# Inculcating Information Literacy Skills in Nigerian University Students: The Foundation for Independent Lifelong Learning

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**Abstract**
Information literacy is a way of thinking and being that encompasses identifying, accessing, evaluating, organizing and communicating information. It is relevant in all learning environments and fields of endeavour. These important principles have been recognized in Universities. Inculcating information literacy in Nigerian University Students will considerably enhance students' tertiary education experience, and provide a basis for independent life-long learning and effective participation in their communities. The paper takes a look at the concept of Information literacy, information literacy standards for students learning, needs for information literacy skills in students, methods of inculcating information literacy skills in students, possession of information literacy skills as a foundation for lifelong learning and challenges of inculcating information literacy skills in students. Conclusion was made by recommending strategies for overcoming the challenges.
**Keywords:** Information, Literacy Skills, Lifelong Learning

## 1. Introduction
Developing lifelong learners is central to the mission of every higher institutions of learning. The University aims to provide its graduates with key, high-level generic skills such as the capacity for lifelong critical, conceptual and reflective thinking, and attributes such as creativity and originality (Kesten, 1987). By ensuring that students have the intellectual abilities of reasoning and critical thinking, and by helping them construct a framework for learning how to learn, universities provide the foundation for continued growth throughout their careers, as well as in their roles as informed citizens and members of communities. Information literacy is a key component of, and contributor to, lifelong learning. Information literacy competency extends learning beyond formal classroom settings and provides practice with self-directed investigations as individuals move into internships, first professional positions, and increasing responsibilities in all arenas of life. Because information literacy augments students' competency with evaluating, managing, and using information, it is now considered as a key outcome for university students.

## 2. The Concept of Information Literacy
Information literacy is becoming increasingly important in the contemporary environment of rapid technological change and proliferation of information resources. Information is available through libraries, community resources, special interest organizations, media - including graphical, aural, and textual, and the Internet. Increasingly, information comes to individuals in unfiltered formats, raising questions about its authenticity, validity, and reliability and these pose new challenges for individuals in evaluating and understanding it. Information literacy is thus required for the understanding and the capacity to use information effectively. The Association for College and Research Libraries (ACRL) (2000) defined information literacy as a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. Information literacy incorporates, and is broader than, fluency in the use of information and communications technology (ICT). It initiates, sustains, and extends lifelong learning through abilities that may use technologies but are ultimately independent of them. Lupton, McDonald, and Selzer (2004) as quoted in Anyaoku, Ezeani and Osuigwe (2014), however presented a more detailed explanation of information literacy where the author defined it as including library research skills and IT literacy but explained that the definition goes beyond this as it is not just about finding and presenting information, but it is about higher order analysis, synthesis, critical thinking and problem solving. It involves seeking and using information for independent learning, lifelong learning, participative citizenship and social responsibility

Information literacy forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning. According to Californian University Information literacy fact sheet, (2000); an information literate individual is able to:
- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically

- Incorporate selected information into one's knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.

## 3. Information Literacy Standards for Student Learning

American Association of School Librarians (AASL) and Association for Educational Communication and Technology (AECT) (1998) produced standards for student learning which have been updated to reflect the 21st century learning environment of students. These standards provide a conceptual frame work and broad guidelines for describing the information literate student. They also provide a mechanism by which students can be educated as long life learners, thinking critically and ethically, with an understanding of the dynamics of group process.

The standard consists of three categories, nine standards and twenty-one indicators. They describe the content and process related to information that students must master to be considered information literate. Summarily, they are presented as follows:

### 3.1 Category One: Information Literacy Standards

**Standard One:**  The student who is information literate accesses information efficiently and effectively.  He recognizes that having good information is central to meeting the opportunities and challenges of day-to-day living. That student knows when to seek information beyond his or her personal knowledge, how to frame questions that will lead to the appropriate information, and where to seek that information. The student knows how to structure a search across a variety of sources and formats to locate the best information to meet a particular need.

**Standard Two:**  The student who is information literate evaluates information critically and competently. The student who is information literate weighs information carefully and wisely to determine its quality. That student understands traditional and emerging principles for assessing the accuracy, validity, relevance, completeness, and impartiality of information. The student applies these principles insightfully across information sources and formats and uses logic and informed judgment to accept, reject, or replace information to meet a particular need.

