

# 資訊組織簡介

(Organization of Information: A Brief Introduction)

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國家圖書館

資訊組織研習班

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# 大綱

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- 前言
- 資訊組織的意義
- 資訊組織之目的與目錄的功能
- 資訊組織與書目控制
- 資訊紀錄的意義
- 資訊組織的基本原則
- 資訊組織工作的內容與流程
- 資訊組織工作之相關規範

# 前言

目錄乃為圖書館員實務的中心，是  
圖書館學的要義。

-- Shera, J. H.著；鄭肇陞譯。圖書館學概論：圖書館服務的基本要素 (新竹：楓城，民75)，頁47。

# ALA Core Competences

- *ALA's Core Competences for Librarians, 2009*  
<http://www.ala.org/educationcareers/sites/ala.org.educationcareers/files/content/careers/corecomp/corecompetences/finalcorecompstat09.pdf>
- 其中第三項 Organization of Recorded Knowledge and Information 是與資訊組織有關的核心能力，包括：
  - 3A. The **principles** involved in the organization and representation of recorded knowledge and information.
  - 3B. The **developmental, descriptive, and evaluative skills** needed to organize recorded knowledge and information resources.
  - 3C. The **systems** of cataloging, metadata, indexing, and classification standards and **methods** used to organize recorded knowledge and information

# ALCTS's Core Competencies

- Association for Library Collections and Technical Services (ALCTS) 於2017年公布 *Core Competencies for Cataloging and Metadata Professional Librarians* (<https://alair.ala.org/bitstream/handle/11213/7853/Core%20Competencies%20Cataloging%20Metadata%20Professional.pdf?sequence=1&isAllowed=y>) 具體指出資訊組織專業人員所需的三種核心能力：
- 1) Knowledge competencies
  - 2) Skill and ability competencies
  - 3) Behavioral competencies

# 資訊組織的核心能力包括？

- ALCTS所列的behavioral competencies涉及個人的人格特質與態度，此處暫且不論。
- 綜合ALA與ALCTS的敘述，那些**知識與技能**是資訊組織專業人員基本上應具備的呢？大致可歸納為：
  - ✓ 掌握資訊組織的理論與基本原則
  - ✓ 認識各種相關規範與標準並能有效運用
  - ✓ 熟悉作業流程及相關系統之操作
  - ✓ 注意趨勢及技術的發展並能適時調整因應與創新



資訊組織的知識與技能為何被視為圖書資訊專業的核心能力呢？



資訊組織與人類知識記憶之保存與利用有何關係？

# 資訊組織與人類社會 (1)

- ▶ 人類的知識記憶與傳承，依賴大腦、依賴口傳。
- ▶ 文字產生後，人類的大腦功能有了外部延伸。
- ▶ 書籍產生後，書籍成為保存社會記憶、傳遞人類知識的主要媒介。
- ▶ 從文字到書籍再到圖書館，人類的知識記憶方式開始有了腦外記憶工具，由這種工具製成的儲存腦外記憶的裝置，再由這種裝置組成的腦外記憶的社會大腦。

Source: 王子舟。 圖書館學是什麼（北京：北京大學出版社，2008），頁4-5, 240-243。



## 資訊組織與人類社會(2)

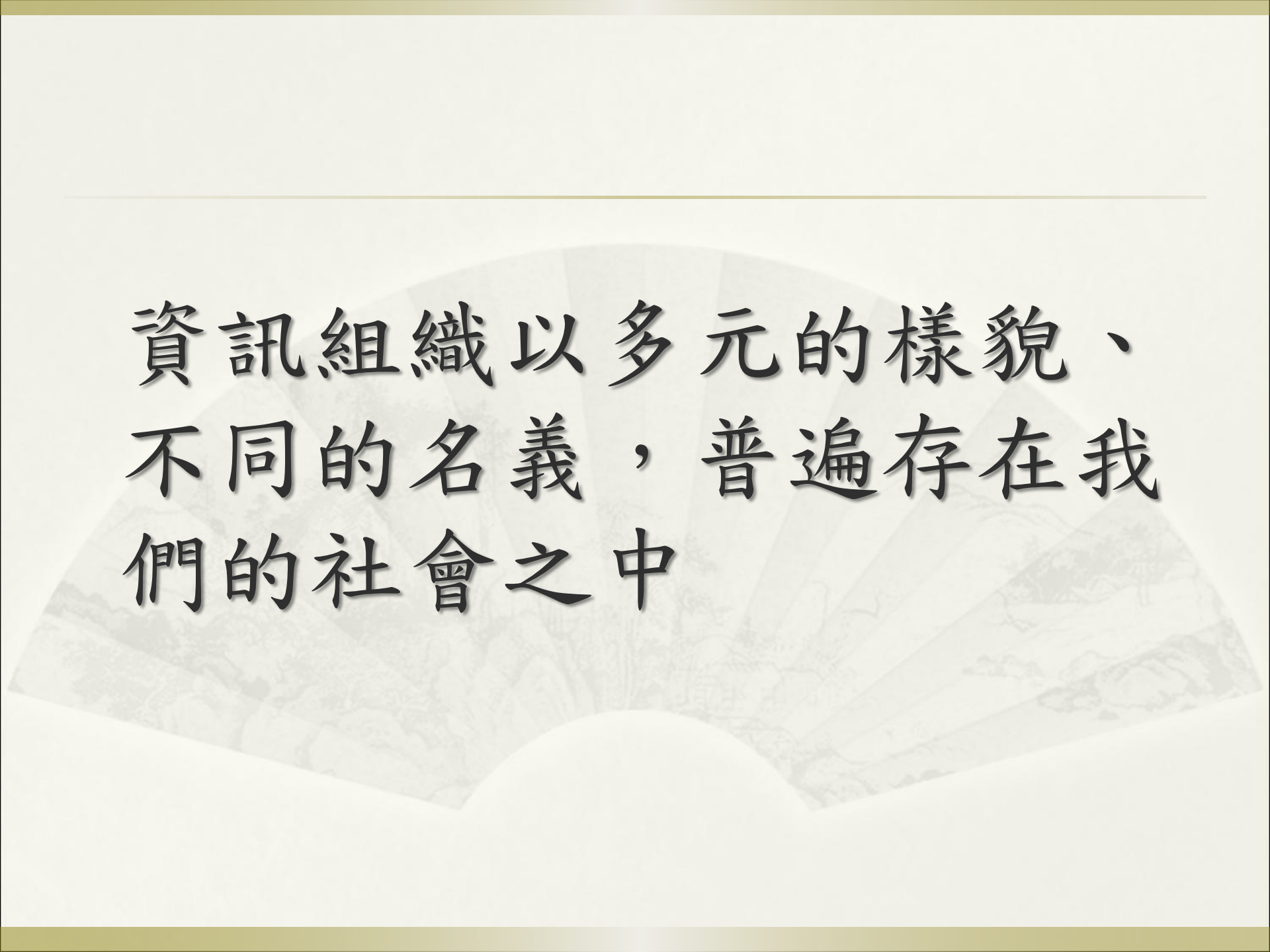
Karl Popper在其 *Objective Knowledge: An Evolutionary Approach* (New York : Oxford University Press, 1979) 一書中指出：

- 物質世界（世界1）
- 精神世界（世界2）
- 文化世界——客觀知識世界（世界3）（詳見該書第三章）
  - ✓ 主觀知識是存於個人腦中的知識
  - ✓ 客觀知識是寫或印於載體上的陳述性知識
  - ✓ 客觀知識靠載體記錄，不會隨個人生命結束
  - ✓ 客觀知識在傳播上，可超越時間與空間之限制
  - ✓ 主觀知識是私人的，客觀知識是公眾的、社會的

# 資訊組織與人類社會(3)

- Scholars generally agree that **the activity of knowledge organization is indispensable to society and its informational mediated forms of social organization.**  
(Source: Andersen, J., & Skouvig, L. (2006). Knowledge organization: A sociohistorical analysis and critique. *Library Quarterly*, 76(3), p. 302.)
- 社會如何獲得知識，而知識又如何影響社會環境？這個問題，是有關圖書館員在社會上所扮演的角色以及圖書館為社會公器的核心問題。
- **圖書館員是秩序與關係的能手**，關係使一本書不僅僅是一本書，而是選來與其他書籍共同締造一個圖書館。.....最好的書也建造不了圖書館，除非他們集在一起而成為一個整體。

(Source: Shera, J. H. 著；鄭肇陞譯。《圖書館學概論：圖書館服務的基本要素》(新竹：楓城，民75)，頁38-9，43。)



資訊組織以多元的樣貌、  
不同的名義，普遍存在我  
們的社會之中

# 資訊組織工作非圖書館所獨佔

- No one collection will contain all information or all documentary forms. There are **many environments** in which there is a desire to organize information so that it will be retrievable for various purposes and so that at least some of it will be kept for posterity.
- For example: libraries, archives, museums and art galleries, the Internet, digital libraries, etc.

For a detailed discussion, see: Joudrey, D. N., & Taylor, A. G. *The organization of information*, 4th ed. (Santa Barbara, Calif.: Libraries Unlimited, 2018), pp. 12-52.

# 資訊組織工作產出的多樣化

多元的資料類型、多元的作業與組織方式、多元的機構，產生多樣化的查詢工具，如：

- Bibliographies (e.g., [敦煌學研究論著目錄](#))
  - ✓ Pathfinders (see [ipl2 pathfinders](#))
- Catalogs (e.g., OCLC [World Cat](#), [NBINet](#) )
- Indexes (e.g., [台灣期刊論文索引系統](#))
- Finding aids (see [LC example](#), [Univ. of Illinois Archives](#))
- Registers (see [Association of Museum Directors--Object Registry](#))
- Search engines and directories (e.g., [Google](#), [Bing](#), [Internet Public Library](#), etc.)
- Folksonomies (e.g., [LibraryThing](#), [flickr](#), [Diigo](#), etc.)

