

THEORY AND PRACTICE OF CLASSIFICATION

SESSION 10 – INFORMATION TECHNOLOGY AND CLASSIFICATION

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Session Overview

- This session will explain to students the different ways by which ICT has affect library classification

Session Outline

The key topics to be covered in the session are as follows:

- Topic One : Application of library management software
- Topic Two : Availability of electronic resources
- Topic Three: New or emerging disciplines
- Topic Four: Electronic Classification
- Topic Five: Professional practices

Reading List

- Read Chapter 31 of recommended text - Kumar, Krishan (2008) Theory of classification New Delhi : Vikas Publishing

Introduction

- Library Classification which is a branch under information management has also been affected in different aspects:
 - Application of library management software
 - Availability of electronic resources
 - New or emerging disciplines eg. Computer science, information science etc.
 - Electronic Classification
 - Professional practices



- Topic One :
- Application of library management software

Application of library management software

- Libraries now acquire and use library management systems to organize their resources for quick access and use.
- This has led to the development of the Online Public Access Catalogues
- In online public access catalogues (OPACSs), classification serves as a direct retrieval function because class numbers can be used as access points in MARC records.



A screenshot of a class number used to search the UGCat

The screenshot displays the University of Ghana Online Catalogue (UGCat) interface within a Firefox browser. The address bar shows the URL `library.ug.edu.gh`. The page header includes the University of Ghana logo and the text "UNIVERSITY OF GHANA ONLINE CATALOGUE (UGCat)". A navigation bar at the top lists various database categories. The main search area features a search bar with the text "QD 60" and a "Search" button. Below the search bar, a message states: "The UGCat lists books and theses in the libraries." To the right of the search bar, there is a "View Entire Collection" link. Below the message, a list of search options is provided, including "Mylibrary Ebooks", "Advanced Keyword", "Author", "Course Reserves by Lecturer", "Course Reserves by Course Name", "ISBN / ISSN", "Subject", "Title", "Call number", and "Author / Title". On the right side of the page, a "See also:" section lists additional resources: "Mylibrary Ebooks", "Ebooks from ScienceDirect", "My Library Account", "What's new in the Libraries", "Suggest Items for Purchase", and "Comments and Suggestion Box". The footer of the page indicates "WebPAC PRO © Innovative Interfaces, Inc." and the system clock shows the time as 10:34 PM on 4/19/2015.



A screenshot of a class number used to search the UGCat

The screenshot shows the University of Ghana Online Catalogue (UGCat) search results for the class number QD 60. The browser window displays the search results page with the URL `library.ug.edu.gh/search/~/?searchtype=c&searcharg=QD+60&SORT=D&searchscope=10`. The search results show a list of books with their titles, authors, and publication years. The search results are displayed in a table with columns for 'Mark', 'Media', and 'Year'. The search results are as follows:

Mark	Media	Year
<input type="checkbox"/> QD51 .G59 Good laboratory practices : an agrochemical perspective : developed from a symposium sponsored by the Department of Earth Science Open Shelves:CHECK SHELVES, Department of Physics Open Shelves:CHECK SHELVES	PRINTED MATL	1988
<input type="checkbox"/> QD51 .P95 Prudent practices for disposal of chemicals from laboratories / Committee on Hazardous Substances in Balme Library open shelves:CHECK SHELVES	PRINTED MATL	1983
<input type="checkbox"/> QD51 .St 8 : Stricoffm, R. Scott Handbook of laboratory health and safety R. Scott Stricoffm, Douglas B. Walters and Louis J. Diberard Balme Library open shelves:CHECK SHELVES	PRINTED MATL	2011
<input type="checkbox"/> QD54 .F95 Foundations of ultracentrifugal analysis / Hiroshi Fujita. Mathematics Department Open Shelves:CHECK SHELVES	PRINTED MATL	1975
Your entry QD 60 would be here		
<input type="checkbox"/> QD61 .Sc8 : Scott, Raymond P. W. Contemporary liquid chromatography / by R. P. W. Scott. Balme Library open shelves:CHECK SHELVES	PRINTED MATL	c1976
<input type="checkbox"/> QD63.C532 C84 Can Studies Library open shelves:CHECK SHELVES	PRINTED MATL	1983

The search results also include a sidebar with 'Resources' and 'Other Resources' links. The 'Resources' section includes a link to 'More Information' and a search for QD 60 at JSTOR. The 'Other Resources' section includes a link to 'ACADEMIC SEARCH (Ebsco)'.