**Standard Three:**  The student who is information literate uses information accurately and creatively. The student who is information literate manages information skillfully and effectively in a variety of contexts. That student organizes and integrates information from a range of sources and formats in order to apply it to decision making, problem solving, critical thinking, and creative expression. The student communicates information and ideas for a variety of purposes, both scholarly and creative; to a range of audiences, both in school and beyond; and in print, non-print, and electronic formats. This Standard promotes the design and execution of authentic products that involve critical and creative thinking and that reflect real world situations. The indicators under this Standard therefore deviate from the traditional definition of use. Rather than suggesting that students simply insert researched information into a perfunctory product, the indicators emphasize the thinking processes involved when students use information to draw conclusions and develop new understandings.

### 3.2 Category Two: Independent Learning Standards

**Standard Four:**  The student who is an independent learner is information literate and pursues information related to personal interests. The student who is an independent learner applies the principles of information literacy to access, evaluate, and use information about issues and situations of personal interest. That student actively and independently seeks information to enrich understanding of career, community, health, leisure, and other personal situations. The student constructs meaningful personal knowledge based on that information and communicates that knowledge accurately and creatively across the range of information formats.

**Standard Five:**  The student who is an independent learner is information literate and appreciates literature and other creative expressions of information. The student who is an independent learner applies the principles of information literacy to access, evaluate, enjoy, value, and create artistic products. That student actively and independently seeks to master the principles, conventions, and criteria of literature in print, non-print, and electronic formats. The student is able both to understand and enjoy creative works presented in all formats and to create products that capitalize on each format's particular strengths.

**Standard Six:**  The student who is an independent learner is information literate and strives for excellence in information seeking and knowledge generation. The student who is an independent learner applies the principles of information literacy to evaluate and use his or her own information processes and products as well as those developed by others. That student actively and independently reflects on and critiques personal thought processes and individually created information products. The student recognizes when these efforts are successful and unsuccessful and develops strategies for revising and improving them in light of changing information.

### 3.3 Category Three: Social Responsibility Standards

**Standard Seven:**   The student who contributes positively to the learning community and to society is information literate and recognizes the importance of information to a democratic society. The student who is socially responsible with regard to information understands that access to information is basic to the functioning of  a democracy. That student seeks out information from a diversity of viewpoints, scholarly traditions, and cultural perspectives in an attempt to arrive at a reasoned and informed understanding of issues. The student realizes that equitable access to information from a range of sources and in all formats is a fundamental right in a democracy.

**Standard Eight:**   The student who contributes positively to the learning community and to society is information literate and practices ethical behavior in regard to information and information technology. The student who is socially responsible with regard to information applies principles and practices that reflect high ethical standards for accessing, evaluating, and using information. That student recognizes the importance of equitable access to information in a democratic society and respects the principles of intellectual freedom and the rights of producers of intellectual property. The student applies these principles across the range of information Formats -- print, non-print, and electronic.

**Standard Nine:**  The student who contributes positively to the learning community and to society is information literate and participates effectively in groups to pursue and generate information. The student who is socially responsible with regard to information works successfully; both locally and through the variety of technologies that link the learning community to access, evaluate, and use information. That student seeks and shares information and ideas across a range of sources and perspectives and acknowledges the insights and contributions of a variety of cultures and disciplines. The student collaborates with diverse individuals to identify information problems, to seek their solutions, and to communicate these solutions accurately and creatively.

### 4. Needs for Information Literacy

Information literacy is important for today's learners, it promotes problem solving approaches and thinking skills – asking questions and seeking answers, finding information, forming opinions, evaluating sources and making decisions fostering successful learners, effective contributors, confident individuals and responsible citizens. Information literacy skills are helpful to everybody, especially students, in order to succeed academically and in their future job opportunities. Teachers and lecturers are greatly in need of information literacy skills, in order to carry out their occupations efficiently and successfully.        Basically, everybody in the society is in need of information literacy skills. Information literate individuals improve the society's quality of life in general and academically. Information literacy helps us in our day to day life such as buying a house, choosing a school, making an investment, voting for the election, and many more. Information literacy skills are of prime importance in order to achieve every body's academic goals. Truly information literacy is the foundation of independent lifelong learning. This is summarized in the words of Herring (2004) who argued that, information literacy is important and necessary in that it acts likes social instrument or tool for developing human resources and formation of human capital needed to bring about desired development.

