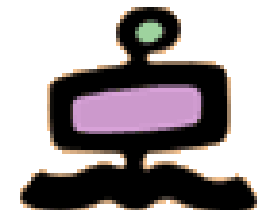




Corso di Biblioteche Digitali



- Vittore Casarosa
 - Mail: casarosa@isti.cnr.it
 - Tel: 050 621 3115 (office) 348 397 2168 (mobile)
 - Skype: vittore1201
- “Ricevimento” at the end of the lessons or by appointment
- Final assessment
 - 70% oral examination
 - 30% project (development of a small digital library))
- Reference material:
 - Ian Witten, David Bainbridge, David Nichols, How to build a Digital Library, Morgan Kaufmann, 2010, ISBN 978-0-12-374857-7 (Second edition)
 - Material provided by the teacher
- **<http://cloudone.isti.cnr.it/casarosa/BDG/>**



Modules



- Computer Fundamentals and Networking
- A conceptual model for Digital Libraries
- Bibliographic records and metadata ←
- Information Retrieval and Search Engines
- Knowledge representation
- Digital Libraries and the Web
- Hands-on laboratory: the Greenstone system

Parallel evolution



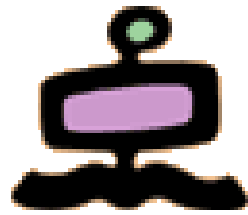
Libraries

- Description (documents)
 - **Bibliographic records**
 - **MARC**
- Interoperability
 - Z39-50
- Conceptual model (classes)
 - FRBR – LRM for Works, Expr., Manif.
- Information Retrieval
 - Full text (catalogue and documents)

The Web

- Description (instances)
 - Metadata
 - Dublin Core
- Interoperability
 - OAI-PMH
- Conceptual model (classes)
 - RDF and RDF Schema for all resources (ontologies)
- Information Retrieval
 - Full text (web pages and resources)

Description of “content”



- In the libraries: bibliographic cards/records
 - Classification and cataloguing
 - MARC standard
- In the Web: metadata
 - Resources and metadata
 - The Dublin Core metadata schema

Libraries: some figures



- Volumes (in millions)

Institution	1910	1995	2002	2012
Library of Congress	1,8	23	26	34
Harvard Univ.	0,8	12,9	14,9	16
Yale Univ.	0,55	9,5	10,9	12
U Illinois (Urbana)	0,1	8,5	9,9	11
U California (Berkeley)	0,24	8,1	9,4	10
British Library	2	15	18	25
Cambridge Univ.	0,5	3,5	7	
Oxford Univ.	0,8	4,8	6	
Bibl. Nat. De France	3	11	12	

- Journals

- From 10.000 in 1950 to 150.000 in 2002

- Alexandria principle beginning to fade

Classification and Cataloguing



- Since the beginning, clear need to know what was the “content” of the library and how to access the desired information
- Physical ordering (of documents) only possible according to a given criterion (e.g. subject, date)
 - Access possible only according to that criterion
- Classification means to bring related items together. Conventional libraries, in order to stack books on related subjects together, have used [library classification](#). This facilitates the browsing approach of the information seekers
- Cataloguing creates document surrogates, i.e. a description of a document (a catalog record), to be used (to a certain extent) in the place of the document. Catalog records provide searching facility by Authors, Titles, Subjects, Series and other elements. These elements are called access points to the catalog



Example of Classification

Library of Congress (up to 1812)



- Sacred history
- Ecclesiastical history
- Civil history
- Geography, travels
- Law
- Ethics
- Logic, rethoric, criticism
- Dictionaries, grammars
- Politics
- Trade, commerce
- Military and naval tactics
- Agriculture
- Natural history
- Medicine, surgery, chemistry
- Poetry, drama, fiction
- Arts, sciences, miscellaneous
- Gazettes (newspapers)
- Maps

In 1812 the Library of Congress moved to a “new” classification scheme, with 44 categories, and then, in 1897, to the present scheme



Library of Congress (today)



- A - General Works
- B - Philosophy, Psychology, Religion
- C - Auxiliary Sciences of History
- D - History: General & Outside the Americas
- E - History: United States
- F - History: United States Local & America
- G - Geography, Anthropology, Recreation
- H - Social Sciences
- J - Political Science
- K - Law
- L - Education
- M - Music
- N - Fine Arts
- P - Language and Literature
- Q - Science
- R - Medicine
- S - Agriculture
- T - Technology
- U - Military Science
- V - Naval Science
- Z - Library Science & Information Resources

DDC - Dewey Decimal Classification



- 000 – Computer science, information, and general works
- 100 – Philosophy and psychology
- 200 – Religion
- 300 – Social sciences
- 400 – Languages
- 500 – Science and Mathematics
- 600 – Technology and applied science
- 700 – Arts and recreation
- 800 – Literature
- 900 – History and geography and biography