See also: Joudrey, D. N., & Taylor, A. G. *The organization of information*, 4th ed. (Santa Barbara, Calif.: Libraries Unlimited, 2018), Chap. 3.

Folksonomy. In *Wikipedia, The free encyclopedia*. Retrieved from <https://en.wikipedia.org/w/index.php?title=Folksonomy&oldid=728608997>



# 資訊組織的意義

# 「描述」的小練習



圖片來源：<https://tinasu1117.pixnet.net/blog/post/21602873>

# 請試著再想想下列情境

- 向他人介紹一位不在場的朋友
- PCHome網路商店如何讓買家認識商品
- 學校如何記錄學生的學籍資料
- 戶政機關如何管理每個人的戶政資料
- 監理所如何管理車籍
- 通訊錄所記錄的每個人的資訊
- 球鞋店如何記錄每一雙球鞋的資訊

生活中類似的例子似乎信手可得？

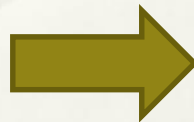


資訊組織的本質就是建立替代性紀錄

為物件(object)建立

替代性紀錄

(Surrogate / Representation)



Type: mug  
Color: white  
Text: I love Taiwan  
Price: NT\$333

...  
...  
...

# 替代性紀錄搭起友誼的橋樑



- 替代性紀錄猶如橋樑一般，在物件與有需求的使用者之間建立起連結
- 替代性紀錄是原物件的簡要呈現(condensed/compact representation) [例外：文物性資料可能考量不同]
- 透過替代性紀錄，協助使用者了解或認識原始物件的特性（重點在原物件）
- *Encyclopedia of Library and Information Science*, V.29有一篇 Charles L. Bernier所撰，專門討論surrogates的文獻，可參考。

# 資訊組織之基本概念 (1)

- 所謂**資訊組織**(organization of information)，是指為資訊記錄(recorded information)或資訊物件(information objects)建立替代性紀錄(surrogate record/representation)，並以**系統化的方式予以組織**，以幫助使用者能夠查詢、檢索、辨識、取得所需資料。
- **資訊組織**是指人類所有資訊紀錄的組織，包括文字印刷資料、影像資料、聲音資料、圖像資料、電子及網路資源，及不同的資訊物件。
- 傳統上，資訊組織被稱為圖書分類編目，但是圖書分類編目較偏重在圖書館館藏目錄的編製，而資訊組織的範圍相對較廣，包括各種資訊檢索工具的製作與研發，亦即除了傳統的圖書館目錄之外，還包含了書目、索引、摘要、及檔案查詢輔助(finding aids)等。
- 資訊組織就是一種書目控制 (bibliographic control)

詳見：陳和琴等。資訊組織 (台北市：國立空中大學，2003)，頁3。  
何光國。圖書資訊組織原理 (台北：三民，民79)，第五章。

## 資訊組織之基本概念 (2)

- The processes, practices, and activities of describing and representing information content and containers, as well as identifying the connections and relationships between and among information containers, content, and the people responsible for the creation and/or production of the information.
- These processes, practices, and activities serve information users by providing them with ways to **identify, locate, access, retrieve, and make judgments** about information in response to their information needs.

## 資訊組織之基本概念 (3)

- 資訊組織是藉由描述資訊物件 (information objects) 之載體 (media) 與內容 (information contents) ，建立代表原件之替代記錄 (surrogate / representation) ，並予以系統化的組織，建置成檢索工具，以幫助使用者依其資訊需求查詢、檢索、辨識、評估、及查知資料所在。
- 建立具辨識性的替代記錄與系統性的查詢機制，可說是資訊組織的兩項基本概念。

Source: 藍文欽(2012)。資訊組織。圖書館學與資訊科學大辭典。檢索自：  
<http://terms.naer.edu.tw/detail/1679206/>

# 資訊組織之基本概念 (4)

資訊組織的基本內涵主要包括：

➤ **Surrogate / Representation (Description)**

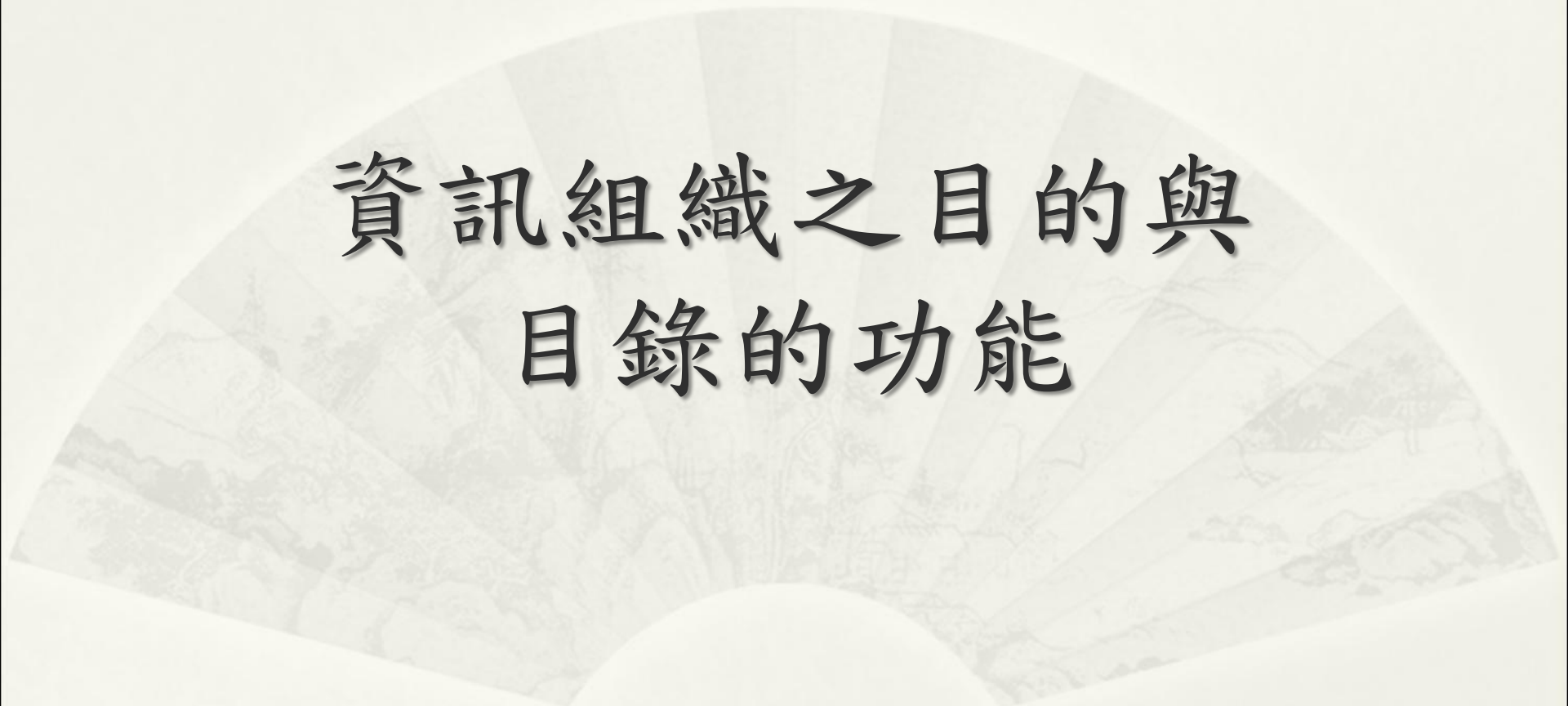
- ✓ 作為原物件的替代物，供人藉此認識原物件
- ✓ Information package (content, expression, medium)
- ✓ Physical features and contents

➤ **Systematic Arrangement (Order and Relationship)**

替代物需透過有系統的編排組織，以方便查詢

[如：通訊錄中的每筆資料要依據何種順序或方法排列組織，有關的資訊之間如何有效的串連起來]

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資訊組織之目的與  
目錄的功能

# 為何需要組織？

- 「夫經籍者，開物成務，垂教作程，聖哲之能事，帝王之達典。而去聖已久，開鑿遂多，苟不剖判條源，甄明科部，則先賢遺事，有卒代而不聞；大國經書，遂終年而空泯。使學者孤舟泳海，弱羽憑天，銜石填溟，倚杖追日，莫聞名目，豈詳家代，不亦勞乎？不亦弊乎？將使書千帙於掌眸，披萬函於年祀，覽錄而知旨，觀目而悉詞，經墳之精術盡探，聖哲之睿思咸識，不見古人之面，而見古人之心，以傳後來，不愈其已。」

Source: (唐)毋煚《古今書錄·序》(此文收入《舊唐書經籍志》序文，又收入《全唐文》卷373，題目為〈撰集四部經籍序略〉)



## 為何需要組織？(2)

- There seems to be **a basic human drive** organize. → People organize information every day, whether they realize it or not.
- **Human learning** is based upon the ability to analyze and organize data, information, and knowledge. → Psychologically, people organize information by concepts, hierarchies, and prototypes. (Cognition is categorization.)
- Organization of information also allows us **to keep usable records of human endeavors for posterity.**

Adapted from: Joudrey, D. N., & Taylor, A. G. *The organization of information*, 4th ed. (Santa Barbara, Calif.: Libraries Unlimited, 2018), p. 2.

