

# Part 7

- *Literature sources*
- *Databases and search engines*
- *Queries*

Research Methods in Computer Science

Ullrich Hustadt

Department of Computer Science  
University of Liverpool

# Searching for literature

- What are you trying to find out?
  - ~> Try to specify exactly what you need to know
- What type of information do you want to find?
  - ~> An answer to a specific question?
  - ~> An overview of a subject area?
  - ~> A specific document?
- Why do you need this information?
  - ~> Literature survey: Information needs to be comprehensive
  - ~> Short essay: Limited number of sources is sufficient
- How quickly do you need the information?
  - ~> Immediately: Internet
  - ~> In a day: Library
  - ~> In a week: Inter Library Loans

# Where to search: Sources

Sources for literature on the internet:

- Freely available collections (personal/institutional)

The screenshot displays the University of Liverpool Computer Science Intranet page for Ullrich Hustadt's Publications and Papers. The page lists several research papers with their abstracts, BibTeX, and PDF links. The browser window shows the URL <https://cgi.csc.liv.ac.uk/~ullrich/publications/index.html>.

**Publications and Papers**

2017

P. Gainer, C. Dixon, K. Dautenhahn, M. Fisher, U. Hustadt, J. Saunders and M. Methods for Industrial Critical Systems and 17th International Workshop on Autom. [Abstract](#), [BibTeX](#), [PDF](#) (© Springer).

U. Hustadt, A. Ozaki and C. Dixon (2017): "Theorem Proving for Metric Temporal Springer, 2017. [Abstract](#), [BibTeX](#), [PDF](#) (© Springer).

P. Gainer, S. Linker, C. Dixon, U. Hustadt, M. Fisher (2017a): "Investigating Par: Evaluation of Systems (QEST 2017), [Berlin, Germany, 5-7 July 2017], pp. 224-235 [Abstract](#), [BibTeX](#), [PDF](#) (© Springer).

P. Gainer, S. Linker, C. Dixon, U. Hustadt, M. Fisher (2017b): "The Power of Sy [Abstract](#), [BibTeX](#), [PDF](#) (via arXiv).

Cláudia Nalon, Ullrich Hustadt, and Clare Dixon (2017): "KSP: A Resolution-Ba 2017], pp. 4919-4923, ljal.org. [Abstract](#), [BibTeX](#), [PDF](#)

2016

Cláudia Nalon, Ullrich Hustadt, and Clare Dixon (2016): "KSP: A Resolution-Ba 406-415, LNAI 9706, Springer, 2016. [Abstract](#), [BibTeX](#), [PDF](#) (© Springer).

Paul Gainer, Clare Dixon, and Ullrich Hustadt (2016): "Probabilistic Model Chec UK, 26 June-1 July 2016], pp. 127-138, LNCS 9716, Springer 2016. [Abstract](#), [BibTeX](#), [PDF](#) (© Springer).

2015

U. Hustadt, B. Motik, U. Sattler (2007): "Reasoning in Description Logics by a Reduction to Disjunctive Datalog". In *Journal of Automated Reasoning* 39(3):351-384. [Abstract](#), [BibTeX](#), [PDF](#) (© Springer-Verlag).

R. A. Schmidt, U. Hustadt (2007): "The Axiomatic Translation Principle for Modal Logic". In *ACM Transactions on Computational Logic* 8(4):191-55. [Abstract](#), [BibTeX](#), [PDF](#) (© Springer-Verlag).

2006

U. Hustadt, D. Tishkovsky, F. Wolter, and M. Zakharyashev (2006): "Automated reasoning about metric and topology". In Michael Fisher, Wiebe van der Hoek, Boris Konev and Alexei Lisitsa, editors, *Proceedings of the 10th European Conference on Logics in Artificial Intelligence JELIA 2006* (Liverpool, UK, September 13-15, 2006), pp. 490-493, LNAI 4160, Springer. [Abstract](#), [BibTeX](#), [PDF](#) (© Springer-Verlag).

2005

M. C. Fernández-Gago, U. Hustadt, C. Dixon, M. Fisher, and B. Konev (2005): "First-Order Temporal Verification in Practice". In *Journal of Automated Reasoning* 34:295-321. [Abstract](#), [BibTeX](#), [PDF](#) (© Springer-Verlag).

