Research Methodology

Step 4: How to find useful sources (Literature Review/Related works)

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Outlines:

- What is Literature Review?
- What is the Logical Method for LR/RW?
- Methodology for a good RW/LR
- Mother, Father, and the youngest Child
- Where can search for high impact papers?
- How to find Mother, Father and the youngest child paper?
- How can summarize a paper and write about it in LR?
- How can write the last part of a LR?

What is Literature Review?

Is a **select analysis** of **existing research** which is **relevant to your topic**

Is an **evaluative report** of information found in the literature **related** to your **selected area** of study

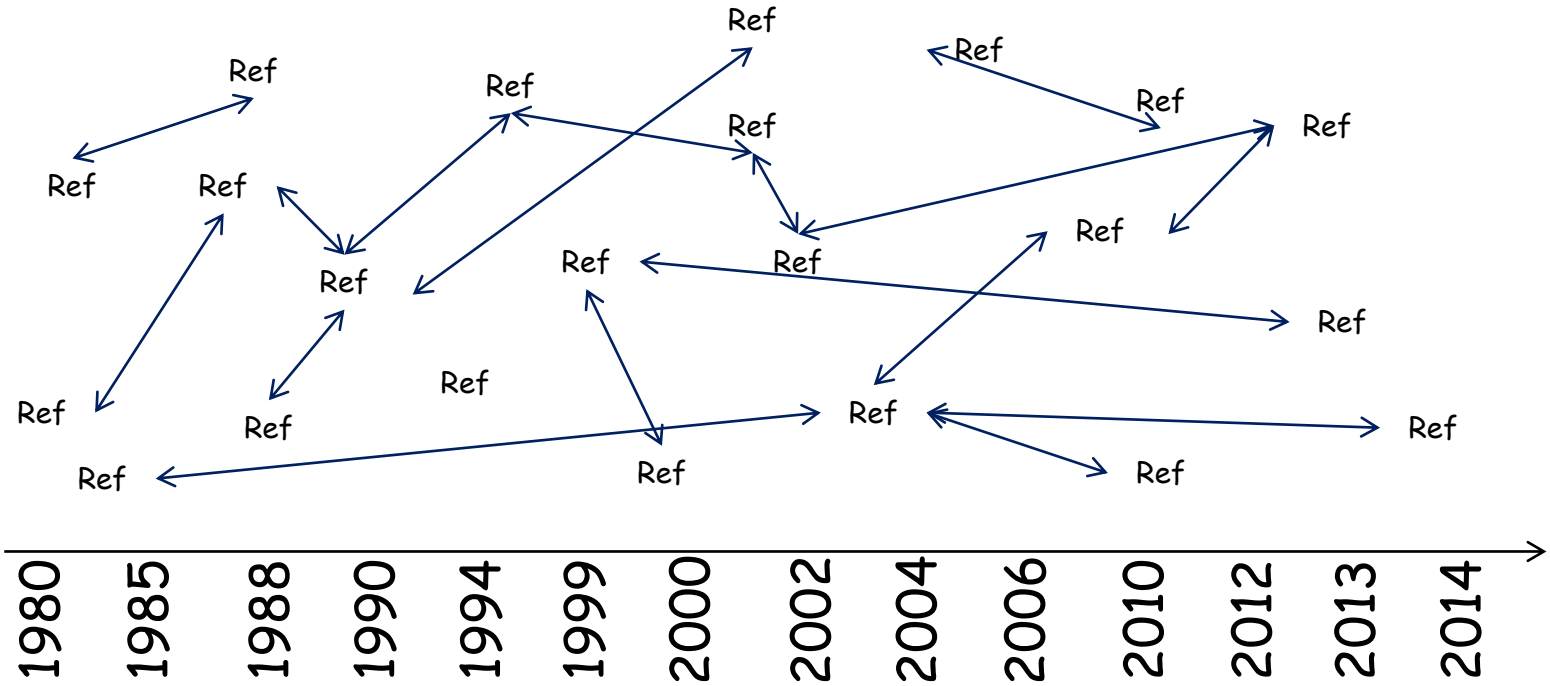
Is **not** a **straightforward summary** of **everything** you have **read** on **the topic**

Is **not** a **chronological description** of what **was discovered** in **your field**

What is Literature Review?

- Understand and critically analyse the background research
- Select and source the information that is necessary to develop a context for your research
- Shows how your investigation relates to previous research
- Provides evidence that may help explain your findings later

A map of LR/RW…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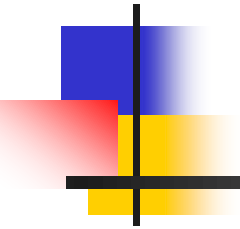
Methodology for a good RW/LR



Methodology for RW/LR

- **Chronological** **(progression of time: Father…Mother…Children)**
  - Write about the materials above according to when they were published
- **Thematic**
  - organized around a topic or issue
- **Methodological**
  - focuses on the "methods" of the researcher or writer

Please remember that :