DDC is presently used in over 200.000
libraries worldwide



Melvil Dewey
(1851-1931)
published DDC
in 1876

Yahoo categories



- **Automotive**
 - Dealers, Motorcycles, Repair
- **Community**
 - Government, Libraries, Religion
- **Computers and Internet**
 - Internet Services, Computer Stores etc...
- **Education and Instruction**
 - Colleges and Universities, K-12, Adult Education etc...
- **Entertainment and Arts**
 - Movies, Music, Nightclubs etc...
- **Food and Dining**
 - Catering, Grocers, Restaurants etc...
- **Health and Medicine**
 - Doctors, Hospitals, Fitness etc...
- **Home and Garden**
 - Housewares, Nurseries, Utilities etc...
- **Legal and Financial**
 - Banks, Insurance, Law Firms etc...
- **Other Professional Services**
 - Printing, Pets, Jobs, Cellular etc...
- **Personal Care**
 - Drug Stores, Hair Care, Nail Salons etc...
- **Real Estate**
 - Rental Agencies, Apartment Complexes, Agents etc...
- **Recreation and Sports**
 - Golf, Hobbies, Sporting Goods etc...
- **Retail Shopping**
 - Books, Malls, Flowers etc...
- **Travel and Transportation**
 - Hotels, Travel Agents, Taxis etc...
- **Business to Business**
 - Manufacturing, Business Services, Construction etc...

YAHOO: Yet Another Hierarchical Organization

Google categories



- **Arts**
 - Movies, Music, Television, ...
- **Business**
 - Industries, Finance, Jobs, ...
- **Computers**
 - Hardware, Internet, Software, ...
- **Games**
 - Board, Roleplaying, Video, ...
- **Health**
 - Alternative, Fitness, Medicine, ...
- **Home**
 - Consumers, Homeowners, Family, etc...
- **Kids and Teens**
 - Computers, Entertainment, School, etc...
- **News**
 - Media, Newspapers, Current Events, ...
- **Recreation**
 - Food, Outdoors, Travel, ...
- **Reference**
 - Education, Libraries, Maps, ...
- **Regional**
 - Asia, Europe, North America, etc...
- **Science**
 - Biology, Psychology, Physics, etc...
- **Shopping**
 - Autos, Clothing, Gifts, ...
- **Society**
 - Issues, People, Religion, ...
- **Sports**
 - Basketball, Football, Soccer, ...

Classification and Cataloguing



- Classification means to bring related items together. Conventional libraries, in order to stack books on related subjects together, have used library classification. This facilitates the browsing approach of the information seekers
- Cataloguing creates **document surrogates**, i.e. a description of a document (a catalog record), to be used (to a certain extent) in the place of the document. Catalog records provide searching facility by Authors, Titles, Subjects, Series and other elements. These elements are called **access points** to the catalog

Library Catalogue



- Initially used as “inventory” of the library
 - aid to the librarian to maintain a “list” of the library content
- Very soon became a “tool” to find information in the library and to facilitate access to the library content
- Define a “conceptual ordering” (**the catalog**) separate from the physical ordering of the documents
 - Each document is abstractly represented by describing its main bibliographic elements (e.g. author, title, subject, year, n. of pages, etc.) and physical location (**call number**)
 - Each representation is headed with those bibliographic elements judged to be relevant for finding the document, called **Access Points** (e.g. author, title)
 - Headed representations are ordered in a catalog



The art of librarianship



“What can be more easy (those lacking understanding say), having looked at the title pages than to write down the titles ? But these inexperienced people, who think making an index of their own few private books a pleasant task of a week or two, have no conception of the difficulties that arise or realize how carefully each book must be examined when the library numbers myriad of volumes.

In the colossal labor, which exhausts both body and soul, of making into an alphabetical catalog a multitude of books gathered from every corner of the earth there are many intricate and difficult problems that torture the mind.”

(Thomas Hyde, Bodleian Library, Oxford, 1674)

Cataloguing and user tasks



- Over the centuries, the “art of librarianship” has evolved, identifying the major tasks of a **library user**, and the catalogue has become the main “tool” to facilitate those tasks
 - **find** entities that correspond to the user’s stated search criteria (i.e., to locate either a single entity or a set of entities in a file or database as the result of a search using an attribute or relationship of the entity)
 - **identify** an entity (i.e., to confirm that the entity described corresponds to the entity sought, or to distinguish between two or more entities with similar characteristics)
 - **select** an entity that is appropriate to the user’s needs (i.e., to choose an entity that meets the user’s requirements with respect to content, physical format, etc., or to reject an entity as being inappropriate to the user’s needs)
 - acquire or **obtain** access to the entity described (i.e., to acquire an entity through purchase, loan, etc., or to access an entity electronically through an online connection to a remote computer)

Bibliographic Elements

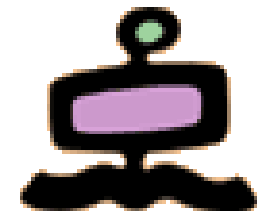


- For cataloguing, we have to define the “bibliographic elements” that will facilitate the user tasks (the [Access Points](#)), and traditionally the main elements are:
 - Titles
 - Authors
 - Subjects (subject headings)
- Up to the fifties and sixties the bibliographic records were materialized in [catalog cards](#) (or in [microfiches](#))
 - a catalog was comprised of many set of identical cards, each set ordered by a different access point