### 5. Methods of Inculcating Information Literacy Skills among University Students

Careful, thoughtful inculcation of information skills requires extended time and interaction among students, librarians, and faculty. Information literacy skills programmes employ active learning to involve students in the learning process and facilitate their ability to learn independently. According FGCU (2012) inculcating information literacy skills involves an active learning which takes a variety of forms including group work or collaborative learning, hands-on computer training, active learning exercises in class (cooperative learning), group projects, self-paced modules, presentations and writing. They added that professional librarians act as subject liaisons that collaborate with teaching faculty to integrate information literacy skills across the curriculum. In the same vein, Yaacob, Iskandar, & Jusoff (2011) added that some examples of specific information skill programmes that could be undertaken at different levels are library orientation, library instruction, bibliographic instruction, library skill (How to use the Library) and information skill instruction/information literacy.

Acquiring information leads to thinking and presenting information in the right format helps in developing thinking skills. Yaacob, Iskandar, & Jusoff (2011) identified the school to be instrumental to the inculcation of reasoning and problems-solving skills. The school programme according to them should therefore be remodeled, stressing on the "higher-order cognitive concepts and strategies instructional learning and information skill approaches. In addition, it is important for the faculties to provide some structures and criteria for identifying resources because, teaching students how to evaluate information found in print or electronic sources of information is a key aspect of information skills teaching (Herring, 2004).

Similarly, the introduction of systematic information skill and programme of critical thinking requires that the management/authorities recognize the increasing importance of the library as the centre-nerve of any

academic activity and the support it gives in the cultivation of information literacy skills. Lichtenstein (2000) claims that current practice of library instruction concentrates on activities that introduce students to the library environment, including its resources, services and physical layout of its collection. Bruce (1997) explains that information literacy function of libraries imbues in users the ability to locate, manage and use information effectively for a range of purposes.

On the other hand, Abubakar and Isyaku (2012) identified that information literacy skills can be inculcated through Collaborative learning. This is a situation in which students work in groups to solve problems, perform laboratory exercise, or participate in projects, has positive effect on student's information competency. They noted that the use of collaborative learning frequently can results in the increased achievement scores; long term retention, increased in conceptual understanding and more adopt problem solving ability. Students can also be motivated to engage in small group discussion about content of information that they have located from a range of sources.

## 6. Possession of information literacy skills as a foundation for independent and lifelong learning
Information literacy skills are so important to higher education because developing a lifelong learning attitude is central to the mission of higher education institutions (Rockman, 2004 as cited in Deip, 2011). An understanding of the concepts that depend on the acquisition of these skills is fundamental.

### 6.1. Defining Independent Learning
As is the case with many terms commonly used in higher education learning, 'independent learning' can mean different things to different people. According to Kesten, (1987) Independent learning is that learning in which the learner, in conjunction with relevant others, can make the decisions necessary to meet the learner's own learning needs.  Similarly, Candy (1991) noted that Independent learning is a process, a method and a philosophy of education: in which a student acquires knowledge by his or her own efforts and develops the ability for inquiry and critical evaluation; Meyer et al (2008) summarized by saying that independent learning does not involve pupils merely working alone. Instead, the important role teachers can play in enabling and supporting independent learning is stressed.
Kingston and Forland (2008) argue that, by whatever methods, focusing on independent learning should encourage lifelong learning.

### 6.2. Defining Lifelong Learning
Lifelong learning according to the European Commission (2000) is an all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence. Similarly, Department of Education and Science (2000) sees it as the "ongoing, voluntary, and self-motivated" pursuit of knowledge for either personal or professional reasons. Lau (2006) on the other hand views lifelong learning as a good habit that must be acquired and accompanied by the adoption of a positive frame of mind, the willingness to change and a curiosity or thirst for knowledge.