Keep your own voice

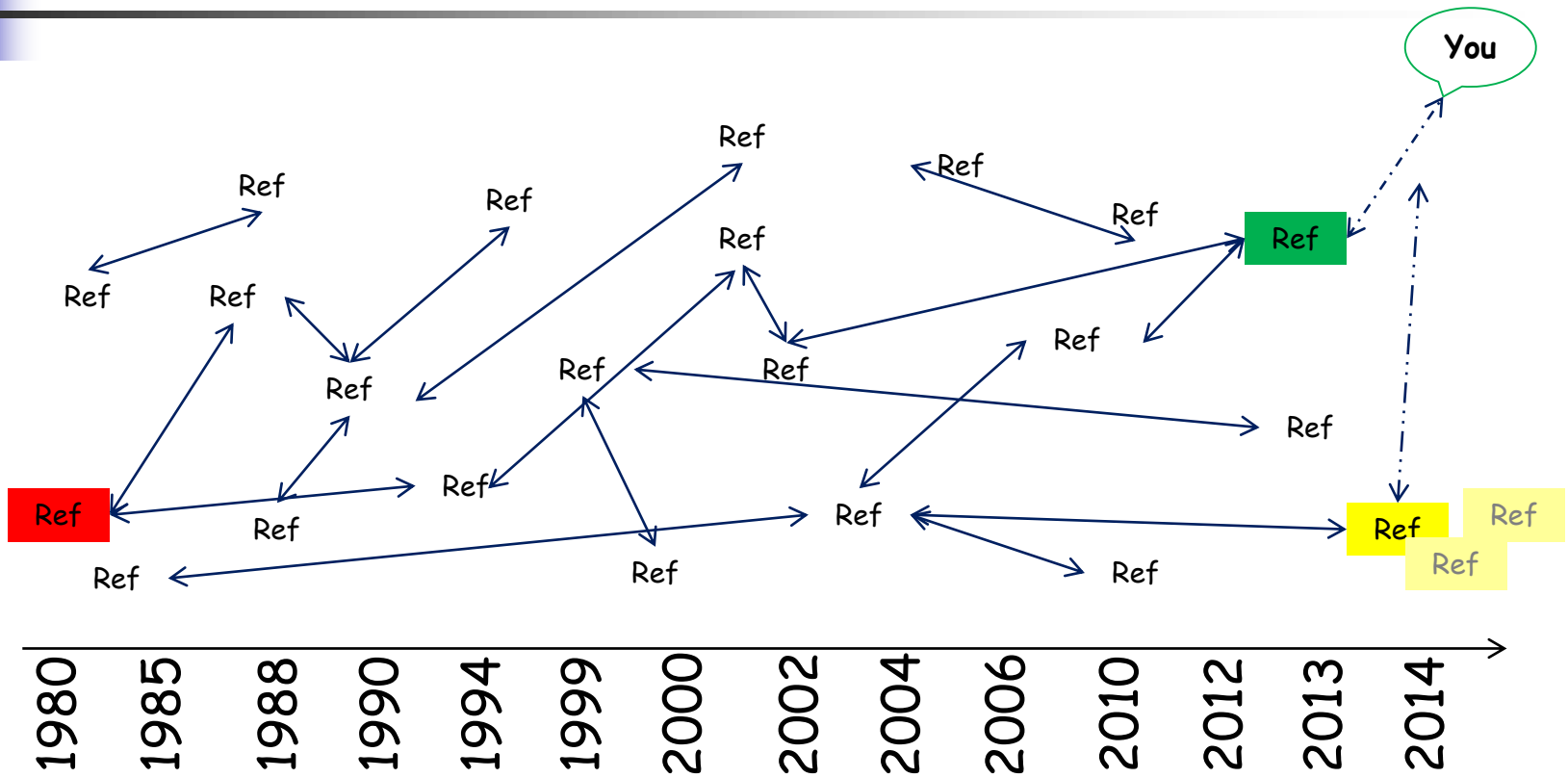
- While the literature review presents others' ideas, your voice (the writer's) should remain front and centre

Be selective

- Select only the most important points in each source to highlight in the review

Mother, Father, and the youngest Child

Mather, Father, The youngest Child ,and younger children



Just Remember…

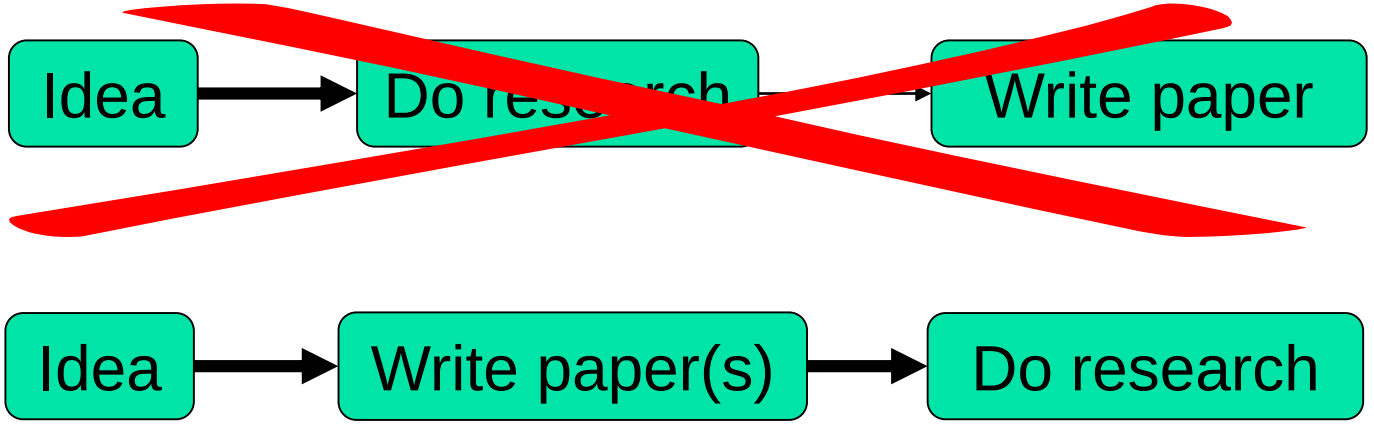
"Scientists are rated by what they finish, not by what they attempt"

Writing your paper(s) in the way

- You will get more brownie points (more papers accepted etc)
- Your ideas will have more impact
- You will have better ideas

Writing papers: model 1

Writing papers: model 2



- Forces us to be clear, focused
- Crystallises what we don't understand
- Opens the way to dialogue with others: reality check, and collaboration

Where can search for high impact papers?