U. Hustadt, C. Dixon, R. A. Schmidt, M. Fisher, J.-J. Ch. Meyer, and W. van der Hoek (2005): "Verification Within the KARO Agent Theory". In C. Rouff, M. Hinchey, J. Rash, W. Truszkowski, and D. Gordon-Spears, editors, *Agent Technology from a Formal Perspective*, Springer, 2005. [Abstract](#), [BibTeX](#), [PDF](#).

U. Hustadt, B. Konev, and R. A. Schmidt (2005): "Deciding Monodic Fragments by Temporal Resolution." In R. Nieuwenhuis, editor, *Proceedings of the 20th International Conference on Automated Deduction CADE-20* (Tallinn, Estonia, July 22-27, 2005), pp. 204-218, LNAI 3632, Springer.

- Publishers' websites/databases
- Literature databases

# Where to search: Sources

Sources for literature on the internet:

- Freely available collections (personal/institutional)
- Publishers' websites/databases

The screenshot shows a web browser window displaying a SpringerLink article. The browser's address bar shows the URL: <http://www.springerlink.com/content/f0g40629w4771m8/?p=d051b67059b643c3>. The page title is "Reasoning in Description Logics by a Reduction to Disjunctive Datalog". The article is from the "Journal of Automated Reasoning", published by Springer Netherlands. The authors listed are Ulrich Hustadt, Boris Motik, and Ulrike Sattler. The abstract discusses the development of a novel reasoning algorithm that reduces a SHIQ knowledge base to a disjunctive datalog program while preserving the set of ground consequences. The article is marked as "Read for FREE: the #1 cited article of 2005 from IJCV". The page also includes a sidebar with navigation options like "Add to marked items", "Add to shopping cart", and "Add to saved items".

- Literature databases



# Where to search: Sources

Sources for literature on the internet:

- Freely available collections (personal/institutional)
- Publishers' websites/databases
- Literature databases

Results: 14

Search within results

Document (sort by relevance) Author(s) Date Source Title Cited By

- Reasoning in description logics by a reduction to disjunctive datalog  
Hustadt, U., Motik, B., Sattler, U.  
2007  
Journal of Automated Reasoning 39 (3), pp. 351-384  
0
- The axiomatic translation principle for modal logic  
Schmidt, R.A., Hustadt, U.  
2007  
ACM Transactions on Computational Logic 8 (4), art. no. 1276921  
0
- Automated reasoning about metric and topology  
Hustadt, U., Tishkovsky, D., Wolter, F., Zakharyashev, M.  
2006  
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) 4160 LNAI, pp. 490-493  
0
- Deciding monodie fragments by temporal resolution  
Hustadt, U., Konev, B., Schmidt, R.A.  
2005  
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) 3632 LNAI, pp. 204-218  
1
- A decomposition rule for decision procedures by resolution-based calculi  
Hustadt, U., Motik, B., Sattler, U.  
2005  
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) 3452 LNAI, pp. 21-35  
0
- Mechanising first-order temporal resolution  
Konev, B., Degtyarev, A., Dixon, C., Fisher, M., Hustadt, U.  
2005  
Information and Computation 199 (1-2), pp. 55-86  
8

Find: Hustadt

# Where to search: interrelationship of sources

- ① Authors submit paper to conference/journal for **peer review**
- ② If accepted, the paper is **revised** by the authors and submitted to conference/journal editor
- ③ The paper is **processed** to bring it into the publisher's format (typesetting/layout)
- ④ The paper is then
  - included in the **publisher's database**,
  - made available on-line via the **publisher's website**, and
  - possibly published in printed form(not necessarily in that order)
- ⑤ **Literature databases**
  - collect the bibliographic information from several publishers, and
  - add additional information (references with links, citation index)
  - link back to publisher for full-text of papers

# Databases and search engines: Publishers



- ACM Digital Library

<http://portal.acm.org>



- IEEE Xplore

<http://ieeexplore.ieee.org>



- ScienceDirect (Elsevier)

<http://www.sciencedirect.com>



- SpringerLink

<http://www.springerlink.com>



- Wiley Inter-Science

<http://www.interscience.wiley.com>

- ...

