

The Complexity of Entity Management

Why Human Judgement Still Matters

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Overview

- Entity creation
- Entity management and disambiguation
- CJK NACO Funnel
- Examples
- Closing thoughts



Entity creation

High-quality entity creation and management is

- Complex
- Intellectually demanding
- Dependent on human judgment
- Intricate and time consuming
- Essential for meaningful discovery and access to cultural resources



Why do this work?

Intentional, well-researched entity work

- Ensures the creator gets the proper credit for their work
- Enhances discovery
- Supports the preservation of cultural memory
- Provides accurate representation of diverse and underrepresented entities

Entity work strengthens the global infrastructure that connects people, histories, and collections

Entity management

- Entity management is a process that standardizes entities, for example personal names, to provide uniformed access to resources
- Standardized entities are maintained in authority files such as LCNAF (Library of Congress Name Authority File), VIAF (The Virtual International Authority File), ISNI (International Standard Name Identifier), OCLC's WorldCat Entities, or Wikidata



Authorities



Entity management in LCNAF

The Library of Congress Name Authority File provides authoritative, standardized records for names of persons, organizations, events, places, and titles

- A personal name is established by determining the preferred name for the person (as per RDA cataloguing rules)
- A name authority record (NARs) includes:
 - Authorized heading
 - Alternate forms of the name, including other languages
 - May have details about pseudonyms
 - May have a brief biographical note
 - Source of information

Entity management in LCNAF

- Each entity is assigned a unique identifier
- Each record may include identifiers from other schemes

Smith, J. D. (John Derek), 1924-2003

URI(s)

- <http://id.loc.gov/authorities/names/n79101452> 

Variants

- Smith, John Derek, 1924-2003

Identifies LC/NAF Real World Object (RWO)

- <http://id.loc.gov/rwo/agents/n79101452> 

Identifies Real World Object (RWO)

- <https://isni.org/isni/0000000032412529> 

Exact Matching Concepts from Other Schemes

- <http://viaf.org/en/viaf/LC%7Cn%20%2079101452> 

Closely Matching Concepts from Other Schemes

-  [John Derek Smith](#)   *Label from public data source Wikidata*
-  [Smith, J D](#) 
-  [Smith, J D \(John Derek\), 1924-2003](#) 

<https://id.loc.gov/authorities/names/n79101452.html>

Entity disambiguation

Ways to distinguish between names that are the same or similar:

- Date of birth
- Date of death
- Title or rank
- Profession or occupation
- Fuller form of name
- Period of activity

Example:

Smith, J. D. (John Derek), 1924-2003

Entity disambiguation

How to find additional identifying information:

- Look for details in the resource
- Do supplementary research such as consulting other publications, institutional websites, publishers' sites, or Wikipedia
- If possible, email the author (last resort!)

CJK NACO Funnel

- The Chinese-Japanese-Korean Name Authority Cooperative Program (CJK NACO) Funnel is part of the Program for Cooperative Cataloging (PCC) NACO initiative
- Members contribute CJK name authority records to the Library of Congress Name Authority File (LCNAF), enhancing standardized access to East Asian materials
- This Funnel provides training and support for establishing consistent and high-quality CJK authorities

Examples

Human judgment is important for entity management, especially in entity identification, name disambiguation, and BFM (Bibliographic File Maintenance)

1. Entity identification

黃寬先 / 黃文甫 / Wong Foon Sien

Name in CCBA collection (Chinese Consolidated Benevolent Association)



黃寬先 / 黃文甫 / Wong Foon Sien

100	1		Wong, Foon Sien, 卅d 1899-1971
400	1		Wong, Mun Poo, 卅d 1899-1971
400	0		Foon Sien, 卅d 1899-1971
400	1		Foon, Sien, 卅d 1899-1971
400	1		Sien, Foon, 卅d 1899-1971
400	1		Huang, Foon-Sien, 卅d 1899-1971
400	1		Sien, Wong Foon, 卅d 1899-1971
400	1		Huang, Wenfu, 卅d 1899-1971
400	1		黃文甫, 卅d 1899-1971
400	1		Huang, Kuanxian, 卅d 1899-1971
400	1		黃寬先, 卅d 1899-1971