Therefore, independent lifelong long learning deals with the ability of an individual to study on his/her own with little or no assistance and as long as the individual lives. Encouraging learners to be independent is not an easy task; it entails supporting students in self-regulation, providing feedback and helping them highlight progresses. It is apparent that there is no easy solution and a one size fits all approach to independent lifelong learning. What is important however is that teachers work to make learning progression transparent and to provide space for discussion and enquiry around the process of learning. This helps to give students the metacognitive awareness that will support greater independence (Research Centre for Learning and Teaching 2010). An endeavor of higher education is to prepare students to be this type of learner by developing specific dispositions and skills.

The information environment is in constant state of change, evolving to increasing levels of complexity in terms of availability, volume and variety of media. A 21st century globalised workforce needs learners who see the potential and purpose in lifelong learning. Research Centre for Learning and Teaching (2010) observed that these learners will have positive learning dispositions and have developed habits of mind that support their independence and engagement in a positive learning trajectory. Bruce (2002) also points to this phenomenon as a reason for employing an information literacy approach and equipping the learner with the lifelong-learning competences required to deal with these challenging conditions.

Lau (2006) identified that when literacy skills and lifelong learning are Harnessed together, it will substantially improve the:
•	Set of personal choices and options opened up for, and offered to, an individual in the context of personal, family and societal matters.
•	Quality and utility of education and training in both formal school settings preceding entry into the workforce, and later in informal vocational or on-the-job training settings.

• Prospects of finding and keeping a satisfying job and moving up the career ladder rapidly and with appropriate rewards, and making cost-effective and wise economic and business decisions.

• Participation of the individual effectively in social, cultural and political contexts, both at the local community level and at higher levels, and in identifying and fulfilling professional goals and aspirations.

For the possession of independent and lifelong learning skills to be relevant there is the need to develop a sustainable information literate skill to enable an individual to function properly in

## 7. Challenges of Inculcating Information Literacy Skills in Nigerian universities students

The challenge in inculcating information literacy despite the digital divide demands that resources be used to create learning activities that promote critical interaction with and understanding of the information environment (Moore, 2002). In the recent time, a lot is saying on the performance of university undergraduate and graduate students over their information literacy or competencies to address the challenging issues posed by information overload. As such, the effect on the academic institutions is profound. To meet the ever increasing demands for information literacy, librarians and faculty members need to acquaint themselves with the new trends. Even though, librarians and faculty members differ not necessary in knowledge but in other aspects on how the knowledge is organised and shared. The exponential nature and the demand for expertise in dealing with information in workplace as part of the employability criteria call for active and effective integration of information literacy education in the curriculum. In a research conducted in California, Oxford (2010) cited McAdoo (2008) says that accrediting bodies are increasing the amount of focus given to institutions of higher education and their abilities to meet society's expectations of creating graduates who move into the workforce that are information literate. It is imperative that all librarians and faculty members are information literate with the skill to impart and professionally assist their students who are also users of information to source, access, evaluate, synthesis and integrate it into their work for efficiency and productivity during and after graduation. Indeed, librarians should be active and bold in their profession to call for full coverage of the content of information literacy instead of the use of library.

## 8. Conclusion

Information literacy is a natural extension of the concept of literacy in our information society, and inculcating information literacy is the catalyst required to transform information society of today in to the learning society of tomorrow. This underscores the need and necessity for the Nigerian Universities to restructure their curricula so as to incorporate competencies that an informed citizen of an information society ought to possess to participate intelligently and actively in the society. It is however, obvious that, information literacy education promotion is not possible without partnership especially at University level. Synergy between students, information specialists, curriculum designers, community organizations, teachers, amongst others is important and for them to have awareness of the value of information literacy as a tool for individual, institutional and national development.

## 9. Recommendations

If Nigeria is to become a reading and literacy society, positive reading habits should be inculcated in children from an early age.

- The school programme should therefore be remodeled, stressing on the higher-order cognitive concepts and strategies instructional learning and information skill approaches
- Professional librarians should act as subject liaisons that collaborate with teaching faculty to integrate information literacy skills across the curriculum.
- Parents, teachers, librarians, publishers and all others interested in promoting avid reading habits among Nigerian children should cooperate more closely for the benefit of the students.
- There is need for adequate funding of University libraries to enable it meet up with increasing demands of their clientele.

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