Information Literacy, Research, Scholarship and Publication; Comparative of PhD Students in Nigerian and South African Universities

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Abstract

Public university libraries and ICTs are crucial in teaching, learning and research activities of both Universities and PhD students. PhD student’s research matters for academic growth and university ranking. Unfortunately, PhD student’s access to ICTs and library facilities in developing countries like Nigeria, is not encouraging, while universities libraries and ICTs are still struggling to fulfill their mandate unlike what is obtainable in developing countries. Plausible reasons include erratic power supply, librarian’s attitude and poor ICT skills, inadequate computerization, inadequate infrastructure and human capacity. The resultant effect of this is on student research, access to information for scholarship and publishing opportunities.

The paper examines the level information Literacy in terms of ICTs, and library facilities use by PhD students, and its implication on their research, scholarship and publication opportunities. The research was carried out by qualitative research method in public universities in Nigeria and South Africa. A random sampling technique was used to select 40 Nigerian students enrolled at the University of Lagos, Nigeria and University of Kwazulu-Natal, South Africa. The study however, adopts descriptive method of data analysis. Preliminary data reveals that Nigeria students enrolled at the University of KwaZulu-Natal had upper hand in terms of information literacy, research, scholarship and publication than students at the University of Lagos, because of availability and accessibility to ICTs and efficient University library.

Keyword: PhD Students, Universities, Information Literacy, Library, Research, Publication, South Africa, Nigeria
Introduction

Public university and its resources such as libraries and ICTs are crucial in teaching, learning and research activities of both Universities and PhD students. The need for information literacy is crucial amongst PhD students who constitute adult learners that utilize information for thesis writing, publication and in their research in the face of voluminous information in internet age. The PhD also known as a doctoral degree falls under the post graduate education. Postgraduate provision consists of honors, masters and doctoral degrees. A doctoral degree requires a candidate to undertake research at the most advanced academic level, culminating in the submission, assessment and acceptance of a thesis(South Africa Department of Education (2007)

Seehole(2011) notes that doctoral education is the core of university research capacity, source of research productivity and innovation in the global knowledge economy. He added further that doctoral education is expected to produce new, cutting-edge and original ideas and knowledge, through research and exchange of ideas, knowledge and information between professors, researchers and students. PhD students are involved in research that entails thesis writing and publications in journals and conference. In carrying out these activities, they have to sift out information from varied sources such as the internet, electronic resources, libraries, media and other sources in unfiltered form(ACRL,2016). Writing up and publishing research results are crucial for progressing scientific thought and reaching a broad audience(Derntl,2014). Jasus (2006) opine that information literacy concept evolved from several basic library concepts such as ‘library instructions’, ‘bibliographic education’, ‘user education’, and ‘information literacy programmes’. The Society for College, National and University Libraries (SCONUL-2012) defines an informed literate individual as an individual that demonstrates an awareness of how to gather, use, manage, synthesize and create information and data in an ethical manner and will have the information skills to do so effectively. Information literacy is a set of abilities that enhances individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information(The American Library Association-ALA, 2000;2016; Presidential committee on information literacy, 1989). Information literacy is the use of information in creating new knowledge and communicate it in an ethical manner(Association of college and research libraries -ACRL,2016; UK Chartered Institute of Library and Information Professionals (CILIP).

PhD student enhance institution prestige as a result of research and knowledge production(Altbach&Reisberg, 2013;Varghese, 2009;2008;Altbach & Knight, 2007). In attaining the objectives of information literacy in the step of building lifelong learners, higher institutions, supervisors and librarians are playing crucial roles in shaping informed literate students and citizens. Altbach(2013) emphasized that aspects of academia such as communications and networks, journals, libraries, informal communities of scholars, conferences and professional organisations, the internet, repositories of knowledge, research universities as critical centres as key to research universities. It is in recognition of the importance of the roles of information literacy in its contributions to lifelong learners, that governments and industries around the world are challenging higher institutions systems to emphasize information literacy in their curriculum(ACRL,2016;Jin, Schneller and Roche,2015; McTavish ,2009).
Information literacy forms the basis of lifelong learners, extends learning beyond formal learning and self-directed learning, thus augments students competency learning and sharpen literacy and critical skill (ACRL, 2016). Yang, Schneller and Roche (2012) buttress that learning is crucial for the achievement of certain labour market positions in the face of changing working environment, requiring proactive and adaptation of individuals knowledge, capacities and competences. With this view, the study is imperative because of information proliferation in the internet era, students seems to be versatile in the use of social media as face book, twitter to mention but a few but arguably are deficient in information literacy. While it cannot be ignored that students cannot learn everything during the undergraduate study. This has resulted in information literacy deficiency that results into copy-pasting also referred to as ‘plagiarism’ which seems to be rife amongst students (McGregor and Streitenberger 2004).

