access repositories. Postgraduate students are therefore among the key beneficiaries of open access opportunities. Open access is of particular importance to postgraduate students in developing countries like Nigeria since access to scientific literature using the conventional commercial scholarly communication system is constrained by inadequate subscriptions to information resources due to the poor economic of such countries (Moller, 2006; Dulle, 2010; Dulle, et al; 2001; Harle, 2009).

Bartle and Walton, (1996) noted that “most researchers are still reluctant to the use of open access journals; one of the major reasons for this is that they are not aware of what is available to them and what the service is capable of doing” they further stated that students are less likely to use open access journals unless they are encouraged to do so by their lecturers.

The concept of open access is still not widely known among researchers from different geographical localities and research disciplines. Some studies indicated that open access is an unknown concept to many researchers (Swan and Brown, 2004; Kim 2006; and Christian, 2008). A study by Christian (2008) for example, reveals that while only 3% of 66 respondents at the University of Lagos were aware of the concept of open access journals, 22.7% knew very little about it and majority 74% of the respondents were completely unaware of it. Another similar study involving 27 Universities in Canada revealed that from among 32 survey respondents, 66% had some kind of familiarity with the term open access (Greyson et al, 2009). Some studies that have reported on open access journal awareness revealed that it is below or slightly above 60% of the respondents that are aware of it (Picktson, 2005; Dulle, 2010; De Beer, 2005 and Greyson et al, 2009). It should be noted that even where open access awareness is reported, the level of understanding was not uniform for different open access terms. For example, a study by Swan and Brown (2004), established that subject repositories or archives were the most known types to the respondents who claimed to be aware of open access repositories than open access journals. Utulu and Bolarinwa (2009) also acknowledged that among 189 respondents 65% were aware of pre-prints as compared to 60% and 48.3% who reported to know open access journals and post-prints respectively. In the same vein, Dulle (2010) revealed that among 398 respondents investigated, majority

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72.1% were aware of open access journals while 26.4% were not aware of it, 62.3% claimed to have accessed open access publications while 37.7% had never accessed such content. Another recent study by Sanchez-Tarrago and Fernandez-Molina (2009) similarly revealed that among scholars from a group of health researchers in Cuba, 44.8% of the respondents were reported to be aware of open access journals, only 20.7% know open access repositories.

Moller (2006) reported the results of a study carried out in South Africa focusing on open access journals and their prospect in the country. The study gathered opinions and perceptions of the respondents regarding open access publishing; it was observed that more than one third of the respondents claimed to know open access publishing. Few researchers indicated to have published in an open access journal. Similarly a study by Fullard (2007) involved 145 respondents among the 500 targeted South Africa biomedical authors. It investigated the extent to which stakeholders in the local research system were aware of open access publications and the prospects for the adoption of the new scholarly communication system in South Africa. The study found that close to 61% of the biomedical researchers could not explain properly what open access implied (88 of 145) while only 3 of the 8 officials research organizations were clear about open access means. With regard to the prospects of open access, the findings reveal that there was little likelihood for academics to publish in open access journals in the near future.

In 2008, SARUA conducted a study entitled” Opening access to knowledge in Southern Africa Universities from selected Eastern and Southern African Countries”. The study examined the issue of access to knowledge constraints and the potential contribution that open access approaches can make to increasing research output. A qualitative approach was adopted to explore the views, perceptions and attitudes of respondents in getting a picture of the key concerns they have had in respect of the constraints to accessing and disseminating knowledge. The above study revealed that 71% of the respondents were aware of open access journals. It was also established that 77% of the respondents stated their explicit support for introducing open access approaches to promoting access to knowledge. Recognition of research output published in open access formats and channels, perceptions of poorest quality associated with open access published materials, the fear of their research being plagiarized were reported by the respondents as the main barriers for their adoption of open access.

Utulu and Bolarinwa (2009) reported results from a study on open access initiatives adoption by academics from the Universities of Ibadan and Lagos in Nigeria. The two Universities were selected on convenient sampling basis. Using the survey methodology, 250 copies of the questionnaire were distributed to the respondents selected from a population of 2,224 academic members of staff from the study area. The research findings indicated that on average, the awareness of open access by the academics was above 50% while the actual usage of different open access outlets to access and disseminating scholarly content was less than 50%. Another pertinent finding from this study is that the respondents were found to prefer usage of open access journals than open access repositories. This is considered as a sign for the increasing acceptance of open access journals as a formal media for dissemination of scholarly content even in the developing world Utulu and Bolarinwa (2009)

A study by Alemu (2009) was conducted to examine the role of open access in fostering knowledge sharing and collaboration in Ethiopia. Using the qualitative approach, this study interviewed 14 respondents (researchers and librarians) selected purposely from four organizations based in Addis Ababa, the capital of Ethiopia. This study aimed at finding out the respondents’ awareness and the state of open access uptake at respective institutions involved in the study. The overall findings revealed that researchers and librarians involved in the study had very low awareness of open access and that this mode of scholarly communication was not practiced in the institution under the study.
There are several ways through which researchers who claimed to know about open access publication got the information. The study by (Pelizzari, 2003), indicate that colleagues, Professional literature and libraries have been the main sources of learning about open access to those who claimed to be aware of it. On the other hand, self-archiving by their peers, open access debate, institution or library and established subject-based archives promotions were established as being the main means through which researchers were exposed to open access publications (Swan and Brown, 2005). The most common ways in which open access related terms had been discovered include searching the Internet, participation in debates or via colleagues in their disciplines (Allan, 2005). A similar study by Sanchez-Tarrago and Fernandez-Molina (2009) found that the respondents were informed about open access through colleagues (40%) and professional literature (37%) in their fields of research. In concurrence with the above findings, several other studies have acknowledged other ways through which respondents were exposed to open access publications These include: University/library websites; contact from institutional repository staff member; publicity through campus newspapers; results of a web search engine/Internet; direct publicity from publishers; word of mouth from associates; and participation in an initial meeting of institutional repository (Kim, 2006; Moller, 2006).

Usage of open access journals in disseminating and access scholarly information has attracted the attention of many scholars in recent years. Varying levels of involvement of researchers in open access publishing were reported by Allan (2005), Swan and Brown (2005), Kin (2006), Sanchez-Tarrago and Fernandez (2009), and Utulu and Bolarinwa (2009). A study by Sanchez-Tarrago and Fernandez (2009) for example, reveals that among 60 respondents only 35% acknowledged to have published in open access journals. Swan and Brown (2005), Kin (2006) and Utulu and Bolarinwa (2009) conducted studies that reveals more involvement of researchers in open access publishing. Kin (2006) reported that more than half of the respondents claimed to have made their research or teaching materials publicly accessible through web sites. Similarly, Swan and Brown (2005) found out that close to half of the respondents had published at least one open access article during the last three years from the time of their study. The study by Utulu and Bolarinwa (2009) established that the respondents had acknowledged of having disseminated their scholarly content using either pre-prints (30%) or post-prints (23.3%) and 35% in open access journals. The general tendency is more involvement of researchers in accessing rather than publishing scholarly content in open access outlets. Supporting this view, Mann et al (2008) observed that despite that 66% of the respondents from their study claimed to have used freely available materials from open access outlets, only a minority (28%) affirmed to have published their papers using similar means. A survey by Deoghuria and Ray (2007) also established that out of 125 respondents, 80% used open access to access literature and 20% used open access for publishing their research outline. Utulu and Bolarinwa (2009) noted that 40% of the respondents claimed to have accessed scholarly content using pre-prints or post-prints and 46% through open access journals, this is compared to 30% and 23.3% of the respondents who reported to have disseminated their scholarly content using pre-prints and post-prints respectively against 35% who had published in open access journals. Although in the short term such a trend may be considered undesirable, in the long term the increasing usage of open access materials may also influence users of open access materials in open access domain. This means that by accessing open access materials such users becomes more aware of open access avenues for scholarly dissemination and may easily be convinced to make their research findings openly accessible. It is thus more likely that less effect may be required to promote open access to individuals who are already benefiting from open access initiatives than those who do not (Gadd, Oppenheim and Probet 2003).

Several studies have been carried out on OAJ which highlight the benefits as:

- Free access to information
Increased research impart (measured by citations/downloads) of open access articles versus non-open articles (Antelman, 2004)

Possible solution to the so-called “serial crisis” or “journal affordability problem”

Okoye and Ejikeme (2010) identified the benefits of using open access journals to include the following:

- It provides increased citation to published scholarly work.
- Publications are made free for authors
- It increases the impact of researchers work
- Articles can be accessed online free of charge.
- It provides free online access to the literature necessary for one’s research
- It helps in career development
- It provides high quality scholarly work

Certain factors have been identified as obstacles to the use of open access journals. Okoye & Ejikeme, (2010) identified inadequate skills to navigate the internet, unstable power supply, unavailability of internet facilities, permanence of open access movement due to unstable financial support, lack of knowledge of the existence of open access journals in the internet and the unpredictable nature of open access journals as constraints to the use of open access journals by researchers.

Battle and Walton (1996) have reported that students have problems with accessing open access journals. According to them, there are still insufficient computers in most institutions for the numbers of students who want to use them, especially at peak times. Inadequately provided personal computers can make it difficult for people to have access to open access journals.

Purpose of the Study

The purpose of the study was to investigate the awareness, attitude and use of open access journals by master’s degree students of the department of Library, Archival and information studies, University of Ibadan. Specifically, the study was intended to:

I. Find out the level of awareness of open access journals (OAJ) by masters degree students.
II. Find out the attitude of master’s degree students towards the use of open access journals.
III. Find out the level of usage of open access journals (OAJ) by masters degree students.
IV. Identify the benefits derived from using open access journals (OAJ) by master’s degree students.
V. Identify the problems militating against the use of open access journals (OAJ) by masters degree students.

Research Questions

The following research questions guided this study:

I. What is the level of awareness of open access journals (OAJ) by master’s degree student?
II. What is the attitude of master’s degree students towards the use of open access journals?
III. What is the level of usage of open access journals (OAJ) by master’s degree students?
IV. What are the benefits derived from using open access journals (OAJ) by master’s degree students?
V. What are the problems militating against the use of open access journals (OAJ) by master’s degree students?