search for high impact papers

Google Scholar

Web of Knowledge

Science Direct

Scopus

Springer Link

Elsevier

Scientific.net

Digital Library

ACM

IEEE

Index to Thesis

ProQuest

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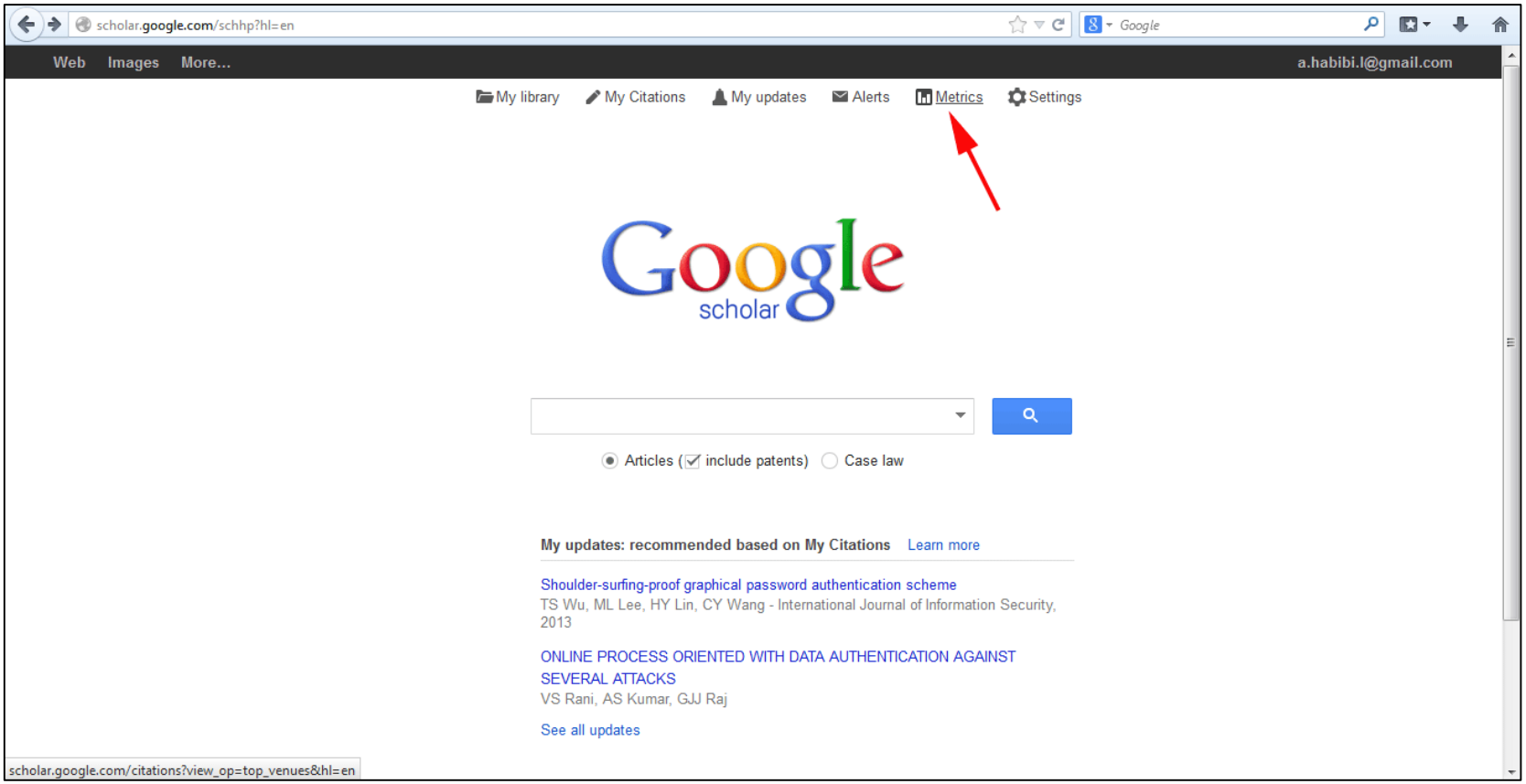
Google Scholar… (Scholar.google.com)



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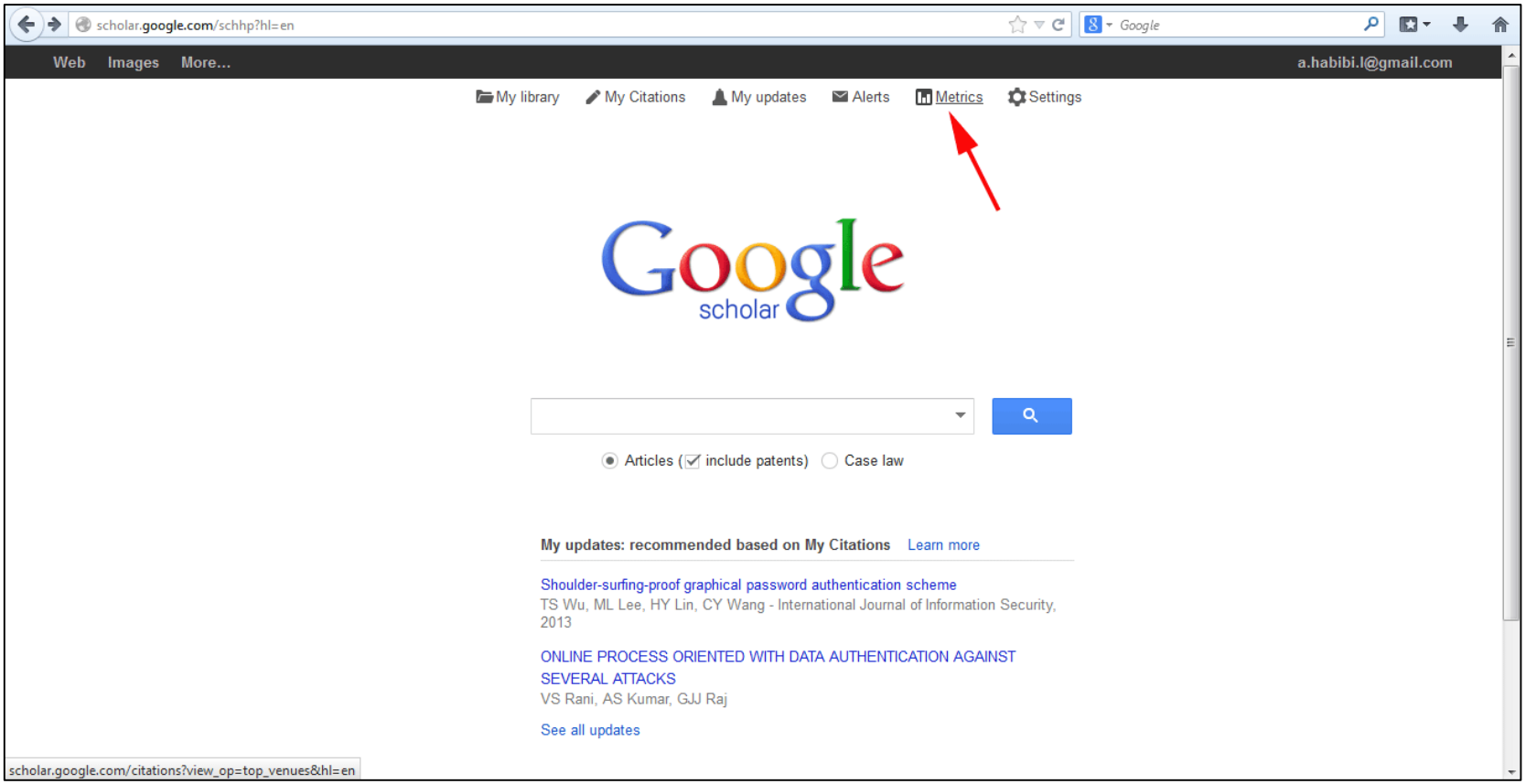