# 為何需要組織？(3)

- In addition to the sheer pleasure of having everything in its place, we organize for more significant reasons. We organize to
  - ✓ *Understand*: Help us to make sense of many things in daily life
  - ✓ *Save time*: We organize to be quick and efficient
  - ✓ *Collocate*: To bring similar things or ideas together into groups
  - ✓ *Retrieve*: We organize because we need to retrieve.
- Efficient and effective retrieval of information is dependent upon its having been organized.
- We, information professionals, organize **for the benefit of other people.**

## 為何需要組織？(4)

- 組織是為了資訊的理解、聚集、與檢索。
- 替代紀錄是物件與使用者之間的橋樑，是使用者知道物件存在與否與認識評估原物件的憑藉。
- 資訊物件的替代記錄，若未經整理組織，只是一堆散亂的紀錄，效用不顯。
- 這些替代記錄必須依據某種原則（如作者、書名、分類號等）予以排列，變成系統化的組織，使用者才能依此線索按圖索驥。
- 由系統建構端言，這項原則指的是資料排列的依據；若從使用者端言，則是檢索或查詢的切入點（因此稱為檢索點 *access point*）。

# 目錄的功能(1)

According to the *Statement of International Cataloguing Principles*, 2016 edition, prepared by IFLA Cataloguing Section and IFLA Meetings of Experts on an International Cataloguing Code ([https://www.ifla.org/files/assets/cataloguing/icp/icp\\_2016-en.pdf](https://www.ifla.org/files/assets/cataloguing/icp/icp_2016-en.pdf)), the functions of the catalogs include:

- to **find** bibliographic resources in a collection as the result of a search using attributes or relationships of the entities
- to **identify** a bibliographic resource or an agent
- to **select** a bibliographic resource that is appropriate to the user's needs
- to **acquire** or **obtain** access to an item described
- to **navigate** and **explore**

## 目錄的功能(2)

- ▶ 書目編纂就是運用各種手段，將分散的一次文獻所含的知識、資訊，進行篩選、壓縮、整序，揭示其內容，著錄其外形特徵，進行科學的編排組織，使之轉化為有序的、可以傳遞的二次文獻。
- ▶ 書目的主要作用在於對文獻進行壓縮和整序，從而降低原文獲取的成本，節省讀者查找文獻的時間，提高一次文獻的傳遞速度和利用效率，促進科學資訊資源的公共獲取。
- ▶ 書目是文字和文獻出現以後才產生和發展起來的，文獻的大量積累是目錄產生的前提。文獻數量不斷地增長，……需要有一種聯繫文獻和讀者之間的媒介，來促進對人類社會長期積累起來的文獻資源的合理地 and 有效地利用，這一媒介就是目錄。

Source: 彭斐章主編。目錄學教程（北京：高等教育出版社，2004），頁1。

## 目錄的功能(3)

➤大抵而言，資訊組織的基本目標如下：

- ✓ 查詢與辨識
- ✓ 聚集 (Collocating)
- ✓ 評估與選擇
- ✓ 瀏覽 (Navigating)

➤ 資訊組織之主要目的，是將使用者與資源之間做有意義的連結，一方面讓使用者的資訊需求獲得滿足，節省使用者的時間；一方面讓資源組織化、系統化，而能被充分利用，發揮其效益。

Source: 張慧銖，資訊組織概論。在張慧銖等撰，資訊組織（臺北市：華藝學術，2017），頁7。

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# 資訊組織與書目控制

# 書目控制的意涵

- Bibliographic Control – The process of describing items in the bibliographic universe and then providing name, title, and subject access to the descriptions, resulting in records that serve as surrogates for the actual items of recorded information.
- Bibliographic control further requires that surrogate records be placed into retrieval systems where they act as **pointers** to the actual information package.

Source: Taylor, A. G. *Introduction to cataloging and classification*, 10th ed. (Westport: Libraries Unlimited, 2006), p. 527.



## 書目控制的意涵(2)

- Bibliographic Control – The operation or process by which recorded information is organized or arranged and thereby made readily retrievable.
- The term covers a range of bibliographic activities, including complete records of bibliographic items as published; standardization of bibliographic description; and provision of physical access through consortia, networks, or other cooperative endeavors.

Source: Chan, L. M., & Salaba, A. *Cataloging and classification: An introduction*, 4th ed. (Lanham, Maryland: Rowman & Littlefield Publisher), p. 742.

## 書目控制的意涵(3)

- ▶ 書目控制意指對於每本圖書、每份文獻、甚至每種書寫的思想、有聲資料的內容、存佚及所在等，均予以妥善的登錄與組織。目的在將人類各種溝通紀錄有系統的排列，以便管理、傳遞與利用。
- ▶ 書目控制是建立、儲存、操作與檢索資料的過程，蘊含兩個層面：
  - ✓ 描述層：將收藏資源經由編目、製作索引摘要等方式予以描述，以便能適切地指引
  - ✓ 探索層：是使用者導向，協助使用者由資源中探索挖掘出符合所需的資訊

Adapted from: 張慧銖，資訊組織概論，在張慧銖等撰，資訊組織（頁4），臺北市：華藝學術，2017。[參見：Wilson, Patrick. *Two Kinds of Power: An Essay on Bibliographical Control*. Berkeley, CA: University of California Press, 1968]

# 書目控制的意涵(4)

- 書目控制可視為一套系統或程序，其目的在管理所有的知識與創造性活動(intellectual and creative activity)的產出
- 藉由書目工具控管各種書寫形式或正式出版的資訊紀錄
- 從操作的觀點看，書目控制即是利用書目工具有效取用各種類型與形式的資訊紀錄
- **想想**：為何失去控制和未經(或欠缺)組織的資訊不再是一種資源(或可用的資源)？



# 資訊紀錄的意義

# 資訊紀錄的本質

- **Knowledge** exists in the mind of an individual who has studied a matter, understands it, and perhaps has added to it through research or other means.
- Information is the communication or reception of knowledge. Such communication occurs in great part through the recording of the knowledge in some fashion. It is **information** that can be placed into a scheme of organization from which it can be retrieved for study by those interested in increasing their knowledge of the subject.
- **Information is organized** (in an orderly, structured, and/or functional manner) – so that people can find it, read or otherwise absorb it, and use it to add to their own store of knowledge.

Adapted from: Joudrey, D. N., & Taylor, A. G. *The organization of information*, 4th ed. (Santa Barbara, Calif.: Libraries Unlimited, 2018), pp. 5-6.

# 資訊紀錄的本質(2)

## ➤ 資訊紀錄的三項要素：

### ◆ 訊息

- ✓ 訊息來源可分為：現象、經驗、理念
- ✓ 人是訊息的捕獲者與創造者
- ✓ 人藉五官感應、記憶、經驗、及推理以明瞭訊息

### ◆ 表達媒體（訊息的傳遞方法與工具，如：口語、文字、圖像、二進位編碼）

### ◆ 載體（泛指用來貯存和保留人類感覺、思想、理念、經驗的一切物體）

- ## ➤ 凡利用表達媒體將五官所獲的直覺感應、思想、理念、及經驗等訊息紀錄於載體中者，通稱為**資訊紀錄**。

# 資訊紀錄的本質(3)

- 文獻是指以文字、符號、圖形、聲頻、視頻等技術手段記錄的各種信息的總稱。
- 現代文獻是由四個要素構成：文獻信息、符號系統、文獻載體、記錄方式。
  - ✓ **文獻信息**是文獻的內容，是以文字、符號、聲頻信號、視頻信號作為編碼的人類精神訊息。(content)
  - ✓ **符號系統**是指圖畫、文字、公式、圖表、編碼、聲像和電磁信息等，是信息的攜帶者。(symbol)
  - ✓ **載體**是符號賴以依附的寄主，文獻載體必須適應於文獻符號和相應的記錄方式，同時又要有利於傳播、整理和長期的保存。(media)
  - ✓ **記錄方式**是指將表達的符號系統，通過特定的人工記錄方式使其附著於一定的文獻載體上，是代表文獻的符號進入載體的方法和過程。(recording process) [按：某些時候，抄本與印本需要區別]

# 資訊紀錄的本質(4)

- Physical Object – 如何藉由有限的項目以有效的代表或呈現該物件（項目之充分且必要性）
  - Identification information
    - ✓ Paratext (typically include a cover, title, front matter (dedication, opening information, foreword), back matter (endpapers, colophon) footnotes, and many other materials not crafted by the author)
    - ✓ Content type (e.g., still image), Media type (e.g., video), Carrier type (e.g., videodisc, videocassette, etc.)
- Subject Matter – 如何呈現該物件的主題內容 → content information





# 資訊組織的基本原則

# 資訊組織基本原則

- **Bring together** human beings and recorded knowledge in as **fruitful** a relationship as it is humanly possible to be

Source: Shera, J. H. *Sociological foundation of librarianship* (New York: Asia Publishing House, 1970), p. 34.

## 資訊組織基本原則 (2)

S.R. Ranganathan之圖書館五律，亦可做為資訊組織的指導原則：

- Books are for use
- Every reader his book
- Every book its reader
- Save the time of the reader
- Library is a growing organism

(詳見Ranganathan, S. R. *Prolegomena to library classification*, 3rd ed. (Bombay: Asia Publishing House, 1967), Part D.

# 資訊組織基本原則 (3)

- Principle of user convenience
  - ✓ Principle of common usage
- Principle of representation
  - ✓ Principle of accuracy
- Principle of sufficiency and necessity
  - ✓ Principle of significance
- Principle of standardization
- Principle of integration

Source: Svenonius, E. *The intellectual foundation of information organization* (Cambridge: MIT Press, 2001), Chap. 5.

# 資訊組織基本原則 (4)

The *Statement of International Cataloguing Principles*, [2016 edition](#) (以下簡稱ICP-2016)第二節 General Principles 指出：

- The following principles direct the construction and development of cataloguing codes, the decisions that cataloguers make and policies on access to and exchange of data.
- **The convenience of the user is the most important**, while principles 2.2 through 2.13 are in no particular order. If there is a conflict among principles 2.2-2.13, the principle of **interoperability** should be rated higher than others.