**Methods**

The research design adopted for the study is the *ex-post-facto* type of descriptive research method. The instrument used for data collection was the questionnaire. The mean and standard deviation were the statistical tools used to analyze the research questions. A total of one hundred and three 103 copies of questionnaire were administered and 73 were returned completed.

**Findings and Discussion**

**Table I: Response rate**

<table>
<thead>
<tr>
<th>No. of questionnaire administered</th>
<th>No. of questionnaire retrieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>103</td>
<td>73</td>
</tr>
</tbody>
</table>

The response rate is 73 out of 103, which is adequate for this study.

**Table II: Gender of Post-Graduate Students of LARIS**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>25</td>
<td>34.3</td>
</tr>
<tr>
<td>Female</td>
<td>48</td>
<td>65.8</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100</td>
</tr>
</tbody>
</table>

Table II shows that 65.8% of the students are female while 34.3% are male. This shows that they are more female respondents than male in this study.

**Table III: Distribution of Students According to Levels**

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLS I</td>
<td>32</td>
<td>43.8</td>
</tr>
<tr>
<td>MLS II</td>
<td>41</td>
<td>56.2</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: MLS 1 & MLS II (First and second year Masters Degree Students)

Table III shows that majority of the post-graduate students are in MLS II (56.2%) while MLS I had 43.8% of the respondents.

Research Question One: What is the level of awareness of open access journals (OAJ) by master's degree student?

**Table IV: level of users awareness of OAJ**

<table>
<thead>
<tr>
<th>SN</th>
<th>open access journals</th>
<th>HA (%) (4)</th>
<th>A (%) (3)</th>
<th>UA (%) (2)</th>
<th>HU (%) (1)</th>
<th>Mean of S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Library Philosophy &amp; Practice</td>
<td>30 (41.1) 30 (41.1) 11 (15.1) 2 (2.7)</td>
<td>3.21 .80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Dlib Magazine</td>
<td>36 (49.3) 22 (30.1) 12 (16.4) 3 (4.1)</td>
<td>3.25 .88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Information Research</td>
<td>36 (49.3) 28 (38.4) 9 (12.3) -</td>
<td>3.37 .70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Libri</td>
<td>22 (30.1) 25 (34.2) 22 (30.1) 4 (5.5)</td>
<td>2.89 .91</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>IJLIS</td>
<td>19 (26.0) 26 (35.6) 22 (30.1) 6 (8.2)</td>
<td>2.80 .93</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WEIGHTED AVERAGE = 3.13**

Note: Highly Aware (HA), Aware (A), Unaware (UA) Highly Unaware (HU), Standard Deviation (S.D).
Table IV shows that the level of respondents’ awareness of various types of OAJs is high with the weighted average of 3.13. The respondents noted Library Philosophy & Practice (Mean=3.21; SD=.80), D-Lib (Mean=3.25; SD=.88), Information research (Mean=3.37; SD=.70), Libri (Mean=2.89; SD=.91), AJOL (Mean=3.26; SD=.76) and IJLIS (Mean=2.80; SD=.93). The high awareness may be explained as a result of internet revolution in Nigeria university campuses. And for the fact that students’ are ICT compliant and can browse the internet for literature to accomplish their academic work. This finding corroborates the study of Sanchez-Tarrago and Fernandez-Molina (2009) who found that among scholars from a group of health researchers in Cuba, 44.8% of the respondents were reported to be aware of open access journals. Utulu and Bolarinwa (2009) in his study found that 48.3% respondents were reported to know open access journals.

Research Question Two: What is the attitude of master’s degree students towards the use of open access journals?

Table V: Attitude of postgraduate students towards the use of open access journals

<table>
<thead>
<tr>
<th>S N</th>
<th>Attitude towards use</th>
<th>SA (%)</th>
<th>A (%)</th>
<th>D (%)</th>
<th>SD (%)</th>
<th>Mean S. D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I like to read open access journal articles</td>
<td>30 (41.1)</td>
<td>43 (58.9)</td>
<td>34 (46.6)</td>
<td>4 (5.5)</td>
<td>3.4 (.5)</td>
</tr>
<tr>
<td>2</td>
<td>I like open access journals because they contain recent information</td>
<td>35 (47.9)</td>
<td>39 (53.4)</td>
<td>3 (4.1)</td>
<td>1 (1.4)</td>
<td>3.3 (.6)</td>
</tr>
<tr>
<td>3</td>
<td>I like open access journals because it provides relevant information to my research topic</td>
<td>30 (41.1)</td>
<td>39 (53.4)</td>
<td>3 (4.1)</td>
<td>1 (1.4)</td>
<td>3.3 (.6)</td>
</tr>
<tr>
<td>4</td>
<td>I have downloaded articles from open access journals</td>
<td>28 (38.4)</td>
<td>28 (38.4)</td>
<td>15 (20.5)</td>
<td>2 (2.7)</td>
<td>3.1 (.8)</td>
</tr>
<tr>
<td>5</td>
<td>I like open access journals because they are seamless (continuous)</td>
<td>23 (31.5)</td>
<td>31 (42.5)</td>
<td>16 (21.9)</td>
<td>3 (4.1)</td>
<td>3.0 (.8)</td>
</tr>
<tr>
<td>6</td>
<td>I like open access journals because I can access it from anywhere in the world.</td>
<td>41 (56.2)</td>
<td>32 (43.8)</td>
<td>1 (1.4)</td>
<td>3.5 (.5)</td>
<td>3.5 (.5)</td>
</tr>
<tr>
<td>7</td>
<td>I like to browse open access journals</td>
<td>28 (38.4)</td>
<td>40 (54.8)</td>
<td>5 (6.8)</td>
<td>3 (4.1)</td>
<td>3.3 (.6)</td>
</tr>
<tr>
<td>8</td>
<td>I like to publish articles in open access journals</td>
<td>17 (23.3)</td>
<td>35 (47.9)</td>
<td>18 (24.7)</td>
<td>3 (4.1)</td>
<td>2.9 (.8)</td>
</tr>
<tr>
<td>9</td>
<td>I like to reference open access journals</td>
<td>23 (31.5)</td>
<td>43 (58.9)</td>
<td>6 (8.2)</td>
<td>1 (1.4)</td>
<td>3.2 (.6)</td>
</tr>
<tr>
<td>10</td>
<td>I like to cite open access journals</td>
<td>20 (27.4)</td>
<td>45 (61.6)</td>
<td>8 (11.0)</td>
<td>1 (1.4)</td>
<td>3.1 (.6)</td>
</tr>
</tbody>
</table>

WEIGHTED AVERAGE = 3.25

Table V shows that the attitude of master’s degree students of the Department of Library, Archival and Information Studies, University of Ibadan towards OAJs is high with the weighted average mean of 3.25. The respondents noted that they like open access journals because they can access it from anywhere in the world (Mean = 3.56; SD = .50), they like open access journals because they contain recent information (Mean = 3.43; SD = .60) This finding corroborates that of Moller (2006) who reported the results of a study carried out in South Africa focusing on open access journals and their prospect in the country. The study gathered opinions and perceptions of the respondents regarding open access publishing; it was observed that more than one third of the respondents claimed to have access open access publications. Also Deoghuria and Ray (2007) established that out of 125 respondents, 80% use open access to access literature and 20% used open access for publishing their research outline

Research Question Three: What is the level of usage of open access journals (OAJ) by master’s degree students?
Table VI: Student usage of open access journals

<table>
<thead>
<tr>
<th>SN</th>
<th>Usage of open access journals</th>
<th>HU (%) (4)</th>
<th>U (%) (3)</th>
<th>UN (%) (2)</th>
<th>HUN (%) (1)</th>
<th>Mean</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I reference open access journals</td>
<td>20 (27.4)</td>
<td>42 (57.5)</td>
<td>11 (15.1)</td>
<td>-</td>
<td>3.12</td>
<td>.64</td>
</tr>
<tr>
<td>2</td>
<td>I print open access journals articles</td>
<td>23 (31.5)</td>
<td>32 (43.8)</td>
<td>16 (21.9)</td>
<td>2 (2.7)</td>
<td>3.04</td>
<td>.81</td>
</tr>
<tr>
<td>3</td>
<td>I access open access journals</td>
<td>32 (43.8)</td>
<td>36 (49.3)</td>
<td>5 (6.8)</td>
<td>-</td>
<td>3.37</td>
<td>.61</td>
</tr>
<tr>
<td>4</td>
<td>I have made links to other articles through open access journals</td>
<td>21 (28.8)</td>
<td>33 (45.2)</td>
<td>18 (24.7)</td>
<td>1 (1.4)</td>
<td>3.01</td>
<td>.77</td>
</tr>
<tr>
<td>5</td>
<td>I publish my work in open access journals</td>
<td>13 (17.8)</td>
<td>17 (23.3)</td>
<td>35 (47.9)</td>
<td>8 (11.0)</td>
<td>2.48</td>
<td>.92</td>
</tr>
<tr>
<td>6</td>
<td>I have downloaded articles from open access journals</td>
<td>27 (37.0)</td>
<td>28 (38.4)</td>
<td>15 (20.5)</td>
<td>3 (4.1)</td>
<td>3.08</td>
<td>.86</td>
</tr>
<tr>
<td>7</td>
<td>I cite open access journals</td>
<td>24 (32.9)</td>
<td>37 (50.7)</td>
<td>12 (16.4)</td>
<td>-</td>
<td>3.16</td>
<td>.69</td>
</tr>
<tr>
<td>8</td>
<td>I copy open access journals articles to Flash</td>
<td>25 (34.2)</td>
<td>33 (45.2)</td>
<td>13 (17.8)</td>
<td>2 (2.7)</td>
<td>3.11</td>
<td>.79</td>
</tr>
<tr>
<td>9</td>
<td>I read articles in open access Journals</td>
<td>30 (41.1)</td>
<td>41 (56.2)</td>
<td>2 (2.7)</td>
<td>-</td>
<td>3.38</td>
<td>.54</td>
</tr>
<tr>
<td>10</td>
<td>I browse for articles in open access Journals</td>
<td>30 (41.1)</td>
<td>38 (52.1)</td>
<td>5 (6.8)</td>
<td>-</td>
<td>3.34</td>
<td>.61</td>
</tr>
</tbody>
</table>

**Note:** Highly Used (HU), Used (U), Unused (UN), Highly Unused (HUN)

Table VI shows that the level of usage of Open Access Journal is high with the overall weighted average of 3.11. The respondents noted that they read articles in Open Access Journals (Mean = 3.38; SD = .54), they access open access journals (Mean =3.37; SD = .61) and they browse for articles in open access journals,(Mean=3.37;SD=.61) These findings is in conformity with that of Mann et al (2008) who observed that 66% of the respondents from their study claimed to have used freely available materials from open access outlets, Also a further confirmation of Deoghuria and Ray (2007) revealed that out of 125 respondents used in their study, 80% used open access to access literature.