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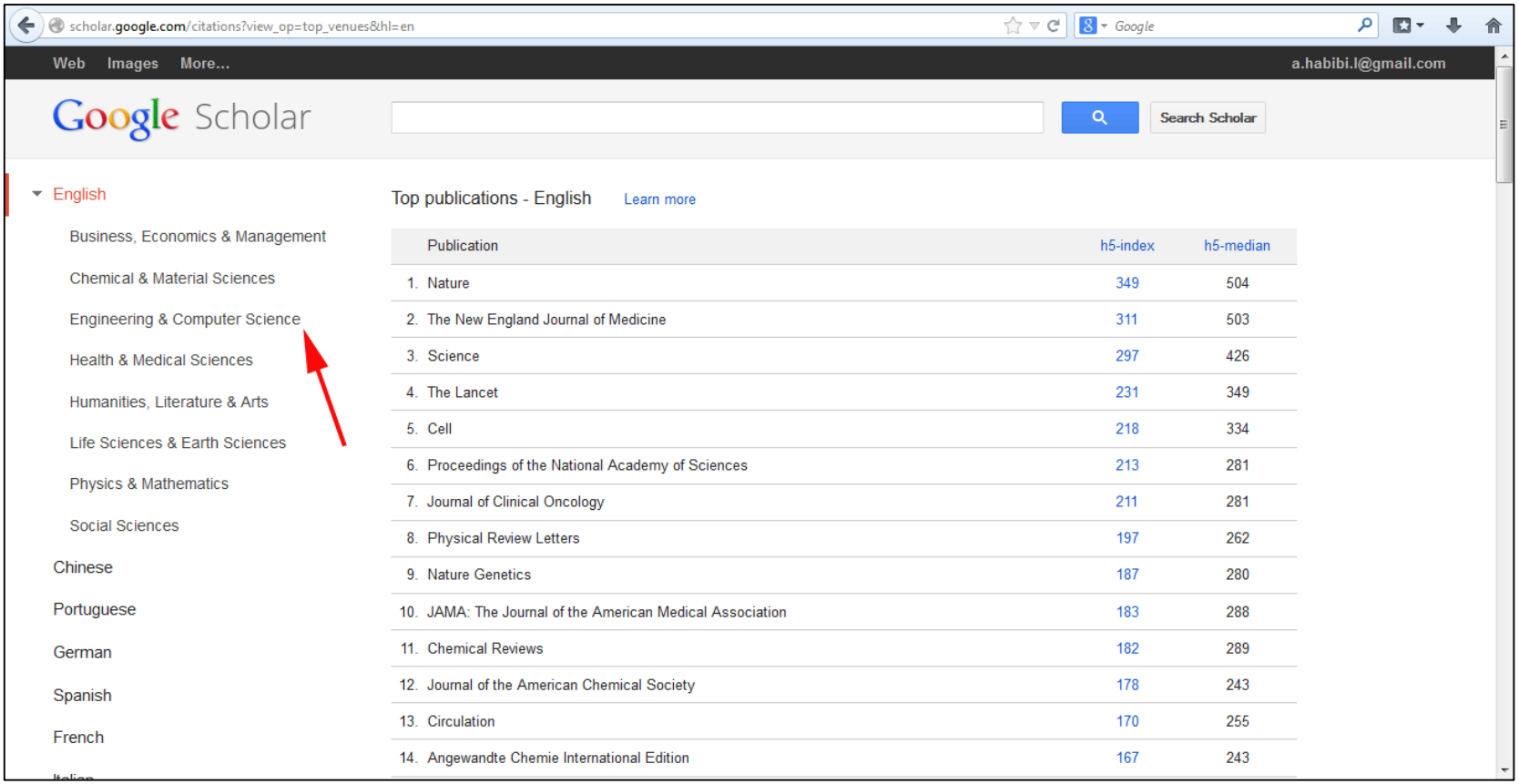