# Databases and search engines: Literature databases

Scopus	Covers 14,000 journals and proceedings series; incl. ACM, Elsevier, IEEE, Springer <a href="http://www.scopus.com/">http://www.scopus.com/</a>
Web of Knowledge	Covers 22,000 journals and 192,000 proceedings; incl. ACM, Elsevier, IEEE, Springer <a href="http://isiknowledge.com/">http://isiknowledge.com/</a>



# Databases and search engines: Web search engines


Freely available (scholarly) web search engines include:

Citeseer	Digital library of 750k freely available papers in computer and information science <a href="http://citeseer.ist.psu.edu">http://citeseer.ist.psu.edu</a>
Google	General internet search engine <a href="http://www.google.co.uk">http://www.google.co.uk</a>
Google Scholar	Searches scholarly literature on the web. <a href="http://scholar.google.com">http://scholar.google.com</a>
Scirus	Searches journals (ScienceDirect) and web resources <a href="http://www.scirus.com/">http://www.scirus.com/</a>
Windows Live Search Academic	Academic search engine - search academic journals and content for article titles, author names, article abstracts, and conference proceedings. <a href="http://academic.live.com/">http://academic.live.com/</a>


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 Kullanıcı İşlemleri

# IYTE Library: Databases

libguides.iyte.edu.tr/az.php

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[Library](#) / [LibGuides](#) / [A-Z Databases](#)

## A-Z Databases

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**Off-Campus access**, is a service for IYTE Members (IYTE students, full time faculty and staff) to connect to Library and Information Center electronic resources from off campus site. (Databases, Periodicals, E-Books, etc.) There are two ways to access our subscription databases from off-campus:

- 1- Access via **Ezproxy** with your IZTECH email address and password.
- 2- Access all databases by making proxy settings in your browser. You can find the link below to make proxy2 settings for Explorer, Chrome and Firefox.

<http://libguides.iyte.edu.tr/proxy2ayarlar>

For problems and Comments: [library\[at\]iyte.edu.tr](mailto:library[at]iyte.edu.tr) Phone: 750 6345 or 750 6330

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Read IZTECH's full-text electronic journals on your computer, tablet or smartphone using the BrowZine. Easily discover, read, and monitor the key journals in your field.

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Download the BrowZine app from the appropriate app store:

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**Guide and Detailed Information for Use:** <http://libguides.iyte.edu.tr/c.php?g=368970>

# IYTE Library: Databases

146 DATABASES

Search for Databases

Go

All Subjects



All Database Types



All Vendors / Providers



All A B C D E F G H I J K L M N O P Q R S T U V W X Y Z #

130 Databases found

A

[Academic Search Complete](#) [ACM Digital Library](#) [American Chemical Society \(ACS\)](#) [American Institute of Physics](#) [American Physical Society](#) [Applied Science & Business Periodicals Retrospective: 1913-1983 \(H.W. Wilson\)](#) [Applied Science & Technology Index Retrospective: 1913-1983](#) [Arkiv Veritabanı](#) [Art & Architecture Source](#) [Art History Research net \(AHRnet\) \(Formerly - Arts: Search\)](#) [ASCE Research Library](#) [ASEE - American Society for Engineering Education](#) [ASME Digital Collection \(Journals and E-Books\)](#) [more...](#)[AuthorMapper](#) [er.com/](#)[Avery Index to Architectural Periodicals](#)

## New / Trial Databases

The following databases are newly acquired or being evaluated for future subscription.

[Art & Architecture Source](#) [dMags - Dijital Dergi Mağazası](#) [eBook Academic Collection](#) [Engineering Source](#) [High Throughput Experimental Materials \(HTEM\) \(OA\)](#) [InCites](#) [intihal.net](#) [iThenticate](#) [Journal Citation Reports \(JCR\)](#) [JSTOR Archive Journal](#) [Legal Yayıncılık: Dergi ve Kitaplar](#) [Legalbank Yargı Kararları ve Mevzuat Bankası](#) [MEDLINE Complete](#) [Nature Journals All and Academic Journals](#) [Palgrave Macmillan Journals](#) [ProQuest Dissertations and Theses Global Full Text \(PQDT Global FT\)](#) [Taylor & Francis E-Books](#)

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https://catalog.iyte.edu.tr/client/tr\_TR/default\_tr/?

