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<http://vinmes.eu/>




**V4 Seminars for Young Scientists on Publishing Techniques
in the Field of Engineering Science**

About literature research

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Literature





Table of contents:


- Libraries, sources, publishers, and their importance;
- Search Engines, where to search?
- Books, libraries and repositories;
- References, referencing - and why they are important;
- Question of self citation?
- Focusing on what is relevant from the aspect of your research?
- Focus on your introduction and literature research!

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Summary



Literature:

Past times: libraries holding the knowledge of the predecessors;



First libraries: before 2000 BC
Sumerian, stone tablets


Library of Alexandria:

- 300 BC, papyrus based knowledge
- dedicated to the nine Muse, the goddesses of the arts

©. Von Conven - Tobmann, Don Heinrich, Alfred Hessel and Rauben Peiss. The Memory of Mankind. New Castle, DE: Oak Knoll Press, 2001


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Summary



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Literature:

Current online libraries and online knowledge bases




1. British Library (UK, London) -> Catalogue Size (174 million +)
2. Library of Congress (US) -> Catalogue Size (164 million +)
3. New York Public Library (US) -> Catalogue Size (55 million)

British Library 1978-2009 Annual Report, 2009-10, 26 July 2010. ISBN 978-0-10-296664-0.
 Copyright © 2009 and 2010 by British Library. Printed in Great Britain. All Rights Reserved. Reproduced with permission.
 "General Information" Library of Congress, 2010-07-14. Retrieved 2010-07-14.
 "The New York Public Library's 120th Annual Report" (PDF), 2009. Archived from the original (PDF) on 2012-03-23. Retrieved 2010-07-15.



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Summary



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RESEARCH-ORIENTED EDUCATIONAL ACCESS

Literature:


Current times: smaller-larger **libraries** and online knowledge bases



Rank	Library Name	Location	No. Items (Millions)
1	Library of Congress	Washington, D.C., United States	164
2	British Library	London and Boston Spa, United Kingdom	150
3	New York Public Library	New York, United States	55


Chikmaya Sen Ng. [The Largest Libraries In The World](#). WorldAtlas.com, March 5, 2018.

[illegible]



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Literature:

Current times: smaller-larger **libraries** and online knowledge bases

Actual standing as of 2018. March 03.

1. Library of Congress (US) -> Catalogue Size (167 million +)
Library of Congress: Patronizing Facts: <https://www.loc.gov/rr/staffnet/patronizing-facts/>, accessed at 04-04-2018.
2. British Museum (UK) -> Catalogue Size (150 million +)
British Museum: Facts and Figures <http://www.bm.uk/aboutus/quickinfo/facts/>, accessed at 04-04-2018.
3. New York Public Library (US) -> Catalogue Size (55 million)
New York Public Library: About the New York Public Library <https://www.nypl.org/help/about-nypl>, accessed at 04-04-2018.

So who is right? Try to aim for the closest resource of data!
Nothing can be 100% reliable!

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Current times: smaller-larger libraries and **online knowledge centers**.

1. Search Engines – do not house materials, just catalogue them (e.g. Google Scholar);
2. Subscription based knowledge centers (e.g. Scopus, Web of Science);
3. Subscription based publisher sites (e.g. IEEE Xplore);
4. Open source libraries (e.g. ArXiv.org -> Cornell university);
5. Social Network for Research (e.g. ResearchGate);
6. Independent webshops for books, papers, articles, standards, patents etc. (for hard prints, licenses, etc.);
7. Pirate sites.




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Other classification:

- scholarly publishers and university presses (such as IEEE, ACM, Macmillan, Wiley, University of Chicago);
- digital hosts/facilitators (such as HighWire Press, MetaPress, Ingenta);
- societies and other scholarly organizations and government agencies (such as the American Physical Society, National Institute of Health, NOAA);
- and preprint/reprint servers (such as arXiv.org, Astrophysics Data System, RePEc, and CiteBase).




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Sources of literature research:

- Journal papers: from renowned publishers (subscription/open access);
- handbooks: solid foundations of a given topic;
- book chapters: chapters from books covering case studies;
- white papers, application notes, datasheets, official documentations: mostly from companies;
- websites, magazines: note the author, publication date and possible affiliations.
- dissertations, published thesis-works – based on the source they can be high to very low quality sources;
- standards, patents -> depending on the reliable resource and the organization behind the patent/standard handling.