# 資訊組織基本原則 (5)

## ICP-2016 General Principles

- Convenience of the user
- Common usage
- Representation
- Accuracy
- Sufficiency and necessity
- Significance
- Economy
- Consistency and standardization
- Integration
- Interoperability
- Openness
- Accessibility
- Rationality



# 資訊組織工作的 主要內容與流程

# 資訊組織的主要內容

以 Chan, L. M., & Salaba, A. *Cataloging and classification: An introduction*, 4th ed. (Lanham, Maryland: Rowman & Littlefield Publisher) 為例：

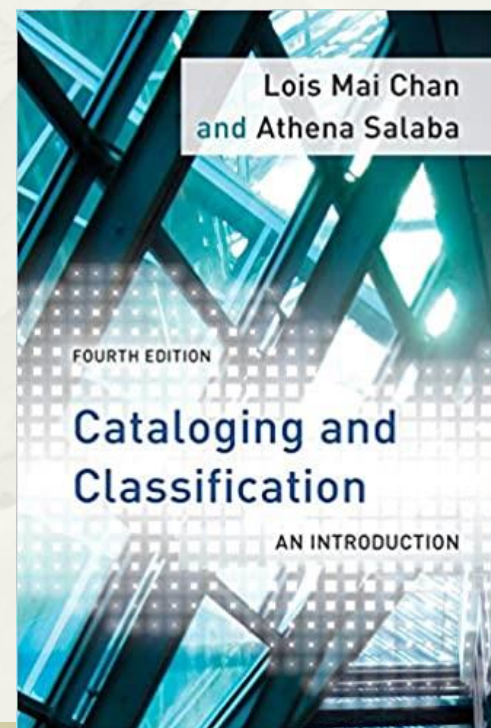
- Information resource management : description, access, organization
- Foundations, principles, conceptual models, and standards of resource description
- Records and encoding schemas
- Metadata schemas
- RDA and its foundations
- RDA : identifying manifestations and items
- RDA : identifying works and expressions
- RDA : identifying persons, families, and corporate bodies
- RDA : recording relationships



## 資訊組織的主要內容 (2)

Chan, L. M., & Salaba, A. (cont.) :

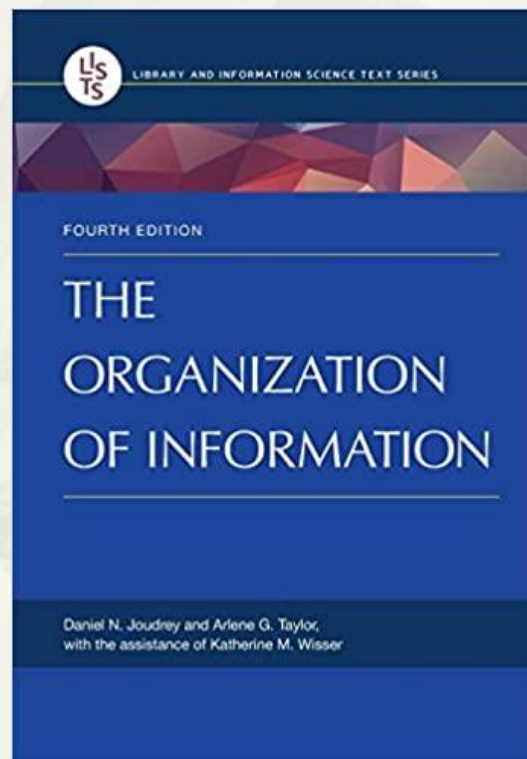
- Principles of controlled vocabularies and subject analysis
- Library of Congress subject headings
- FAST (Faceted Application of Subject Terminology)
- Sears list of subject headings
- Medical subject headings
- Classification and categorization
- Dewey decimal classification
- Library of Congress classification
- National Library of Medicine classification and other modern classification schemes



# 資訊組織的主要內容 (3)

以 Joudrey, D. N., & Taylor, A. G. *The organization of information*, 4th ed. (Santa Barbara, Calif.: Libraries Unlimited, 2018) 為例：

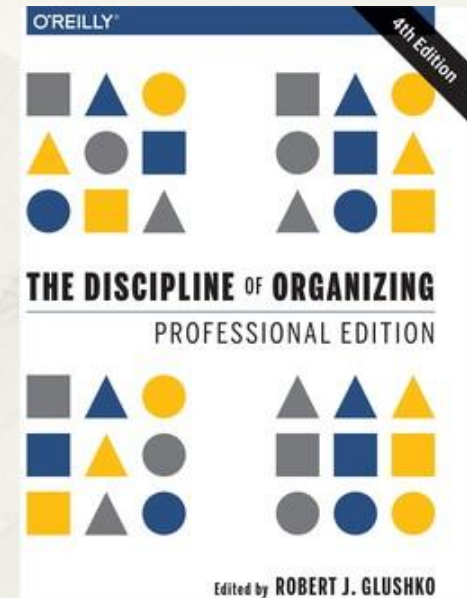
- Organization of recorded information
- Development of the organization of recorded information in western civilization
- Retrieval tools
- Systems and system design
- Introduction to metadata
- Encoding standards
- Resource description
- Access and authority control
- Subject analysis
- Systems for vocabulary control
- Systems for categorization



# 資訊組織的主要內容 (4)

以 Glushko, R. J. (Ed.). *The Discipline of Organizing: Professional Edition*, 4th ed. (Beijing: O'Reilly Media, 2016) 為例：  
(下載網址：<https://ischools.org/Discipline-of-Organizing>)

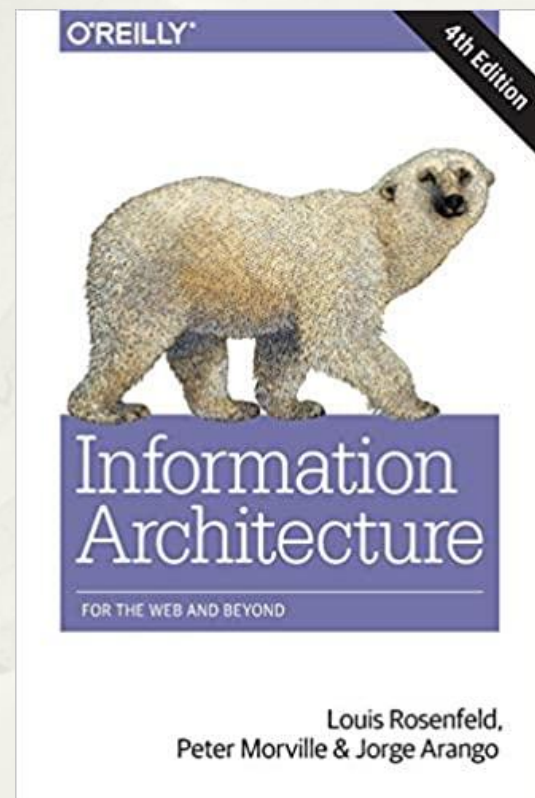
- Foundations for Organizing Systems
- Design Decisions in Organizing Systems
- Activities in Organizing Systems
- Resources in Organizing Systems
- Resource Description and Metadata
- Describing Relationships and Structures
- Categorization: Describing Resource Classes and Types
- Classification: Assigning Resources to Categories
- The Forms of Resource Descriptions
- Interactions with Resources
- The Organizing System Roadmap



# 資訊組織的主要內容 (5)

以 Rosenfeld, L., Morville, P., & Arango, J. *Information architecture: For the Web and beyond*, 4th ed. (Sebastopol, CA: O'Reilly Media, 2015) 為例：

- The problems that information architecture addresses
- Defining information architecture
- Design for finding
- Design for understanding
- The anatomy of an information architecture
- Organization systems
- Labeling systems
- Navigation systems
- Search systems
- Thesauri, controlled vocabularies, and metadata
- Research
- Strategy
- Design and documentation.



# 資訊組織的主要內容 (6)

Rosenfeld, L., Morville, P., & Arango, J. *Information architecture: For the Web and beyond* 提出

five principles of information architecture:

- Organization Systems
- Labeling Systems
- Navigation Systems
- Search Systems
- Metadata Systems

# Surrogate Production

The surrogate production process consists of three distinct but related operations:

- *Description* refers to the preparation of a surrogate or a brief representation containing essential elements of the original resources.
- *Access-point provision* refers to designating selected element in the representation which the user can as means to gain entry to the representation.
- *Organization* refers to the method of arranging both surrogates and physical resources.
- These operations are carried out in accordance with **established standards**.

# Surrogate Production(2)

The major activities involved in organizing recorded information include:

- Identifying the existence of all types of information resources as they are made available
- Identifying the works contained within those resources
- Systematically pulling together these resources into collections
- Producing lists of these information resources prepared according to standard rules for citation
- Providing name, title, subject, and other useful access to these information resources
- Providing the means of locating a resource

# 編目工作流程

圖書館編目部門的主要工作，可概分為下列三項：

- 編目前查核：檢查是否為複本書？查詢是否有現成書目紀錄可供抄錄編目參考？
- 分類編目：
  - ✓ 分類編目過程通常始於記述編目（圖書資源的描述與檢索點的擇定），繼之主題分析（分析圖書資源的主題，轉換為分類號及標題），而權威控制則涉及兩者。
  - ✓ 索書號之核對與完成
  - ✓ 編碼（encoding）
- 處理加工，如：列印書標、貼書標、貼書標護膜、條碼列印黏貼、貼安全詞條等（各館工作內容或有出入）
- 詳細言之，包括：資料點收、確認急件及複本、線上編目建檔、核對索書號、審核及修正書目紀錄、列印書標及各項報表、加工、移送閱覽組



## 編目工作流程(2)

Several distinct cataloging procedures are part of preparing an individual bibliographic record for a library:

- *resource description*, the preparation of bibliographic descriptions and the determination of access points;
- *subject analysis*, identifying and representing the subject matter of the original object;
- *classification*, the assignment of call number;
- *authority work*, the determination of the standardized forms of subject terms and names.
- *MARC taggin (Code encoding)* – In an automated environment, the cataloger must supply the codes and other information needed for computer processing (for example, *MARC*). 以下依此五項目概述之。

For details see: Chan, L. M., & Salaba, A. Cataloging and classification: An introduction, 4th ed. (Lanham, Maryland: Rowman & Littlefield Publisher), p. 28-31.