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To see favorites here, select ☆ then ☆, and drag to the Favorites Bar folder. Or import from another browser. [Import favorites](#)

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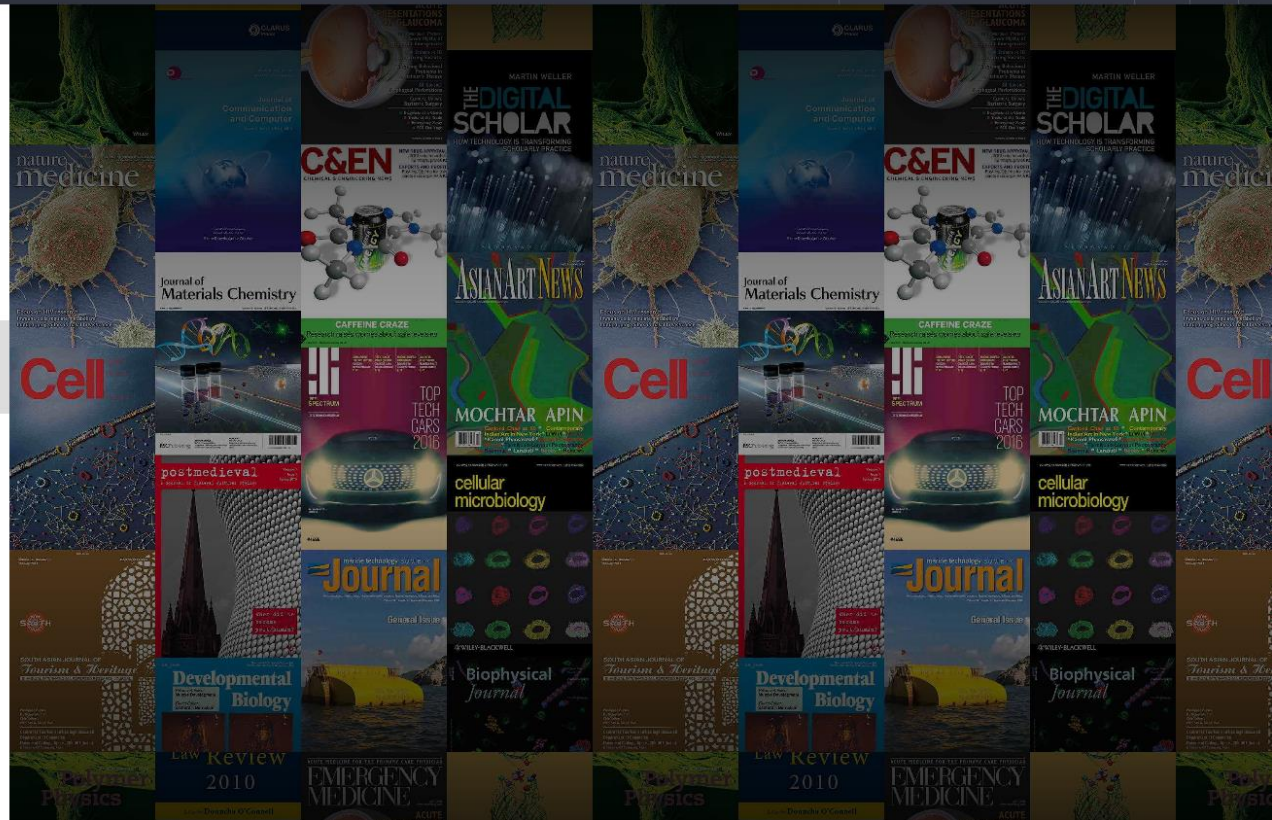


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IZTECH**

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- [Engineering and Technology](#) 
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- [Law and Legal Studies](#) 



# Databases and search engines: Comparison

There is an important difference to remember:

**Library catalogue:** Allows to search **for** a journal, but not **for** journal articles

**Publishers' and literature databases:** Allow to search **for** journal articles, but not **in** the full-text journal articles

**Web search engines:** Allow to search **in** the full-text of journal articles, but have difficulties with their structure

# Databases and search engines: Comparison

- **Literature databases** cover a vast number of journals and conferences, but
  - they do not cover all journals and conference
  - they do not cover textbook, handbooks, collections of articles in book form
  - they do not cover workshops and similar scientific meetings
  - they do not cover technical reports and pre-prints
- **Web search engines** provide much better coverage of these types of publications, but
  - typically also return a lot of irrelevant material to a query
  - leave it to the user to distinguish high quality from low quality material

# Queries

- Search terms might be simple keywords, phrases, or consist of field identifiers, modifiers, operators, and keywords

