Indexing and Abstracting Introduction



Kuang-hua Chen
Department of Library and Information Science
National Taiwan University
khchen@ntu.edu.tw



Purpose

- The purpose of this course is to present the fundamentals of indexing and abstracting as a foundation for entry-level professional practice.
- Indexing and abstracting are practical arts
- What is important is the information in those records founded, and the validity and completeness of that information still relies on the expertise of human indexers and abstractors.
- Indexes and Abstracts have two general purposes
 - Minimize the time and effort
 - Maximize the searching success

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01



The Need for Indexes

- The function of an index is to give users systematic and effective shortcuts to the information they need
- Indexes are needed for any information collection, except the very smallest.

anguage & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01

3/20

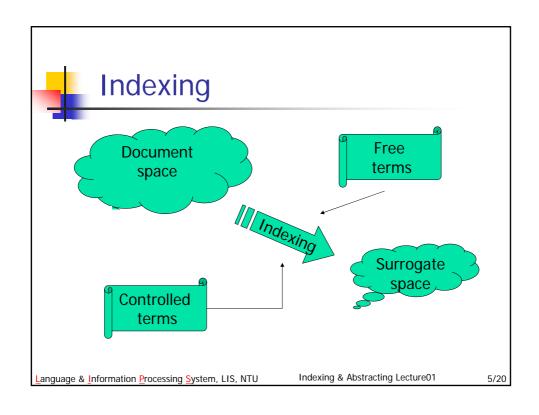


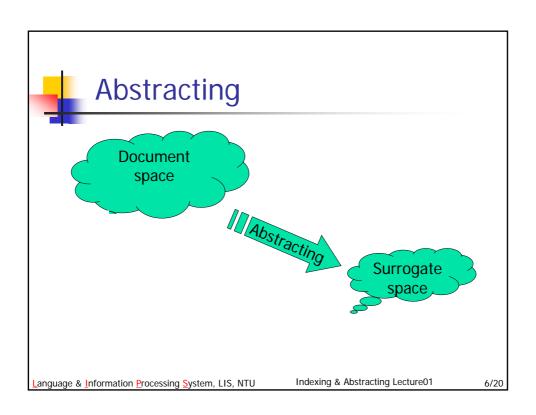
Dual Spaces

- Document space
 - Original documents
- Surrogate space
 - Indexes
 - Abstracts
- Indexing and abstracting are to ensure surrogate space similar to document space

anguage & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01







Nature of Indexes

- Come in many forms and formats
 - Printed
 - Electronic
 - Both
- Serve many purposes
 - Name indexes
 - Subject indexes
 - Map indexes
 - Artifacts indexes
 - Address indexes

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01

7/20



Nature of Indexes (continued)

- Surrogates of different materials
 - Books
 - Periodicals
 - Images
 - Database
 - Numerical data
- Compiled by
 - Human being
 - Computers
 - Both

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01



Makers of Indexes

- Being a good, fast reader is also a real plus for an indexer
- The good indexer becomes the surrogate of the reader
- Makers of indexes are also censors
 - Unrecognized bias
 - Prejudice

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01

9/20



Joseph Goebbels



Source: http://www.us-israel.org/jsource/Holocaust/goebbels.html

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01



Related Books

- 1878 Henry Wheately What Is an Index
- 1975 and 1976 Alan G. Brown

Volume 1 -

Introduction to Subject Indexing: A Programmed Text. Subject Analysis and Practical Classification.

Volume 2 -

Introduction to Subject Indexing: A Programmed Text. UDC and Chain Procedure in Subject Cataloguing.

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01

11/20



Related Books (continued)

- 1975 Harold Borko and Charles Bernier Abstracting Concepts and Methods
- 1978 Harold Borko and Charles Bernier Indexing Concepts and Methods
- 1979 G.Norman Knight

 A Guide to the Indexing of Books and Periodicals
 - Eugene Garfield
 Citation Indexing-Its Theory and Application in Science, Technology and Humanities

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01



Related Books (continued)

- 1979 Jennifer E. Rowley

 Abstracting and Indexing
- 1983 Hilda Feinberg

 Indexing Specialized Formats and Subjects
- 1986 Timothy C. Craven String Indexing
- 1991 F. W. Lancaster

Indexing and Abstracting in Theory and Practice

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01

13/20



Indexing -- Historical Background

- Orderly society cumulates records quickly
- The need to index and abstract records is natural
- Subject indexes and abstracts were practiced hundreds of years B.C.
- Fifth century:
 - Alphabetical indexes
- 12th century:
 - social institutions
 - intellectual discourse
- 14th century: annotation
 - Manuscripts
 - Library catalogs bibliographies
- Codex form of books
- Debates as a major form of teaching

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01



Indexing -- Historical Background

(continued)

- Blank space: do-it-yourself index
- Early indexes
 - Concordances indexes
 - Topical subject indexes
- 18th century
 - indexes to books were prepared primarily by their authors
- 19th century
 - compile indexes to cover entire fields
- 20th century
 - subject index consisted of a list of terms with no subdivisions or with subdivision in a simple hierarchical structure of two or three levels (main heading and modifier or main heading, subheading, and modifier)

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01

15/20



Indexing -- Historical Background

(continued)



- with the rapid growth of journals, subject access become necessary
- Late 19th century- taxonomy
- 1850s, W. F. Poole
 - publication of an index across many journals
- 1882 ALA
 - Index to Periodical Literature
- 1892 Paul Otlet, Henri La Fontaine
 - International Institute of Bibliography
 - Title word indexing

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01



Indexing -- Historical Background (continued)

- 1900- H. W. Wilson
 - Readers' Guide to Periodical Literature
- "Information explosion" during and following World War II
- 1950s
 - Computers had entered the indexing and abstracting arena and efforts were begun to evaluate indexing using quantitative methods.
 - Hans Peter Luhn KWIC indexes

anguage & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01

17/20



Indexing -- Historical Background (continued)

- Cranfield Project
 - 2 stages: 1957, 1963
 - C.W. Cleverdon
 - Major values of the Cranfield Project was the development of techniques for the quantitative evaluation of indexing
- 20 century
 - Indexing has outstripped the ideas of previous ages. We have progressed from indexes to individual works, through indexes to several volumes, to cooperative indexes on an international scale

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01



Abstracting - Historical Background

- 1665 Journal des Scavans
- 1700s other abstracts began to appear
 - 1703: Monatsextracte
- 19th century abstract journal proliferate

anguage & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01

19/20



Side Column

- -- How to Measure Information
- A specific event x_i
 - $-\log(p(x_i))$
- A random variable X represents possible events
 - Entropy of X is $p(x_i) log(p(x_i))$

Language & Information Processing System, LIS, NTU

Indexing & Abstracting Lecture01