Subject Metadata Development and Awareness for Digital Resources in University of Uyo Library, Nigeria

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Abstract:

The University of Uyo (UNIUYO) Library took a decision to use the Open Source Library Management software - KOHA Cataloguing Modules in 2013 to develop Uniuyo Subject Headings (UUSH). One of the reasons which necessitated the development of the subject catalogue of electronic resources in UNIUYO library is the broad collection base of 12 faculties, 82 department and 108 subject specifications. In addition, there are about 250,000 printed book volumes and 10,000 periodical titles, 6 million e-books and about 2 million e-journals. The UUSH will also help to organize the resources for uniform subject access and for easy accessibility. The study examines subject metadata development and awareness for electronic resources in UNIUYO. The study also set out to investigate how UUSH was developed in UNIUYO, the retrospective conversion of library resources, the application of UUSH and the digitization of some of the resources. Data for this study is based on secondary data, which include reports, library literature, interviews, library resources and observation. The instruments used in the study generated data to provide an insight into the development and use of UUSH database. Findings from the study reveal that librarians in UNIUYO are aware of the importance of subject metadata and the UUSH has been adequately developed. The existing bibliographic records were converted into MARC, and available resources are being digitized. The study also shows that subject access is being provided to electronic resources. The

study concludes that the development of subject metadata in the UNIUYO Library has created an awareness of available resources in all the Resource Centres and set a stage for the development of subject metadata for electronic/digital resources in other Nigerian University Libraries. It recommends proper net-working in the multi-campus library system using the UUSH to enable the library prepare for the future in meeting the information needs of the University Community.

Introduction

Metadata describes a wide variety of information resources both textual and non-textual that make information about existing data become readily available to information seekers. It is the information age term for traditional bibliographic features captured in the library catalogues, and also the tool that is succeeding AACR2. (Gorman 1998), Lan (2002) says that the term metadata refers to the structural data used to arrange, describe, track and enhance access to resources. Subject metadata is assigned by trained metadata specialists using a controlled vocabulary. The two types of subject metadata are subject headings and description. These changes have come at a time when the amount of information is rapidly increasing fast and reliable search and retrieval methods are of decisive meaning. Today Internet technologies provide global access to heterogeneous information resources, databases, e-books and serial publications, digital online resources, which beside the text also contain photographs, pictures, video and audio materials, etc. Library information resources are multimedia, and today's libraries have to deal with the problem of providing good quality access to the diversity of resources. Access quality depends on the library's chosen knowledge organisation system. Knowledge organisation systems serve as a bridge between user information needs and information resources in particular collections. Academic libraries were hitherto seen as the only custodians of information resources which were mostly in print format. However this was altered with the emergence of information and communication technology which has incidentally affected the LIS profession. The present day users of academic libraries are now technology savvy and require electronic as well as print information sources. Nowadays with the multiplication of mobile communication handheld devices which have resulted in the relentless upsurge of information in electronic format, emphasis is gradually shifting away from the resource to the information it carries.

In developed nations, metadata encoding and transmission standard is the standard practice in academic as well as other libraries and information centres. However the story is not the same in Nigeria. Nigerian academic libraries which for the past century have been grappling with automation and some being managed in a state of half-automation, the concept of metadata and indeed metadata encoding and transmission standard is a relatively new concept which is slowly evolving. Although Nigerian higher institutions cannot boast of digital libraries yet, some Universities have established and others are in the process of establishing institutional repositories as core components of their libraries. Institutional repositories are becoming an important type of digital resource and service offered by libraries. Indeed, it is a recent innovation that has taken place in the University System.

A study by Stimane, Eglite and Jankevita-Balode (2012) on Subject Metadata Development for Digital Resources in Latvia National Library reveals that subject headings should be comprehensive and detailed with thematic coverage and applicability for the description of digital objects and other resources. This paper is centred on the conceptual structure of the study, the work will be based on the following sub-areas: History of UNIUYO Library and Subject Metadata, Development of UNIUYO Subject Headings for UNIUYO Library. Retrospective Conversion of Records, Application of UUSH and The Digitization process in UNIUYO, Subject Access to digital Resources using UUSH in the future and the Challenges encountered.