Research Question Four: What are the benefits derived from using Open Access Journals (OAJ) by master’s degree students?
Table VII: Benefits of using open access journal

<table>
<thead>
<tr>
<th>SN</th>
<th>Perceptions of Respondents</th>
<th>SA (%) (4)</th>
<th>A (%) (3)</th>
<th>D (%) (2)</th>
<th>SD (%) (1)</th>
<th>Mean</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It provides free online access to the literature necessary for my research</td>
<td>34 (46.6)</td>
<td>34 (46.6)</td>
<td>5 (6.8)</td>
<td>-</td>
<td>3.40</td>
<td>.62</td>
</tr>
<tr>
<td>2</td>
<td>It increases impact of researchers work</td>
<td>35 (47.9)</td>
<td>37 (50.7)</td>
<td>1 (1.4)</td>
<td>-</td>
<td>3.47</td>
<td>.53</td>
</tr>
<tr>
<td>3</td>
<td>It makes for easy accessibility of the research work</td>
<td>29 (39.7)</td>
<td>40 (54.8)</td>
<td>4 (5.5)</td>
<td>-</td>
<td>3.34</td>
<td>.58</td>
</tr>
<tr>
<td>4</td>
<td>Self archiving is possible</td>
<td>22 (30.1)</td>
<td>41 (56.2)</td>
<td>10 (13.7)</td>
<td>-</td>
<td>3.16</td>
<td>.65</td>
</tr>
<tr>
<td>5</td>
<td>It helps in career development</td>
<td>27 (37.0)</td>
<td>42 (57.5)</td>
<td>4 (5.5)</td>
<td>-</td>
<td>3.32</td>
<td>.57</td>
</tr>
<tr>
<td>6</td>
<td>Publications are made free for authors</td>
<td>24 (32.9)</td>
<td>26 (35.6)</td>
<td>18 (24.7)</td>
<td>5 (6.8)</td>
<td>2.95</td>
<td>.93</td>
</tr>
<tr>
<td>7</td>
<td>It reduces publication delay</td>
<td>19 (26.0)</td>
<td>40 (54.8)</td>
<td>13 (17.8)</td>
<td>1 (1.4)</td>
<td>3.06</td>
<td>.71</td>
</tr>
<tr>
<td>8</td>
<td>It provides increased citation to published scholarly work</td>
<td>28 (38.4)</td>
<td>39 (53.4)</td>
<td>6 (8.2)</td>
<td>-</td>
<td>3.30</td>
<td>.62</td>
</tr>
</tbody>
</table>

WEIGHTED AVERAGE = 3.30

Table VII shows that there are lots of benefits derived from the use of Open Access Journals with the weighted average of 3.30. The respondents noted that the major benefit is that It increases impact of researchers work (Means = 3.47; SD = .53). This is followed by the provision of free online access to the literature necessary for research (Mean = 3.40; SD = .62). The finding strongly confirms that of Okoye and Ejikeme (2010) who stated that articles can be accessed online free of charge and that the primary advantage of open access journals is that the entire content is available to users everywhere regardless of affiliation with a subscribing library.

Research Question Five: What are the problems militating against the use of open access journals (OAJ) by master's degree students?

Table VIII: Problem of using open access journal

<table>
<thead>
<tr>
<th>SN</th>
<th>Problems encountered by students</th>
<th>SA (%) (4)</th>
<th>A (%) (3)</th>
<th>D (%) (2)</th>
<th>SD (%) (1)</th>
<th>Mean</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Retrieval of too much irrelevant information</td>
<td>28 (38.4)</td>
<td>25 (34.2)</td>
<td>14 (19.2)</td>
<td>6 (8.2)</td>
<td>3.03</td>
<td>.96</td>
</tr>
<tr>
<td>2</td>
<td>Unavailability of internet facilities</td>
<td>25 (34.2)</td>
<td>28 (38.4)</td>
<td>17 (23.3)</td>
<td>3 (4.1)</td>
<td>3.03</td>
<td>.87</td>
</tr>
<tr>
<td>3</td>
<td>Download delay</td>
<td>15 (20.5)</td>
<td>33 (45.2)</td>
<td>21 (28.8)</td>
<td>4 (5.5)</td>
<td>2.81</td>
<td>.83</td>
</tr>
<tr>
<td>4</td>
<td>Limited access to computers terminals</td>
<td>19 (26.0)</td>
<td>32 (43.8)</td>
<td>18 (24.7)</td>
<td>4 (5.5)</td>
<td>2.90</td>
<td>.85</td>
</tr>
<tr>
<td>5</td>
<td>Inadequate knowledge of the existing of open access journals in the internet</td>
<td>16 (21.9)</td>
<td>27 (37.0)</td>
<td>21 (28.8)</td>
<td>9 (12.3)</td>
<td>2.69</td>
<td>.96</td>
</tr>
<tr>
<td>7</td>
<td>Power outages</td>
<td>37 (50.7)</td>
<td>26 (35.6)</td>
<td>9 (12.3)</td>
<td>1 (1.4)</td>
<td>3.36</td>
<td>.75</td>
</tr>
<tr>
<td>8</td>
<td>Improper archiving of some open access journals</td>
<td>21 (28.8)</td>
<td>32 (43.8)</td>
<td>16 (21.9)</td>
<td>4 (5.5)</td>
<td>2.96</td>
<td>.86</td>
</tr>
<tr>
<td>9</td>
<td>Lack of internet search skills</td>
<td>26 (35.6)</td>
<td>24 (32.9)</td>
<td>17 (23.3)</td>
<td>6 (8.2)</td>
<td>2.96</td>
<td>.96</td>
</tr>
</tbody>
</table>

WEIGHTED AVERAGE = 2.64

Table IX indicated that there are many problems associated with the use of Open Access Journals by the respondents with the weighted average mean of 2.64. The major problem as stated is Power outages (Mean = 3.36; SD = .75), this is followed by Retrieval of too much irrelevant information (Mean of 3.03 and SD = .96), These findings therefore conforms with
that of Okoye and Ejikeme (2010) who identified certain obstacles to the use of open access journals to include: Inadequate skills to navigate the internet, unstable power supply, lack of knowledge of the existence of open access journals on the internet and the unpredictable nature of open access journals.

Conclusion

The study revealed that masters’ degree students’ of the Department of Library, Archival and Information Studies, University of Ibadan use of open access journals is high and they have positive attitude towards their use. On the benefits of OAJs, the study found that it provides free cost access to their contents, it increases the impact of researchers work and that it makes for easy accessibility of the researchers work. It was also revealed that retrieval of too much irrelevant information, unavailability of internet facilities, download delay, limited access to computer terminals and power outages were some of the problems facing postgraduate students found in the study. Therefore, the postgraduate schools with strong collaboration with Head of Department, the library and other stakeholders should intensify more efforts in the promotion of existing open access journals.

Recommendations

The following recommendations were therefore made:

- Postgraduate schools authorities with strong collaboration with head of Department, the library and other stakeholders should intensify more efforts in the creation of awareness of existing open access journals.
- Lecturers in the Department of Library, Archival and Information studies should do more in inculcating the habit of using OAJs to students’ by giving them assignments and directing them to the various open access journals available on the internet in order to sustain the respondents awareness and open access journals use.
- Internet facilities are crucial factor in access to knowledge. Therefore the university management should provide adequate internet facilities to enhance access to OAJs.
- Electricity should be restored to places where ICTs are available to enable students’ make maximum use of the facilities. There is the need for the Department of Library, Archival and Information studies, University of Ibadan to acquire high powered generator which will serve as backup in case of power outage.

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Occupational Stress among University Librarians in Nigeria

Dr. (Mrs) M. O. Salaam

M.K. Alawiye

R.O.A. Okunlaya

M. O. Salaam, M.K. Alawiye, and R.O.A. Okunlaya are librarians at ‘Nimbe Adedipe Library, University of Agriculture, Abeokuta, Nigeria. M.O. Salaam can be reached at: mariam.alawiye10@gmail.com

Introduction

Job life is one of the important parts of our daily lives which cause a great deal of stress. Due to the competitive nature of the job environment, most of the people in the world are spending their time for job related purpose resulting in stress or those things that affects their health negatively. Stress in the workplace is a growing problem, with extensive costs to individuals, organisations and society. Occupational stress is the physical or psychological disorder associated with an occupational environment and manifest in symptoms such as extreme anxiety or tension or cramps, headaches or digestion problems. Occupational stress is a major hazard for many workers. Increased workload, downsizing, overtime, hostile time environments and shift work are just a few of the many causes of stressful working conditions.

The university librarian as a Principal Officer of the university and a member of the academic university management works under constant pressure. This assertion was corroborated by Delwiche (2008) who opines that constantly changing technology, budgets, outsourcing, excessive workload and burnout precipitate internal stress and conflict for librarians. Along with serving on several committees of their universities, University librarians manage library personnel. They organise, collect, and manage a large array of library resources necessary to meet the user’s needs. They select books, newspapers, computer databases, journals, audio cassettes, microfilm, photographs and videos. University librarians use variety of equipment in their daily work such as computers, periodicals and government documents. University librarians spend the vast majority of their time answering questions from people within and outside, supplying information and even teaching. This position of university librarian is stressful as there are often several activities or projects running at once. To be a great university librarian takes a logical and methodological thinking skill, working under pressure, broad knowledge and a good memory. Working can provide life structure, purpose, satisfaction and financial incomes. The purpose of this study is to make a contribution to a slowly increasing body of knowledge and understanding about occupational stress among university librarians. It also identifies the various causes of stress, effects, factors associated with occupational stress and those that can be used to reduce occupational stress and how to manage occupational stress by university librarians in Nigerian universities.