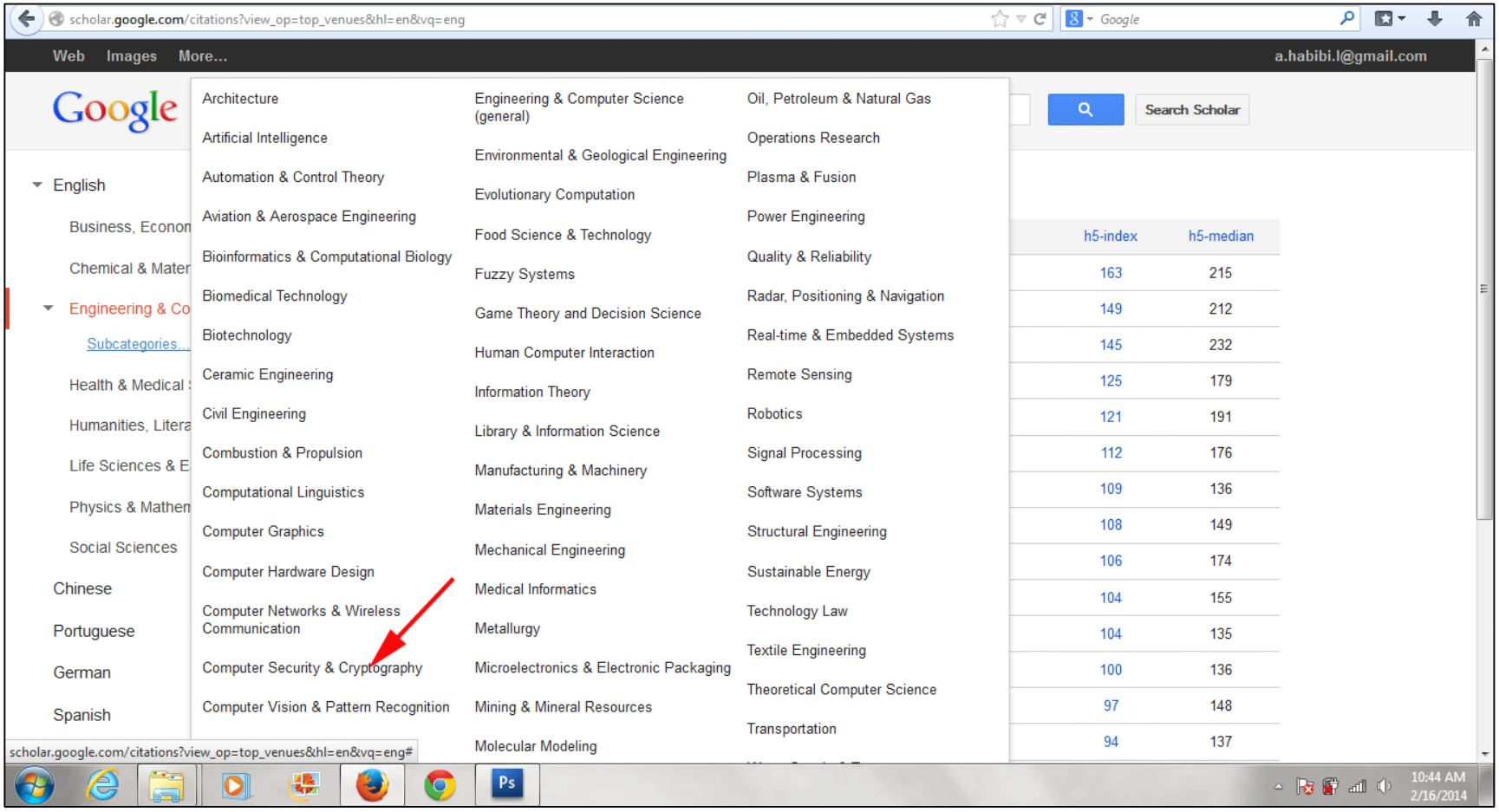
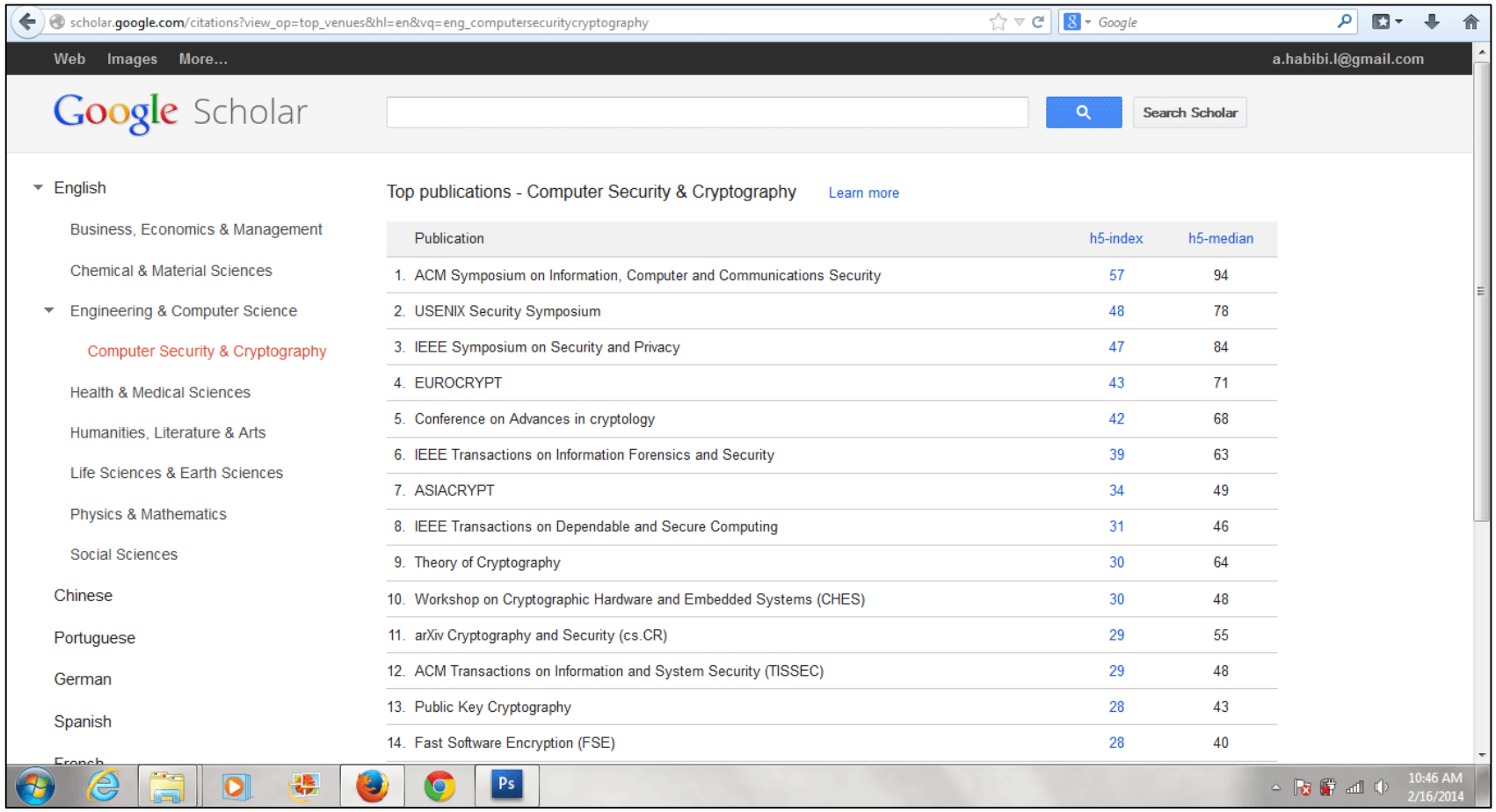