# 編目工作流程(4a) -

## Resource Description 資源描述

- Resource description, also called descriptive cataloging, refers to the process and the product of presenting in a record, drawn up according to established standards, **the essential facts concerning an information item.**
- The resulting record in turn **serves as the surrogate** in the file or catalog for the full item itself.
- The purpose of resource description is **to tell what the resource is**, in enough detail to distinguish it from other items.
- Different **levels** of description are appropriate to different situations. (如：中國編目規則提出簡單、標準、詳細三層次)
- The sorts of information needed in descriptions vary according to what is being cataloged.

Source: Chan, L. M., & Salaba, A. *Cataloging and classification: An introduction*, 4th ed. (Lanham, Maryland: Rowman & Littlefield Publisher), pp. 21, 29.

# 編目工作流程(4b) – Resource Description

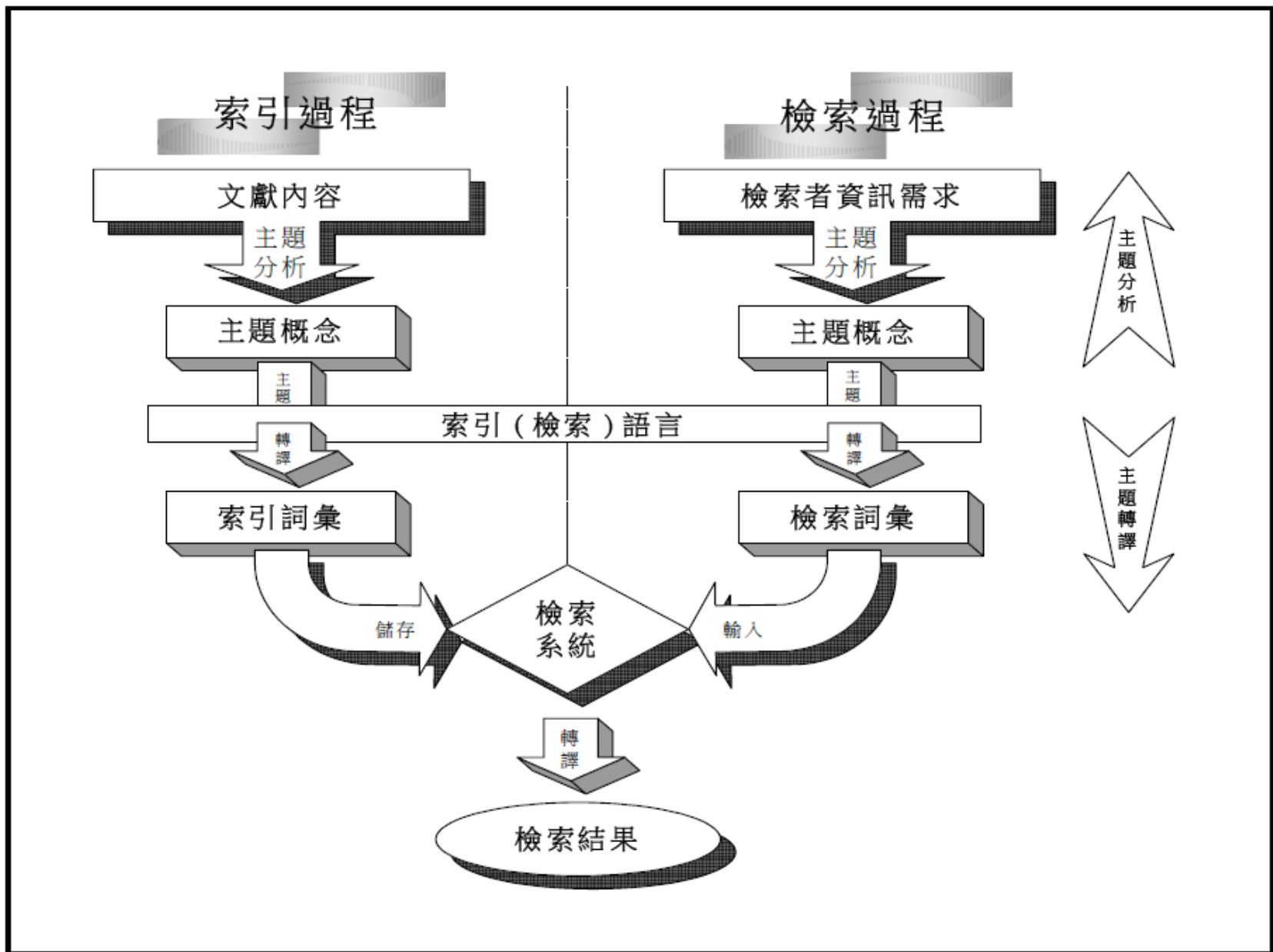
- To aid retrieval in surrogate-based databases, the record elements that are most frequently used by users to identify resources have traditionally been designated as **access points** → deciding what elements in the description should be the basis for access points, and including relationships linking to other entities; and determining the proper form for the names and titles selected as authorized access points.
- Typical access points include subject terms and non-subject elements such as the title, the name of the author(s), editor(s), translator(s), etc.
- To ensure consistency, *standards* concerning the designation or assignment of access points are followed.

Source: Chan, L. M., & Salaba, A. *Cataloging and classification: An introduction*, 4th ed. (Lanham, Maryland: Rowman & Littlefield Publisher), pp. 22, 29.

# 編目工作流程(5a) – Subject Analysis 主題分析

- Subject Analysis: The part of indexing or cataloging that deals with the **conceptual analysis** of an information package; **translating** that conceptual analysis into a framework for a particular classification, subject heading, or indexing system; and then using the framework to assign specific notations or terminology to the information package and its surrogate record. (參見圖例)

Source: Taylor, A. G. (2006). *Introduction to cataloging and classification*, 10th ed. (Westport, Conn.: Libraries Unlimited), p.545.



# 編目工作流程(5b) – Subject Analysis 主題分析

- For each bibliographic record, appropriate **subject headings** representing the “aboutness” of a resource’s intellectual content are chosen from an authorized list (e.g., 中文主題詞表、國會圖書館標題表、Sears Subject Heading ).
- Traditionally, subject headings have been assigned from authorized lists only.
- In online catalogs, subject terms not derived from an authorized list are sometimes assigned to augment, or to take the place of, the authorized terms → Tagging & Folksonomy.

Source: Chan, L. M., & Salaba, A. *Cataloging and classification: An introduction*, 4th ed. (Lanham, Maryland: Rowman & Littlefield Publisher), p. 29.

# 編目工作流程(6) –

## Classification 分類 [亦可視為主題分析工作]

- Classification requires fitting the primary topic of a work to the provisions of whatever classification scheme is being used (e.g., 中文圖書分類法、杜威十進分類法、國會圖書館分類法等).
- After the appropriate class number has been chosen, an **item number** is added to form a call number. This too is done according to standard patterns, somewhat different for each system.
- The act of classifying also calls for adjusting the numbers indicated in the standards to fit the new item into the shelf array of existing items in each collection.

Source: Chan, L. M., & Salaba, A. *Cataloging and classification: An introduction*, 4th ed. (Lanham, Maryland: Rowman & Littlefield Publisher), p. 29.

# 中文圖書分類法—圖書資訊學

## 圖書資訊學 Library & information science 檔案學 Archive management

總  
類

- 020 圖書資訊學總論 Library and information science : general
- .1 理論
    - 圖書館哲學入此
    - .1611 圖書館與讀者
    - .1652 圖書館與教育
    - .1654 圖書館與大眾傳播
    - .29 圖書館自動化
  - .3 教育
  - .32 學校
  - .6 圖書資訊機構
  - .64 圖書資訊學會
    - 依世界區域及分國表複分
    - .641 國際
      - 國際圖書館協會聯盟 (IFLA) 入此
    - .642 中國
      - 中華圖書館協會入此
    - .6433 臺灣
      - 中華民國圖書館學會、中華圖書資訊學教育學會入此
- 021 圖書館建築 Library building ; 圖書館設備 Library equipment
- .1 圖書館建築與設計
  - .3 圖書館設備
    - 補助設備及傢俱入此
  - .4 書庫 ; 書架
- 021.5 閱覽室 ; 閱覽設備
- .6 管理部門各室
  - .7 照明設備 ; 空調設備
  - .8 自動化設備
  - .9 圖書館用品
- 022 圖書館管理 Library management
- 同：圖書館行政
  - .1 組織
  - .2 經費
  - .3 法規
    - 依世界區域及分國表複分
  - .4 圖書館與政府 ; 圖書館與國際機構
  - .45 國際出版品交換
  - .48 出版品呈繳制度
    - 同：圖書呈繳制度
  - .5 董事會 ; 委員會
  - .6 人員
  - .61 館長
  - .67 薪水
  - .7 圖書館統計
  - .8 圖書館評鑑
    - 館藏評鑑入023.29
  - .9 館規 ; 閱覽規則
    - 借書規則入此
- 023 圖書館業務 Library affairs
- 館藏發展入此



# 編目工作流程(7a) – Authority Control 權威控制

- Why authority control? → 語彙有同形異義 (homograph, homonym) 與同義異詞 (synonym) 的現象，所以需要經過標準化 (standardization) 或正規化 (normalization) 的處理。
- One of the objects of a catalog is to **collocate** all works by a given author or on a given subject under the same access point. The mechanism for achieving this *gathering function* is authority control (or access control).