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Reliability of Sources:

- Reliability is a key issue -> feedback on previous presentation about publishers;
- More reliable publisher -> more reliable information.
- Open access papers from predatory / not indexed (no name) journals may contain problematic and false information.
- White papers released from companies may be reliable but they are often based on commercial aspects.
- Handbooks from recognized publishers are the most reliable sources for basics.
- Usual university material, teaching courses, PPT-s, textbooks, teaching syllabus -> not considered to be a proper source for a scientific literature research.
- Nothing can be 100% reliable, despite of peer reviewing! ☺

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Most reliable publishers in our field:



ELSEVIER



WILEY



McGraw Hill



Springer



Association for Computing Machinery



emerald PUBLISHING



Institute of Physics



npg



Advancing Technology for Humanity



PEARSON
Prentice Hall



Taylor & Francis



SETTING THE STANDARD




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Examples for Digital Libraries-Databases



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scholar.google.com




- Beta Started at 2004.
- Estimated to contain roughly 160 million documents (2015 data!)
- Indexing of scholarly content
- Based on search engine indexing technologies
- Allows profile management.

Alternatives:


- Academic.Microsoft.com
- (375 million entities,170 million academic papers)
- CiteSeerX
- Scirus

Academic.Microsoft.com

Publications
172,037,947




Books of Study
228,563



Countries
4,027

The catalogue size is exactly comparable to large libraries.

Ortúño-Mateo, E., Ayllón, J. M., Martín-Martín, A., & Delgado López-Cózar, E. (2015). Methods for estimating the size of Google Scholar. *Scientometrics*, Springer, 104(3), 531–58.



Article
First Online: 31 May 2015

133
Shares

953
Downloads

22
Citations



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Examples for Digital Libraries-Databases

IEEE Xplore  
<http://ieeexplore.ieee.org/Xplore/home.jsp> FOR INFORMATION ENGINEERING SOCIETY

- IEEE-s own search engine
- Vast array of IEEE conference materials and IEEE journal papers;
- Fast search for keywords.
- Free source of IEEE Spectrum Magazine.
- Books and courses are also available for additional fees.
- Unfortunately mostly IEEE-related topics are covered.
- Needs subscription from your universities.

IEEE: Institute of Electrical and Electronics Engineers

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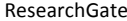
Library with downloadable articles.

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- **ScienceDirect**
- **Elsevier's own materials in a downloadable and online accessible library format.**
- **Pergamon/Elsevier papers are accessible.**
- **Most high quality journals are available in ScienceDirect.**
- **Easy to search, easy to use.**
- **Only Elsevier materials;**
- **Require subscription;**

- **Vinegrad Fund**


Examples for Digital Libraries-Databases




<http://researchgate.net>

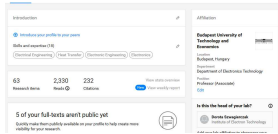
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PhD (1988 - 1992)



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THE VINEGRAD FOUNDATION CULTURAL SYSTEM



- Social network of scientists.
- Mixes the functionality of LinkedIn, an author tracking system, and "fun" social media.
- If one does not have subscription, sometimes pre-print versions/manuscripts of given articles are freely available.
- Can contact authors for sending a paper which is not available officially without subscriptions.



Also helps bringing closer our authors/sources to a communication level!


Can request review on your work from others! (Later it will be important!)

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Examples for Digital Libraries-Databases


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Sci-hub
http://????




- Pirate website;
- Over 60 million articles;
- Served by backdoors to university/campus subscriptions
- Based on the idea to remove commercialist approach to science
- Community-based background with similar approach to sharing platforms (e.g. torrent)
- Ever changing links, servers, etc.

It claims itself to be a reliable and good source, mostly for developing country!

↓

Legally questionable use, violating copyrights!

PIRACY!




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Author systems


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Further platforms helping literature research and publishing: Makes authors easier to find.

ORCID:
Open Researcher and Contributor ID


Connecting Research and Researchers

Researcher ID:  RESEARCHERID

- Digital Identifier;
- Avoids mistakes by names (family name, etc.);
- Helps manuscript submission;
- Helps finding an author or the author's publication;
- Open source background;

- Digital Identifier
- Avoids mistakes by names (family name, etc.)
- Tracks cites, h-index, potential collaborator.
- Integrates with WoS
- ORCID Compliant.
- Thomson Reuters®.


+ Many More!

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Citation format questions


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Reference indexes: according to journal recommendation

Elsevier:

All publications cited in the text should be presented in a list of references following the text of the manuscript. In the text make references using a number in square brackets on the line (e.g. "Since Petersen [1] has shown?") and the full reference should be given in a numerical list at the end of the paper."


For reference:

Elsevier, International Heat and Mass Transfer: Guide for Authors
https://www.elsevier.com/locate/ihmt/InternationalJournalofHeatandMassTransfer/2017-2019/guide-for-authors, accessed at 2018.04.05.