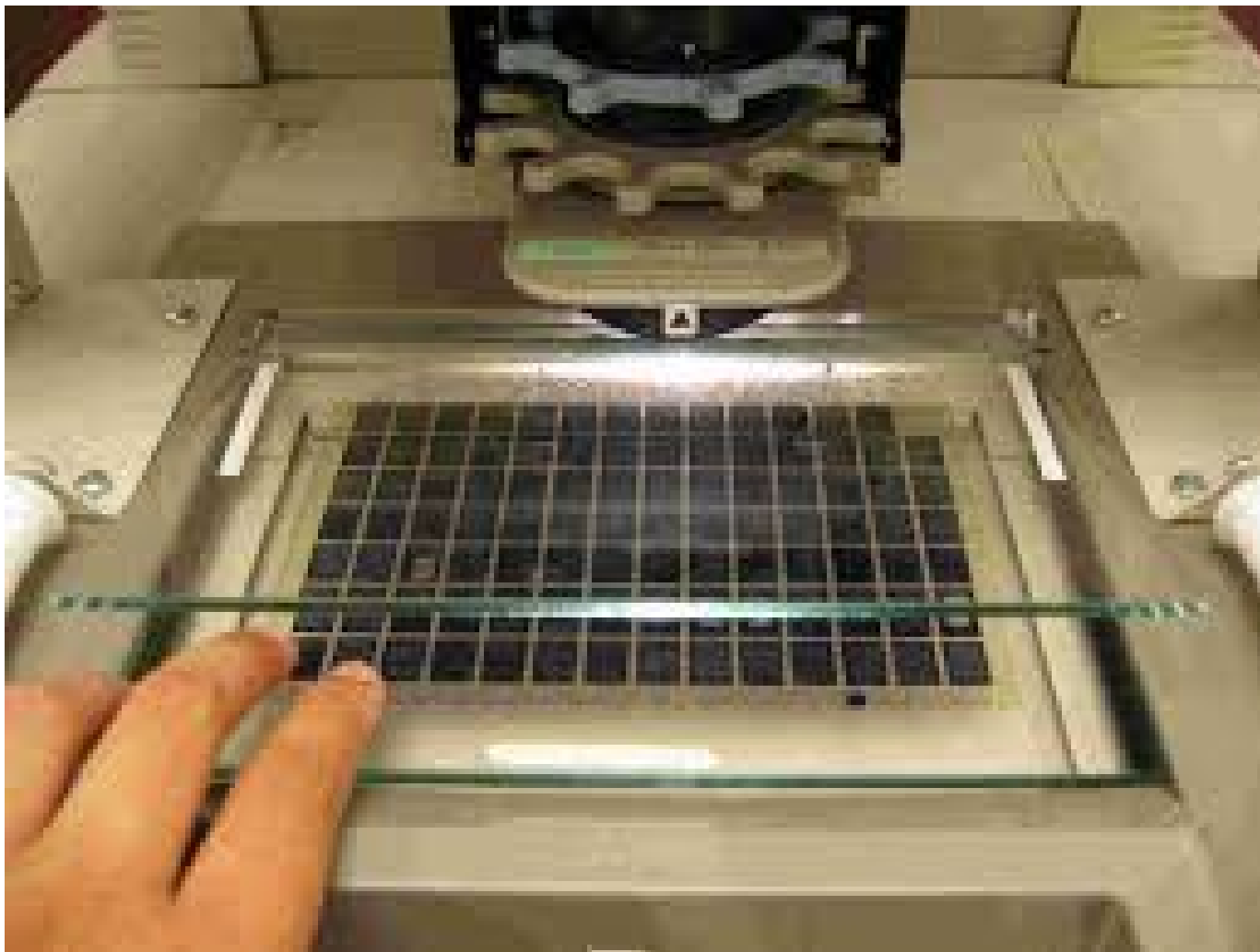
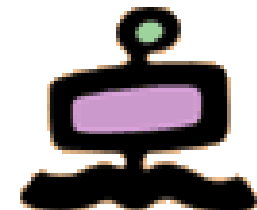
Catalog cards