Application of library management software

- Classification is more crucial in the use of OPACs as inaccurate classification will affect the retrieval function of the system.
- This is illustrated in the next slide



Application of library management software

- Subject analysis



- Key concepts



- Group related ones (classify together like terms)



- Link to related concepts (similar concepts)



- Effective retrieval



- Topic Two :
- Availability of electronic resources

Availability of electronic resources

- There is a rapid growth of networked resources
- This has had a great effect on library classification as the enormous amount of information available on the Web needs to be organized for easy retrieval



Availability of electronic resources

- Electronic information providers are doing their best to provide solution by:
- Providing subject access through classification
- And extending this subject access to other metadata records by including class numbers from existing classification schemes in metadata records for web resources.



Availability of electronic resources

- When subject categorization devices first became popular among Web information providers, they resembled broad classification schemes, but many were lacking the rigorous hierarchical structure and careful conceptual organization found in established schemes.



Availability of electronic resources

- Library portals in the beginning offered only alphabetical listing and or keyword searching
- Now libraries have adopted a directory approach based on broad subject categorization schemes when their collections of electronic resources became voluminous and unwieldy.



Availability of electronic resources

- Examples are:
- Internet Public Library Online Texts Collection based on the Dewey Decimal Classification (DDC) and
- CyberStacks based on the Library of Congress Classification (LCC)



Availability of electronic resources

- Classification helps by organizing e-resources into their different subject categories and providing direct access from the OPAC.



A screenshot showing electronic resources that have been assigned class numbers in the UGCat

The screenshot displays the University of Ghana Library System (UGCat) search results for chemistry resources. The browser window shows the URL: <http://library.ug.edu.gh/search/~/?searchtype=X&searcharg=chemistry&SORT=D&searchscope=10>.

The search results are as follows:

- Silverman, Richard B.**
 Amsterdam ; Boston : Elsevier Academic Press, c2014. c2014
[Request](#)
[Website](#)
[More...](#)
- March's advanced organic chemistry : reactions, mechanisms, and structure**
 Smith, Michael, 1946 October 17-
 Hoboken, New Jersey : Wiley, [2013] 2013
[Request](#)
[Website](#)
- Enological chemistry**
 Moreno, Juan.
 London ; Waltham, MA : Academic Press, 2012. 2012
[Website](#)
- Organic chemistry**
 Clayden, Jonathan.
 Oxford ; New York : Oxford University Press, 2012. 2012
[Request](#)

The 'Copies' table for the first result is as follows:

Copies	Location	Call No.	Status
	Balme Library open shelves	RS403 .S1 3	CHECK SHELVES

The 'Copies' table for the second result is as follows:

Copies	Location	Call No.	Status
	Balme Library open shelves	QD251.2 Sm6	CHECK SHELVES
	Balme Library Open Shelves (East Mezzanine)	QD251.2 Sm6	CHECK SHELVES
	Balme Library Open Shelves (East Mezzanine)	QD251.2 Sm6 c.2	CHECK SHELVES

The 'Copies' table for the fourth result is as follows:

Copies	Location	Call No.	Status
	Balme Library Open Shelves (East Mezzanine)	QD251.3 C57	DUE 21-04-15
	Balme Library Open	QD251.3 C57 c.2	DUE 21-04-15

The right sidebar contains 'Other Resources' with links to 'More Information', 'Search for chemistry at JSTOR', and 'Search for chemistry at ACADEMIC SEARCH (Ebsco)'.



Availability of electronic resources

- Many web designers have also turned to classification schemes as a supplementary navigational tool.
- Thus subject categorization devices that are similar to broad classification schemes have become fairly popular among web information providers.



Availability of electronic resources

- Subject categorization defines narrower domains within which term searching can be carried out more efficiently and enables the retrieval of more relevant results.
- Combination of subject categorization with term searching has proven to be an effective and efficient approach in resource discovery and data mining.



Availability of electronic resources

- In this regard, classification or subject categorizing schemes function as information filters, used to efficiently exclude large segments of a database from consideration of a search query



New or emerging disciplines

- One major feature of a good classification as we identified is that; it must be flexible and expansive.
- Thus; it must be constructed so that any new subject may be inserted without dislocating the general sequence of classification.



