How to Conduct Literature Review Effectively

Valerio Velardo

I DON'T ALWAYS CONDUCT RESEARCH

BUT WHEN I DO, I REVIEW THE LITERATURE FIRST

imgflip.com

Literature review goals

- Determine state of the art in an area

- Identify the methodologies currently used to tackle a research problem

- Identify gap(s) / problems in the literature for further research

- Inform the research topic and associated methodology

Why is literature review important?

- Foundation for your research

- Avoid reinventing the wheel

- Can assist refining your research topic / questions
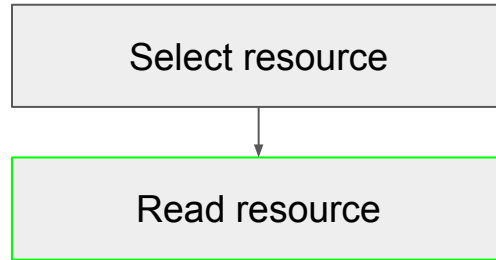
- Increase the chance your paper gets accepted!
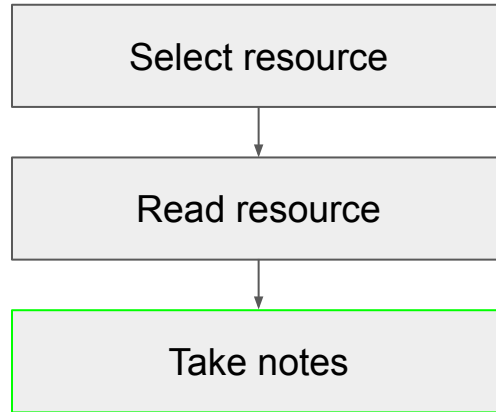
Literature review workflow

Select resource

Literature review workflow

Select resource

Read resource

Literature review workflow

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Literature review workflow

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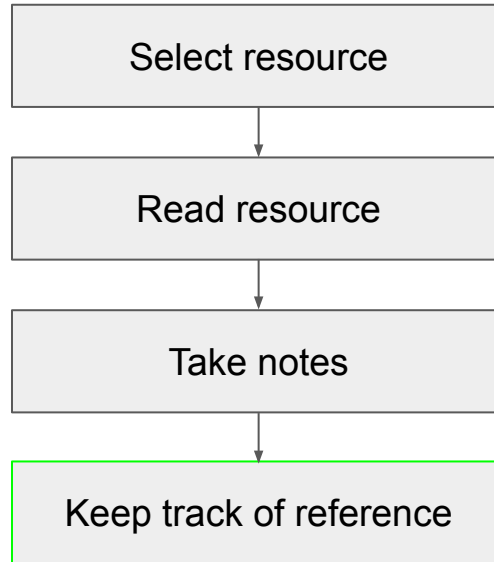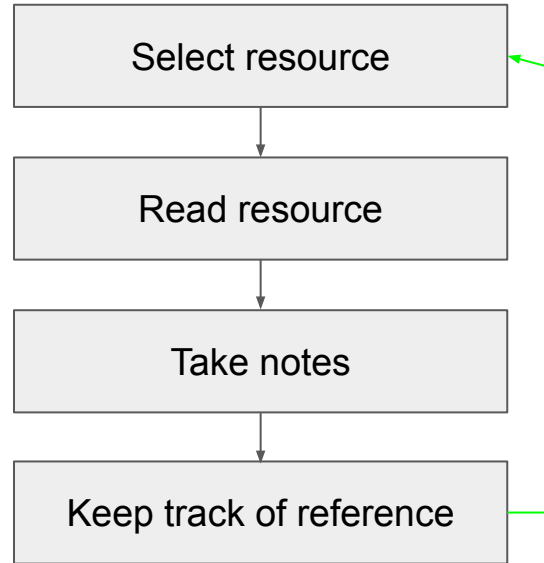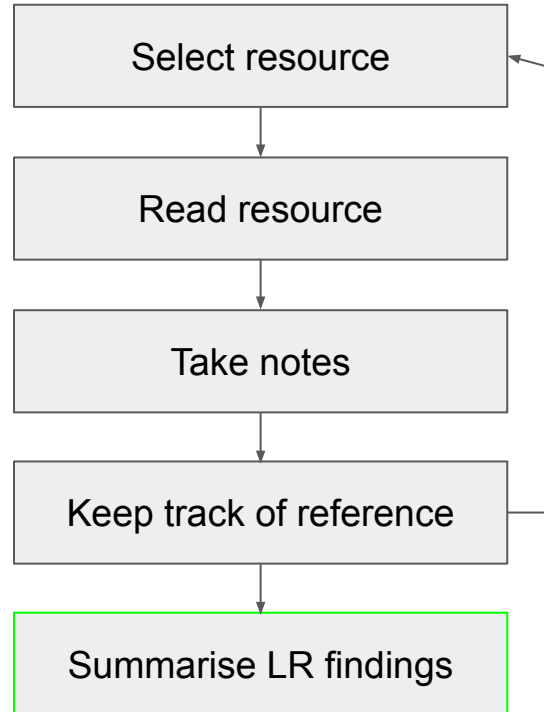
Literature review workflow

Literature review workflow

Selecting resources

- Textbooks

- Survey articles

- Scientific papers

- Commercial documents / products

- Blogs, magazine articles, newspapers

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Selecting resources

Google scholar

Papers With Code

ResearchGate

arXiv.org

GitHub

Selecting resources

- Conference proceedings
  - ISMIR, AIMC, CSMC, ICML, ...
- Journals
  - JCMS, Transactions of ISMIR
- Researchers' websites, blogs

IT'S TOTALLY FINE TO FEEL OVERWHELMED

Selecting resources: Tips
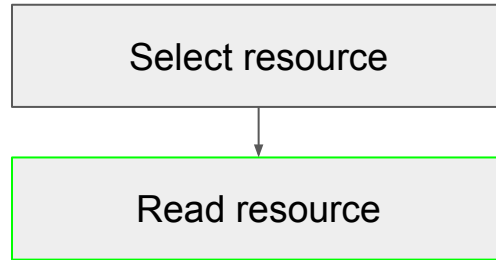
- Focus on a specific area (be selective!)