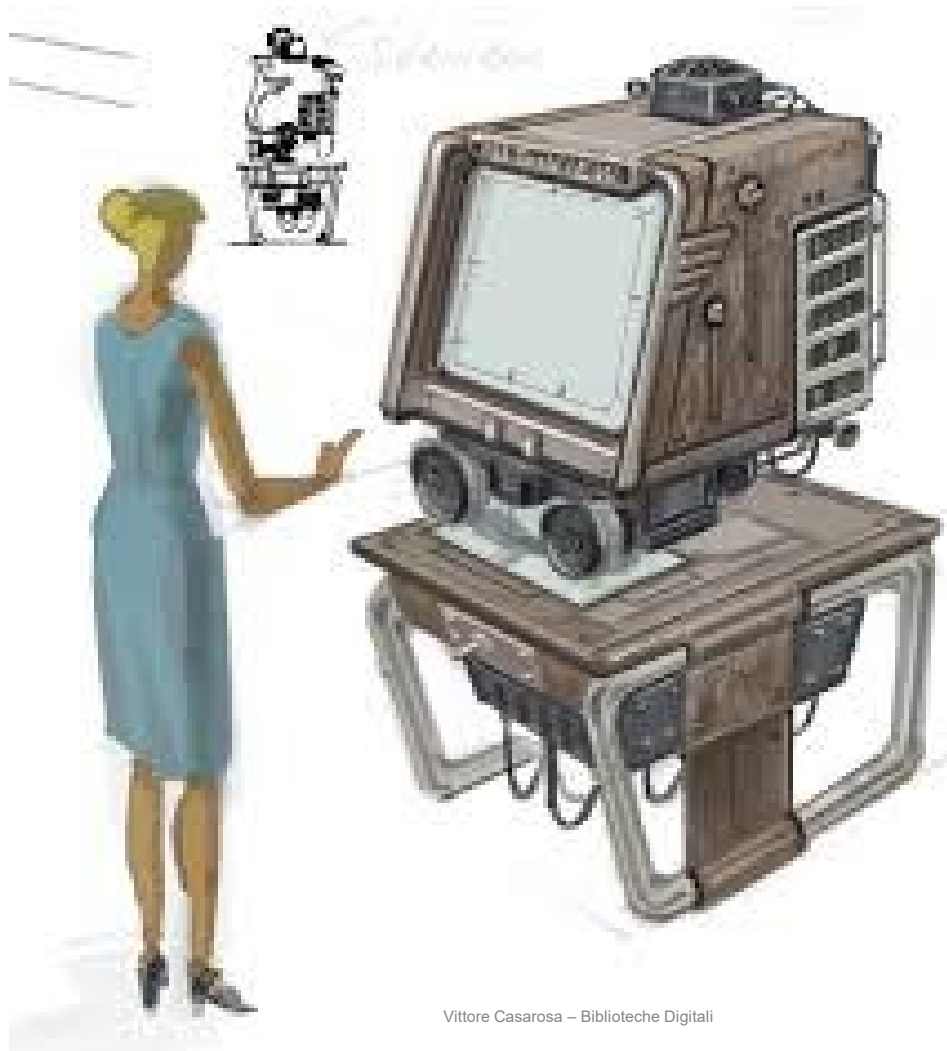
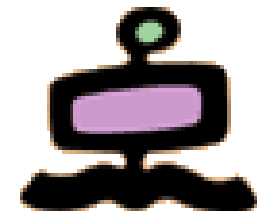
Library catalog (in the 50s)



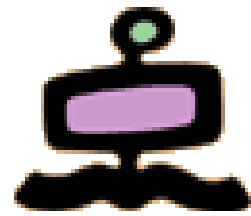
Microfiche reader



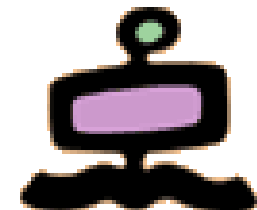
Microfiche reader



Microfiches



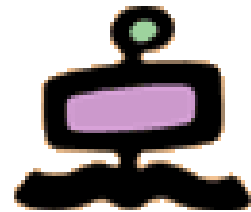
Catalog entry 1774-1900



The important notion of «fields» in a catalog entry

<p>271.</p>	<p>Liberat. class. Roman. Poesis</p>	<p>1/6</p>
<p>Horatius Q. Flaccus.</p>	<p>Quinti Horatii Flacci Opera, interpre- tatione et notis illustravit Ludovicus Desprez, jussu Christianissimi Regis, in usum Serenissimi Delfini, ac Serenissi- morum Principum Burgundiae, Andium, Biturigum.</p>	<p>Passani, 1777. Sed prostant Venetiis apud Remondini</p>
<p>II 127</p> <p>10714</p>	<p>jussu hujusmodi</p>	<p>1 cont. 1/6</p> <p>I M. C. 28</p>

Catalog card 1900-1947



II
66054

L E P R O N I, F(ederico) :

Sulla tubercolosi miliare del polmone. Osservazioni Cliniche.

Foligno. 1934. 4o.

Estr. da: Rinnovamento Medico, Il Giornale di Tisiologia, 1934

(Lavori... 225.)

adligat n 66031



International Standard Bibliographic Description

BROWN, Dan, 1964-

#The #Da Vinci code : a novel / Dan Brown. - 1st Doubleday international mass market ed. - New York [etc.] : Doubleday, 2004. - 489 str. ; 18 cm

ISBN 0-385-51322-4 (broš.)

821.111(73)-312.4=111

COBISS.SI-ID 2502461

Bibliographic Elements



- After classifying an item, we have to define the “bibliographic elements” that will allow to find it (the Access Points), and traditionally the main elements are:
 - Titles
 - Authors
 - Subjects (subject headings)
- Need for “Authority files” (especially for names and subjects)
 - Name Authority files
 - (e.g. 47 different spellings for the name of Muammar Qaddafi)
 - Library of Congress Subject Headings (LCSH)
 - About 2 million of cross-referenced entries (60% of which are preferred terms)

Need for Authority Files



Table 2.1 Spelling variants of the name Muammar Qaddafi.