Examples: induction

“mathematical induction”

induct\*

author = Ambuhl

author like Ambuhl

author soundex(Maier)

- Queries are typically constructed from search terms using boolean operators

Examples: induction AND mathematical

induction OR deduction

induction AND NOT recruitment

# Queries

- Queries are typically constructed from search terms using boolean operators
  - AND retrieves records where ALL of the search terms are present, induction AND mathematical
  - OR retrieves records containing either one term OR another induction OR deduction
  - NOT retrieves records NOT containing a particular term NOT recruitment
- The set of all correct queries for a particular search engine is its query language
- Typically, different search engines use different query languages



# Keywords

- Only the right **keywords** will correctly identify useful information
- **Mode** of search is very important:
  - **narrow**: you are looking for exactly one record
    - ~> use a **search term** which is as specific as possible  
“cell microprocessor” instead of cell
    - ~> use additional criteria
      - publication date **year = 2006**
      - type **type = journal**
      - language **language = english**
      - publisher **publisher = Springer**
  - **wide**: you are looking for all records relating to a subject

# Keywords

- Only the right **keywords** will correctly identify useful information
- **Mode** of search is very important:
  - **narrow**: you are looking for exactly one record
  - **wide**: you are looking for all records relating to a subject
    - ~> try alternative words/phrases  
microprocessor / computer processor / computer chip
    - ~> try alternative spellings  
judgement / judgment
    - ~> try **wildcards**  
gene\* for genes, genetics, genetically

# Conducting a search

- ① Construct a query
- ② Search the databases, starting with the literature databases then moving to web search engines
- ③ Record all useful references
  - ~> some databases allow export in a format that can be Record imported in [RefWorks](#) or [EndNote](#)
  - enough information for someone to be able to find it again
- ④ After having searched two or three sources, review the progress of the search
  - too little relevant sources found so far ~> modify query

# Citing

https://link.springer.com/chapter/10.1007/978-3-642-02457-3\_73

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## Learning Styles Diagnosis Based on Learner Behaviors in Web Based Learning

Authors

Authors and affiliations

Nilüfer Atman, Mustafa Murat Inceoğlu, Burak Galip Aslan

Conference paper



Part of the [Lecture Notes in Computer Science](#) book series (LNCS, volume 5593)

### Abstract

Individuals have different backgrounds, motivation and preferences in their own learning processes. Web-based systems that ignore these differences have difficulty in meeting learners' needs effectively. One of these individual differences is the learning style. For providing adaptively incorporated learning styles, firstly learning styles of learners have to be identified. There are many different learning models in literature. This study is based on Felder and Silverman's Learning Styles Model and investigates only active/reflective and visual/verbal dimensions of this model. Instead of filling out a questionnaire, learner behaviors are analyzed with the help of literature-based approaches so that learning styles of learners can be detected.

### Keywords

Felder and Silverman's Index of Learning Styles   Web based Education

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# Citing

10.1007\_978-3-642-02457-3\_73.enw - Notepad

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```
%0 Conference Proceedings
%T Learning Styles Diagnosis Based on Learner Behaviors in Web Based Learning
%A Atman, Nilüfer
%A Inceoğlu, Mustafa Murat
%A Aslan, Burak Galip
%Y Gervasi, Osvaldo
%Y Taniar, David
%Y Murgante, Beniamino
%Y Laganà, Antonio
%Y Mun, Youngsong
%Y Gavrilova, Marina L.
%S Computational Science and Its Applications - ICCSA 2009
%D 2009
%I Springer Berlin Heidelberg
%C Berlin, Heidelberg
%@ 978-3-642-02457-3
%F 10.1007/978-3-642-02457-3_73
%X Individuals have different backgrounds, motivation and preferences in their own learning processes.
Web-based systems that ignore these differences have difficulty in meeting learners' needs effectively.
One of these individual differences is the learning style. For providing adaptively incorporated learning
styles, firstly learning styles of learners have to be identified. There are many different learning
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investigates only active/reflective and visual/verbal dimensions of this model. Instead of filling out a
questionnaire, learner behaviors are analyzed with the help of literature-based approaches so that
learning styles of learners can be detected.
%P 900-909
```



# End of part 7

- *Literature sources*
- *Databases and search engines*
- *Queries*

Research Methods in Computer Science

Ullrich Hustadt

Department of Computer Science  
University of Liverpool