Classification Systems as a Visualization and Navigational Tool in Online Searching: A Technique for Supporting Multi-Cultural Information Seeking

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Research Question

• How can we integrate classification systems into IR systems in online information seeking?

source: books4all.org

source: incimed.com
Example

Information need:
An information seeker is looking for popular books that would help them learn more about the ideas expressed in *Das Kapital* (by Karl Marx) and about the book’s social and cultural influence.

Two classification systems:
• Library of Congress Subject Headings (**LCSH**): U.S.
• Chinese Library Classification System (**CLCS**): China
Interaction between User and the Integrated IR System

Query: a book title

Classification System(s) on the sidebar of Interface

The exact match result(s)

Books on relevant topics recommended by LCSH

Books on relevant topics recommended by CLCS

Search Engine Result Page (SERP)

User’s interaction with search results: click through, browsing, etc.
Prototype Interface of the Integrated System

Google search results for "das kapital"

- Das Kapital: A Critique of Political Economy
  Karl Marx, Friedrich Engels - 2012 - Preview - More editions
  Das Kapital, Karl Marx's seminal work, is the book that above all others formed the twentieth century.

- Principles of Microeconomics
  N. Gregory Mankiw - 2016 - Preview - More editions
  With its clear and engaging writing style, this book emphasizes only the material that readers are likely to find most interesting about the economy, particularly if they are studying economics for the very first time.

- Mao Zedong: A Biography
  Edward Liu Dr, Michael Davis - 2016 - No preview
  Mao Zedong was a Chinese communist revolutionary and founding father of the People's Republic of China, which he governed as Chairman of the Communist Party of China from its establishment in 1949, until his death in 1976.

LCSH
- Subclass H – Social sciences (General)
- Subclass HA – Statistics
- Subclass HB – Economic theory, Demography

CLCS
- Marxism, Leninism, Maoism and Deng Xiaoping theory
  A. Marxism, Leninism, Maoism and Deng Xiaoping theory
  - A1 The works of Karl Marx and Friedrich Engels
  - A2 The works of Vladimir Lenin
  - A3 The works of Joseph Stalin
  - A4 The works of Mao Zedong

Relevant book recommended by LCSH
Relevant book recommended by CLCS
Key questions for future research

• Can integration of classification systems into IR systems improve online information seeking?
• Does this approach help personalize IR systems?
Future work

- Development of interface using at least two classification schemes
- Evaluation of the usefulness of classification schemes in online information seeking by comparing them with other assistant tools and IR recommendation techniques
- If this work is promising
  - Development of customized classification schemes based on the explicit and implicit feedback provided by human-system interaction
Thank You