**Research Objective**

A central focus of the study is to:

i. To identify and discuss the ‘push’ and ‘pull’ factors that influenced students to University of KwaZulu-Natal (UKZN) and University of Lagos (Unilag) as institutional choice of PhD study.

ii. To identify university’s tools, strategies and resources that enhances information literacy of PhD students.

**Literature Review**

The paper is discussed around themes as university, information literacy, PhD. These concepts are explained in this section for better understanding.

**Concept of University**

Universities falls under higher education that usually occurs after the completion of secondary education. Universities promotes research for the development, use of new technologies, provision of technical and vocational training, entrepreneurship education and programmes for lifelong learning (Yang, Schneller and Roche, 2012; UNESCO, 2009). Yang, Schneller and Roche (2012) highlights that different types of institutions have diverse mandates and address different types of learners; respond to and anticipate societal needs. Within the ambit of this paper, the University of KwaZulu-Natal (UKZN) and University of Lagos was the research setting for the paper.

**University of KwaZulu-Natal (UKZN)**

The University of KwaZulu-Natal (UKZN) was established on January 1, 2004 as a merger between University of Natal and University of Durban, Westville. It has five campuses located in Durban, Westville, Pinetown, Howard, Pietermaritzburg and KwaZulu-Natal. UKZN has a sizeable number of PhD students referred to as ‘international students’. Preesha, Rubeshan and Sadhasivam (2011) define an international student as an individual who has relocated to another country mainly for study purposes. Gubba (2014) point out that the University of KwaZulu-Natal (UKZN) is one of the top receiving universities in South Africa’s universities with top number of international students estimated at 2,229 as at 2009. Other top universities in South Africa are Cape Town University with estimated number of international students in 2009 at 4,423,
University of Pretoria, 3,008; Stellenbosch university (2,731), and Witswaterand (2,159). International students from Southern African Development Community (SADC) region; and other African countries as Ghana, Ivory Coast, Kenya, Nigeria and Cameroon are enrolled in the PhD study in South Africa universities (Christopher & Efe, 2012; Adepoju, 2004).

University of Lagos

Nigeria has about 108 universities with the classification of first generation university, second generation university and third generation university. The university of Lagos popularly known as ‘Unilag’ is a federal government research university in Lagos State, South-western Nigeria. The demand for and increase in PhD enrolment is increasing as the Nigeria University Commission (NUC) mandated that every university lecturer in Nigeria must obtain a doctorate degree before rising to the rank of a senior lecturer and supervising PhDs. The NUC pointed out that there were about 35,000 lecturers in Nigeria and 21,350 of them (61%) who still did not have a doctorate degree.

Concept of PhD

The PhD also known as a ‘doctoral degree’ requires a candidate to undertake research at the most advanced academic level, culminating in the submission, assessment and acceptance of a thesis (South Africa Department of Education, 2007). PhD dissertation is the ultimate academic product in a doctoral programme, that showcases its author’s training in terms of technical, analytical and writing skills he or she imbibed during the programme (Agu, Omenyi and Odimegwu, 2015). Cloete, Sheppard and Bailey (2015) observes that in terms of doctoral production internationally, two groups emerge. The first includes South Korea, Singapore, Taiwan and Mexico acknowledged members leaders in the knowledge economy, and all countries where doctoral output is already high. The second group includes the BRICS countries (Brazil, Russia, India, China and South Africa).