Qaddafi, Muammar	Muammar al-Qadhafi	Qathafi, Muammar
Gadhafi, Mo ammar	Mu ammar al-Qadhdhafi	Gheddafi, Muammar
Kaddafi, Muammar	Qadafi, Mu ammar	Muammar Gaddafy
Qadhafi, Muammar	El Kazzafi, Moamer	Muammar Ghadafi
El Kadhafi, Moammar	Gaddafi, Moamar	Muammar Ghaddafi
Kadhafi, Moammar	Al Qathafi, Mu ammar	Muammar Al-Kaddafi
Moammar Kadhafi	Al Qathafi, Muammar	Muammar Qathafi
Gadafi, Muammar	Qadhdhafi, Mu ammar	Muammar Gheddafi
Mu ammar al-Qadafi	Kaddafi, Muammar	Khadafy, Moammar
Moamer El Kazzafi	Muammar al-Khaddafi	Qudhafi, Moammar
Moamar al-Gaddafi	Mu amar al-Kad'afi	Qathafi, Mu'Ammar el
Mu ammar Al Qathafi	Kad'afi, Mu amar al-	El Qathafi, Mu'Ammar
Muammar Al Qathafi	Gaddafy, Muammar	Kadaffi, Momar
Mo ammar el-Gadhafi	Gadafi, Muammar	Ed Gaddafi, Moamar
Muammar Kaddafi	Gaddafi, Muammar	Moamar el Gaddafi
Moamar El Kadhafi	Kaddafi, Muamar	

Authority files



- The main function of Authority files is to identify and use correctly **named entities**
 - improving retrieval by putting together different name variants of an identical entity
 - disambiguating identical name forms that refer to different entities
- The issue is intensified due to the frequency and importance of the occurrence of names, causing extensive problems in a single database or repository
- Areas of application include support for indexing, linking, searching, browsing, disambiguation, metadata enhancement and terminology creation
 - Project Perseus found that about 6-7% of all words in texts are named entities, i.e. person and organisational names, places, times and dates



Authority control in the library world



- Libraries, especially National Libraries, have a long history of activities, controlling names and creating Name Authorities
- This was originally aimed at authors in the traditional printed publication world, via printed and online catalogues and national bibliographies
- In its advanced form, Authority Files lists all known name forms; identifies a preferred form; provides additional biographical and affiliation information often taken from biographical and other bibliographical sources, mentioning the sources to assist in uniquely identifying an author
- This level of authority control is quite expensive, since the key part of uniquely identifying an author needs to be carried out by humans, even though there can be a high level of machine assistance

Name Authority Files



- The most well-known effort is the Library of Congress Name Authority File (LCNAF)
- “The VIAF (Virtual International Authority File) combines multiple name authority files into a single name authority service hosted by OCLC (On-line Computer Library Center). The goal of the service is to lower the cost and increase the utility of library authority files by matching and linking widely-used authority files and making that information available on the Web”
- Name authority records usually can be downloaded free of charge for use in a local library system

Bibliographic Elements



- After classifying an item, we have to define the “bibliographic elements” that will allow to find it, and traditionally the main elements are:
 - Titles
 - Authors
 - Subjects (subject headings)

- Need for “Authority files”
 - Name Authority files
 - (e.g. 47 different spellings for the name of Muammar Qaddafi)
 - Library of Congress Subject Headings (LCSH)
 - About 2 million of cross-referenced entries (60% of which are preferred terms)

Example of LCSH entry



Agricultural Machinery

- UF (use for):
 - Agriculture – Equipment and supplies
 - Crops – Machinery
 - Farm Machinery
- BT (broader term)
 - Machinery
- NT (narrower term)
 - Agricultural implements
 - Agricultural instruments
- RT (related term)
 - Farm Equipment
 - Farm Mechanization
- SA (see also)
 - subdivision Machinery under names of crops (e.g. Corn – Machinery)

Agriculture – Equipment and supplies
USE Agriculture Machinery

Crops – Machinery
USE Agriculture Machinery

Farm Machinery
USE Agriculture Machinery



Anglo American Cataloging Rules, 2nd edition, Revised

- Several thousands of very detailed rules
 - Description of documents
 - Description of “works” (e.g. Headings, Uniform titles, References – see...,)
 - People’s names, geographic names, corporate bodies, etc.
 - Capitalization, abbreviations, numerals, etc
- Example: How to name a “local church”
 - First choice
 - “name of the person(s), object(s), place(s) or event(s) to which the local church is dedicated or after which is named”
 - Second choice
 - “a name beginning with a word or phrase descriptive of a type of local church”
 - Third choice
 - “a name beginning with the name of the place in which the local church is situated”

