

# Searching for Scientific Information

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Kirsi Heino



Aalto-yliopisto Kirjasto  
Aalto-universitetet Biblioteket  
Aalto University Library

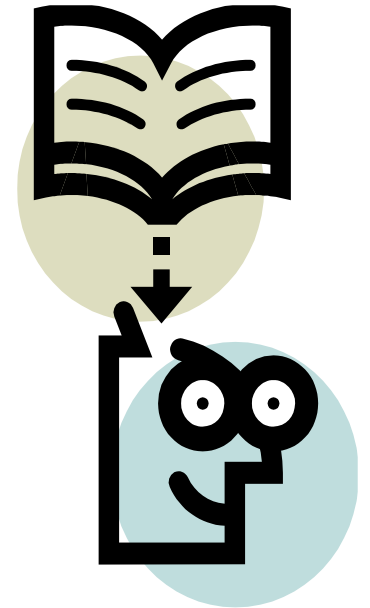
# Contents of the starting lecture

- Course presentation
- Theory on scientific publishing and scientific information retrieval
- Demo on SCOPUS database



# Course presentation

- An intensive five-week course designed to
  - acquaint you with the most important scientific information sources within your field
  - help you select and search efficiently
  - make you aware of the information evaluation methods



# Practical information

- This course is intended to help you identify the best sources from your point of view – explore and learn!
- The five-week course is divided into three parts with reading assignments and exercises
- You may consult your tutor at any time during the course

# Important dates of the course

- First deadline on 7th March
- Second deadline on 21st March
- Third deadline on 4th April

# After the course you will know

- What is scientific information
- Where to search for scientific literature
- What resources are available
- How to make bibliographic references



# Issues in academic writing

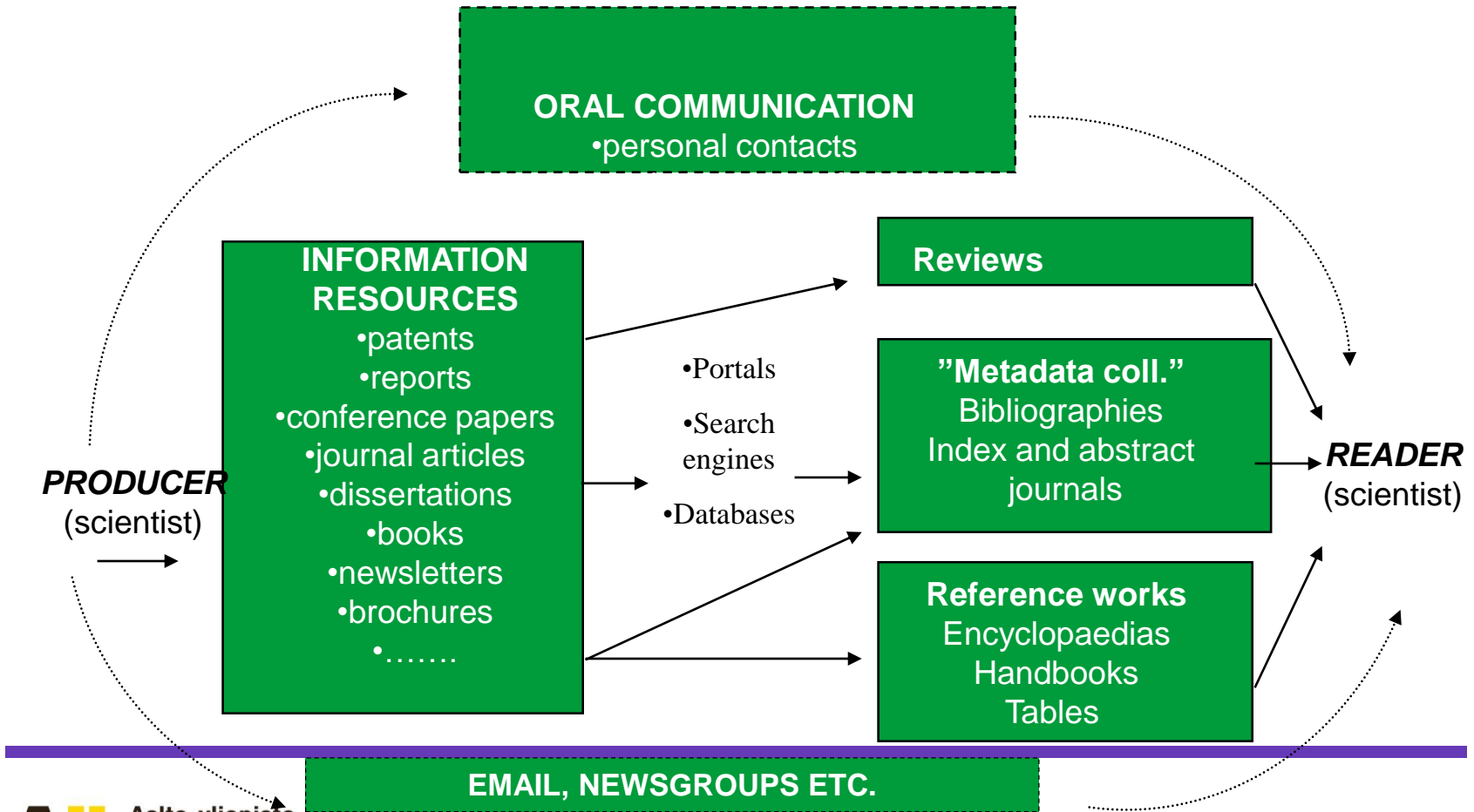
- Ownership of an idea
- Societal recognition for the author
- Claiming priority for a discovery
- Establishing an accredited (sometimes professional) community of authors and reader