	Publication	h5-index	h5-median
1.	Nature	349	504
2.	The New England Journal of Medicine	311	503
3.	Science	297	426
4.	The Lancet	231	349
5.	Cell	218	334
6.	Proceedings of the National Academy of Sciences	213	281
7.	Journal of Clinical Oncology	211	281
8.	Physical Review Letters	197	262
9.	Nature Genetics	187	280
10.	JAMA: The Journal of the American Medical Association	183	288
11.	Chemical Reviews	182	289
12.	Journal of the American Chemical Society	178	243
13.	Circulation	170	255
14.	Angewandte Chemie International Edition	167	243

Google Scholar…



Google Scholar…



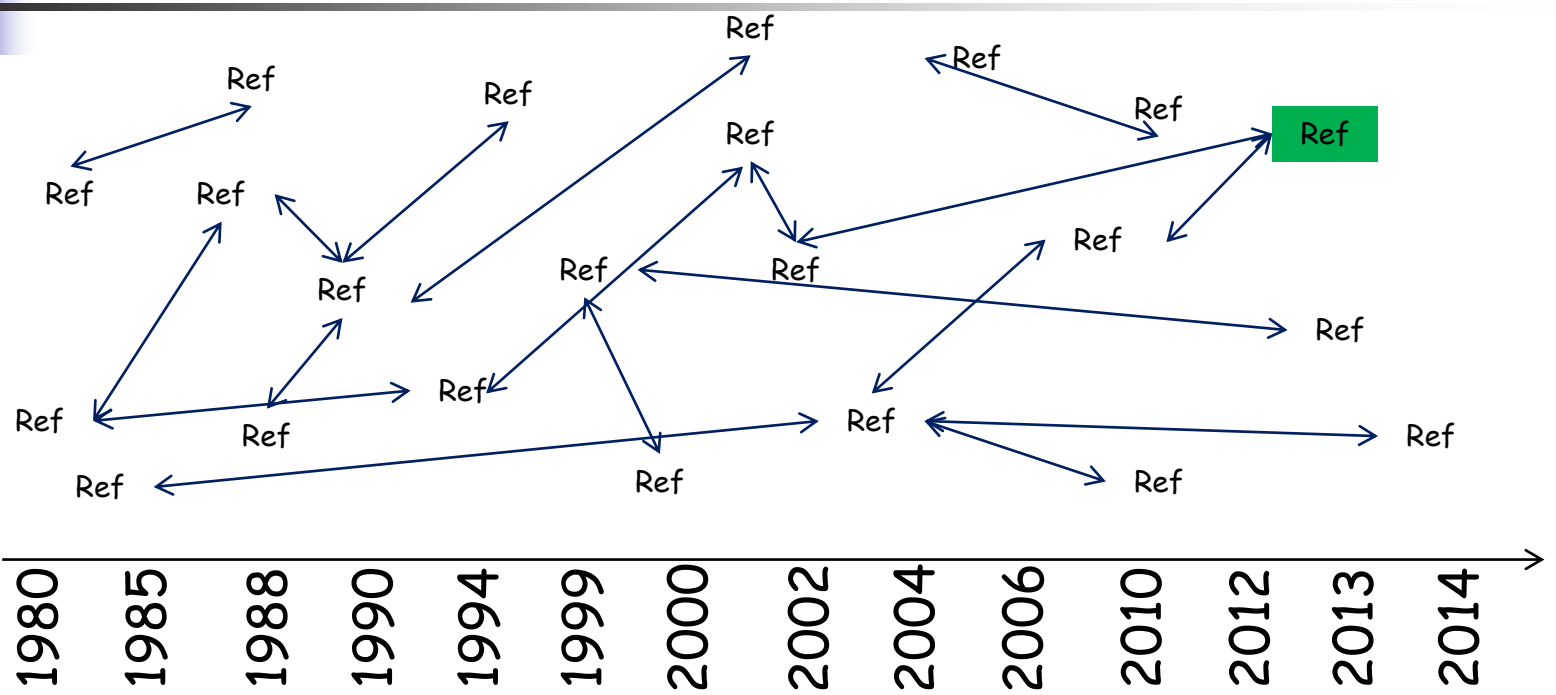
How to find Mother, Father and the youngest child paper?

The LR / RW…

- Overview the articles
- Group the articles into categories
- Take notes:

No.	Date	Auth.	Prob.	Key.	Meth.	So.	Ana.	Fin.	F.W.
Ref 1									
Ref 2									
Ref 3									
Ref 4									
Ref 5									
Ref 6									

Mather paper



No.	Date	Auth.	Prob.	Key.	Meth.	So.	Ana.	Fin.	F.W.
Ref 1	2013								FW1
Ref 2	**2013**		**FW2**						**FW1**
Ref 3	2012		FW4						FW2
Ref 4	2010								FW3
Ref 5	2010								FW4
Ref 6	2009								FW3

you want to follow their FW as your problem

Mather paper

Title (1000 readers)

Abstract (4-5 sentences, 100 readers)

Keywords (5-6 words or phrases, 100 readers)

Introduction (1-1.5 page, 100 readers)

Related work (1-2 pages, 10 readers)

The problem (1 page, 10 readers)

Proposed idea (2 pages, 10 readers)

Details (2-3 pages, 3 readers)

Conclusions and further work (5-6 sentences-100 readers)

Acknowledgement

References

Mather paper -> Father Paper

Mother Paper

[1] THORPE, J. & VAN OORSCHOT, P. C., 2008, 'Towards secure design choices for implementing graphical passwords', Computer Security Applications Conference, 20th Annual.

[2] ZHI, L., QIBIN, S., YONG, L. & GIUSTO, D. D., 2005, 'An Association-Based Graphical Password Design Resistant to Shoulder-Surfing Attack', IEEE International Conference on Multimedia and Expo (ICME).

[3] YOKOTA, K. & YONEKURA, T., 2006, 'A proposal of COMPASS (community portrait authentication system)', International Conference on Cyber worlds.

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Xiaoyuan Suo, Ying Zhu and G. Scott. Owen, "Graphical Passwords: A Survey", Proceedings of the 21st Annual Computer Security Applications. IEEE. 463-472; **2005**.

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Backward (s)

L. O"Gorman, "Comparing Passwords, Tokens, and

Biometrics for User Authentication," Proc. IEEE, vol. 91, no. 12, pp. 2019-2020, Dec. 2003. [14]

Birget, J.C., D. Hong, and N. Memon. Graphical Passwords Based on Robust Discretization. IEEE Trans. Info. Forensics and Security, 1(3), September 2006.