(詳見：Chan, L. M. *Cataloging and classification: An introduction*, 3rd ed. (Lanham, MD: Scarecrow Press, 2007), Chap. 6.

# 編目工作流程(7b) – Authority Control

- Authority work entails a **procedure** that spans both descriptive and subject cataloging.
- In order to fulfill the objective of the catalog as a tool for retrieving all works by a given author or all works on a given subject, the access points to bibliographic records are **normalized** and **standardized**.
- To this end, each author's name or each subject's name is "established" when used for the first time, and the decision is recorded in a record called the authority record.
- To allow access through variant names and different forms of a name or a subject, **cross-references** to a given heading are provided in the catalog and also recorded in the authority record for that heading.

# 編目工作流程(7c) – Authority Control

- Authority control: The result of the process of **maintaining consistency in the verbal form** used to represent an access point and the further process of showing the relationships among names, works, and subjects—all for the purpose of **collocation**; also, the result of the process of doing authority work with or without the necessity of choosing one form of name or title or one subject term to be the authorized selection.

# 編目工作流程(7d) – Authority Control


- Authority work: The **process** of determining and maintaining the form of a name, title, or subject concept to be used in creating access points. In the *name and title areas*, the process includes identifying all variant names or titles and relating the variants to the name or title forms chosen to be access points. In the *verbal subject area*, the process includes identifying and maintaining relationships among terms—relationships such as synonyms, broader terms, narrower terms, and related terms.

# 編目工作流程(7e) – Authority Control

- 權威控制的目的，在提昇標目之一致性與減少歧異，讓詞彙與概念間有明確的對應關係
- 在日常語言當中，書名、人名、地名、主題等均可能出現同形異義與同義異形，這會造成使用者查找資料的困擾
- 針對同義異形，選定其中之一作為代表，其餘則與代表詞建立連結，成為檢索時的線索，如：以紅樓夢作為石頭記、金玉緣、風月寶鑑等異稱之代表
- 針對同形異義，則為每個詞彙用圓括弧加上限定詞（qualifier），框限其對應的意義範圍，如：竹圍（桃園市）、竹圍（新北市）

# 臺灣書目整合查詢系統

## 蘇軾之權威紀錄

主要名稱  蘇軾

其他名稱 Su, Shi ; E-mei-hsien-sheng ; Tung-p'o ; Tung-p'o-chü-shih ; Tzu-chan ; Tzu-p'ing ; Wen-chung ; 子平 ; Ziping ; 子瞻 ; Zizhan ; 文忠 ; Wenzhong ; 東坡 ; Dongpo ; 東坡居士 ; Dongpojushi ; 峨眉先生 ; Emeixiansheng ; Su, Ch'ang-kung ; Su, He-chung ; Su, Tung-p'o ; Su, Tzu-chan ; Su, Wen-chung-kung ; 蘇子瞻 ; SuZizhan ; 蘇文忠公 ; SuWenzhonggong ; 蘇和仲 ; SuHezhong ; 蘇東坡 ; SuDongpo ; 蘇長公 ; SuChanggong ; Su, Shih ; 和仲 ; Hezhong ; Hezhog ; 蘇子 ; 鐵冠道人 ; 眉山公 ; 蘇翰林 ; 蘇徐州 ; 東坡老 ; 東坡病叟 ; 東坡翁 ; 老泉山人 ; 戒和尚 ; 玉局老 ; 眉陽居士 ; 雪浪齋 ; 無邪公 ; 仇池翁 ; 毗陵先生 ; 泉南老人 ; 水東老人 ; 東坡道人 ; 海上道人 ; 蘇仙 ; 坡仙 ; 東坡老人 ; 東坡公 ; 坡 ; 坡公 ; 坡老 ; 坡翁 ; 老坡 ; 大坡 ; 蘇賢良 ; 蘇太史 ; 蘇內翰 ; 蘇學士 ; 蘇端明 ; 蘇禮部 ; 蘇密州 ; 蘇湖州 ; 蘇黃州 ; 蘇惠州 ; 蘇副使 ; 蘇眉山 ; 蘇眉州

生-卒年 1036-11010824

學經歷

學經歷 Education/Work Experience	開始年代 Start date	結束年代 End date	類別 Category
仁宗嘉祐二年進士	1056		考試證照
禮部尚書			經歷

資料來源 有关苏轼称谓的三个问题-语文在线  
苏轼称谓考略  
宋人傳記資料索引. 民77:冊5面4312.

Source:

<http://metadata.ncl.edu.tw/blstkmc/blstkmc?00047C39AB360802000000000000400A000000040000000000^AC000207208#tudorkmtop>

# LC Authority File

## Laozi (老子)之權威紀錄

LC control no.: n 80044882

LCCN Permalink: <https://lccn.loc.gov/n80044882>

HEADING: Laozi

000 02548cz a2200805n 450

001 4229986

005 20150828073754.0

008 800415nc azannaabn |b aaa

010 \_\_ |a n 80044882

035 \_\_ |a (OCoLC)oca00426866

040 \_\_ |a DLC |b eng |e rda |c DLC |d DLC |d NjP |d DLC |d DLC-R |d NjP |d DLC |d OCoLC |d DLC |d OCoLC |d DLC-R |d SG-SiLA |d OCoLC |d HKUST |d InU |d HU

100 0\_ |a Laozi

400 0\_ |w mne |a Lao-tzu

400 0\_ |a Lao Dan

400 1\_ |a Li, Er

400 1\_ |a Zu, Lao

400 1\_ |a Zi, Lao

400 0\_ |a Lauze

400 0\_ |a Lau-Tsze

400 0\_ |a Laou Keun

400 0\_ |a Lao-Tse

400 0\_ |a Lao-Chün

400 0\_ |a Laou-Tsze

400 0\_ |a Laudse

400 0\_ |a Lao-Tze

400 0\_ |a Laotzu

400 0\_ |a Laotzu

Source: <https://authorities.loc.gov/cgi-bin/Pwebrecon.cgi?AuthRecID=4229986&v1=1&HC=1&SEQ=20180816045958&PID=45QZHInUiUQgL3GbNj0l9crVIF-eN>

# 編目工作流程(7f) -

## Authority Control → Identity Management

- VIAF (Virtual International Authority File) -- <http://viaf.org/>
- International Standard Name Identifier (ISNI) -- <http://www.isni.org/>
- OCLC WorldCat Identities -- <http://worldcat.org/identities/>
- ORCID -- <http://about.orcid.org/>
- Library of Congress. Linked Data Services -- <http://id.loc.gov/>
- 國家圖書館鏈結資源-- <http://catld.ncl.edu.tw/>
- Getty Vocabularies as LOD -- [https://www.getty.edu/research/tools/vocabularies/Linked\\_Data\\_Getty\\_Vocabularies.pdf](https://www.getty.edu/research/tools/vocabularies/Linked_Data_Getty_Vocabularies.pdf)



# 編目工作流程(8a) – Encoding編碼

- 編碼，簡言之，就是將資料項目以特定格式呈現，或是指將資料由一種格式轉換為另一格式的程序，例如：將書目資料以機讀格式（MARC）著錄
- The marking of the individual parts or elements of a record according to specific schemas to enable computer manipulation of the parts or elements for display and retrieval.

Source: Chan, L. M., & Salaba, A. *Cataloging and classification: An introduction*, 4th ed. ( Lanham, Maryland: Rowman & Littlefield Publisher, 2016), p.746.

# 編目工作流程(8b) – Encoding

- Using a record syntax or a coding scheme to make bibliographic records electronically accessible.
- Encoding ensures that bibliographic record is **structured logically** and that it may be communicated, shared, and displayed easily.
- Encoding entails the setting off of each part of a record so that (1) each of the parts can be identified clearly; (2) the parts or statements may be displayed in certain positions according to the wishes of those creating a display mechanism; and (3) certain parts of a record can be searchable.

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# 資訊組織工作之相關規範

# 資訊組織工作的相關標準

- 若是個人試圖組織整理自己的物件，可以採用任何他認為合適的方法來處理。
- 當資訊組織工作涉及到機構及公眾使用時，為了讓作業有一致性，採用某種作業規範與標準工具或有其必要。
- 圖書館的資訊組織工作，一般是遵照或依據既定的（established）標準來進行。
- 圖書館資訊組織工作，簡言之，即學習如何運用相關的規範與標準，完成圖書館資源的surrogate與systematic arrangement。

# 資訊組織工作的相關標準(2) - 實例

- Conceptual Models ([IFLA LRM](#))
- International Standard Bibliographic Description ([ISBD](#))
- Cataloging rules / Metadata schemes ([中國編目規則](#), [Resource Description and Access](#), [Dublin Core](#))
- Classification schemes([中文圖書分類法](#), [DDC](#), [LC Classification](#), [LCC PDF Files](#))
- Subject heading lists ([Library of Congress Subject Headings](#), [LCSH PDF Files](#), [MeSH](#))
- MARC (Machine Readable Cataloging) and other format ([中國機讀編目格式](#), [MARC21](#), [MARC 21書目紀錄中文手冊：圖書、連續出版品 \(修訂版\)](#), [BIBFRAME](#) )

# 資訊組織工作的相關標準(3) - 實例

- Authority files ([LC Authority](#), 臺灣書目整合查詢系統 [人名權威進階查詢](#)、中研院史語所 [人名權威資料庫](#))
- Filing rules (e.g., LC Filing Rules [G100](#))
- Guidelines (e.g., [Guidelines for Subject Access in National Bibliographies](#), [Guidelines for Authority Records and References](#) )
- Cataloging manuals / interpretations (中國編目規則第三版使用手冊, [RDA中文手冊初稿](#), LC Rules Interpretation ([LCRI](#)), LC Descriptive Cataloging Manual ([DCM](#)), LC Subject Headings Manual ([SHM](#)), LC Classification and Shelving Manual ([CSM](#)))