- Topic Three:
- New or emerging disciplines

New or emerging disciplines

- Human knowledge is ever evolving and new subjects of study are developing.
- There is also new fields of specialization in already existing disciplines
- Interdisciplinary studies are very common these days



New or emerging disciplines

- The subject field of information Technology is one such fast evolving disciplines.
- The library collects and organizes materials in all these new areas
- For them to integrate the new subjects into the already existing collection, classification schemes must provide slots for classifying these subjects
- This therefore calls for regular revision in the schemes.

- Topic Four:
- Electronic Classification

Electronic Classification

- This is in two parts;
 - Development of electronic version of schemes
 - Computers to electronically assign notations to resources



Electronic Classification

- Development of electronic version of schemes:
- IT is now applied to the development of classification schemes
- Data is fed into a computer and the processing rate is very fast.
- This helps to develop quality index to schemes



Electronic Classification

- We also now have electronic versions of schemes.
- Examples are WebDewey and Classification Web
- **The two systems generate corresponding class numbers for the from the other system**
- This reduces the physical space taken up by the schemes
- Regularly updated
- Easier to search



WebDewey features

- Flexible searching of the WebDewey database. Search functionality includes limiting by index, combined-term searches in one or multiple indexes using Boolean AND/OR/NOT operators, proximity searches, truncation, and character masking (wildcards).
- Browsable sequential indexes of DDC numbers, the Relative Index, and LCSH.



Webdewey features

- Hierarchical displays that show the position of each class number in relation to broader and narrower classes.
- Extensive use of hyperlinks for convenient access to related records and manual entries cited in notes.
- Links from LCSH listed in a record to the corresponding subject authority records.
- Displays of the ten Main Classes and the DDC tables that enable top-down navigation through the DDC.



Features of Classification Web

- It allows users to search, browse, and access all Library of Congress Classification schedules and Library of Congress Subject Headings and Name Headings on the Web.
- Construct, verify, and assign classification numbers, subject headings, and name headings to library material using the most current data.



Features of Classification Web

- Full-text schedule display of all Library of Congress classification schedules--including G class geographic cutters.
- Complete Library of Congress subject headings in familiar thesaurus-style display.
- Complete Library of Congress name headings.
- All files updated daily, providing optimal data accuracy.
- Access to data anywhere you have a World Wide Web connection.
- Correlations between LC classification numbers and LC subject headings.



Features of Classification Web

- Hypertext links within and between classes and subclasses speed access to critical data.
- Powerful search & navigation tools.
- Automatic calculation of classification table numbers.
- Permanent institutional or personal notes file.
- Ability to link to local Web OPAC for many major vendor systems.
- Preset list of institutional OPACs to which users can link.
- Display of non-Roman characters.



Electronic Classification

- Computers to electronically assign notations to resources
- WebDewey and Classification web has an inbuilt feature that allows this.
- [Jeong-Hyen Kim](#), [Kyung-Ho Lee](#), developed a knowledge base for an automatic classification in the library science field, by using the facet classification principles of colon classification



- Topic Five:
- Professional practices

Professional practices

- IT has affected the way classifiers and classificationists work.
- IT has created a platform for interaction between and among the two groups.
- Example:
- The [Dewey blog](#) is a great source for news and views on classification issues as well as interesting and unusual DDC resources and curiosities.
- It's also a convenient way to share feedback directly to the DDC editors to help shape the future of the DDC



Professional practices

- There are also databases and OPACs where classifiers can copy existing class numbers or verify one of which they are not sure.
- Example is the WorldCat.
- It contains 1.8 billion electronic, digital and physical resources.



Conclusion

- In addition to the access function, the role of classification has been expanded to those of subject browsing and navigational tools for retrieval on the Web



Conclusion

- The association of Library Collections and Technical services subcommittee on Metadata and classification identified seven functions of classification in the electronic age;
 - Location
 - Browsing
 - Hierarchical movement
 - Retrieval
 - Identification
 - Limiting/portioning
 - Profiling



Further Reading

More Information on WebDewey and Classification web

- http://www.oclc.org/support/services/dewey/documentation/webdewey_userguide.en.html
- <https://www.loc.gov/cds/classweb/classwebfeatures.html>