The Green paper on Higher education (2012) stated that in 1995, South Africa produced 679 doctoral graduates, 967 in 2000, 1,188 in 2005 and 1,420 graduates by 2010 (or 26 doctorates per million of the country’s total population). It stated further that the number of Africans has likely been boosted by the increased numbers of international students from other African countries. DHET (2013b); Cloete et al. (2011) posits that between the period 2000–2012, doctoral enrolments increased from 6,354 to 13,964, a growth of 7,610 (120%). South African enrolments increased from 5,117 to 9,152 (a growth of 79%). This compared to an increase from 975 to 4,698 (382%) among all international students and, within this, enrolments among students from the rest of Africa increased from 573 to 3,901 (581%). The benefits of PhD students are numerous to both the host country and higher institutions. At institutional level, PhD students are involved in research. Such research is “crucial in nurturing a national intellectual culture, generating high-level discipline-specific human resources, and innovation” (White Paper 1997: 2.89). Research is iterative and depends upon asking increasingly complex or new questions whose answers in turn develop additional questions or lines of inquiry in any field (ACRL, 2016). On parallel line, international PhD student enrolments balance schools’ academic budgets; serve as graduate teaching and research assistants; improves the quality and cultural composition of the student body; enhance institution prestige as a result of research and knowledge production (Altbach & Reisberg, 2013; Macgregor; Varghese, 2009, 2008; Altbach & Knight, 2007).
PhD students indulge in research that contributes to knowledge. Thus in the course of the PhD study, information literacy is especially vital for PhD students in accessing information for publishing, research, literature review, conference, evaluation of literature materials, grants and application. They have to sift out information from varied sources such as the internet, electronic resources, libraries, media and other sources in unfiltered form (ACRL, 2016; American Library Association, 2000).

Information possesses several dimensions of value, as a commodity, as a means of education, as a means of influence, and as a means of negotiating and understanding the world (ACRL, 2016). Information literacy instruction in higher education can take a variety of forms such as stand-alone courses or classes, online tutorials, workbooks, course-related instruction, or course-integrated instruction (Miller; Chabot and Messina, 2009). Writing a thesis involves writing and publication which enhances students processing information and constructing knowledge (Li and Lim, 2008; Chu et al., 2008). Derntl (2014) buttress that publishing research results is an integral part of a researcher’s professional life and that getting a paper published can be a very tedious and time-consuming process especially for early career and novice PhD student.

Secker, Jane Macrae-Gibson, Rowena (2011) points out that the notion of a ‘Google generation’ has inculcated ingrained coping behaviour in students that students rely heavily on internet search engines. Being exposed to a great deal of information will not make people informed citizens; they need to learn how to use this information effectively (ACRL, 2000). Secker, et al. (2011) highlighted the need for information literacy training and support for doctoral level students because they struggle with finding, managing and evaluating information. The authors also emphasized the importance of embedding information literacy into the curriculum and teaching it within the context of a discipline are often the key to success in information literacy programmes.

California University Information literacy fact sheet, (2000); Shapiro and Hughes (1996) outlined a "prototype curriculum" that encompassed the concepts of computer literacy, library skills, and "a broader, critical conception of holistic approach to information literacy. These include:

i. Tool literacy: This is the ability to understand and use the practical and conceptual tools of current information technology relevant to education and the areas of work and professional life that the individual expects to inhabit.

ii. Resource literacy: This is the ability to understand the form, format, location and access methods of information resources, especially daily expanding networked information resources.

iii. Social-structural literacy: This is understanding how information is socially situated and produced.

iv. Research literacy: This is the ability to understand and use the IT-based tools relevant to the work of today's researcher and scholar.

v. Publishing literacy: This is the ability to format and publish research and ideas electronically, in textual and multimedia forms ... to introduce them into the electronic public realm and the electronic community of scholars.
vi. Critical literacy: This is or the ability to evaluate critically the intellectual, human and
social strengths and weaknesses, potentials and limits, benefits and costs of information
technologies

The Association of College and Research Libraries (ACRL), a division of the American Library
Association (ALA-2016), highlight information literate competent individual:

i. Formulate questions for research based on information gaps or on reexamination of
   existing, possibly conflicting, information;

ii. Use various research methods, based on need, circumstance, and type of inquiry

iii. Monitor gathered information and assess for gaps or weaknesses

iv. Synthesize ideas gathered from multiple sources

v. Cite the contributing work of others in their own information production

vi. Contribute to scholarly conversation at an appropriate level, such as local online
    community, guided discussion, undergraduate research journal, conference
    presentation/poster session

vii. Critically evaluate contributions made by others in participatory information
    environments

viii. Identify the contribution that particular articles, books, and other scholarly pieces make to
     disciplinary knowledge

ix. Summarize the changes in scholarly perspective over time on a particular topic within a
    specific discipline

x. Consider research as open-ended exploration and engagement with information

xi. Value intellectual curiosity in developing questions and learning new investigative
    methods

xii. Follow ethical and legal guidelines in gathering and using information

xiii. Use research tools and indicators of authority to determine the credibility of sources,
     understanding the elements that might temper this credibility;