History of UNIUYO Library and Subject Metadata

The University of Uyo started as the University of Cross River State (UNICROSS) in 1983. During this period the library was managed in the multi campus system at Ikot Osurua, Ogoja and Uyo respectively. Each of these campuses had a library to cater for the information needs of staff and students. In 1991, the university was taken over by the Federal Government of Nigeria and renamed University of Uyo. Presently, the Library operates a multi-campus library system on four campuses – Three Campus Libraries at the Town Campus, Annex Campus, Main Campus and fourteen resource centres that cut across the four campuses.

The collections of the library have proportionately grown from a small nucleus serving the erstwhile University of Cross River State to that serving the interest of many disciplines and members of the University of Uyo community with a population of about 25, 000. There are faculty resource centres in all the twelve faculties in the university, 82 departments and 108 subject specialization, 250,000 book volumes and over 10,000 periodicals titles, online database with over 6 million e-books and 2 million e-journals in the major disciplines. There is an institutional repository hosting local and indigenous literature. Resources in the Faculty resource centres are shown by the table below.

Table 1
Resources available at resource centres and Branch libraries are as indicated below:

S/N	Location	BOOKS HARDCOPIES	JOURNALS HARDCOPIES	E-JOURNALS	EBOOKs
1	Faculty Of Agricultural Science Resource Centre	3,989	2,349	88,559	706,645
2	Faculty of Arts Resource Centre	2,307	3,251	541,773	502,126
3	Faculty of Basic medical science Resource Centre	4,650	2721	7,537	625,936
4	Faculty of Business Administration Resource Centre	5,254	4,106	160,789	184,979
5	Faculty of Clinical Science Resource Centre	3,117	2,116	105,150	830,020
6	Faculty of Education Centre	15,015	6,540	192,387	150,298
7	Faculty of Engineering Resource Centre	4276	3,513	25330	555009
8	Faculty of Environmental Science Resource	3,138	2,689	20,206	219,595
9	Faculty of Law Resource Centre	7,215	4,035	172,246	589,014

10	Faculty of Pharmacy Resource Centre	5,213	3759	160,164	284,959
11	Faculty of Sciences Resource Centre	23,098	21,786	183,279	768,932
12	Social Sciences Resource Centre	19,568	7892	123,286	339,476
13	Branch Library- Town Campus	66,865	22603	192,471	538,909
14	Branch Library- Annex campus	47,712	22,668	310,256	199,259
15	Main Library- Main Campus	57, 325	5675	237,005	936,201
	Total	**271,417**	**115,703**	**2,520,438**	**7,431,358**

These are all managed by the Librarians from the university library. The library operates a campus wide electronic network and global access for Internet connectivity and UNIUYO databases.

Etim and Ukpanah (2009) reported Experimenting Library Automation with SLAM in UNIUYO Library. They traced the historical development of UNIUYO Library automation and identified the need to develop the subject catalogue of digital resources because of the broad collection base and multiple campuses location. According to them, other reasons for developing UUSH in UNIUYO Library is for retrospective and easy cataloguing of electronic resources, periodicals, monographs etc.; to accelerate cataloguing.

Development of the University of UYO Library Subject Headings (UUSH)

UUSH is used in the description of digital recourses in Uniuyo library system. It is used in converting thee bibliographic resources in Uniuyo Library traditional cataloging in connection with AACR2. UUSH is used to arrange, describe, track and enhance access to Uniuyo Library Resources

Uniuyo Online Public Access catalog

Since 2007, the UNIUYO Library took the decision to automate the collection with the implementation of the Strategic Library Automation and Management Software (SLAM), an indigenous software, creating UNIUYO Online Public Access Catalogue (OPAC). Library users were able to log into the Online Catalogue using the author, title and subject entries (see UNIUYO OPAC) above.

The UNIUYO Library in 2013 later migrated to the open source library management software KOHA.

The schema for descriptive metadata is adapted from KOHA cataloguing modules in developing University of Uyo Subject Headings (UUSH) Database for subject cataloguing of digital resources. Headings of work being catalogued was retrieve from LC Subject Headings and was done in parallel with the current open source software KOHA cataloguing modules. With every new case, subject cataloguing methodology is improved. Gradually, within a 6 (six) year period, a subject heading system – UUSH, guided by the KOHA cataloguing modules has been developed. At present the UUSH holds over six million print and e-books and two million print and e-journals in the major disciplines at different libraries and also an institutional repository hosting local and indigenous literature.