Literature Review

At one time, an academic career was seen as a desirable goal. It was work in a clean, safe environment that was free of stress, and was perceived to have a high social standing. Over the past twenty years that perception has changed to a point where stress in academia exceeds that found in the general population. Stress may be conceptualized as a complex, multivariate process, resulting from a broad system of variables involving inputs, outputs, and
the mediating activities of appraisal and coping (Lazarus, 1990; Lazarus, DeLongis, Folkman and Gruen, 1985).

Stress is the body’s way of responding to any kind of demand. It can be both good and bad experiences. When people feel stressed by something going on around them, their bodies react by rehearsing chemical into the blood (Pantry 2007). These chemicals give people more energy and strength which can be a good thing if their stress is caused by physical danger. It can also be a bad thing, if their stress is in response to something emotional and there is no other outlet for this extra energy and strength.

A stressed up and dissatisfied staff cannot render efficient and effective services to patrons. This was supported by Harwell (2008) who is of the notion that stress and challenge leave their impact on librarians. Okoro (2004) observed that a stressed up judge is very likely to be irritable, and not be patient enough to weigh the evidence before given his verdict. Akinboye, Akinboye and Adeyemo (2002) described occupational stress as physical, mental, emotional wear and tear brought about by incongruence between the requirements of the job capabilities and the needs of the employee to cope with job demands. It is stress at work.

Occupational stress, regardless of what causes it, has been found to have negative influence on organisation. For instance, higher levels of stress have been associated with lower organisation commitment (Ketchand & Strawser, 2000; Lopopolo, 2002). Since the introduction of Internet; librarians were among the early adopters in educating users about the resources available on the Internet. However, in the process of adapting to the increasingly complex technologies, more users and staff have been experiencing physical and emotional stress (Sannders,1999), which resulted in higher cost for retraining new staff and increase in litigation cost related to workplace stress (Harper, 2000). Routray and Satpathy (2007) concluded that physical stress has the negative effect exertion on the physical health of library workers on the job. They pointed out that, due to sitting in front of computer for a long hour, working in an air-conditioned environment etc, have resulted in the physical stress and illness. This is a time triggered by overwork, lack of rest and poor diet. Kinman (1998) reported from his study that in United Kingdom the impact of work-place stress is not inherently bad nor necessarily too destructive but it is obvious that this cannot be compared with the Africa situation in which the condition and work environment is comparably worse to that of UK, and concluded that work-place stress can have a wide ranging and negative impact on the well-being of the individual and his / her day-to-day functioning.

Cooper, Dewey and Micheal (2001) also observed that occupational stress occurs when there is a discrepancy between the demands of the environment/work place and an individual’s ability to carry out and complete these demands. Occupational stress can also lead to loss of a sense of responsibility, lack of concern for colleagues (Fairbrother & Warn, 2003), breakdown in personal relations with colleagues, low levels of mutual understanding and tolerance, irritability, indecisiveness, poor communication, poor interpersonal skills, feelings of isolation and alienation (Brown et.al, 2002). Winfield (2002) expressed that the prevalence of occupational stress among academic and staff of universities from across the globe is alarmingly increasing. Okoro (2008) expressed that librarianship is a highly specialized profession and practitioners face challenges that task their professional competence. Occupational stress also has its effects on organisational communication.

In the organisational environment, stress has been implicated in the deterioration of performance efficiency by both managers and subordinates. A deterioration of the organisational environmental is accompanied by deterioration in organizational communication (Gilberg, 1993). Librarians operate within public and academic institutions that are under constant stress. Librarians catalogue, organise, classify and then index their books and materials, along with answering student enquiries, teaching the students research skills and helping them to locate information (Houghton, 2006). In fact there are emerging issues in the profession that pose a stress factor to librarians, especially the academic librarians.

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include new expectations and the constantly changing role of librarians due to the dynamic nature of information and its delivery in the university system, triggered by the emergence of information and communication technology (ICT) in the library and information practice.

Librarianship as a service profession dealing with the complexities of informational and technological advancement, dwindling budgets and downsizing of staff is at risk for inducing job stress. (America Institute of Stress, 2006). Sheila (2005) observed various causes of stress among librarians which include low pay, increased workloads, work-place; bureaucratic inertia and increased job competition are shared by all helping professions. Stressful conditions that adversely affect organisations are plentiful in libraries and as a result burnout which is a negative stress has become an increasingly important management topic. Chronic workplace stress that leads to burnout is a major issue for modern organisations including libraries. Its effects can be devastating not only on the individual suffering it but also the institution as a whole (Caputo, 1991).

A study by Fisher (1994) in two Scottish Universities also indicated that psychological stress is a feature of occupational life for University librarians. As increasing number of academics in the institutes have to perform a number of roles simultaneously: the job commonly involves teaching, seminars, meetings, attempting to obtain research funding, writing papers and books, supplying information, attending conferences. Under such conditions, the potential for role overload and role conflict is high.

In a study conducted by Boyd and Wylie (1994) among academic staff in Zealand University, it was revealed that majority of academic staff admitted that their work is stressful. Stress and challenges leave their impact on librarians. Some individuals gladly meet stress head-on and use challenges to remarkable advantage for the mission of their institution and professional advancement, while on the other hand stress weigh some people down. Shortages in operational, professional and personal resources can undermine a person’s energy and lead to burnout (Togia, 2005).

Another study showed by United Kingdom Association of University Teachers (AUT, 1990) found out that 49% of the University employees reported that their jobs were very stressful and 77% reported an increase in occupational stress over the years. The 2005 UK study concluded that, “occupational stress in university staff is widespread and lends further support to the growing evidence that universities no longer provide the low stress working environments they once did” (Tytherleigh, et.al, 2005).

Objectives of the Study

This study aims to achieve the following objectives:

- investigate various causes of stress for University librarians.
- determine the effect of occupational stress on University librarians performances.
- identify how occupational stress of librarians can be reduced.

Research Questions

The following research questions were raised for the purpose of this study:

- What are the various causes of stress for university librarians?
- What is the effect of occupational stress on university librarians?
- How can occupational stress of university librarians be reduced?
Methodology

In carrying out this study, the survey method was adopted, using simple random sampling technique. The university librarians in Nigeria formed the population for this study. Questionnaire was the research instrument used for data collection. It was divided into three sections. Section A consists of questions related to causes and section B consists of question related to effects of stress while section C consist of questions related to how occupational stress could be reduced. The questionnaire was distributed at a conference of university librarians which was held at the University of Agriculture, Abeokuta from 12th - 15th October, 2010. A total of 80 questionnaires were distributed and about 56 were collected during the on-going conference. Simple percentage was used to analyse the data.

Data Analysis

Table 1: Causes of Stress for Librarians

<table>
<thead>
<tr>
<th>Causes</th>
<th>No of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncooperative attitude</td>
<td>12</td>
<td>48</td>
</tr>
<tr>
<td>of staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too frequent meetings</td>
<td>07</td>
<td>28</td>
</tr>
<tr>
<td>Poor working environment</td>
<td>02</td>
<td>08</td>
</tr>
<tr>
<td>Family conflict</td>
<td>01</td>
<td>04</td>
</tr>
<tr>
<td>Rising work pressure</td>
<td>03</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

From the table above, 12 respondents which represents 48% agreed that uncooperative attitude of staff causes stress for the university librarian, 7 respondents which represents 28% agreed that too frequent meetings causes stress for the university librarians, 2 respondents which represents 8% agreed that poor working environment causes stress for the university librarians while 1 and 3 respondents which represents 4% and 12 % respectively also opined that family conflict and rising work pressure cause stress for the university librarians.

One could deduce from this table that the highest number of respondents opined that uncooperative attitude of staff which is 48% is the major cause of stress for university librarians. This connotes that staff are great stake holders of any establishment especially the library. When library staffs are not co-operative, users cannot be well served and the purpose for which the library is established will not be actualised. This finding is related to the assertion of Gilberg (1993) who is of the opinion that deterioration in the environment is accompanied by deterioration in organisational communication.

Table 2: Effects of Stress on University Librarians

<table>
<thead>
<tr>
<th>Effects</th>
<th>No of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rising in the heartbeat</td>
<td>02</td>
<td>08</td>
</tr>
<tr>
<td>Frustration</td>
<td>05</td>
<td>20</td>
</tr>
<tr>
<td>Enhanced performance</td>
<td>08</td>
<td>32</td>
</tr>
<tr>
<td>Position being threatened</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

From the table above, 2 respondents which represents 8% agreed that rising in the heartbeat is one of the effects of stress on university librarian, 5 respondents which represents 20% agreed that frustration is one of the effects of stress on university librarian, 8 respondents which represents 32% agreed that enhanced performance is one of the effects of stress on university librarian while 10 respondents which represents 40 % opined that threat to position is one of the effects of stress on university librarians.

Table 2 sought to identify the effect of stress on librarians. It was discovered from findings that position being threatened which is 40% is the major effect of stress on university librarians.
librarians. This finding indicates that librarians are stressed because they feel insecure in respect of their present managerial position. The fact that they fear to lose the opportunity of attaining the peak of their career may naturally give them psychological unrest. This finding therefore confirms the assertion of Sheila (2005) who observed that bureaucratic inertia and increased competition are shared by all professionals.

Table 3: How Occupational Stress can be Reduced/Managed

<table>
<thead>
<tr>
<th>Stress Management</th>
<th>No of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relaxation</td>
<td>13</td>
<td>52</td>
</tr>
<tr>
<td>Use previous experience</td>
<td>08</td>
<td>32</td>
</tr>
<tr>
<td>Playing and listening to music</td>
<td>03</td>
<td>12</td>
</tr>
<tr>
<td>Strolling and exercising</td>
<td>01</td>
<td>04</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 3 above shows that 13 respondents which represents 52% agreed that relaxation is one of the methods that could be used to reduce/manage stress, 8 respondents which represents 32% agreed that previous experiences can be used to manage stress situation while 3 and 1 respondents which represents 12% and 4% respectively agreed that playing and listening to music and strolling and exercising could be used to reduce stress.