Other examples related to local Chinese history

Chinese Public School (Victoria, B.C.) -- 域多利華僑公立學校

Lee's Benevolent Association of Canada -- 全加李氏總公所

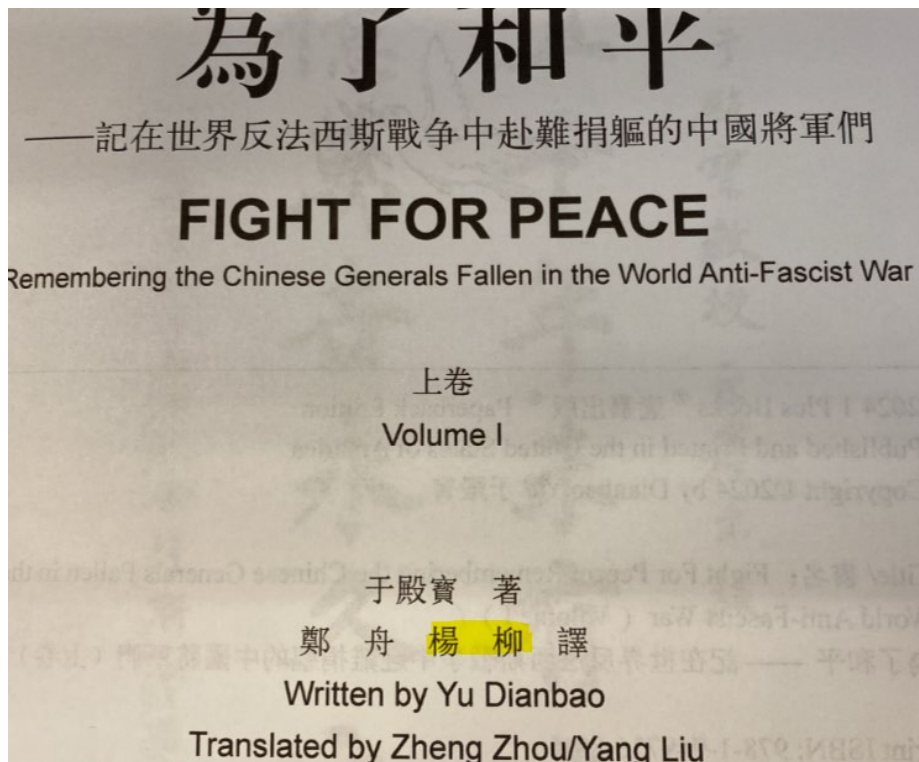
Hoy Sun Ning Young Benevolent Association -- 台山寧陽總會館

Chinese Consolidated Benevolent Association (Victoria, B.C.) -- 域多利中華會館

Wong, Kileasa Che Wan -- 吳紫雲

Lee, Mong Kow, 1863-1924 -- 李夢九 (Lee Mong Kow Way)

2. Name disambiguation - Example 1:



楊柳

杨柳, ‡d 1923-1992

杨柳, ‡d 1959-

杨柳, ‡d 1961-

杨柳, ‡d 1977-

杨柳, ‡d 1983-

杨柳, ‡c (Professor of foreign languages)

杨柳 ‡c (Editor at Ren min wen xue chu ban she)

杨柳 ‡c (Law teacher)

杨柳 ‡c (Senior editor of Yangcheng wan bao)

杨柳 ‡c (Writer on Dao de jing)

杨柳 ‡c (Writer on translation)

楊柳 ‡c (Writer on translation)

2. Name disambiguation - Example 2:

In OCLC Connexion, name duplicates are especially challenging for Chinese personal names because different Chinese characters may share the same romanized spelling.

For example: **Liu, Ying** (刘颖, 劉瑛, 柳瀛 or 刘莹)

Liu, Ying
Liu, Ying, ‡d 1905-
Liu, Ying, ‡d 1905-1942
Liu, Ying, ‡d 1905-2002
Liu, Ying, ‡d 1925-
Liu, Ying, ‡d 1927-
Liu, Ying, ‡d 1929-
Liu, Ying, ‡d 1959-
Liu, Ying, ‡d 1960-
Liu, Ying, ‡d 1961-
Liu, Ying, ‡d 1962-
Liu, Ying, ‡d 1962 Jan.-
Liu, Ying, ‡d 1962 January-
Liu, Ying, ‡d 1963-
Liu, Ying, ‡d 1965-
Liu, Ying, ‡d 1972-
Liu, Ying, ‡d 1973-
Liu, Ying, ‡d 1974-
Liu, Ying, ‡d 1976-
Liu, Ying, ‡d 1977-
Liu, Ying, ‡d 1978-
Liu, Ying, ‡d 1978 March-
Liu, Ying, ‡d 1979-
Liu, Ying, ‡d 1988-
Liu, Ying, ‡d active 2009