Bibliographic records

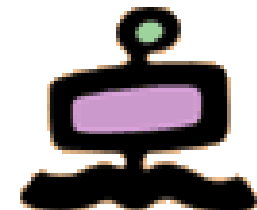


- “The art of cataloguing“ has been developed by librarians over centuries
- Up to the fifties and sixties the bibliographic records were materialized in **catalog cards**
 - a catalog was comprised of many set of identical cards, each set ordered by a different access point
- Starting with the seventies, the diffusion of computers and networks brought the catalogs on line
- The catalog went from bibliographic **cards** to bibliographic **records**
- The problem of **interoperability** started to become apparent



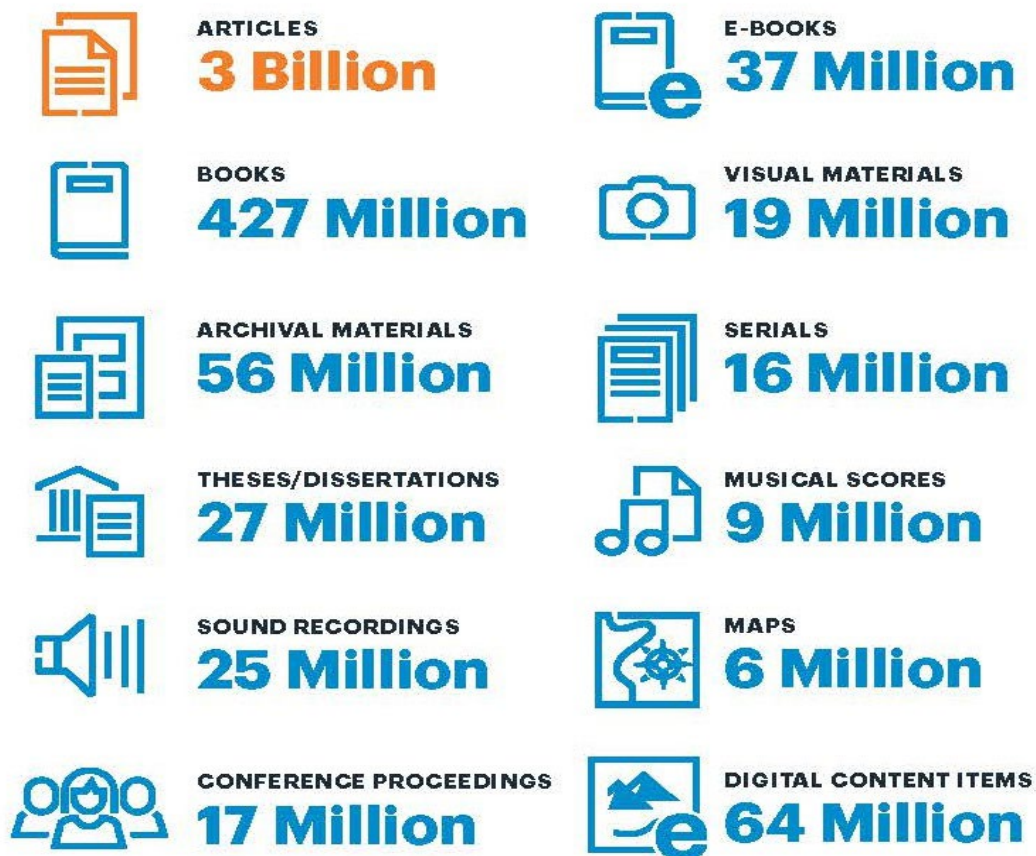
On-line Public Access Catalog (beginning of the seventies)

- **Images** of the catalog cards and/or **text** contained in the catalog cards
- Many advantages over traditional access via physical catalog cards
 - More than one access point
 - Author=Salton, Gerald AND Title=Modern Library Services
 - Author=Salton AND Title=Library
 - Any=Library
- WorldCat, maintained by OCLC (On-line Computer Library Center), is presently the biggest OPAC available
 - started in 1971
 - about 72 thousand libraries from more than 170 countries
 - 490 languages



Inside WorldCat Discovery

As of 26 September 2019





MAchine Readable Cataloging

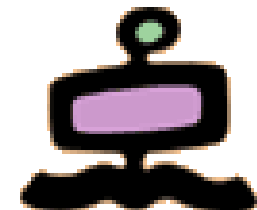
- Started in the **late sixties** and developed by the Library of Congress to facilitate catalog sharing
- Provides a machine readable representation of a catalog card
- Based on a system of numbers, letters and symbols to identify fields in the record
- Provides a precise (sharable) description of a bibliographic record
- Many “national” versions (UKMARC, CANMARC, AUSMARC, DANMARC, ANNAMARC, INTERMARC, etc)
- UNIMARC (Universal MARC) as standard format for exchange of information
 - e.g. USMARC to UNIMARC to AUSMARC
- Present version is MARC21 (MARC for the 21st century)

Catalog card



- Name: Arnosky, Jim.
- Title proper: Raccoons and ripe corn.
- Statement of responsibility: Jim Arnosky
- Edition statement: 1st ed.
- Place of publication: New York
- Name of publisher: Lothrop, Lee & Shepard Books
- Date of publication: c1987
- Pagination: 25 p.
- Illustrative matter: col. ill.
- Size: 26 cm
- Summary: Hungry raccoons feast at night in a field of ripe corn
- Topical subject: Raccoons
- Local call number: 599.74 ARN
- Local barcode number: 8009
- Local price: \$15.00