It is obvious from table 3 that relaxation which represents 52% of the total response of respondents is the major method that could be used by university librarians to manage/reduce stress. The above findings encourage relaxation as a major key to shedding off stress. If the body is relaxed physically and psychologically, the body system will not be overworked. Pantry (2002) opines that when people are stressed, they react by releasing chemical into the blood which may either be negative or positive. This is supported by Adeyemo (2002) who described occupational stress as physical, mental emotional wear and tear brought about by incongruence between the requirement of the job capabilities and the need of the employee to cope with job demand.

Discussion of Findings

One of the findings of the study revealed that uncooperative attitude of the staff is the major cause of stress among the university librarians. This connotes that staff are great stakeholders of any establishment especially the library. When library staffs are not co-operative users cannot be well served and the purpose for which the library is established will not be actualised. This finding was supported that Gilberg (1993) who maintained that the cooperation of staff in the library has a great role in the achievement of the goal of any university librarian.

Another finding revealed that position being threatened causes stress for university librarian because they feel insecure in respect of their present managerial position. The fact that they fear to lose the opportunity of attaining the peak of their carrier may naturally give them psychological unrest. This confirms the assertion of Sheila (2005) who observed that bureaucratic inertia and increased competition are shared by all professionals.

It was also revealed that relaxation is the basic way of reducing stress among university librarian. The above findings encourage relaxation as a major key to shedding off stress. If the body is relaxed, physically and psychologically, the body system is not overworked. Pantry (2002) opines that when people are stressed their react by releasing chemical into the blood which may either be negative or positive. This is supported by Adeyemo (2002) who described occupational stress as physical, mental emotional wear and tear brought about by incongruence between the requirement of the job capabilities and the need of the employee cope with job demand.
From the above findings, it is convenient to state that university librarians depend highly on their staff to have a stress free work environment. University librarians could reduce stress by supporting their staff through training on wide ranging stress management methods. This would enable university librarians to understand the methods they could employ to counter the effect of stress. It is simply not easy to remove all the sources of stress in the library and information work-place but the University librarians can manage stress among their staff which will help to reduce some of its consequences on job outcome in Nigerian libraries. University librarians themselves could reduce stress in the library by adopting time management to reduce the pressure on them. Knowing what to do at each particular moment could assist university librarians to draw their daily schedule to the level of their ability. Working life should also be separated from personal life to avoid conflict of interest and pressure. The period when university librarians encounter stress should be identified so that they could adjust their time to cope with the stress when it occurs since a little bit of stress is actually required to perform optimally while too much of it is destructive to both human and organizational systems. It has also being established that the insecurity of the position of the university librarian also causes stress for them. Aside from this, librarians equally need a relaxed environment to be able to enjoy a stress-free working condition. All the factors mentioned above are very essential to the successful working career of a university librarian. To this end, the following recommendations are hereby made:

**Recommendations**

1. Library staff should be highly motivated and encouraged so that a good degree of co-operation could be enjoyed from them. Also interpersonal relation among the staff must be soothing. Medical checkups are necessary for those who are suffering from stress.
2. University librarians should endeavour to acquire and possess all necessary qualification and trainings required to survive in managerial and administrative positions. They should work on their intellectual and academic attainments, social/political relationship, as well as informal interaction among colleagues so as to have a sense of belonging among stakeholders of their organisation.
3. University librarians should find time to relax no matter how tight their schedule may be. Enough relaxation will enable them to shed away stress in a way it will not be detrimental to their health, and any time set aside for relaxation or leisure purpose after a hard day’s work is not a wasted time.
4. University librarians should manage stress through creating supportive culture, appreciate people’s differences, recognize the signs of stress and resolve issues as they arise, consider teambuilding, enable autonomy, and have a contingency plan.

**Conclusion**

This paper investigated the occupational stress among the university librarians in Nigerian universities. The results show that uncooperative attitude of the staff is the major cause of stress among the university librarians. Another finding revealed that when university librarian’s position is threatened it causes stress because of fear of insecurity of that position. It was also discovered that relaxation is the basic way of reducing stress among university librarians. University librarians are therefore advised to win the confidence and support of their staff by paying adequate attention to the issues of their welfare and career progression. It is believed that when this staffs are motivated, they will in turn cooperate with and support their university librarian to have a successful tenure in office.
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**eHarmony as an Information Retrieval System: Searching, Matching, and Matchmaking**

Leah Firmalino

Leah Firmalino is a master's student in the School of Library and Information Science at San José State University, San José, California. She can be reached at: lfirmalino@hotmail.com

**Introduction**

Since 2000, the internet dating site *eHarmony* has specialized in matching heterosexual singles for long-term relationships leading to marriage (Prodhan, 2008); integrating a sophisticated, psychological profiling system within an online dating framework to make finding love less arbitrary. *EHarmony* promotes a principle of self discovery and of potential partners, and it is through a hybrid of current technology and old-fashioned matchmaking that their foundation of introspection and data processing is formed (Orr, 2004, pg. 55): “By combining the best scientific research with detailed profiling of every member, we screen thousands of single men and single women to bring you only the ones that have the potential to be truly right for you” (*eHarmony* Website, 2012, Scientific Matchmaking, para. 1).

The scope of this type of search is unique in that, it is a search for essentially a “soul mate”; a complex matter encompassing something almost intangible, as opposed to a concrete commodity or information within a scholarly context, although it could be viewed as a search for information about a potential partner. The site ventures to scientifically quantify the ambiguity of love, distinguishing what is perceived to define personality through their 29 dimensions of compatibility. According to *eHarmony*, it is this compatibility across 29 key areas which helps to “predict the potential for relationship success” (*eHarmony* Website, 2012, Scientific Matchmaking, para. 4). These 29 areas are identified through the aggregation of personality attributes and include: self-concept, emotional status, emotional energy, physical energy, obstreperousness, romantic passion, sexual passion, character, kindness, dominance, sociability, autonomy, adaptability, intelligent, curiosity, humor, artistic passion, industriousness, appearance, communication style, anger management, mood management,
conflict resolution, traditionalism, ambition, altruism, family background, family status and goals, and education (eHarmony Website, 2012, 29 Dimensions of Compatibility, para. 5-11).

Because of the complex nature of the search itself, the search query is not based upon a straight-forward keyword search, or even a search based upon traits and shared interests, suitable to the user, but is arranged by the way of an initial, lengthy personality questionnaire comprised of more than 200 questions. As marriage demonstrates long-term compatibility, these questions, based upon research on married couples, seek to aggregate traits constituting their ideology of 29 dimensions of personality (Humphries, 2010), attempting to identify the very quintessence of a person's aboutness, and all within the context of partnership compatibility. These questions are formulated to classify each aspect of these 29 dimensions of personality, acting as the foundation for their indexing rules. The questionnaire is mainly arranged with a set of extremely controlled vocabulary, in order to aggregate the data necessary to conduct its computation of matching algorithms. Although it applies open-fields where natural language can be used, this feature is employed only to display the answers to potential matches, if they should show interest in the user's profile. With the controlled fields, questions are either given within a multi-select field context where one choice is made among the suggested attributes provided, given limited responses/choices like “true/false”, or gradating scales which range in extremes, an example being “not at all” at one polar end, “somewhat” in the middle, and “very well” at the opposite end. Based upon how the personality test is answered, it may either lead to provisional membership, which includes prospective matches mathematically aggregated by algorithms or if the personality tests unsuitable, will garner “0 results.”

Although eHarmony will not blatantly acknowledge this fact as they want to appear indiscriminating to the general public, the intended user-model of their dating service is extremely selective; “it has a little more than half a million members...relatively small compared to some industry leaders” (Orr, 2004, pg. 54), and they do “not accept members who are already married, have been married more than three times, or those it judges to be emotionally unfit to enter a relationship, such as the severely clinically depressed” (Prodhan, 2008). Because of the conviction that emotional health is crucial to a lasting relationship, the eHarmony test strives to filter out pathological liars, or those suffering from addictions, extreme neuroses and other mental disorders; in other words, individuals appearing emotionally maladjusted will not find any potential mates on their site, not even with other unstable types (Prodhan, 2008). Unlike other online dating services that suggest that anyone can find a match, eHarmony boasts of the fact that as many as 20 percent of all its applicants are considered unmatchable (Orr, 2004, pg. 57).

For purposes of testing the criteria of measurement, as well as potentially varied outcomes of the search results, 2 user-models were devised: "Leia", or user-model 1, is your typical “loser” type, intelligent and artistically inclined, yet socially awkward and severely emotionally maladjusted, as opposed to user-model 2 who embodies user-model 1’s paradox. "Lena" views herself as highly social, gregarious, emotionally stable, optimistic, extremely attractive and healthy—she is “perfect” in the way, albeit in a bland, superficial sort of way, that she doesn’t exist; and doesn’t, as she was strictly contrived for testing purposes.

As the polar extremes of these 2 user-models were implemented, both yielded very different search results. User-model 1, because of the uniqueness of the personality she exemplifies, including possible emotional disorders like excessive anger and mood swings, was deemed as an unacceptable candidate for membership, yielding “0 search results” and thus, denied access. To seem inconspicuous of this denial of access due to perceived character shortcomings, user-model 1 was only granted consolatory access to a “personality profile”, which sets out to describe, in a positive manner, the definition of the user’s personality according to their 29 dimensions of compatibility.
However, user-model 2, who was devised as a user-model considered “attractive” according to western society's standards, yielded actual results. Besides given extra questions on the questionnaire, user-model 2 was granted access to the database by way of provisional membership, and although there are minimal benefits which can be obtained as a non-paying member, such as access to “match profiles”, as well as limited forms of correspondence, like sending an instant message, in order to gain full-access the potential member must pay for the service, which is either in monthly or annual increments.

Criteria

Performance

The *performance* of a search conducted within *eHarmony* is contingent mainly upon the personality questionnaire and computation of algorithms portrayed by the variables, as defined by a controlled set of questions. Criterion of *performance* measures include *Recall, Precision, Intuitiveness, Functionality, Scope, Timeliness, Authority, and Metadata*.

*Recall* was used as the foundation to measure the number of relevant records retrieved from the database. The value of recall was reliant upon the user-model, and in the case of user-model 2, the value of recall was considered fairly high, implying “that nearly all relevant records were found by the query” (Meadow et al, 2007, pg. 329), while contrary to user-model 1 who yielded “0” results, and therefore demonstrates a low value of recall, since a “low value means that a large proportion of relevant records were not retrieved” (Meadow et al, 2007, pg. 329). Given that ultimately, the “end user or intermediary cannot know what relevant records were not retrieved” (Meadow et al, 2007, pg. 329), the only way of judging this is by means of examining the basis of the *functionality* of the website, which works to only generate results it deems suitable to the user, and the records not retrieved could possibly work better than the perceived choices judged by the questionnaire.