# IFLA Library Reference Model (LRM)

參見陳和琴教授簡報：[http://www.lac.org.tw/files/ifla-lrmjian\\_jie\\_.pdf](http://www.lac.org.tw/files/ifla-lrmjian_jie_.pdf)

- IFLA LRM is a high-level conceptual reference model developed within an entity-relationship modelling framework. It is the consolidation of the separately developed IFLA conceptual models: FRBR, FRAD, FRSAD.
- IFLA LRM was developed to resolve inconsistencies between the three separate models. Every user task, entity, attribute and relationship from the original three models was examined, definitions had to be revised, but also some remodeling was required in order to develop a meaningful consolidation. The result is a single, streamlined, and logically consistent model that covers all aspects of bibliographic data and that at the same time brings the modelling up-to-date with current conceptual modelling practices. (source: <https://www.ifla.org/publications/node/11412>)

# 國際標準書目著錄(ISBD)

- 國際標準書目著錄 (ISBD) 是由IFLA編訂的書目記述規範，旨在作為書目記述的共通架構與標準。
- ISBD主要在界定書目記述的項目、它們的出現次序、及呈述方式 (標點符號)。
- 以ISBD(G)為基礎，針對不同的資料類型，原各有其適用的ISBD規範，如：ISBD(M)、ISBD(S)、ISBD(NBM)、ISBD(PM)、ISBD(ER)等，但最新的*International Standard Bibliographic Description - Consolidated Edition*，則將各種類型的資源 (books, maps, serials, sound recordings, computer files and other electronic resources, etc.) 整合成單一格式。

(詳見 [http://www.ifla.org/files/assets/cataloguing/isbd/isbd-cons\\_20110321.pdf](http://www.ifla.org/files/assets/cataloguing/isbd/isbd-cons_20110321.pdf)  
<http://www.ifla.org/publications/international-standard-bibliographic-description>)



# ISBD Consolidated Edition

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- [ISBD: International Standard Bibliographic Description - Consolidated Edition](#)

Munich: K.G. Saur, 2007.

The ISBD Consolidated Edition merges the texts of seven specialized ISBDs (for books, maps, serials, sound recordings, computer files and other electronic resources, etc.) into a single text.

[http://www.ifla.org/files/assets/cataloguing/isbd/isbd-cons\\_20110321.pdf](http://www.ifla.org/files/assets/cataloguing/isbd/isbd-cons_20110321.pdf)

- Superseded ISBDs =

<http://www.ifla.org/en/isbd-rg/superseded-isbd-s>

# 編目規則 (Cataloging Rules or Codes)

- 編目規則是圖書館從事書目記述的準據，它確立了書目記錄的著錄項目、次序、與格式。
- 目的：
  1. To provide consistency within a single library
  2. To provide consistency between libraries
  3. To reduce time involved in cataloging
  4. To provide ease of use for library users using more than one library
  5. To ensure that the purposes of the catalog are achieved

## 編目規則 (2)

- 以中國編目規則與AACR2R為例，其著錄項目與次序如下：
  - (1) 題名及著者敘述項 (Title and statement of responsibility)
  - (2) 版本項 (Edition)
  - (3) 資料特殊細節項 (Material specific details)
  - (4) 出版項 (Imprint / Publication, distribution, etc.)
  - (5) 稽核項 (Collation / Physical description)
  - (6) 集叢項 (Series)
  - (7) 附註項 (Note)
  - (8) 標準號碼及其他必要記載項 (Standard number and terms of availability)

# RDA Toolkit

(<http://www.rdatoolkit.org>)



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Steering Committee



April 2020 Beta RDA Toolkit Release

By [jhennelly](#)   [April 27, 2020 - 20:31](#)   [Posted in: News & Information](#)

# Metadata 詮釋資料

- 依據Jane Greenberg的定義：“Metadata is structured data about an object that supports functions associated with the designated object”

Source: Greenberg, J. (2002). Metadata and the World Wide Web. Encyclopedia of Library and Information Science, V.72, p. 245.

- Metadata schema通常是一組結構化的項目(elements)，用以描述另一物件。這些項目會有其特定的名稱，用以代表或呈示物件的某一特徵（attribute, characteristic, or facet）。
- 有些Metadata系統會包括這些項目呈現的次序(ordering)、內容規則、相關的字彙控制工具(controlled vocabulary)、及語法(syntax)等。

# Metadata Schemas (舉隅)

## 網路資源 (Web resources)

- Dublin Core Metadata Initiative (DCMI) – <http://www.dublincore.org>
  - ◆ 2001年9月10日經ANSI核可，成為ANSI/NISO Z39.85-2001。
  - ◆ 2003年4月8日經ISO核可，成為ISO 15836。
  - ◆ 國家圖書館編，詮釋資料格式規範  
[http://catweb.ncl.edu.tw/flysheet\\_admin/new\\_file\\_download.php?Pact=FileDownload&Pval=387](http://catweb.ncl.edu.tw/flysheet_admin/new_file_download.php?Pact=FileDownload&Pval=387)

# Metadata Schemas (舉隅) (2)

- 國家圖書館Metadata研究小組編撰。中文詮釋資料 (Metadata) 格式彙編 (台北市：國家圖書館，民89)
- 中研院後設資料工作組參考規範  
<http://metadata.teldap.tw/standard/standard-frame.html>
- Encoded Archival Description (EAD) -  
<http://lcweb.loc.gov/ead/>
- Categories for the Description of Works of Art (CDWA) -  
<http://www.getty.edu/research/institute/standards/cdwa/>
- VRA (Visual Resources Association) Core 4.0  
<http://www.loc.gov/standards/vracore/>      <http://core.vraweb.org>
- ONIX (ONline Information eXchange) -  
<http://www.editeur.org/8/ONIX/>
- SCORM (Sharable Content Object Reference Models)  
<http://www.scormsoft.com/scorm>

# Systems of Knowledge Organization

According to Gail Hodge (2000), there are three types of knowledge organization systems (KOS):

## **Term Lists**

- Authority files
- Glossaries
- Dictionaries
- Gazetteers

## **Classification and Categories**

- Subject headings
- Classification schemes, taxonomies, and category schemes

## **Relationship Lists**

- Thesauri
- Semantic Networks
- Ontology

Source: *Systems of knowledge organization for digital libraries: Beyond traditional authority files.*

(<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.33.593&rep=rep1&type=pdf> )



# 圖書館普遍採用的KOS

- **Classification scheme** – A list of classes arranged according to a set of pre-established principles for the purpose of organizing items in a collection, or entries in an index, bibliography, or catalog, into groups based on their similarities and differences, to facilitate access and retrieval. Classification systems can be enumerative or hierarchical, broad or close.

Source: *Online Dictionary for Library and Information Science* [http://lu.com/odlis/odlis\\_b.cfm](http://lu.com/odlis/odlis_b.cfm)

- **Subject heading list** – A list of authorized controlled vocabulary terms or phrases together with any references, scope notes, and subdivisions associated with each term or phrase.

Source: Arlene G. Taylor. *Introduction to Cataloging and Classification*, 10th ed. (Westport: Libraries Unlimited, 2006), p. 545.

- **Thesauri** – 索引典的性質與標題表類似，但標題表含括的主題較廣泛，索引典則以特定主題為主。標題表多應用於圖書館，索引典則多應用於資料庫系統

# What Is Classification? (1)

- Classification, broadly defined, is **the act of organizing the universe of knowledge into some systematic order**. It has been considered the most fundamental activity of the human mind. The essential act of classification is **the multistage process of deciding on a property or characteristic of interest**, distinguishing things or objects that possess that property from those which lack it, and grouping things or objects that have the property or characteristic in common into a class. Other essential aspects of classification are **establishing relationships among classes** and making distinctions within classes to arrive at subclasses and finer divisions.

# What Is Classification? (2)

- 分類就是依照Object的性質、用途、或特徵等作為分別異同的標準，再據以將符合同一標準的Object歸在一處，不同的則加以分開。
- 符合同一標準的Object構成一個群組(group)或類別(class or category)。
- 將群組或類別依其關連性組織成系統化的結構，就是分類系統(classification system/ scheme)。
- 分類不僅將物件歸類，同時也將物件納入一個有組織的架構之中，使物件間產生脈絡化的關聯。透過分類，不僅顯示物件的內容性質，也呈現物件間的關係。

# 分類表（Classification Scheme）

- 分類不能憑空進行，作為分類依據的工具，就是所謂的分類表或類目表或類表（classification table or classification table）。
- 分類表是分類體系的具體表現，是由許多類目依一定的原則組織起來的一個體系。
- 國內圖書館普遍採用之分類系統：
  - 中文圖書分類法
  - 中國圖書十進分類法
  - Dewey Decimal Classification (DDC)
  - Library of Congress Classification (LCC)

# Subject Vocabularies (1)

- 分類透過體系將資料系統化的組織起來，但對分類架構不熟悉的話，使用上就有困難。
- 主題詞彙就是採用詞語表達主題概念，可以較直觀的方式查詢資料，亦可藉此將特定主題的資料聚集。
- 分類著重結構，主題詞彙則以個別概念為單元，而且是以詞語表示，不需轉換為分類系統的標記。
- 主題詞彙常見的形式有：標題(subject heading)、單元詞(unit term)、敘述詞(descriptor)、及關鍵字(keyword)

# Subject Vocabularies (2)

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- Library catalogs and other retrieval systems provide a subject approach to the records in their systems through access points based on the subject content of the documents.
- Most libraries usually assume a controlled vocabulary approach. In this case, specific words or phrases designated as subject index terms are assigned to each bibliographic record, each term normally represents only one subject, and a given subject is normally represented by only one term.