Formal ways of publishing



# Information channels





# Available through Aalto Finna (1)

- Remote use via Aalto user id and password
- Scientific journals
  - Many journal titles
- Quality portals
  - Many abstract, indexing and fulltext databases



# Available through Aalto Finna (2)

- Standards
- Other resources
  - E-books
  - Dictionaries
  - Electronic theses etc.



# Factors of a successful search

- Determining of goals, the topic of the search
- Identifying key concepts related to the topic
- Choosing of sources (IMPORTANT!)
- Formulation of the search  
(selection of search terms  
and their combinations,  
limiting options)
- Analysing results



# Too many search results

- Use more specific terms
- Add another concept to make search more specific
- Search titles or index terms only
- Limit the search with
  - Language
  - Document type
  - Year

Always avoid too generic terms!



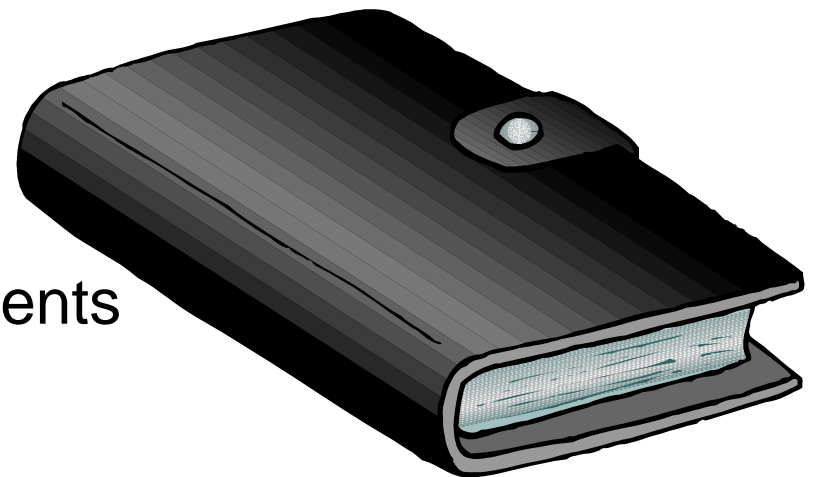
# Too few search results (or none)

- Too many concepts combined
- Too long a phrase
- Insufficient truncation
- Wrong terminology
- Typing errors
- Variant spellings
- Wrong database



# Search diary

- Date
- Used resources or the source
- Search words and how they were combined (=search logic)
- Results (the saved files etc)
- Evaluation of the results
- Measures to be taken
- Other information and comments



# Organising information

- Terms
- Search words
- Boolean operators
  
- The structure of the data system (fields, terminology and classification)

**The Need for Radio Theory in the Digital Age**  
**AU:Author Tacchi, Jo**  
**SO:Source International Journal of Cultural Studies, 2000, 3, 2, Aug, 289-298IS:ISSN 1367-8779**  
**AB:Abstract** This article makes an argument for connecting old & new technologies in our efforts to create a coherent field that we might call "radio studies." .... is also considered. 11 References. Adapted from the source document.  
**LA:Language English**  
**PY:Publication Year 2000**  
**PT:Publication Type**  
Abstract of Journal Article (aja)**CP:Country of Publication**  
United Kingdom  
**DE:Descriptors**  
\*Radio (D691200); \*Communication (D151800); \***Communication Research** (D151900); \*Mass Media (D497100); \*Technological Innovations (D856800); \*Technological Change (D856500); \*Internet (D409000); United States of America (D890700); London, England (D473100); India (D387900)  
**CL:Classification**  
0828 mass phenomena; communication  
**UD:Update**  
200110**AN:Accession Number**  
200105224

# Organising references

- Managing programmes
  - RefWorks
  - EndNote, Reference Manager, Procite
  - Zotero, CiteULike, Mendeley, JabRef etc.
- Compile your own bibliographic database
  - Download from a database, write or copy and paste
- In-text citations
  - Write-N-Cite + Microsoft Word



# Search example (1)

- Topic: Optimal routing for public transport
- Description of the topic
- Search terms:
  - Time-dependent network
  - Public transit network
  - Transportation network
  - Graph algorithms
  - Graph theory
  - Optimal routing



# Search example (2)

- Combine search terms
  - "graph algorithms"
  - "graph theory"
  - "time-dependent network"
  - "public transit network"
  - "transit network"
  - "optimal routing" AND "transportation network"

# SCOPUS

- Large multidisciplinary reference database (full-texts through SFX-links)
- Includes also citations (=links to citing references)
- Direct export to RefWorks enabled

# Lets get to work!

- Keep in contact with your tutor
- Ask if something is unclear to you
- Keep the deadlines and do not wait until the last minute to start



Photo:Tuomas Uusheimo