*Precision*, within a search query context, “measures the ratio of relevant to total material retrieved by a query or set of queries” (Meadow et al, 2007, pg. 328) according to a straight-forward match of algorithms. Because of this logical, mathematical approach toward finding something as equivocal as love, search outcomes, if allowed by offered membership, may still not be *precise*; computed matches may not in fact “match” the user's wants, based upon the user's initial opinion of the match profiles presented. If interest is indeed taken in a proposed match, user relevance may only be tested through interpersonal communication or a real-life dating situation, and even with that, the user may still find the match to be irrelevant.

Considering *intuitiveness*, *eHarmony'*s implementation of extensive, controlled vocabulary within its personality questionnaire may be easy to navigate, however, it leaves little personal interpretation, as answers are already provided; they just need to be chosen, according to what the user considers to be the most descriptive choice, although it should be noted that introspection is necessary, in order to choose the most appropriate answer. However, opportunities for more open-ended answers in regards to the open-field forms are offered, but are not integral to search query purposes, as these open-field answers serve as a means of self-description to be viewed by potential matches, should they see the user's profile. The personality assessment itself is fairly time consuming, and the lack of backtracking can be found to be frustrating, since an answer may want to be changed. As the controlled vocabulary does not leave much to individual interpretation however, full-expression of answers and therefore, personality is not as exhaustively depicted, compared to a tailored interview or another means of communication where a trained interviewer can make better assessments of character, as well as allowing for a more sincere platform to convey user wants. As far as the *intuitiveness* of the matches resulted are concerned, if the personality test is accepted, because of its limitations in selecting what the algorithms delivers, it may be considered aggravating to the user as they may want more options.

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Functionality, because of the extremely limited nature of personality test profiling, may be considered impossible to navigate, as it is contingent upon whether the user even gains access to possible membership, and thus its database. However, if a user does gain access, it is still difficult to navigate in its limited scope. As a user pending membership, "benefits", such as access to a potential match's pictures or types of direct, personal communication, such as a phone number or email address are not permitted; full-benefits are only granted once membership is paid.

As the current chief technology officer and leading authority for eHarmony, “Thod Nguyen is responsible for overseeing and leading the technical development, operation and growth of eHarmony” (eHarmony Website, 2012, Management Team, para. 3), however, it was former Yahoo search engineer Joseph Essas who is mainly responsible for the current design of eHarmony's computer algorithms. To better optimize love connections, these algorithms achieve a “new layer of predictive matching algorithms that are based on Yahoo's system for targeting advertising to specific users who have revealed preferences and behaviors over time” (Humphries, 2010), and in regards to timeliness, before Essas joined eHarmony in 2009, “the site analyzed a few dozen variables per user. Today its technology takes into account hundreds of different traits, including crucial information about how users behave--like time spent on the site or how long they take to respond to an e-mail about a match” (Shambora, 2010).

To remain competitive within the realm of online dating services, eHarmony has facilitated its match-making, metadata efforts through the use of additional innovative, predictive software. Influenced by Yahoo's algorithm structure for advertising to target users who display certain behaviors and preferences over time, the software evaluates “...which traits work well together and which do not, it offers members daily matches within certain user-selected criteria, like age, location, and religious beliefs” (Humphries, 2010). Since what people say they want varies from their actual behavior, these adaptive algorithms becomes an effective tool in online dating: "Some people say they're looking for a nonsmoker, for instance, but in practice they'll date a smoker who fits their other criteria. Basing recommendations on behavior also translates into fewer time-consuming questions “” (Humphries, 2010). By taking into account numerous, various attributes, including behavioral data, (Shambora, 2010), 600 data points are gathered for each user, while tracking log-in frequency, who they search for, as well as the attributes shared by the people contacted; it is through these data-mining, machine-learning algorithms adapted from various types of online shopping that eHarmony is able to collect the data necessary to better make match suggestions more elaborate and personalized (Humphries, 2010). And since dating recommendations are bidirectional in that the potential match has to be interested as well, there's a further complexity in applying the technology. eHarmony therefore uses this information to predict the likelihood of two people discerning common interests, which will in turn procure the process of conversation, as communication, such as email and phone calls, is highly indicative of an offline meeting, and therefore, of potential love. So it is with this intention that eHarmony enhances its profile pages through highlighting commonalities between suitable matches (Shambora, 2010), “that way, two people instantly know they share a passion for the Lakers or for cooking shows -- two potential conversation starters” (Shambora, 2010).

Outcome

Relevance, within an outcome context, could be viewed as void and thus negative if the questionnaire results in “0 results”, as this is directly dependent upon how the questionnaire is filled out. The questionnaire functions as a profiling means to refine their pool of possible, desirable clients, by searching for applicants who are deemed worthy of their service, as opposed to a keyword search query, where the search is defined by the search; if the
variables are answered in a way considered acceptable to the employed algorithms, it will therefore grant possible client access to the database.

Relevance of utility can only be judged based upon how exhaustively the search results actually satiates a user's need (Meadow et al., 2007, pg. 323). In respect to eHarmony's test, this refers to how well the match actually matches the user to another, suitable user, which can only be tested by interpersonal communication or interaction within a real-life setting, such as a “date”; the best indicator of how well the utility of the search resulted. And since there is no guarantee that the proposed matches will work out, even with a personal meeting, the notion of closeness of retrieved documents, another test of outcome, is not easily assessed when the user-model is taken into account, as this takes in personal biases, as well as preferences that may have not been reflected in the questionnaire. As far as the value/utility of the document to the user is concerned, although it offers refined search results of possible relationship prospects, in order to be seen as valuable to the user, for someone who is looking for a match, it may not realistically fit what they are really looking for, since chemistry is not taken into consideration until after the matches have been reviewed.

Relatedness is not possible, since the premise of eHarmony's search engine is to refine searches towards more narrowed results; "we often find material we never thought to ask for" (Meadow et al., 2007, pg. 325), and when applied within the circumstance of finding a soul mate, relatedness may be more appropriate within a non-dating service situation where “chance” variables, like the environment, are uncontrolled and therefore, more applicable towards a "meeting by chance"—a serendipitous occurrence, in other words. “Material never thought to ask for” (Meadow et al., 2007, pg. 325) within this particular context, refers to other users within the database itself, who may not be presented if the search query deems the user to have non-matching variables with these other users, therefore other possible matches existing beyond the parameters of the search are not even taken into consideration within the site: “...Whether documents “should” have been retrieved or not for the query (is) in question. We put the quotation marks around should because the determination of whether a document is relevant to a query depends, at least to some extent, on how the person with the information need, interprets the question and on that person's prior knowledge of information related to the query. There is no fixed definition of what should be retrieved” (Meadow et al., 2007, pg. 322).

Environment

The outcome is extremely subject to environmental factors, as it is influenced by how the user-model answers questions that attempt to not only define someone's character, but to identify potential users who would be considered to be defective within a relationship sensibility, according to eHarmony standards; those who are married, underage, suffer emotional instability, or perpetual liars are tested for, and are therefore not accepted. In terms of satiating the user's need, it may or may not be filled, depending upon if the applicant is accepted, and because of this possibility of not being accepted into membership, the translation and expression of need, as appraised through the answers set by the questionnaire, may not be granted. It must be also noted that the questionnaire itself may not be entirely effective in encompassing all personality traits and the character idiosyncrasies which ensue, as the questionnaire could be worded in a way where it is misunderstood by the user or fails to comprise enough depth to understand the entirety of someone's personality, exhaustively. Besides the complex algorithms used to compute the search, the search strategy, as implemented by the user, is in itself rather straightforward; it simply entails the user to fill-out a questionnaire consisting of controlled vocabulary, designed to dictate the direction of the search. Referring to the matches themselves, again, eHarmony's algorithms narrow the results based upon the answers of the questionnaire, and the only strategy left to
employ is to sort through the chosen matches, which is purely up to the user and determined by what strikes his/her fancy. Parameters chosen by the user, or the formulation of query, are set within extremely limited circumstances, such as “...views on the drinking and smoking habits and the religion and ethnicity of potential matches may be indicated, as well as electing not to be matched with people who already have children” (Prodhan, 2008). Other than that, no other formulation of query exists, as they are set by the results of the questionnaire. Although the computer-processing of the query itself is fairly accurate in matching variables, it is the variables themselves that may lead to skewed results, as these computations are based entirely upon superficial answers from a questionnaire. The database, which is only comprised of members deemed desirable according to the questionnaire, is therefore limited, despite the fact that it acts a means to discriminate undesirables from its pool of matches, so in that regard, the scope of collection is extremely limited; even if granted access, the choices are set solely based on matches.

**Evaluation**

“...It is essential to specify what aspects are of interest and to be certain that the meaning of the system is clearly understood in the particular context” (Meadow et al, 2007, pg. 318). Aspects of interest include whether a possible match can be found, based upon eHarmony’s search engine, as well as the specifics of its interface that uses an established criterion, designed to filter out applicants unfit for relationships in general; ultimately, it is those denied membership who are thus denied the opportunity to search.

It is also worth nothing that if your personality is deemed acceptable, possible matches are aggregated by matching personality attributes of the user to those of other users who demonstrate complimentary attributes. As evidenced by user-model 2 who was purposely constructed to reflect a highly superficial, 5’7 beauty with shallow interests in cultural, artistic, and intellectual pursuits, “Lena's” profile was considered desirable by the interface and her potential matches; and judging by her potential matches, one would say the results are fairly accurate.

Despite eHarmony’s efforts to appraise the human personality within a scientific sensibility, since the human element is not taken into consideration until communication ensues, which occurs after matches are reviewed, this appraisal still remains on a superficial level. The 29 dimensions of compatibility do not comprise the real-life chemistry that must occur in order for a match to be successful; the test itself does not test these facets but must be done so in a real-life, interpersonal setting. A personality test cannot also realistically take into account all facets of personality, as its entirety is multi-dimensional; this encompasses quirks, minor subtleties and the overall complexities of character, including the scope of any unperceived, individual flaws that may be undetected by a static questionnaire.

