Electronic Information Sources, Mendeley — Bibliography and PDFs Manager

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INVESTMENTS IN EDUCATION DEVELOPMENT

Impact Factor (IF)

- Defined for journals
- The ratio of the number of citations to the previous 2 years of the journal divided by the number of articles in those years
- Essentially the average number of recent citations per article
- Only for journals indexed in Journal Citation Reports

Related Measures

- 5-year Impact Factor
- Journal Immediacy Index the number of citations that year to articles published the same year
- Journal Citing Half Life the median age of the articles that were cited by the articles published in the journal that year
- Journal Cited Half Life the median age of the articles in the journal that were cited by other journals during the year

h-index, after Jorge E. Hirsch (physicist, UCSD)

- For an individual scientist
- h number of papers that have at least h citations each
- Measures productivity and impact of the published work
- Accessed from Web of Science or Google Scholar

Original Hirch's suggestion: (for physics!)

- 12 advancement to tenure (associate professor)
- 18 full professor
- 15-20 membership in the US National Academy of Sciences
 - Useful only for comparing in the same field
 - Grows with academic age
 - Demonstrated to have high predictive value for National Academy membership or the Nobel Prize

Publication Records: WOS, Scopus

Web of Science = WOS

- http://apps.webofknowledge.com/
- Formerly known as ISI Web of Knowledge
- Operated by the Thomson Reuters
- Provides many tools: IF via JCR, h-index w/o self citations, citation reports etc.
- ResearcherID a must-have in the academia world in CZ

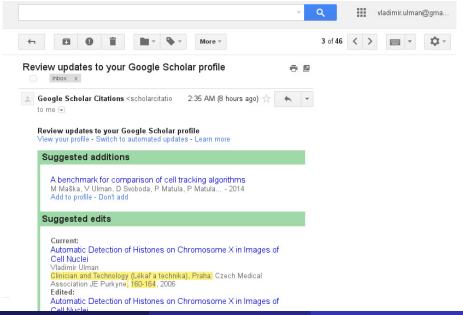
Scopus

- http://www.scopus.com
- Operated by the Elsevier publishing group
- Also: http://onlinelibrary.wiley.com/
- All services are paid

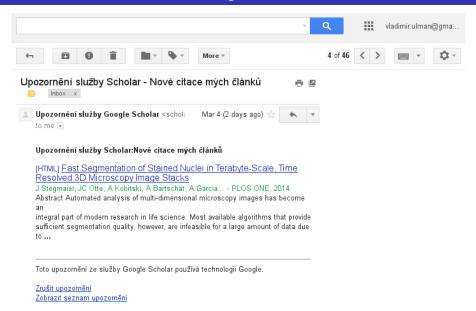
Publication Records: Google Scholar

- http://scholar.google.cz/
- Google Scholar profile
- Well, Google makes a good use of its data
- It offers free services to users to update and correct links between data
- Service is free of charge

Publication Records: Google Scholar



Publication Records: Google Scholar



Publication Records: DBLP, Microsoft

DBLP

- http://dblp.uni-trier.de/db/
- Operated jointly by Universitat Trier and Schloss Dagstuhl
- Source of good bibliography data, overview of collaborators

Microsoft Academic Search

- http://academic.research.microsoft.com
- Both services are free of charge

Publication Records: Common Issues

- Major problem: Inconsistent data
- Completely different numbers
- Errors in data
- Spelling of Czech/Slovak names
- Multiple people with the same name
- Self-citation vs. no self-citations
- GA ČR accepts h-index and citation counts predominantly from WOS and Scopus
- Especially WOS tends to respond to correction requests slowly

Publication Records: Data Sources

- Publication record = Your data + Publisher data
- Supplied by publisher to the databases initially, you can correct later on

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- Building our own list of publication records
- Recently, the list gathers also the publication itself
- Used for generating internal report figures, for submitting records to RIV
- RIV checks obtained records against WOS: provide WOS and DOI identifiers

Obtaining Publications

- Publication records databases provide lists . . .
- ... of what a person has published,
- ... of what has been published in the field.
- But how to obtain the publication itself?
- For most of us: Google/Google Scholar
- Directly from publisher (IEEE Xplore, SpringerLink, Science Direct, ACM Digital Library ...)
- http://arXiv.org, technical reports, dissertation theses, ...
- From web pages of the lab, the person's homepage, mail request
- Nowadays, databases provide some navigation to the PDF files