Research Methodology

An interpretivist paradigm qualitative research approach and a Case study was utilized for
the study. The research setting for the study was at the Howard and Edgewood campus,
University of KwaZulu-Natal (UKZN) and University of Lagos(Unilag). Purposive convenience
sampling was utilized to select 20 Nigerian participants referred to as ‘international students
studying at Howard and Edgewood campus, UKZN. While 20 participants were also selected
at the University of Lagos(Unilag). The other avenues for the sample sampling was through
students UKZN email portal platform, Google forms, referrals and personal contacts. The
research method views the perspectives of PhD’s experiences from the narrative angle. The data
collection was through interviews, and focus group. In addition to the secondary source-based
research, interviews were conducted with 1st year students during 2015 second semester
academic calendar. The first section covered participants demographic backgrounds such as age
bracket, marital status, educational level, mode of study, course of study and permit status.
Section B covered questions to solicit information on their experience in Unilag and UKZN on
the following:
i. What are the `push' and `pull' factors that influenced students to UKZN and Unilag as an institutional choice of study amongst PhD students?

ii. To identify university's tools, strategies and resources that enhances information literacy of PhD students.

Demographic profiles

In terms of migrant Status, the students are on study permit (n=14); Work Permit (n=3) and Asylum permit (n=3)

In terms of age bracket, they fall within the age bracket 25-32, 32-39 and 39-46 years bracket.

Educational status prior to coming to South Africa: Masters level : (n=13), Diploma level: (n=2) and Honors(n=5)

Mode of study: Full Time (n=25), Part Time (n=15)

Marital Status: Married=(n=15), Single(n=17), Engaged(n=8)

Findings

On `push' and `pull' factors that influenced students to UKZN and Unilag as an institutional choice of study amongst PhD, the following themes emerged:

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<tr>
<th>Questions</th>
<th>UKZN</th>
<th>Unilag</th>
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<tr>
<td>PhD study mode</td>
<td>• PhD study mode is by research</td>
<td>• PhD study mode is by coursework</td>
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<td></td>
<td>• Research mode entails writing the thesis and communicating with</td>
<td>• Coursework entails a little bit of lecture alongside thesis writing</td>
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<td>supervisor through mail</td>
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<td></td>
<td>• PhD can attend weekend and seminars/workshop</td>
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<td></td>
<td>• PhD is ICT based and communication between PhD student and</td>
<td>• PhD is still paper based as students write and submit to</td>
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<td></td>
<td>supervisor is through mail…contact to see in person occurs if</td>
<td>supervisor face-to-face for corrections/feedback</td>
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<td>clarifications and discussion is to be made</td>
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| ‘Pull and Push’ Factor to institution | - Social network as friends and colleagues gave information on coming to UKZN…scholarship especially for full-time students motivated them coming to UKZN…  
- The participants agreed that university ranking might be a key factor as UKZN as a choice of institution, but that it does not really matter based on where they are coming from. | - …Reputation and proximity to home ..  
- For PhD students who are unwilling to migrate because of distance, the participants took advantage of Erasmus programme that allows a PhD to have two supervisor in European country and Nigeria university |
| Numbers of years for PhD completion | - The number of years to complete the programme depends on factors as supervisor, supervision process, research topic, funding…You have to finish the programme by three years…as a full-time students because of the of the school fees waiver, but after three years you pay continuation fees…Albeit, the intellectual property belongs to the school… | - Most of the participants agreed that to complete a PhD can be frustrating because there is no finite number of years to graduate…you can graduate within 7 years or more depending on supervisors attitude and examiners  
- PhD takes long, leading to frustration. Delay as a result of procrastination, ‘…instead of correcting your thesis, the lecturer will say which university did you go and atimes throw your thesis write up away…’  
- You have to publish at least two papers in journal with your supervisor before you graduate  
- Books published by lecturers are for profit making and at times lack peer review…This books are referred to as self-published books |
On university’s tools, strategies and resources that enhances information literacy of PhD students.