MARC representation



"SIGNPOSTS"			DATA
100	1#	\$a	Arnosky, Jim.
245	10	\$a \$c	Raccoons and ripe corn / Jim Arnosky.
250	##	\$a	1st ed.
260	##	\$a \$b \$c	New York : Lothrop, Lee & Shepard Books, c1987.
300	##	\$a \$b \$c	25 p. : col. ill. ; 26 cm.
520	##	\$a	Hungry raccoons feast at night in a field of ripe corn.
650	#1	\$a	Raccoons.
900	##	\$a	599.74 ARN
901	##	\$a	8009
903	##	\$a	\$15.00

MARC structure



- Each bibliographic record is divided logically into fields. There is a field for the author, a field for title information, and so on. These fields are subdivided into one or more "subfields." Many fields are repeatable
- Each field is associated with a 3-digit number called a "*tag*". A tag identifies the field (i.e. the kind of data) that follows.
- Two character positions follow each tag (with the exception of Fields 001 through 009). One or both of these character positions may be used for "*indicators*". In some fields, only the first or second position is used; in some fields, both are used; and in some fields neither is used. Each indicator value is a number from 0 to 9. Empty indicators are marked by a "placeholder".
- Most fields contain several related pieces of data. Each type of data within the field is called a "*subfield*", and each subfield is preceded by a subfield code. Subfield codes are one lowercase letter (occasionally a number) preceded by a delimiter.

Example

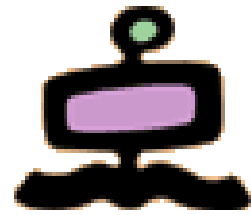


- 300 ## \$a 675 p. ; \$b ill. ; \$c 24 cm.
 - Tag 300 means a book's physical description
 - ## means no indicators
 - Subfield '\$a' indicates the extent (number of pages)
 - Subfield '\$b' indicates other physical details (illustration information)
 - Subfield '\$c' indicates dimensions (centimeters)

the character # is the place-holder for indicators

the character \$ indicates the beginning of a sub-field

Another example



100 1# \$a Gregory, Ruth W. \$q (Ruth Wilhelme), \$d 1910-

100 Main entry -- Personal name -- (primary author)
(NR; there can be only one main entry)

- Indicator 1: Type of personal name entry element
 - 0 -- Forename
 - 1 -- Surname (this is the most common form)
 - 3 -- Family name
- Indicator 2 not used
- Subfields used most often:
 - \$a -- Personal name
 - \$b -- Numeration
 - \$c -- Titles and other words associated with a name (R)
 - \$q -- Fuller form of name
 - \$d -- Dates associated with a name (generally, year of birth)

Basic meaning of Tags



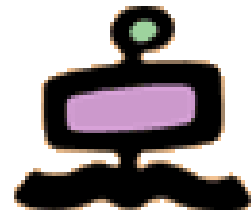
- 0XX Control information, numbers, codes
- 1XX Main entry
- 2XX Titles, edition, imprint (in general, the title, statement of responsibility, edition, and publication information)
- 3XX Physical description, etc.
- 4XX Series statements (as shown in the book)
- 5XX Notes
- 6XX Subject added entries
- 7XX Added entries other than subject or series
- 8XX Series added entries (other authoritative forms)
- 9XX Locally-defined uses

Frequently used tags



- 010 tag marks the Library of Congress Control Number (LCCN)
- 020 tag marks the International Standard Book Number (ISBN)
- 100 tag marks a personal name main entry (author)
- 245 tag marks the title information (which includes the title, other title information, and the statement of responsibility)
- 250 tag marks the edition
- 260 tag marks the publication information
- 300 tag marks the physical description (often referred to as the "collation" when describing books)
- 440 tag marks the series statement/added entry
- 520 tag marks the annotation or summary note
- 650 tag marks a topical subject heading
- 700 tag marks a personal name added entry (joint author, editor, or illustrator)

Additional MARC guidelines



Access points

- 1XX fields (main entries)
- 4XX fields (series statements)
- 6XX fields (subject headings)
- 7XX fields (added entries other than subject or series)
- 8XX fields (series added entries)

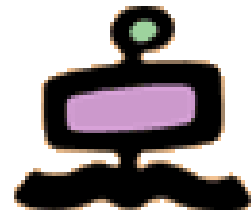
Parallel content

- X00 Personal names
- X10 Corporate names
- X11 Meeting names
- X30 Uniform titles
- X40 Bibliographic titles
- X50 Topical terms
- X51 Geographic names

If the subject of a book (6XX) is a person (Lincoln, Abraham), the tag will be 600; if the subject of the book is a corporation (Apple Computer, Inc.), the tag will be 610; if the subject of the book is a topic (Railroads), the tag will be 650; if the subject of a book is a place (United States), the tag will be 651, etc.