Liu, Ying ‡c (College teacher)
Liu, Ying ‡c (College teacher), ‡d 1972-
Liu, Ying ‡c (Computer scientist)
Liu, Ying ‡c (Diplomat)
Liu, Ying ‡c (Economist)
Liu, Ying, ‡d jin shi 1457
Liu, Ying ‡c (Law teacher)
Liu, Ying ‡c (Lawyer)
Liu, Ying ‡c (Librarian)
Liu, Ying ‡c (Of Guangdong Sheng fu you bao jian yuan)
Liu, Ying, ‡c (Of Zhongguo ren min da xue)
Liu, Ying ‡c (Professor of economics)
Liu, Ying ‡c (Professor of education)
Liu, Ying ‡c (Researcher in linguistics)
Liu, Ying ‡c (Translator)
Liu, Ying ‡c (Writer on Bijie Diqu)
Liu, Ying ‡c (Writer on law)
Liu, Ying ‡c (Writer on publishers and publishing)
Liu, Ying ‡c (Writer on real property)
Liu, Ying ‡c (Writer on Shanxi)
Liu, Ying ‡c (Writer on Sino-Japanese War)

The first record is
an
undifferentiated
record:

100	1	Liu, Ying
667		THIS 1XX FIELD CANNOT BE USED UNDER RDA UNTIL THIS UNDIFFERENTIATED RECORD HAS BEEN HANDLED FOLLOWING THE GUIDELINES
670		Nü tui chang, 1974 (a.e.) #b p. 1 (刘莹 = Liu Ying)
670		Her Wo ho wo ti hai tzu men, 1956: #b t.p. (柳莹 = Liu Ying)
670		His Ch'uan po ch'ai yu chi yüan li, 1980: #b t.p. (刘颖 = Liu Ying)
670		Li tai shih huo chih chin i, 1984: #b t.p. (刘莹 = Liu Ying)
670		Author's Yu erh chien k'ang chiao hsüeh yen chiu, 1987: #b t.p. (劉穎 = Liu Ying) pref. (a kindergarten teacher)
670		Hun yin, chia t'ing, fa lu, 1990: #b t.p. (刘英 = Liu Ying) introd. (at Han-tan)
670		Shan-hsi t'ung chih, 1990- : #b v. 1, t.p. (劉英 = Liu Ying)
670		Pin ch'eng feng lei, 1993: #b t.p. (刘影 = Liu Ying)
670		Sprache, Verstehen, und Übertragung, c1997: #b t.p. (Ying Liu) cover, p. 4 (M.A. from Univ. Beijing; studied at Univ. München)
670		Differentiation of glial cells from glial precursors, 2003: #b t.p. (Ying Liu)
670		Combinatorial box partitioning, box packing and their applications, 2003: #b t.p. (Ying Liu)
670		A spray of flower [SR] p1989: #b container (劉英 = Liu Ying)
670		Zhongguo wen xue xian dai zhuan xing de min su xue yu jing, 2007: #b t.p. (刘颖 = Liu Ying) front flap (b. 1973; Ph.D. in Folk lit.; date not added to this hdc another name authority: nb2002017593: Liu, Ying, 1973- for a different person)
670		Qi ye xing yong, 2010: #b t.p. (刘瑛 = Liu Ying) vita (doctor degree in law)
670		Advances of computational intelligence in industrial systems, c2008: #b t.p. (Ying Liu) t.p. verso (Dept. of Indust. and Systems Engineer., The Hong Kong P China, email: mfyliu@polyu.edu.hk)
670		Three essays on hypertension prevention and medical product safety in China and the United States, 2010: #b PDF t.p. (Ying Liu)
675		HKCAN database viewed Jun 5, 2012

Liu, Ying
Liu, Ying, ‡d 1905-
Liu, Ying, ‡d 1905-1942
Liu, Ying, ‡d 1905-2002
Liu, Ying, ‡d 1925-
Liu, Ying, ‡d 1927-
Liu, Ying, ‡d 1929-
Liu, Ying, ‡d 1959-
Liu, Ying, ‡d 1960-
Liu, Ying, ‡d 1961-
Liu, Ying, ‡d 1962-
Liu, Ying, ‡d 1962 Jan.-
Liu, Ying, ‡d 1962 January-
Liu, Ying, ‡d 1963-
Liu, Ying, ‡d 1965-
Liu, Ying, ‡d 1972-
Liu, Ying, ‡d 1973-
Liu, Ying, ‡d 1974-
Liu, Ying, ‡d 1976-
Liu, Ying, ‡d 1977-
Liu, Ying, ‡d 1978-
Liu, Ying, ‡d 1978 March-
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3. BFM (Bibliographic File Maintenance)

Authority-to-bibliographic synchronization keeps bibliographic records synchronized with authority records after an Authorized Access Point (AAP) is created or changed.

Example: 陈爱梅, scholars in Malaysia

- 陈爱梅 (AAP: **Tan, Ai Boay, 1977-**) ; research areas: Chinese history, Malaysia history, Chinese traditional religions, and Women's history
- 陈爱梅 (AAP: **Chen, Aimei**) ; her work covers a broad range of fields, including education, sociology, psychology, history, and Chinese-language studies.