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<th>Workshop, training and seminar</th>
<th>UKZN</th>
<th>Unilag</th>
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<td>- UKZN teaching and learning organize workshop on themes such as ‘how to write an abstract’ , ‘how to publish a paper’ ‘how to present at conference’ ‘how to develop a poster’</td>
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<td>- Students are not really guided on how research work is to be carried out at programme commencement, which merely serve as a guide on dissertation writing but does not oral or written feedback by one</td>
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<td>- Participants opined that the workshop gave information on predatory journals....publication opportunity and grants writing/management</td>
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<th>School factors affecting the PhD Programme</th>
<th>UKZN</th>
<th>Unilag</th>
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<tr>
<td>- Other factors affect the PhD thesis and its quality such as, ICT, electricity and data collection.... PhD students in UKZN have access to student email and portal</td>
<td></td>
<td>- Insufficient educational facilities such as internet and ICT connectivity in school which makes publishing difficult..</td>
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<td>- Turnitin software for detecting plagiarism as students are aware of it and use</td>
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<td>- Turnitin software is not effective making copy paste still rife</td>
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<th>How is the school library contributing to PhD students information literacy</th>
<th>UKZN</th>
<th>Unilag</th>
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<tr>
<td>- Students allowed to borrow books credited to their student account</td>
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<td>- Students not allowed to borrow books but photocopy is allowed</td>
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<td>- School library and school generally subscribes to high quality index journal for PhD student research</td>
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<tr>
<td>- School library has features as research commons for PhD</td>
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students
- Library orientations conducted for first year students at the beginning of each academic semester, that enable students to learn more about the library’s collections, resources, services, and physical set up of the building.
- Students provided with green/yellow pamphlet providing information on website and journal resources for research
- Students serves as library assistant

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<th>Publications</th>
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<tr>
<td>• Opportunities to publish papers is easy because of ICT, electricity, WIFI and internet connectivity in school</td>
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<td>• Publishing is easy as there is guidance with senior colleagues and as such collaboration between peer is facilitated</td>
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<th>Quality of Lecturer and supervision</th>
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<td>• The supervisor-supervisee relationship is like mentor-mentee</td>
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<td>• The participants agreed that supervisors matters for the PhD study...</td>
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<td>• PhD defence usually occurs before the PhD commence</td>
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<tr>
<td>• Opportunities to publish papers is difficult especially for novice PhD except there is collaboration with senior mentor lecturer</td>
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<td>• Books published by lecturers are for profit making and at times lack peer review...This books are referred to as self-published books..</td>
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<td>• The supervisor-supervisee relationship is like Boss-servant.... no respect for students....Lecturers believe they know it all..</td>
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<tr>
<td>• Most lecturers obtained their PhDs (as well as their BSc and MSc degrees) from that very same department and also taught and mentored by senior colleagues who rose through the ranks based on</td>
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| Funding and Scholarship | • Funding and grant matters because it might involve traveling from state to state, or out of the country, to gather data and meet scholars depending on the nature of the research though  
• PhD students in UKZN agreed that they access bursaries and grants depending on the department but that South African PhD students are prioritize | • No bursaries and grants for PhD student, but lecturers who lecture in government university and pursued PhD enjoy study leave, scholarship and bursaries |
Discussion

Albeit, it cannot be ignored that information literacy is an essential component of general education at graduate levels introduced in courses as GST, and library studies as laying the foundation for information literacy to help students to build the necessary skills in accessing information. Although the degree of success of information literacy initiative depends on the instructors and school library. The increase in the number of students migrating in search of PhD according to Whitehead and Sing (2013) that globally, the number of students studying outside their home countries is growing and there has been a shift from almost exclusively South-North mobility to more South-South mobility. Prior to 1994, South Africa had a very small number of international PhD students. The reason for the choice of South Africa as a preferred destination for international PhD students is that South Africa been rated as one of the top ten destinations for foreign students wanting to pursue a degree away from their home countries(Tati,2010). Altbach(2013) posits that research universities have the potential for significant income generation, but expenditures for adequate salaries for faculty, well-equipped libraries and laboratories, and scholarships for bright but needy students are required.

Conclusion

The need for PhD students to develop information literacy skills is vital to maximize employability and lifelong learning, in addition to reducing attrition rates. The need for information literacy amongst PhD students in accessing information for publishing, research, literature review, conference, evaluation of literature materials, grants application, and conference cannot be over estimated. This is because when students lack information competence and skills, it will be difficult to transfer information to research and daily experience. It is expected that during the PhD process and the end of the programme, such students should be able to communicate research findings ethically through written publication.
and, at appropriate conferences. In addition to having an in-depth understanding of copyright issues and how to get research published. Thus there is still the need for the Nigeria University Commission (NUC) to regulate aspect of academic quality in terms of journals and books. Thus, university should provide rich quality environment for PhD study

Acknowledgement

The author appreciate participants of the study.

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