# Subject Vocabularies(3)

- 圖書館通常採用標題法，如同分類藉分類表達到一致的效用，標題(subject heading)亦有標題表(subject heading list)作為規範。
- **Subject heading**: a term or phrase used in a subject heading list to represent a concept, event, or name
- **Subject heading list** – A list of authorized controlled vocabulary terms or phrases together with any references, scope notes, and subdivisions associated with each term or phrase.

Source: Taylor, A. G. (2006). *Introduction to cataloging and classification*, 10th ed. (Westport: Libraries Unlimited), p. 545.

# Subject Vocabularies(4)

- 國內圖書館常用的標題表有：
  - [中文主題詞表](#)
  - Library of Congress Subject Headings [[簡介](#)]  
(已收入LC之Classification Web)
    - PDF Version (40th ed.)  
<https://www.loc.gov/aba/publications/FreeLCSH/freelcsh.html>
  - Sears List of Subject Headings [[簡介](#)] [[FAQ](#)]  
(19th ed. 2007 [PDF](#))



# Subject Vocabularies (5)

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➤ 醫學圖書館：

➤ Medical Subject Headings (MeSH)

<https://www.nlm.nih.gov/mesh/meshhome.html>

➤ Thesauri (examples)

➤ Art & Architecture Thesaurus (AAT)

➤ Thesaurus of ERIC Descriptors

➤ AGROVOC

# 機讀編目格式 (Machine Readable Cataloging)

- 機讀編目格式(MARC)是書目記錄的container。
- MARC藉著代碼及特定結構格式將書目記錄儲存於電腦硬碟或磁帶中，透過專用程式電腦得以識別與檢索這些記錄，並輸出所需的目錄格式。
- MARC亦是系統間交換及傳輸書目資料的通用記錄格式。
- MARC的主要結構：記錄標示(Leader)、指引(Directory)、書目資料登錄欄(Data field)。

# 機讀編目格式實例

The screenshot shows a web browser window with a menu bar (檔案, 編輯, 檢視, 我的最愛, 工具, 說明) and a toolbar (上一頁, 搜尋, 我的最愛, 媒體). The address bar shows the URL: [http://140.112.113.1/search\\*chi/a{215f23}{215f52}{21553c}/a{215f23}](http://140.112.113.1/search*chi/a{215f23}{215f52}{21553c}/a{215f23}). The main content area displays a MARC record with the following fields:

001	80054051
005	19960510183352.0
010	0 95787082461b平裝1d新臺幣500元
020	tw1b85003257
100	1996
100	19960402d1996 y0chiy09 e
101	0 chi
102	tw
105	y a 001yy
200	1 圖書館與網路資源1f陳雪華著
205	初版
210	臺北市1c文華圖書館管理1d民85[1996]
215	0 436面1d21公分
320	參考書目:面295-334
320	含索引
606	圖書館資訊網12csh
606	網際網路12csh
681	028
700	1 陳1b雪華
801	0 tw1bNCL1c19951009
801	1 tw1bNCL1c19951009
801	2 tw1bTUL1c19960619
805	TUL1d0281e75141bCF1c18874091fSYS1bAL1c18891941fCYW

The status bar at the bottom shows the Internet Explorer logo and the text "網際網路".

# MARC 21 Example

000 01343cam a2200325 a 4500  
001 14833150  
005 20080604171437.0  
008 070503s2007 mdua b 001 0 eng  
906 \_\_ |a 7 |b cbc |c orignew |d 1 |e ecip |f 20 |g y-gencatlg  
925 0\_ |a acquire |b 2 shelf copies |x policy default  
955 \_\_ |a lh44 2007-05-03 |i lh44 2007-05-03 |e lh44 2007-05-03 to CIP (Dewey complete) |a ps12 2008-03-11 1 copy rec'd., to CIP ver. |f ld11 2008-03-13 Z-CipVer |g ld11 2008-03-13 to BCCD |a ld11 2008-06-04 copy 2 to BCCD  
010 \_\_ |a 2007018729  
020 \_\_ |a 9780810859449 (alk. paper)  
020 \_\_ |a 9780810860001 (pbk. : alk. paper)  
020 \_\_ |a 0810859440 (alk. paper)  
020 \_\_ |a 0810860007 (pbk. : alk. paper)  
035 \_\_ |a (OCoLC)ocn124031949  
035 \_\_ |a (OCoLC)124031949  
040 \_\_ |a DLC |c DLC |d BAKER |d BTCTA |d C#P |d YDXCP |d MUQ |d DLC  
050 00 |a Z693.5.U6 |b C48 2007  
082 00 |a 025.3 |2 22  
100 1\_ |a Chan, Lois Mai.  
245 10 |a Cataloging and classification : |b an introduction / |c Lois Mai Chan ; with the assistance of Theodora L. Hodges.  
250 \_\_ |a 3rd ed.  
260 \_\_ |a Lanham, Md. : |b Scarecrow Press, |c 2007.  
300 \_\_ |a xix, 580 p. : |b ill. ; |c 23 cm.  
504 \_\_ |a Includes bibliographical references (p. 553-565) and index.  
650 \_0 |a Cataloging |z United States.  
650 \_0 |a Classification |x Books.  
700 1\_ |a Hodges, Theodora, |d 1922-

# BIBFRAME

- BIBFRAME Initiative is the foundation for the future of bibliographic description that happens on the web and in the networked world.
- It is designed to integrate with and engage in the wider information community and still serve the very specific needs of libraries.
- As an initiative, it is investigating all aspects of bibliographic description, data creation, and data exchange. In addition to replacing the MARC format, this includes accommodating different content models and cataloging rules, exploring new methods of data entry, and evaluating current exchange protocols.
- the BIBFRAME Model relies heavily on relationships between resources. It manages this by using controlled identifiers for things (people, places, languages, etc).
- BIBFRAME training at LC:  
<http://www.loc.gov/catworkshop/bibframe/>

# BIBFRAME → BIBFRAME 2.0

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- In short, the BIBFRAME Model is the library community's formal **entry point for becoming part of a much larger web of data**, where the links between things are paramount.
- When the BIBFRAME project was initiated in 2012, it was called simply BIBFRAME. Based on that experience, it was concluded that the vocabulary required redevelopment. The **BIBFRAME 2.0** vocabulary replaces the original one.

Source: BIBFRAME FAQ <http://www.loc.gov/bibframe/faqs/>

# MARC vs. Bibframe

## MARC

```
01035cam a2200325 a 4500
001 5226
005 20081223095049.0
008 940817s1983 nyua j 000 1 eng
010 $a 82060878
020 $a0394856309
035 $9(DLC) 82060878
040 $aDLC$cDLC$dDLC
042 $alcac
050 00 $aPZ7.F598295$bSn 1993
082 00 $a[E]$220
100 1 $aFlanagan, Terry.
245 10 $aSnoopy on wheels /$c[designed by Terry Flanagan].
260 $a[New York] :$bRandom House,$cc1983.
300 $a1 v. (unpaged) :$bcol. ill. ;$c88 mm.
490 0 $aA chunky book
500 $a"Based on the Charles M. Schulz characters"--P. 4 of
cover.
500 $aOn board pages.
650 0 $aMiniature books$vSpecimens.
650 1 $aWheels$vFiction.
650 1 $aDogs$vFiction.
650 1 $aMiniature books.
```

## BIBFRAME (Turtle)

```
@prefix bf: <http://id.loc.gov/ontologies/bibframe/> .
@prefix bflc: <http://id.loc.gov/ontologies/bflc/> .
@prefix madsrdf: <http://www.loc.gov/mads/rdf/v1#> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix xml: <http://www.w3.org/XML/1998/namespace> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .
@prefix zs: <http://docs.oasis-open.org/ns/search-ws/sruResponse> .

<http://bibframe.example.org/5226#Item050-12> a bf:Item ;
    bf:itemOf <http://bibframe.example.org/5226#Instance> ;
    bf:shelfMark [ a bf:ShelfMarkLcc ;
        rdfs:label "PZ7.F598295 Sn 1993" ;
        bf:source <http://id.loc.gov/vocabulary/organizations/dlc> ] .

<http://bibframe.example.org/5226#Topic650-22> a bf:Topic,
    madsrdf:ComplexSubject ;
    rdfs:label "Wheels--Fiction." ;
    bf:source [ a bf:Source ;
        bf:code "lcsnac" ] ;
    madsrdf:authoritativeLabel "Wheels--Fiction." ;
    madsrdf:componentList ( [ a madsrdf:Topic ;
```


Source: <http://id.loc.gov/tools/bibframe/compare-id/full-rdf?find=5226>

# 入門教科書

- 陳和琴等編著(2003)。 資訊組織。蘆洲：空大。
- 張慧銖等(2016)。 主題分析。新北市：華藝學術。
- 張慧銖等(2017)。 資訊組織。新北市：華藝學術。
- Chan, L. M. (2007). *Cataloging and classification: An introduction* (3rd ed.). Lanham, MD.: Scarecrow Press. [編目規範是AACR2]
- Chan, L. M., & Salaba, A. (2016). *Cataloging and classification: An introduction* (4th ed.). Lanham, Maryland: Rowman & Littlefield. [編目規範是RDA]
- Glushko, R. J. (Ed.). (2016). *The discipline of organizing: Professional edition* (4th ed). Beijing: O'Reilly Media.
- Joudrey, D. N., Taylor, A. G., & Miller, D. P. (2015). *Introduction to cataloging and classification* (11th ed.). Santa Barbara, California: Libraries Unlimited. [編目規範是RDA]
- Joudrey, D. N., & Taylor, A. G. (2018). *The organization of information* (4th ed.). Santa Barbara, Calif.: Libraries Unlimited.
- Taylor, A. G. (2006). *Introduction to cataloging and classification* (10th ed.). Englewood, Colo.: Libraries Unlimited. [編目規範是AACR2]



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