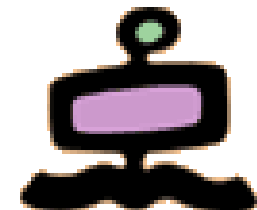
All this entries need authority files.

Structure of a MARC record



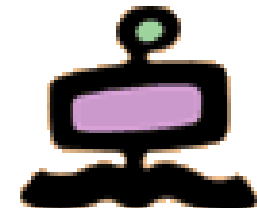
- Leader (24 characters)
- Tag Directory (12 characters for each tag)
 - 3 digits: field number (tag)
 - 4 digits: field length
 - 5 digits: position of the first character of the field
- Tag Fields, terminated by a Field Terminator (in our example is ^)
- Record Terminator (in our example is \)

Tag directory



Tag	Length	Starts at	Tag	Length	Starts at
001	0020	00000	100	0032	00235
003	0004	00020	245	0087	00267
005	0017	00024	246	0036	00354
008	0041	00041	250	0012	00390
010	0024	00082	260	0037	00402
020	0025	00106	300	0029	00439
020	0044	00131	500	0042	00468
040	0018	00175	520	0220	00510
050	0024	00193	650	0033	00730
082	0018	00217	650	0012	00763

Actual MARC record



```

01041cam 2200265 a 4500001002000000000300040002000
50017000240080041000410100024000820200025001060200
04400131040001800175050002400193082001800217100003
20023524500870026724600360035425000120039026000370
04023000029004395000042004685200220005106500033007
30650001200763^###89048230#/AC/r91^DLC^19911106082
810.9^891101s1990####maua###j#####000#0#eng##^##$
a###89048230#/AC/r91^##$a0316107514 :$c$12.95^##$a
0316107506 (pbk.) :$c$5.95 ($6.95 Can.)^##$aDLC$cD
LC$dDLC^00$aGV943.25$b.B74 1990^00$a796.334/2$220^
10$aBrenner, Richard J.,$d1941-^10$aMake the team.
$pSoccer :$ba heads up guide to super soccer! /$cR
ichard J. Brenner.^30$aHeads up guide to super soc
cer.^##$a1st ed.^##$aBoston :$bLittle, Brown,$cc19
90.^##$a127 p. :$bill. ;$c19 cm.^##$a"A Sports ill
ustrated for kids book."^##$aInstructions for impr
oving soccer skills. Discusses dribbling, heading,
playmaking, defense, conditioning, mental attitud
e, how to handle problems with coaches, parents, a
nd other players, and the history of soccer.^#0$aS
occer$vJuvenile literature.^#1$aSoccer.^

```

Leader record
(24 digits)

ID of the tag field
(3 digits)

Length of the field
(4 digits)

Position of the starting
character of the field
(5 digits)



HURC

HUman Readable MARC Catalog record

Leader 01041cam 2200265 a 4500
Control No. 001 ###89048230
Control No. ID 003 DLC
DTLT 005 19911106082810.9
Fixed Data 008 891101s1990 maua j 001 0 eng
LCCN 010 ## \$a ###89048230
ISBN 020 ## \$a 0316107514 :
\$c \$12.95
ISBN 020 ## \$a 0316107506 (pbk.) :
\$c \$5.95 (\$6.95 Can.)
Cat. Source 040 ## \$a DLC
\$c DLC
\$d DLC
LC Call No. 050 00 \$a GV943.25
\$b .B74 1990
Dewey No. 082 00 \$a 796.334/2
\$2 20
ME:Pers Name 100 1# \$a Brenner, Richard J.,
\$d 1941-
Title 245 10 \$a Make the team.
\$p Soccer :
\$b a heads up guide to super soccer! /
\$c Richard J. Brenner.
Variant Title 246 30 \$a Heads up guide to super soccer
Edition 250 ## \$a 1st ed.
Publication 260 ## \$a Boston :
\$b Little, Brown,
\$c c1990.
Phys Desc 300 ## \$a 127 p. :
\$b ill. ;
\$c 19 cm.
Note: General 500 ## \$a "A Sports illustrated for kids
book."
Note: Summary 520 ## \$a Instructions for improving soccer
skills. Discusses dribbling, heading,
playmaking, defense, conditioning,
mental attitude, how to handle
problems with coaches, parents,
and other players, and the history
of soccer.
Subj: Topical 650 #0 \$a Soccer

Display of a catalog card



TITLE: Make the team. Soccer : a heads up guide to super soccer! / Richard J. Brenner.

ADDED TITLE: Heads up guide to super soccer

AUTHOR: Brenner, Richard J., 1941-

PUBLISHED: 1st ed. Boston : Little, Brown, c1990.

MATERIAL: 127 p. : ill. ; 19 cm.

NOTE: "A Sports illustrated for kids book."

NOTE: Instructions for improving soccer skills.
Discusses dribbling, heading, playmaking, defense, conditioning, mental attitude, how to handle problems with coaches, parents, and other players, and the history of soccer.

SUBJECT: Soccer--Juvenile literature.
Soccer.

Copies Available: GV943.25 .B74 199