Literature Research

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The slides were created by Pascal Bercher (The Australian National University, ANU) while still at the Institute of Artificial Intelligence, Ulm University, Germany. He later translated it to English when at ANU. Some of the content was originally created by Gregor Behnke, Daniel Höller, and Thomas Geier (all colleagues from the AI Institute at Ulm University), but then extended significantly by Pascal.

What Is This Section About?

They shall explain academic newcomers (i.e., Bachelor students) the most important basics about searching for content (or, more specifically: papers). For example:

- Where and how to search?
- Which publications are "better" than others?
- What works should be discarded (or at least not be cited)?

Which Type of Literature Exists?

- Textbooks
- Technical book
- Paper at a conference
- Paper at a workshop
- Paper (called article in this context) in a journal
- Theses (Dissertations, Bachelor and Master Theses, etc.)
- Online sources, e.g. Wikipedia, Lecture slides.

Normally scientific papers published in high-level conferences or journals are always to be preferred, as only those have undergone a rigorous reviewing process. Dissertations work as well as long as their content was published in high-level conferences or journals.

Ranking of Publication Media

The "ranking" of a publication media bases upon many factors, e.g.

- how many papers get accepted (in top-level conferences these are between 18 % and 30 % of all submissions)
- how often papers at these venues get cited (cf. "impact factor" or "h-index)

There are engines to compare venues, e.g., at google scholar

- https://scholar.google.de/citations?view_op=top_venues&hl=en

High-Level Venues in AI and AI Planning

High-level A and A* conferences in AI and AI Planning are, for instance:

- ICAPS (International Conference on Planning and Scheduling)
- AAAI (AAAI Conference on Artificial Intelligence, where AAAI = Association for the Advancement of Artificial Intelligence)
- IJCAI (International Joint Conference on AI)
- ECAI (European Conference on AI)

High-level A* journals are, for instance:

- Journal of Artificial Intelligence Research (JAIR)
- Artificial Intelligence (AI)

Where Can One Search for Literature?

- Scientific Search Engines:
  - Google Scholar: http://scholar.google.de (Note that google scholar allows inverse search, i.e., it lists which other papers cite a given one.)
  - Computer Science Bibliography (DBLP): http://dblp.uni-trier.de
  - Microsoft Academic Search: http://academic.research.microsoft.com/
  - CiteseerX: http://citeseerx.ist.psu.edu
  - arXiv: http://arxiv.org/
- Wikipedia (Treat this with care! It can serve as starting point, but not for precise propositions or properties. Primary resources (scientific papers) must be chosen instead.)
- Websites of scientists or research institutes: Most researchers have a list of their publications; often including paper downloads, sometimes with additional material.

Where Can One Search for Literature? (Cont'd)

- Websites of Publishers, e.g.,
  - ACM: http://dl.acm.org/
  - IEEE: http://ieeexplore.ieee.org/Xplore/home.jsp
  - AAAI: http://www.aaai.org/Library/library.php
- Websites of conference or journals. Note that only a few of them make their papers freely available for download, but most (if not all!) of them allow their authors to upload their self-compiled version on their own website.
- Library (Probably only good for standard algorithms that are published in older publications or books. Everything else is most likely too new.)
- Your favorite search engine.