- Driven by your research questions

- Start from surveys

- Focus on recent literature

Literature review workflow

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Reading a resource

[How to Read AI (Audio) Research Papers Like a Rockstar](#)

Literature review workflow

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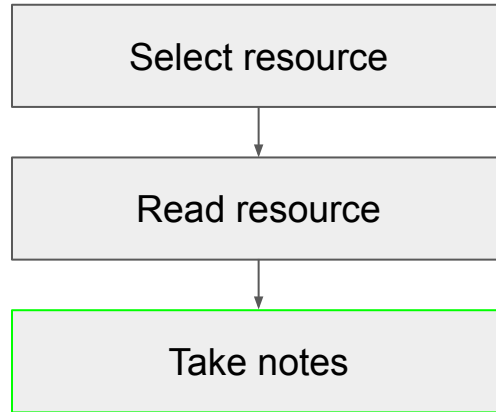
Taking notes

- Create a summary doc for each resource you review

- Summarise:
    - Topic
    - Approach
    - Results
    - Contributions
    - Limitations / weaknesses

Taking notes

[Summary template used in *OpenSource Research* Project](#)
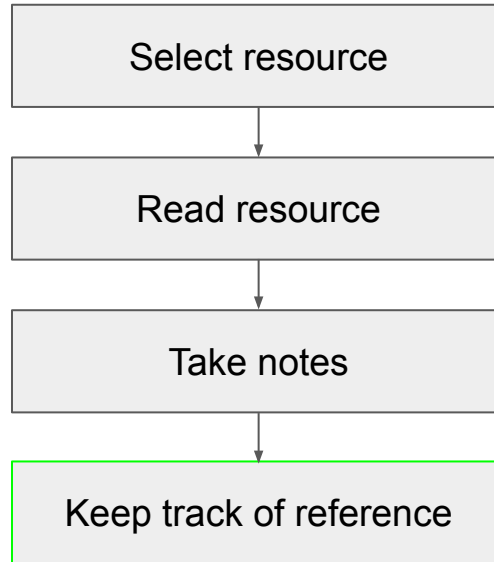
Join The Sound of AI community!

thesoundofai.slack.com

Literature review workflow

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Keeping track of references

- Organise your references in reference manager software

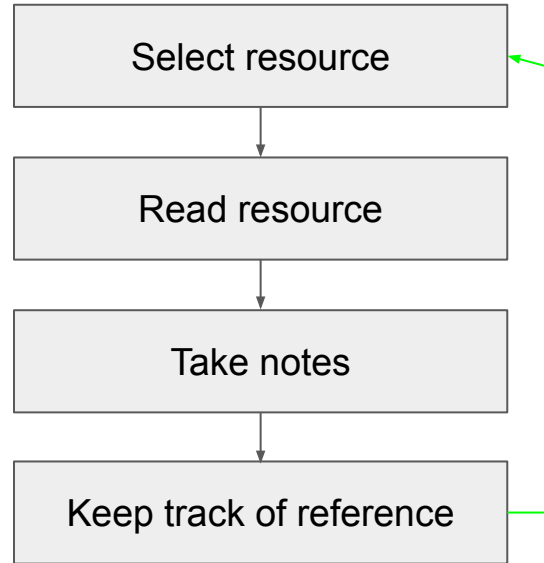- Speed up article retrieval

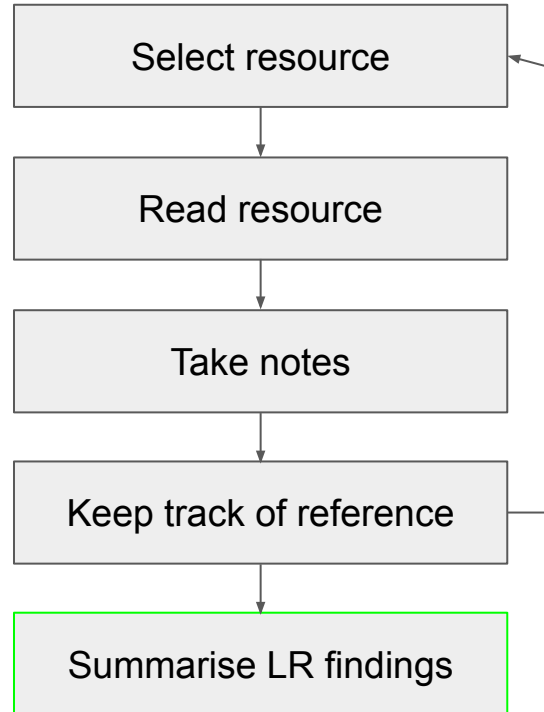- Facilitate paper comparisons

Keeping track of references

Literature review workflow

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│   Summarise LR findings  │
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Summarise LR findings

- Meta-level reflection

- Compare resources

Summarise LR findings

- What are the approaches used by other researchers?

- What worked / what didn't?

- What are the results so far?

- What are the gaps in the literature?

- How can I position / refine my research (questions)?