References should be styled and punctuated according to the following examples:
journal article [1]; journal supplement [2]; book [3]; edited book [4]; thesis [5];
unpublished report [6]; published report [7]; proceedings [8], and patent [9].
[1] Q. S. Liu, B. Roux, M. G. Velarde, Thermocapillary convection in two-layer systems, International Journal of Heat and Mass Transfer 41 (11) (1998) 1499-1511.
[2] E. R. G. Eckert, H. H. Cho, Transition from transpiration to film cooling, International Journal of Heat and Mass Transfer 37 (suppl. 1) (1994) 3-8.
[3] A. Bejan, Convection Heat Transfer, second ed., Wiley, New York, 1995, pp. 62-75.
[4] M. Kaviany, Heat transfer in porous media, in: W. M. Rohsenow, J. P. Hartnett, Y. I. Cho (Eds.), Handbook of Heat Transfer, McGraw-Hill, New York, 1998, pp. 9.32-9.43.
[5] W.-T. Yang, Two-phase swirl flow, PhD thesis, University of Illinois, Chicago, IL, 1997.
[6] S. P. Vanka, Efficient computation of viscous internal flows, SBIR Phase-I Report, NAS3-25573, Propulsion Research Associates, Westmont, IL, August 1989.
[7] J. Davids, D. Smith, Analysis of constant-velocity joints under high torque, HMSO, London, 1996, pp. 1-8.
[8] V. P. Carey, Modeling of microscale transport in multiphase systems, in: J. S. Lee (Ed.), Proceedings of the Eleventh Heat Transfer Conference, Taylor & Francis, Philadelphia, PA, 1995, pp. 23-40.
[9] T. Burns, US Patent No. 358468, 1995.
[10] M. Oguro, S. Imahiro, S. Saito, T. Nakashizuka, Mortality data for Japanese oak wilt disease and surrounding forest compositions, Mendeley Data, v1, 2015. <https://dx.doi.org/10.17632/wj9n639r.1>.


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Citation format question



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Reference indexes: according to journal recommendation

Emerald:

References to other publications must be in **Harvard** style. You should cite publications in the text: (Adams, 2006) using the first named author's name or (Adams and Brown, 2006) citing both names of two, or (Adams et al., 2006), when there are three or more authors. Ref. list in alphabetical order should be supplied.

Extensive description can be found at: http://emeraldgroupublishing.com/products/journalauthor_guidelines.htm?id=ssmt


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Key tips for summarizing your literature research




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- Build up your literature presentation starting from the basics.
- Try to aim for the general overview on the topic, then narrow down the points to the relevant questions regarding your topic.
- Try not to wander too far from the topic.
- Try to figure out the timeline of the topic's evolution. It can be confusing to refer forth to back on the progression of your topic.
- Present and write the articles (and the reference indexes) as you write the text -> later it will be difficult to catch on with the indexes.
- Always note the citation format required to the given journal, publication platform.
- Cite the pictures as well, which you do not own! Sometimes your older pictures may be copyrighted by the publisher, where your paper was published!


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Key tips for making your literature research more focused



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PAPER

- Sum up recent articles from the given journal, where you aim to publish your article. The editors like to see the relevance of the given topic in comparison to their previous publications.
- Include the most relevant citations to your research -> and maybe send your work later to your inspiring researchers. You never know when you will receive a citation or a different form of recognition from them.

THESIS WORK


- If you have different topics, different chapters, different thesis groups, it can be logical to separate the cited work.
- If possible try to upload your work to an open access platform, website or Researchgate -> so that an indexing database may list your work to the cited persons.


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Self citation?





Questionable, but sometimes necessary!



- Some topics need deep discussion, and you do not have time, space, to describe all things again from the scratch!
- Plagiarism checks may focus on your previous works -> do not write again everything down.
- However the work should be understandable on its own.
- Difficult question -> depends on critical thinking of what is necessary


After PhD (habilitation, post-doc grants) it can weaken your reputation if your self citation ratio is too high. It does count to scientist analytics (h-index).

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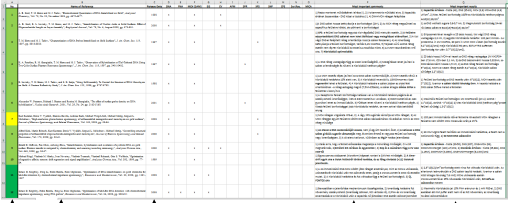
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GOOD PRACTICE



Excel table for cataloging your findings.



No | Reference | Release Date | Topics | Most important comments | Most important results described in the article.


LIVE DEMONSTRATION!

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Summary



Presentation techniques for your success!

- Be well aware of your material sources – be it an online library, or a search engine!
- Focus onto the main points of your research!
- Know your selected literature papers and organize them!

After your first publications you will also be part of the huge libraries and databases! Be part of the literature!

Acknowledgement: Thanks for Attila Bonyar and Oliver Krammer for their creative input on the topic.
The presentation was supported by the Visegrad Fund Grant No. 21730020

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