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Blonder, G.E. Graphical Passwords. United States Patent 5,559,961, 1996

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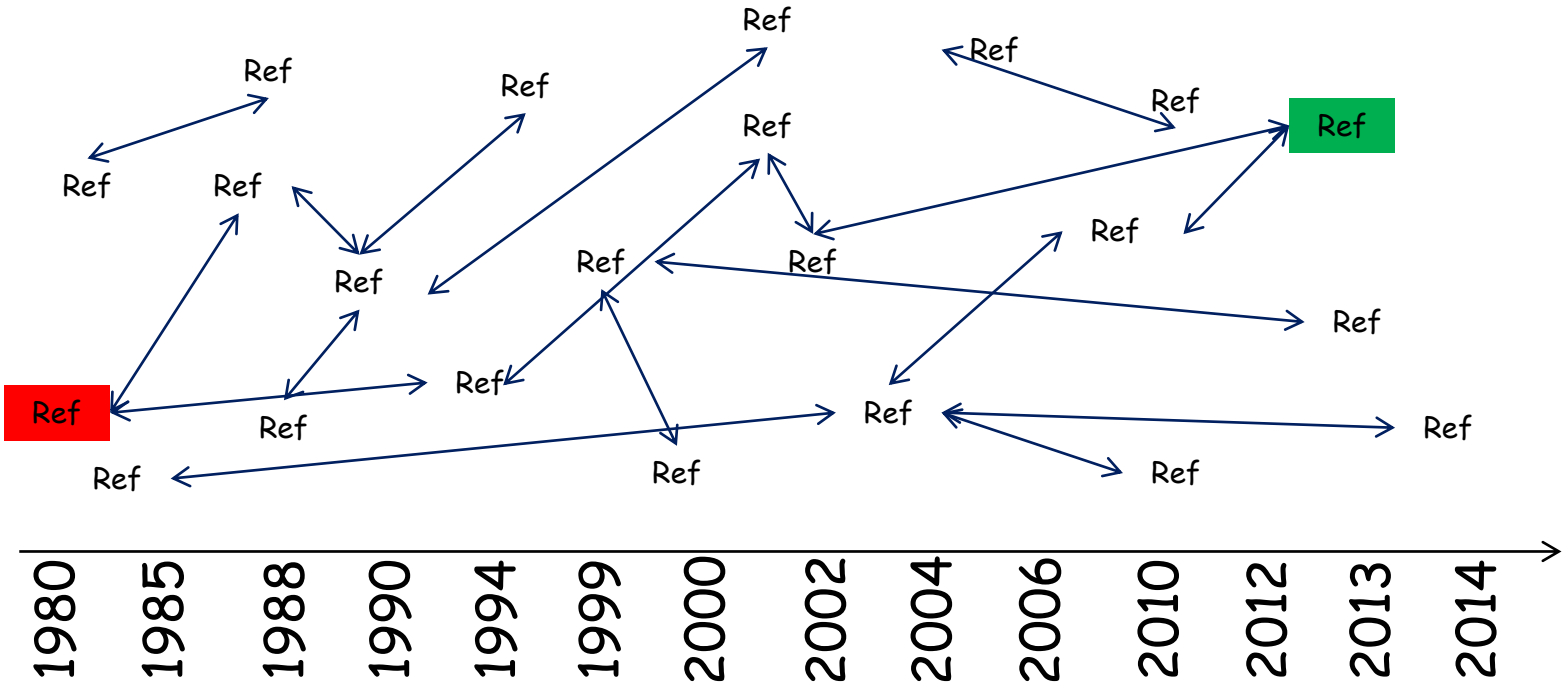
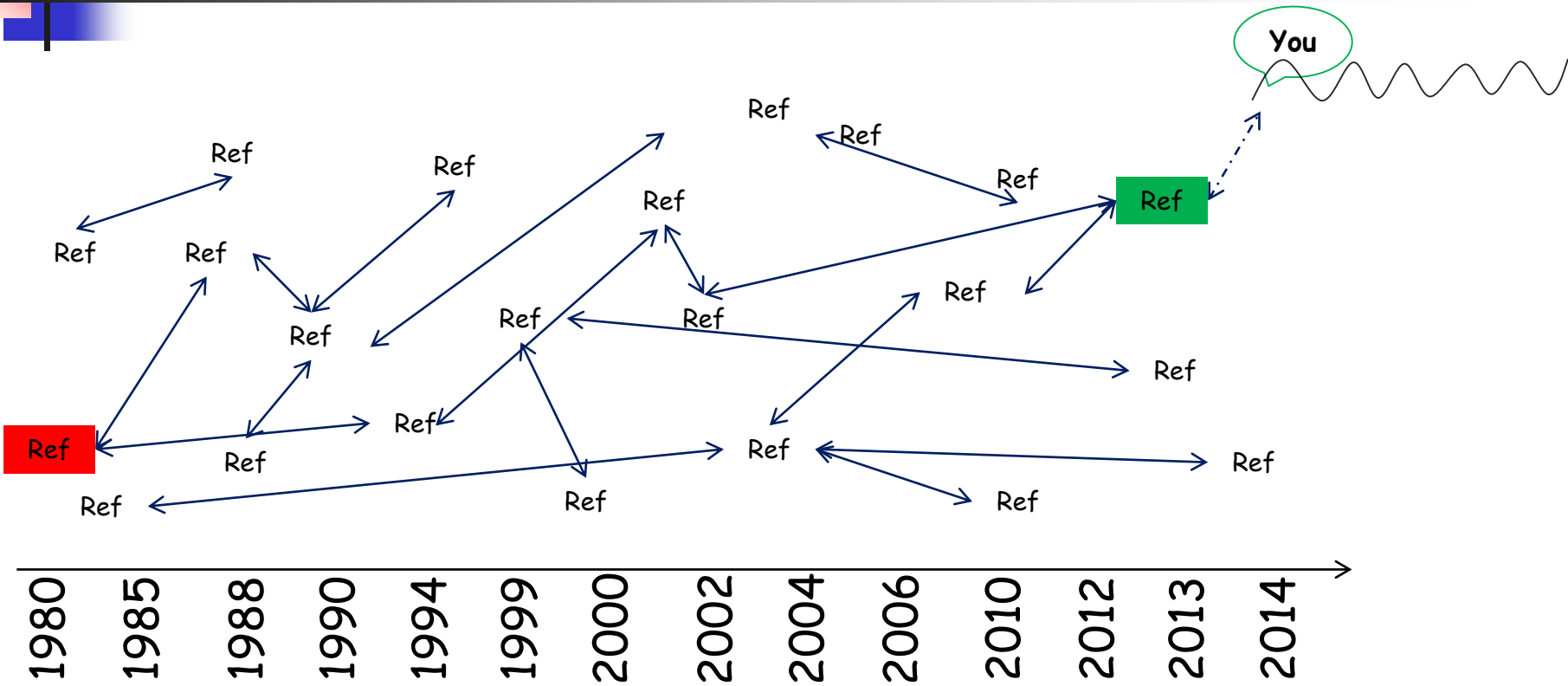
Father paper