Since the specified dimensions are only indicated by a controlled vocabulary and tested within an online setting, despite the attempt to detect dishonest clients, presenting a sincere personality still poses a plausible problem. Self-perception of certain traits may be inflated or completely false, which is especially true, given the anonymous nature of the internet, as well as the influence of the dating scene that prompts users to improve their profile under false pretenses to attract better matches; it is definitely a possibility as the mere conception of user-model 2 suggests. People may also answer, according to a self-perception reflecting that of a lowered self-perception; as far as socializing is concerned, for example, a user may consider him/herself as inapt, but in reality is skilled. So in other words, reliability may be an issue.

Since eHarmony feels results will be more accurate if questions are answered upon instinct, the questionnaire does not allow backtracking; answers cannot be corrected, despite the possible occurrence of latent errors, or even for questions which were considered uncertain.
The test itself cannot be taken over, even over a period of time, despite the fact that a person's attitudes and beliefs may change due to the mere vicissitudes of life.

The search is dependent upon how well and accurate the questionnaire is filled out by user, and since the user is an environmental variable in itself, who's personality may not be accurately reflected in the test; there is a chance performance may not be accurate, due to the individual's emotional condition when taking the test or other factors affecting a user's mental state. A user may not also understand the questions within the context of the test, as some are not well-defined, therefore creating ambiguity when answering questions. There is the matter of subjectivity when answering questions as well, for example, when the test refers to appearance. It is a judgement within an individual's subjective understanding of appearance and opinions vary; an attractive appearance to one may be considered "sloppy" according to social norms, as the ideal of sexy may vary, from that of a ripped chippendale to a flabby, chubby-hubby.

Because of the controlled nature of the test, some options, such as electing the choice to be in a long-term, monogamous relationship without marriage is not even offered; this may be due to the fact that Neil Clark Warren, the co-founder and chairman of eHarmony, is an "...evangelical Christian with strong ties to the conservative Christian community" (Traister, 2005). Therefore, the questions offered may not reflect all outlooks, especially those which may be considered generally alternative, such as homosexual relationships, as he claims that "he just doesn't understand enough about homosexual attraction" (Orr, 2004, pg. 54).

Basically, in order to be successful within eHarmony's site, users must accept Warren's entire dating philosophy: "He does not believe in big age gaps between partners and argues that plain people should not pursue lookers, because even if they succeed, they will spend their entire married life worried about being left" (Orr, 2004, pg. 59). Contrary to how they promote their site, eHarmony is not intended for the general public, as these biases against individuals with extreme personalities or alternative lifestyles suggest, implying that these types are inferior and undeserving of love.

References


Facilitating Access to Archival Material: The Creation of EAD Records for the Online Archive of California

Sheena Goss

Sheena Goss is an interaction designer and usability analyst based in San Francisco. In May 2012 she received her Master of Library and Information Science from San Jose State University, where she completed coursework in usability testing, web development, and metadata. Her research interests include user-centered design of library and archive applications and usability testing for digital information repositories. She can be reached at: sgoss729@gmail.com.

Introduction

As more archives acknowledge the growth in virtual research and put finding aids online to support this behavior, institutions implement Encoded Archival Description, or EAD, to facilitate access to information about collections. EAD enables archives to virtually bring together archival material that is physically located in different archives or institutional departments. One such archive is the Online Archive of California, or OAC, the state’s “central repository for collection guides” (The Regents of The University of California, 2009). OAC is an online archive consortium that accepts and displays EAD records of finding aids for California archival institutions. This paper describes my efforts to better understand the process for creating EAD records from finding aids and the requirements for submitting EAD files to an online archive. I created four EAD records using the web templates on the OAC website and finding aids from three California archives.

Literature Review

EAD is a standard used to describe archival finding aids. It is expressed in XML. The Library of Congress and Society of American Archivists maintain EAD (The Library of Congress, 2011). Created in 1993 at the University of California, Berkeley, EAD is a “non-proprietary standard” (Society of American Archivists, 2012) that enables archives to develop finding aids for retrieval in online environments. Archives use EAD to develop a machine-readable encoding standard for “finding aids such as inventories, registers, indexes, and other documents” (The Library of Congress, 2011). EAD was initially expressed using Standard Generalized Markup Language (The Library of Congress, 2011), but has since moved to an XML format. EAD 2002 is the current schema. EAD contains a number of elements, sub-elements and attributes. Because EAD is a data structure, not a data content standard, it dictates the elements used to organize data in finding aids, but does not govern the data archivists enter in EAD elements (The Library of Congress, 2011).

EAD facilitates online access to finding aids for researchers and archivists. There are two sections in EAD finding aids. The first section contains information about the finding aid, such as its “title, compiler, [and] compilation date” (Society of American Archivists, 1998). This section contains the EAD header and front matter. The second part contains a description of the archival material (Society of American Archivists, 1998). There are four sub-elements to the EAD header: EAD Identifier, File Description, Profile Description, and Revision Description. The element <archdesc>, which represents archival description, is the area of the EAD finding aid that contains data about the archival material, including “describ[ing] the content, context, and extent of a body of archival materials, including administrative and supplemental information that facilitates use of the materials” (Society of American Archivists, 1998).
Information from the finding aid input in the <archdesc> element includes the date range in which the archival material was created, an abstract describing the archival material, and biographical information about the person, entities, or organization responsible for the creation of the archival material.

Archives benefit from creating online finding aids using EAD instead of HTML, the standard markup language used to create Web sites and Web pages. By using EAD, online finding aids have a consistent appearance and formatting, researchers and archivists are able to conduct fielded searches, and archival institutions take the “first step toward structured, repurposeable data” (Rush, 2009). Data encoded in EAD can be converted to other metadata schemes such as DASC, MARC/MARCXML, MODS and Dublin Core (Rush, 2009). EAD provides more structural and hierarchical information about the finding aid when compared to an HTML record (Zhou, 2006).

EAD enables archives to virtually bring together archival material that is physically located in different archives or institutional departments. The Online Archive of California, part of the California Digital Archive, includes more than “5,000 online archival finding aids as part of a searchable database, with links to primary sources and their digital facsimiles” (Hostetter, 2004). After the creation of EAD, professionals in archival institutions throughout California saw opportunities for facilitating access to finding aids by implementing this standard. Participants created a consortium and secured grant funding to develop a prototype database of EAD records (The Regents of The University of California, 2012). Contributors upload EAD records to the database using a special system created by Online Archive of California. To promote data integrity, as well as completeness and accuracy of the EAD records, all uploaded finding aids must conform to best practices as dictated by Online Archive of California (The Regents of The University of California, 2012).

Since its creation almost 20 years ago, some researchers and scholars have questioned the relevancy and value of EAD amidst changing technology and rapid enhancements to the World Wide Web. In the face of Web 2.0, Dow considers whether EAD may be a “halfway technology” (2009) or a technology that “address[es] symptoms of a problem but not the causes or long-term effects” (2009). Halfway technologies are more complex, more expensive, require the user to change or modify their behavior, and only address a portion of the underlying issue which, in the matter of EAD, Dow suggests is really “connect[ing] researchers to archival materials” (2009). Halfway technologies are also the best and most capable solution at the time. Dow acknowledges EAD is complex and resource intense, but also achieves its goal of enabling archivists to publish finding aids online.

**Project Goals, Steps, and Procedures**

To better understand EAD and gain experience working with the metadata schema, I completed a project in which I created EAD records from online finding aids. I have three goals in completing this project, and will follow four steps to meet these goals. My first goal is to gain first-hand experience creating EAD records from finding aids. My second goal is to understand how contents of a finding aid affect the specificity of EAD records. My third goal is to gain experience working with templates created for use by several California archival repositories, noting differences in element or descriptive standards.

In order to meet these goals, first I reviewed requirements of contributing institutions for submitting EAD records for inclusion in OAC. Next, I identified three California-based archival repositories with a selection of finding aids posted online. I used the OAC templates specially created for these institutions to make EAD records for the online finding aids. Finally, I analyzed the EAD records, paying attention to the impact of the original finding aid contents to the granularity of the EAD records and noting implications for facilitating OAC researchers’ access to disparate archival information.
As I began this project, I wanted to familiarize myself with the mission of OAC so that I better understood requirements of institutions contributing EAD records. OAC facilitates public access to archival information and “detailed descriptions of primary resource collections” (The Regents of The University of California, 2009). More than 200 institutions have contributed information about the 20,000 collection guides available through OAC. Not only does OAC provide access to online finding aids, but it also facilitates access to nearly one quarter of a million digital images and documents. OAC collects contact information about the archival institution at which the collection is housed and information about how to access the collection. Based on this information, I know that OAC compiles EAD records of many collections from hundreds of repositories. In order to aid OAC in its mission to connect researchers with gaining access to physical objects, I have also learned that contributing institutions should be careful to include categories of information related to contacting the archival institution and accessing collections. Consistency is critical to ensuring EAD records submitted to OAC are usable, making an even greater argument for contributing institutions to consult and use the Web templates when creating EAD records for submission to OAC.

Before I created EAD records, I needed to review the OAC requirements for contributors. One of the benefits of OAC is it enables institutions of various sizes and “technical infrastructure to publish digital records and items” (The Regents of The University of California, 2009) without placing the burden of deploying and servicing online collections on the institutions. This makes it easier for smaller institutions with smaller budgets to realize their goals of moving collection guides to online environments and better expose collection material to virtual researchers. In order to become a contributor to OAC, institutions need to perform enrollment steps that including creating a profile and becoming familiar with the OAC Collection Policy. A representative from the California Digital Library works with institutions to complete the proper paperwork and agreements before the institution can begin submitting EAD files. OAC uses a server-side application called voroEAD to collect and receive EAD files from contributors (The Regents of The University of California, 2009).

OAC created an EAD Toolkit to assist contributors in “creat[ing] and submit[ting] EAD collection guides” (The Regents of The University of California, 2012). As such, it is noted in the toolkit that some of the applications and resources have been developed and customized to reflect OAC’s process. There are no EAD validating tools available to non-members. The EAD Toolkit includes several collection management tools, encoding tools, and information about voroEAD’s use as an EAD validation tool, although this tool is only available to OAC members. OAC includes access to encoding guidelines titled, OAC Best Practice Guidelines for Encoded Archival Description, Version 2.0 [PDF]. I referred to these best practices when I completed my EAD records.