Due to terminology peculiarities with African names, cultural and historical diversity attached to these names we have made special provision for headings – adaptation and customization, as attention is paid to terminology semantic compliance instead of a word-for-word translation in the authority records. Headings are made in African names taking into account the conformities with Nigerian/African Languages. The UUSH fully complies with the KOHA cataloguing system structural regularities – hierarchical relationships, associative relationships and syntax. Library of Congress original subject headings are included as seen from references, thus standardizing the translation and providing for internal data retrieval. When creating subject records, most effort is put into determination of mutual compliance between English and African terminology. In the working process with sub-divisions, language differences became apparent even more radically, because a subdivision term, which is to comply with a certain subject category semantically with African language, is difficult.

Retrospective Conversion of Records

After the development of the UUSH knowledge organization system, the library was networked, librarians were trained and retrospective convention of data commenced in the library. The concentration was on the cataloguing modules with the aim of converting all the bibliographic records from manual to electronic data using the software access through OPAC. Existing bibliographic records in the library were converted into a MARC standard. The staffs in the automation unit were assigned the responsibility of data conversion. This was edited by the metadata editor. The metadata adhered to the MARC standard. The automation unit computer engineering is responsible for preparing the bibliographic entries data for uploading into the University libraries server. As shown in the table below: Faculty of Agricultural Science Resource Center is located in that Faculty and the UUSH is used in assigning the code ANS-FAG-RC for the Faculty Resources, other Faculties follows as shown in the table below.

This is shown in the table below:

S/N	Location	Code
1	Faculty Of Agricultural Science Resource Centre	ANS- FAG-RC
2	Faculty of Arts Resource Centre	PHI-FARTS-RC
3	Faculty of Basic medical science Resource Centre	BIO-FBMS-RC
4	Faculty of Business Administration Resource Centre	ACC-FBA-RC
5	Faculty of Clinical Science Resource Centre	MA-FCS-RC
6	Faculty of Education Resource Centre	EDUTECH-FEDU-RC
7	Faculty of Engineering Resource Centre	CENGR-FENGR-RC
8	Faculty of Environmental Science Resource	BTN-FENVS-RC
9	Faculty of Law Resource Centre	LNDL-FL-LRC
10	Faculty of Pharmacy Resource Centre	PMC-FPHARM-PHARM FRC
11	Faculty of Sciences Resource Centre	PHY-FSC-SRC
12	Social Sciences Resource Centre	PSY-FSS-SSRC
13	Branch Library- Town Campus	PHIL-FARTS-TCL
14	Branch Library- Annex Campus	ACC-FBA-ACL
15	Main Library- Main Campus	PHY-FSC-MCL

Application of the UUSH

The UNIUYO Library uses the UUSH for subject cataloguing of books and journals, monographs like world bank documents, doctoral thesis, projects, dissertations, periodicals, sound recordings and audio-visual materials and maps in the library. Similarly the UUSH are also used for subject cataloguing of the institutional repository hosting local and indigenous literature. It is also used for subject cataloguing of library resources in faculty resources as well as digital resources.