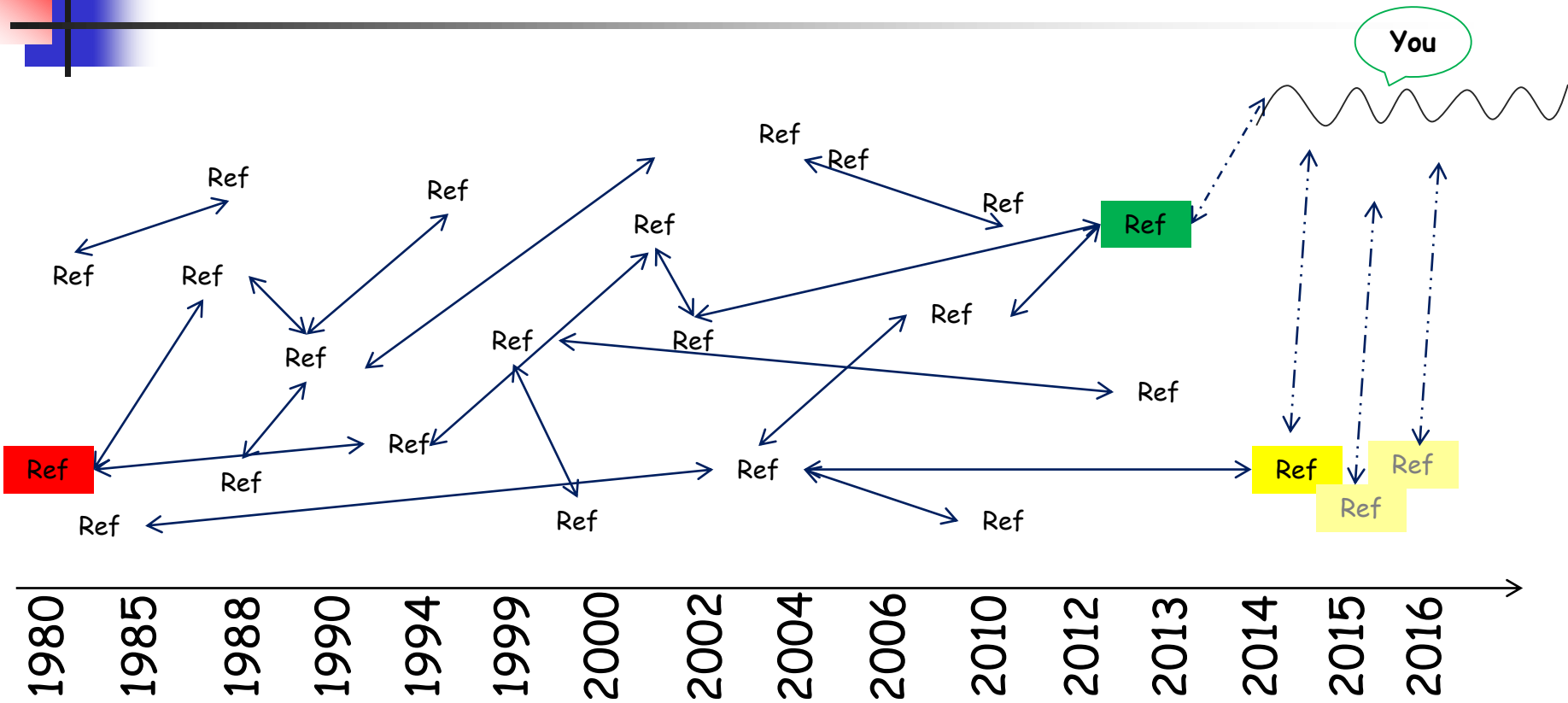
Mather, Father papers



Where are you now…



The youngest Child or younger children



LR structure

- Start by Father paper
- .
- .
- .
- Roughly how many sources should you include?
- .
- .
- . Should you summarize, synthesize, or critique your sources by discussing a common theme or issue?
- .
- Highlight the Mother paper
- Talk about the youngest paper or younger papers
- .
- Should you evaluate your sources?

How can summarize a paper and write about it in LR?

Summarize a paper

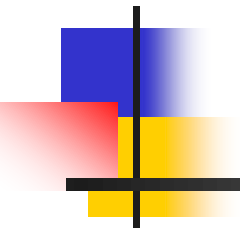
No.	Date	Auth.	Prob.	Key.	Meth.	So.	Ana.	Fin.	F.W.
Ref 1									
Ref 2									
Ref 3									
Ref 4									
Ref 5									
Ref 6									

Paraphrasing the source in your own words, Please remember about **your Voice** !?!?!?!?!

In 2004, *AAAAA* and BBBBB further studied the impact of password length and stroke-count as a complexity property of the DAS scheme. Their study showed that stroke-count has the largest impact on the DAS password space. The size of DAS password space decreases significantly with fewer strokes for a fixed password length. The length of a DAS password also has a significant impact but the impact is not as strong as the stroke-count. To improve the security, *AAAAA* and BBBBBB proposed a "Grid Selection" technique. The selection grid is an initially large, fine grained grid from which the user selects a drawing grid, a rectangular region to zoom in on, in which they may enter their password (figure 3). This would significantly increase the DAS password space [20]. *This method just significantly increases the DAS password space but the lacks of DAS doesn't solve yet [24].*

Create a topic outline that traces your argument: First, Second, Third, …

How can write the last part of a LR?



Last part of a LR…

- You should evaluate your LR sources based on one of the testing and analysing techniques
- Summarise the important aspects of the existing body of literature
- Identify significant flaws or gaps in existing knowledge
- Outline areas for future study

Methodology:

Research MAP,
Mother, Father, Children papers

Next Session :

Step 5: Best Methodology for your research

"There is no way to get experience except through experience."