The bulk of my project was created using the EAD Web templates, forms created “for generating collection- through series-/subseries-level collection guides that are compliant with OAC specifications” (The Regents of The University of California, 2012). The OAC Website encourages use of the Web templates in the Web browsers Internet Explorer or Netscape 6.0 (The Regents of The University of California, 2009) and in conjunction with the EAD Web Templates Guide [PDF]. Institutions that do not already have a specialized template on the OAC Website can request that a template be created. Representatives from institutions with templates can contact OAC if they want to customize or standardize any of the information that appears in a template category.

After I became familiar with the OAC and its requirements for contributors, next I selected three archives in California that published at least a few finding aids online and also had an EAD Web template listed on the OAC Website. I chose the San Francisco Public Library, The Golden Gate National Recreation Area, and the Gay, Lesbian, Bisexual, and Transgender (GLBT) Historical Society. The San Francisco History Center is located on the sixth floor of the San Francisco Public Library’s Main Branch. The library’s Website has information about the Center’s Archives and Manuscripts Collection, including finding aids and hyperlinks to PDF.
finding aids (San Francisco Public Library, 2012). I selected finding aids for the Alcatraz Indian Occupation Records and Baldwin & Howell Records to create EAD records for the San Francisco Public Library. The Golden Gate National Recreation Area collects records, papers, and ephemera that “document and support the history of [its] sites” (National Park Services, 2012). I selected a finding aid for the Charles Wofford Seacoast Artillery Collection to create an EAD record for the Golden Gate National Recreation Area. Finally, the GLBT Historical Society collects and preserves historical material about the gay, lesbian, bisexual, and transgender community (glbthistory.org, n.d.). I selected the finding aid for the Randy Burns Papers to create an EAD record for the GLBT Historical Society. During completion of these Web templates, I referred to Online Archive of California EAD Web Templates, Instructions on Use, located at http://www.cdlib.org/services/dsc/tools/docs/EAD_Web_Templates.pdf.

The first EAD records I created using the OAC templates were using the San Francisco Public Library’s Web template. I began with the Alcatraz Indian Occupation Records. Two people processed this finding aid, but the Web template only allows for input of one person’s name. Once I produced the XML for this record, I added an additional author element for Thomas J. Carey. For consistency, I named the XML file using the same name as the PDF document of the finding aid. I was unclear of the intent of the field, Descriptive Rules. After some research, I found this information captures the “title for the content standard used to prepare the collection or archival description” (OAC, 2009). I noticed a difference in the way the San Francisco Public Library EAD Web template and the PDF finding aid referenced the level of description of the collection. The template listed file while the finding aid listed folder. File seemed to be the most appropriate selection in the Web template since the finding aid was not as granular as describing the item level of the collection, but more thorough than only describing the subseries level.

I consulted the OAC Best Practices Guide for EAD to determine what to include in the field, Filing title. The filing title “appears in browsing lists on the OAC” (Regents of the University of California, 2005). The guide’s information regarding filing title primarily had information about how to form the filing title based on papers created by an individual, two individuals, or a corporate name. The guide offered no direction on forming a filing title for collections based on a place such as Alcatraz, so I followed the capitalization standards for terms such as Papers and Collection as indicated in the guide.

There were several fields in the Web template that did not have corresponding information in the PDF finding aid. However, this information seemed to be important points of access for researchers searching OAC, so I created values based on information in the finding aid and on the library’s Website. There were no bulk or inclusive dates on the finding aid, but the date range is listed on the library’s Website. There is no creator listed on the finding aid, so I assigned it to Alcatraz Island as a corporate name. I would have preferred identifying the creator value as a government agency or government office, but corporate name was the best suited of the options available. There is no abstract in the finding aid so I created my own based on some of the information in the finding aid and also used information from the public library’s Website. The following fields had default values already input in the Web template, which I left as presented: Physical Location, Access, and Physical Rights.

I left several fields in the Web template blank, such as Acquisition Information, Biography, Administrative History, Chronology, and Arrangement, as the finding aid had no information related to these items. There were no scope notes identified in the finding aid; however, I used information from the container list to create abbreviated scope notes. There were no indexing terms in the finding aid, but I used subject areas listed on the library’s Website about the collection to create my own indexing terms.

Next, I completed the OAC Web template for the San Francisco Public Library’s Baldwin & Howell Records. Compared to the Alcatraz Indian Occupation Records, this finding aid was more thoroughly written. Having completed one record prior, I grew more accustomed to the
meaning of certain fields but still consulted the OAC Best Practices Guide for EAD to ensure proper completion of the template. Once again, I found information in the finding aid less specific than the some of the information requested in the OAC Web template. For example, the dates for the finding aid were expressed in years, but the date reference on the template was formatted with months and days. In this finding aid, I observed that the physical location notes were different than the default value in the template, so I used the text in the collection guide. Other default values such as Access Notes and Public Rights matched the information in the collection guide.

Some of the headings in the collection guide were named differently than the field inputs on the Web template. I did my best to match sections accordingly, and input the following information into the corresponding template fields: Series Description was input into Scope and Content of Collections; History of the Firm of Baldwin & Howell was input into Chronology; and portions of the collection abstract were input into the Biography / Administrative History field. I used the Library of Congress Authorities to check subject and name authorities for sections such as Indexing Terms. Although I was becoming more familiar with the Web template for San Francisco Public Library, I still needed to reference help documentation frequently as I completed the form.

For my third EAD record, I selected the finding aid for the Charles Wofford Seacoast Artillery Collections from the Golden Gate National Recreation Area (GGNRA) Park Archives and Records Center. The GGNRA Website includes “a selection of finding aids for collections held at the Park Archives and Records Center” (National Park Service, 2012). Using the OAC Web template for the GGNRA Park Archives and Record Center, I created an EAD record of the Charles Wofford Seacoast Artillery Collections. Completing the Descriptive Summary template information differed for this third EAD record when compared to the San Francisco Public Library finding aids, because the GGNRA record includes a person’s name in the title of the collection. I completed the Proper Title, DACS Form, and Filing Title fields differently in this template and referred to the template guidelines for instruction.

Like the San Francisco Public Library template, the GGNRA template included default values for some fields. Physical Location and Public Rights had default values inserted in the Web template so I left this information as it appeared. Again, I had some challenges identifying the correct location in the Web template for some of the information in the finding aid. I put the history and provenance information from the finding aid in the Biography / Administrative History field in the Web template. I put the formats information from the finding aid in the Scope and Content of Collection field of the Web template. I broke up the information in the finding aid’s Description section into two part of the Web template, Arrangement and Abstract.

I used the Library of Congress Authorities (The Library of Congress, 2012) to check subject heading authorities and name authorities I used in the Indexing Terms fields. I found it interesting to see which Indexing Terms were listed as authorized subject headings. For example, Fort Baker (Calif.) is an authorized subject heading, but Fort Barry (Calif.) is not. There were more subject headings listed in the finding aid than the Web template could accommodate. I could not include the following as Indexing Terms due to space constraints: Ordnance--Pictorial works; Presidio of San Francisco (Calif.)--History; Presidio of San Francisco (Calif.)--Pictorial works; United States. Army--Artillery Ordnance; United States--Coast defenses; and World War, 1939-1945--California--San Francisco.

Finally, the fourth OAC Web template I used was for the GLBT Historical Society. I created an EAD record of the finding aid for the Randy Burns Papers (1968-2002). This finding aid had no unique abstract, but it did contain Scope and Content of Collections notes that I repurposed to appear in the Web template’s Abstract field.

The finding aid indicated no Physical Location and, unlike other templates I used, the GLBT Historical Society’s Web template had no default value for this field. I referred to the template guide.
instructions, which indicated Physical Location is especially useful for collections stored offsite or items that require a certain lead-time before researchers can access these collections. I left this information blank, knowing this may impact a researcher’s ability to gain access to the physical collection. The GLBT Historical Society Web template includes a default value for the Access Notes field. The information in the Access Notes matched the information in the finding aid. However, the Publication Rights field in the Web template included a default value, but there were no publication rights documented in the finding aid. I left the default value in place in the Web template, having read information on the OAC Website that indicated institutions can request certain information to automatically appear in its Web template.

The finding aid did not specify Acquisition or Biography / Administrative notes, but there was information in the finding aid’s Scope notes about Randy Burns that I used in the web template’s Biography / Administrative notes field. This finding aid did not include any Indexing Terms. The OAC “recommends application of at least three subject headings in order to promote maximum topical access to your collection via the OAC interface” (California Digital Library, 2009). I selected three LCSH subject headings that pertained to this finding aid and used these subject headings as Indexing Terms.

The information I input into the <dsc> element did not submit properly when I created the XML file from contents input into the Web template. Instead I created my own XML for this element. I had to refer to the Encoded Archival Description Tag Library on the Library of Congress Website (2006) for assistance in manually completing information in the <dcs> element.

**Conclusion**

During this process I struggled to determine whether it was best to faithfully recreate the PDF finding aid in EAD or to complete the EAD record as fully as possible by including information about the collection that was not represented in the finding aid. For instance, should OAC contributing institutions include information in the Biography notes if there is something applicable in the finding aid’s Scope notes, even if the finding aid did not have this information identified as a Biography note? I encountered this situation when completed the Web template for the Randy Burns paper. Based on my initial reading of the goals and purpose of OAC, I expect it is preferable to input more information in the Web template, even if this means information in the EAD record and the finding aid differ. More information could make the EAD record more useful to researchers, and one of the primary goals of the OAC is to facilitate researchers’ access to physical collections and finding aids for archival material held in California archival institutions.

As I completed these records, I also realized that EAD is a complex metadata schema, and great care and attention is required to accurately complete EAD records from finding aids. I also better understand the challenges consortium and virtual archives face when trying to provide access to finding aids created by different institutions. Of the four finding aids I surveyed, each had varying degrees of completeness. Some finding aids included important information related to the creator of the collection or the chronology of events related to the collection, while other finding aids omitted this information. Providing federated access to online finding aids requires consistent completion and creating of EAD records, a task that becomes increasingly difficult if the original finding aids are incomplete.

**References**