The two bibliographic records highlighted in blue should be linked to **Tan, Ai Boay, 1977-**, not **Chen, Aimei.**

3		旅游学概论 / Lü you xue gai lun /	北京师范大学出版社, Bei jing shi fan ta xue chu ba...	2011
4		拿督公研究：史料与田野调查 = The studies... Na du gong yan jiu : shi liao yu tian ye diao ch...	拉曼大学出版社, Laman da xue chu ban she,	2024
5		拿督公研究：史料與田野調查 = The studies... Nadu Gong Yanjiu : Shi liao yu tian ye diao ch...	UTAR Press,	2024
6		南洋華蹤：马来西亚霹雳怡保岩洞庙宇史录... Nan yang Hua zong : Malaixiya Pili Yibao Yan...	中國社会科学出版社, Zhongguo she hui ke xue ch...	2017
7	陈爱梅. Chen, Aimei.	大马华小走向何方?：从董校风波看华小将... Da Ma Hua xiao zou xiang he fang? : cong do...	策略资讯与社会研究中心, Ce lue zi xun yu she hui yan...	2006
8	陈爱梅. Chen, Aimei.	佛教与民间信仰：分道与交汇初探 / Fo jiao yu min jian xin yang : fen dao yu jiao h...		2009
9	陈爱梅. Chen, Aimei.	巾幗建国：大马华人女性经济, 教育与政治... Jin guo jian guo : da ma hua ren nu xing jing ji,...		2009
10	陈爱梅. Chen, Aimei.	马来西亚私立高等教育：全球化, 私营化, 教... Ma lai xi ya si li gao deng jiao yu : quan qiu hu...	广西师范大学出版社, Guangxi Normal University...	2012
11	陈爱梅. Chen, Aimei.	性别角色与国族建构：华人女性社会与经济... Xing bei jue se yu guo zu jian gou : hua ren nu...		2009
12	陈爱梅, author. Tan, Ai Mei, author.	马来西亚私立高等教育：全球化, 私营化, 教... Malaixiya si li gao deng jiao yu : quan qiu hua,...	广西师范大学出版社, Guangxi shi fan da xue chu...	2012

Works by or edited by 冯国超

1		清史通鉴 / Qing shi tong jian /	光明日报出版社, Guang ming ri bao...	2002	D
2		中国青少年百科全书 = Zhongguo qing... Zhongguo qing shao nian bai ke quan...	光明日报, Guang ming ri bao,	2002	D
3		中国通史 : Zhong guo tong shi / Zhongguo tong shi : Zhong guo tong s...	光明日报出版社, Guang ming ri bao...	2002	D
4		中华成语故事 / Zhonghua cheng yu gu shi /	光明日报出版社, Guang ming ri bao...	2002	D
5		中华上下五千年 = Zhong Hua shang... Zhonghua shang xia wu qian nian = Z...	光明日报出版社, Guang ming ri bao...	2002	D
6		中华文明史 / Zhonghua wen ming shi /	光明日报出版社, Guang ming ri bao...	2002	D
7	冯国超. Feng, Guochao.	笠翁对韵 : 彩图版 / Liwenng dui yun : cai tu ban /	商务印书馆, Shang wu yin shu...	2015	D
8	冯国超. Feng, Guochao.	千字文 : 彩图版 / Qian zi wen : cai tu ban /	商务印书馆, Shang wu yin shu...	2015	D
9	冯国超. Feng, Guochao.	三字经 : 彩图版 / San zi jing : cai tu ban /	商务印书馆, Shang wu yin shu...	2015	D
10	冯国超, author. Feng, Guochao, author.	三字经 : 彩图典藏版 / San zi jing : cai tu dian cang ban /	商务印书馆, Shang wu yin shu...	2017	P
11	冯国超. Feng, Guochao.	图说论语 / Tu shuo Lun yu /	华夏出版社, Huaxia chu ban sh...	2007	P
12	冯国超. Feng, Guochao.	增广贤文 : 彩图版 / Zeng guang xian wen : cai tu ban /	商务印书馆, Shang wu yin shu...	2015	D
13	冯国超. Feng, Guochao.	中国传统体育 / Zhongguo chuan tong ti yu /	首都师范大学出... Shou du shi fan da...	2006	D
14	冯国超. Feng, Guochao.	周易 / Zhou yi /	商务印书馆, Shang wu yin shu...	2009	D
15	司馬遷, approximately 1... Sima, Qian, approximate...	圖解史記. 名臣錄 / Tu jie Shi ji. Ming chen lu /	好讀出版, Hao du chu ban,	2007	D

冯国超

馮國超

冯国超 ꎱc (Writer on sports)

Closing Thoughts

High-quality entity creation and management is

- Fundamentally complex
- Intellectually demanding
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