

Literature Survey

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Please note

Literature Survey **is not** Google

Outline

- 1 Literature Survey: Why?
- 2 Sources of Literature
- 3 Strategies
- 4 Publishers
- 5 Writing it all up

Outline

1 Literature Survey: Why?

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Literature Survey: Why?

- What approaches have others used?
- What are the gaps?
- What difference are you making?
- Novelty in Familiarity and Familiarity in Novelty
- Placing in Current Context
- Avoiding duplication
- Clarification of controversial results
- State of the art: extend and build on the work of others.

Literature survey in the context of thesis

- Theses should be based on original research
- Unintentional duplication is not acceptable
- To gain knowledge of the background work
- To establish context of your work
- To question, point out anomalies / gaps

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Sources of Literature

- Open access
- INDEST Arrangement
- Your Library subscriptions
- Peer sharing sources : ResearchGate, academia.edu

Sources of Literature

Primary Sources

- Periodicals
- Research Reports
- Conference Proceedings
- Official Publications
- Standards
- Theses, Dissertations
- To be published works

Sources of Literature

Secondary Sources

- Compilations
- Reviews
- Reference Books / Handbooks / Encyclopedia / Dictionaries
- Textbooks / Monographs
- Indexing and Abstracting services

Tertiary Sources

- Directories, Year books, Bibliographies
- Lists of secondary sources

Some terminology

- International Standard Book Number (ISBN)
- International Standard Serial Number (ISSN)
- Digital Object Identifier (DOI) number: Online publication
- Universal Decimal Classification (UDC) Catalogue : Books
- Research Information Services (RIS) format: Bibliographic Information
- BibTeX (.bib) format: Bibliographic Information

Awareness

- Journal Impact Factor
- Citation Index
- h-index

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Strategies to search

- Keyword search : systematic manual search
- Backward chronological search : snowball or back reference method
- Forward chronological search : citation based

Systematic manual search

Abstracting databases

- INSPEC and COMPENDEX (EngineeringVillage)
- PubMed
- MathSciNet
- Chemical Abstract (CA) Service

Backward chronological search

Back references

- Identify the latest relevant paper in your area
- Look up each of the references listed
- Repeat to extend the tree backward

Forward chronological search

Citations

- Identify the citation classic in your area
- Look up which all papers refer to it
- Find out which of these are well cited
- Repeat to extend the tree forward

Citation Information

Websites

- Thomson ISI / Web of Science (isiknowledge.com)
- SciFinder (www.cas.org)
- Scopus (www.scopus.com)
- Scitation (scitation.aip.org)

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Major Publishers

- Elsevier
- Springer
- Taylor and Francis
- Nature
- Maney Publishing
- APS, AIP, ACS, AIChE, TMS, ASM, ACM, IEEE, etc.,

Online access

- ScienceDirect
- SpringerLink
- InformaWorld
- IngentaConnect
- crossref.org
- prola.aps.org etc.,

Get others to work for you

- Contents subscription
- RSS feed subscription
- Subscribe to mailing lists
- Watch out SIG sites (eg., imechanica.org)

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Thesis / Paper

- Numerical / Chronological + Alphabetical
- Be aware of style guides for each purpose
- Use a reference manager

Reference Managers

- JabRef
- EndNote
- ReferenceManager
- ProCite
- Mendeley
- Zotero
- Comparison of reference management software on Wikipedia

Acknowledgements

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