These resources are located in the multi-campus library system on four campuses: three branch libraries at different campuses and fourteen resource centres that cut across the four campuses. The Library strives to provide uniform subject access to all of them with the UUSH.
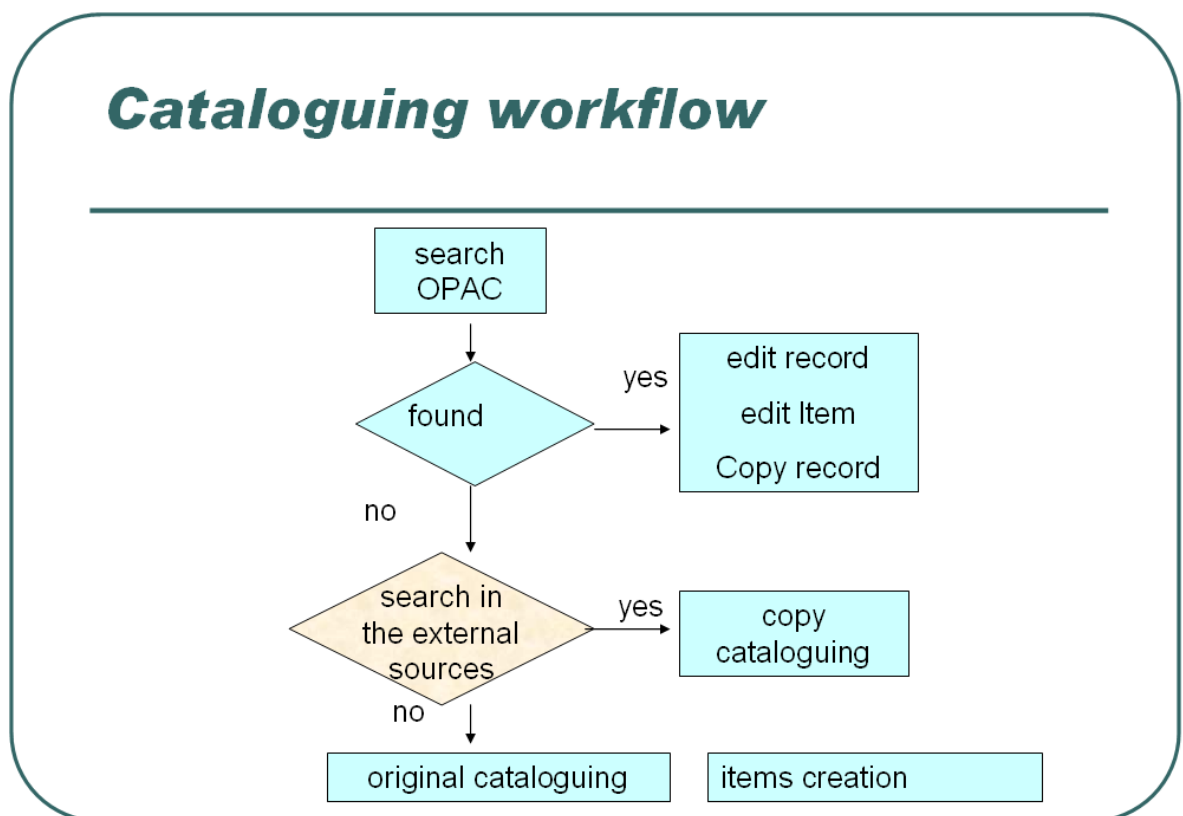
Subject authority records are developed at the UNIUYO library cataloguing department in a centralized manner in collaboration with Faculty Resource Centres and other Campus Libraries, of the UNIUYO. The cataloguing of these resources has helped the technical staff to work collaboratively with all the librarians in the different locations.

Since 2013, subject records are created and added to the records of the UNIUYO database, books and journals are converted into electronic format. The application of UUSH has taken care of terminology peculiarities, cultural and historical diversity.

Digitization in the UNIUYO Library

In 2010 the UNIUYO received an intervention through a World Bank assisted Science and Technology Education Project (STEP-B) to create a database of a consortium of science and technology researches in four academic institutions in Akwa Ibom State , South-South Nigeria. Initial digitization commenced with indigenous staff publication which were scanned into a database in the institutional repository in the UNIUOY. This project is ongoing and has over 3,000 entries of abstracts which can be accessed via the local area network linking the four institutions presently. The figure below illustrates the workflow of the cataloguing process for the digitized documents in the institutional repository.

UNIUOY adapts Kaloyanova (2012) proposed standard for KOHA manual on cataloguing. In cataloguing workflow the first step for cataloguing in KOHA starts with OPAC searching to original cataloguing or creating the items as shown on the cataloguing workflow.

Adapted from Kaloyanova (2012)

Conclusion

Metadata encoding and transmission has become a standard practice in academic as well as other libraries and information centres. The UUSH has been developed using KOHA cataloguing modules. The UUSH adaptations in UNIUYO Library allows for good quality subject cataloguing of books, journals, serials, and digital objects. It has also enhanced the resource specificity, provided for uniform retrieval from all Faculty Resources Centres and the University library databases. Subject headings are well specified. The development of UUSH in the UNIUYO Library, has created awareness for Staff and students of the University Community on the availability and accessibility of both electronic and print resources. It has also aided the organisation of digitized documents.

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