Obtaining Publication: DOI

- DOI = Digital Object Identifier
- Example: 10.1000/182 (identifies the DOI Handbook)
- Permanent, resolves to URL
- Resolved through http://dx.doi.org
 e.g., http://dx.doi.org/10.1000/182
- Not available for old publications
- Alternatively, if available: Use permalinks for referring papers
- e.g., http://www.springerlink.com/content/n62m182vx0227026/
- People often use Google/Google Scholar for seeking PDFs

Obtaining Publication: Paid Access

- Most of the papers are restricted to download until you pay
- MU has paid and is paying a lot
- Current status: http://ezdroje.muni.cz/
- Access is granted typically based on your IP
- http://vpn.muni.cz
- If this fails, use the portal ezdroje above
- LinkSource (formerly SFX): Takes you (somehow) directly to the portal, http://ezdroje.muni.cz/linksource/

Obtaining Publication: arXiv.org

- Archive of electronic preprints
- Hosted and operated by Cornell University
- Supported by many other institutions
- Guarantees long-term availability
- Fields: mathematics, physics, astronomy, computer science, quantitative biology, statistics, and quantitative finance
- Not peer reviewed
- Organized by category
- LaTeX sources are compulsory (if the paper was written in LaTeX)
- Supports versioning and comments
- followers: http://viXra.org and http://bioRxiv.org
- relevant: http://en.wikipedia.org/wiki/List_of_academic_journals_by_preprint_policy

Obtaining Publication: Good Habits

Keep All PDFs

- Once I manage to download a paper, I'll keep it
- It is not always the case that the paper will be available even the next day (server error, subscription may end)
- Good even for full-text search within the content of the papers

Obtaining Citation Record

- Usually from reference databases, typos can be better detected
- Prefer journal to conference
- Keep full names and titles in your citation records,
 - → You (or the publ. style) can shorten them anytime
- When referring to software or data:
 - → Check the web page, cite the tool paper (if it exists)

Managing Bibliography: Storing Papers

How to Organize the PDFs?

- In a nice folder structure with nice names
 - → works well for most citation managers
- Consider: occasional non-standard access, disaster of the tagging system
- Observation: After some time, the folder structure will change; the filenames will not

How to Organize the Citation Records?

- Human-readable (e.g., .bib for BibTeX or the widespread bibliography format .ris) vs. some binary (proprietary) format
- Locally vs. "in a cloud" (e.g., EndNote)
- About citation records: http://kuk.muni.cz/

Managing Bibliography: BibTeX

- Traditional, complements LaTeX
- Many frontends: e.g., JabRef, KBibTeX, . . .
- Inherently desktop-based
- Choose a good naming scheme
- Uppercase letters in titles: On some {NP}-complete . . .
- Diacritics and sorting {\"a} or {\"{a}} not \"{a}
- UTF8 not working
- bibtool good for managing bib files
- List all entries: \nocite
- Choose appropriate entry type

Managing Bibliography: Mendeley

- Mendeley Desktop PDF and reference management
- Mendeley Web online social network for researchers
- Platforms (Desktop): Qt based Windows, Linux, Mac
- Citation data *must* be stored online (free version: 2GB)
- Papers may be stored online (you have to set this in folder properties)
- PDFs: metadata extraction, inline comments (annotations), file organization on disk
- Bookmarklet for browsers, working on many websites
- Exports to Word/Libre Office/BibTeX/EndNote
- Multiple computer synchronization (via online space)
- Groups for sharing (pretty limited in the free version: 3 members, up to 100 MB of space)

Managing Bibliography: others

Overview:

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http://en.wikipedia.org/wiki/Comparison_of_
reference_management_software
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- BibTeX or Mendeley with LaTeX is dominant in the Comp.Sci.
- EndNote is particularly popular with MS Word in the Biology
- Looking at reference databases, popular tend to be also:
 BibSonomy, CiteULike, JabRef, RefWorks to name a few
- Zotero: open-source and free, on-line space and sharing
- Integration with Mendeley database
- More paranoid alternatives: store locally, JabRef
- Mind-maps created over the set of PDFs/citations (Docear)