



E-RESEARCH SKILL FOR ENHANCING RESEARCH & SCIENTIFIC WRITING

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OUTLINE of Training

1. The *Landscape* of Today's Research and *Its Challenges*
2. Review in a Brief : *Philosophy & Fundamentals* of Research
3. The *Eight Fundamental Steps* of Research
4. Preface of *Best Five AI-Tools* for Research & Scientific Writing
5. *Exploring Ideas* with AI-Tools
6. *Defining Problems Domain & Research* with AI-Tools
7. *Defining Contribution* (Novelty & Originaliy) and *Make its Claims* with AI-Tools
8. Best Practice AI-Tools

1. *The Landscape* of Today's Research and Its Challenges

Today's Research Challenges

- Researchers are **struggling to stay up-to-date** with the latest scientific discoveries: Information overload, So many great articles, so little time.
- **Hardship of traditional literature review**: Time Constraints. Information Overload, Relevant Search.
- **The Problems?** Meta-Research: The growth of acronyms in the scientific literature. Science is getting harder to read.




Urgency of AI-Powered Apps for Research

Saves you hundreds of hours



Extracts the key facts, figures and references in seconds



Builds you a personal summarized research library

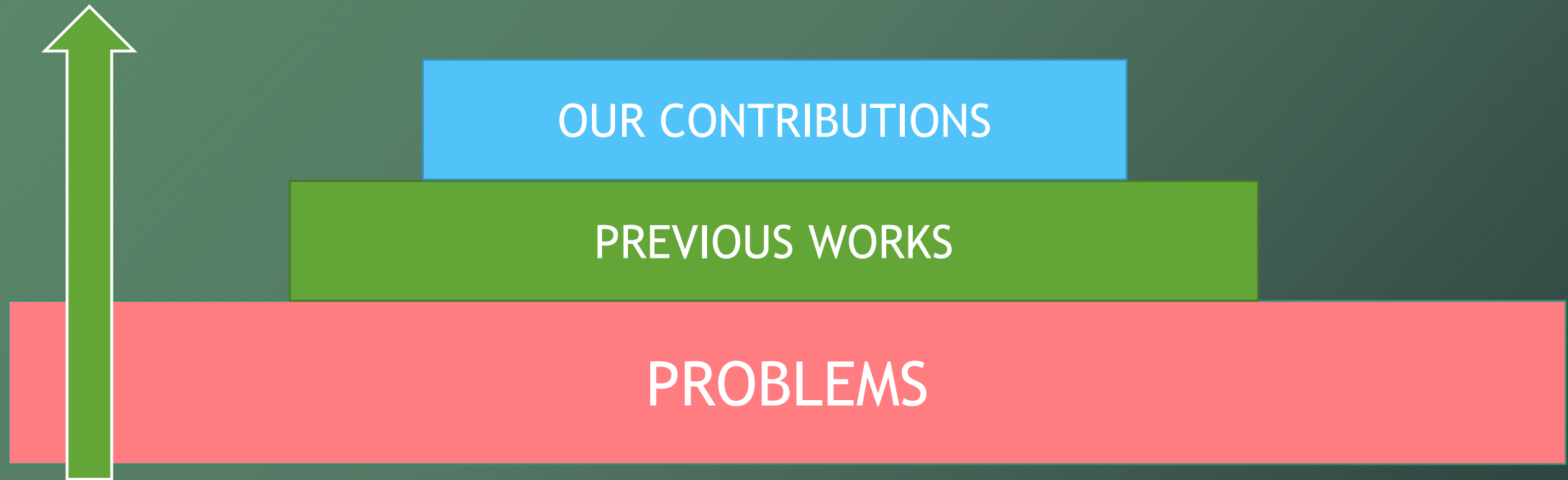
We need smart-way to extract research papers

- Explore
- Summarizer
- Key Insights
- Compare & Contrast
- Organize your research efficiently and effortlessly.

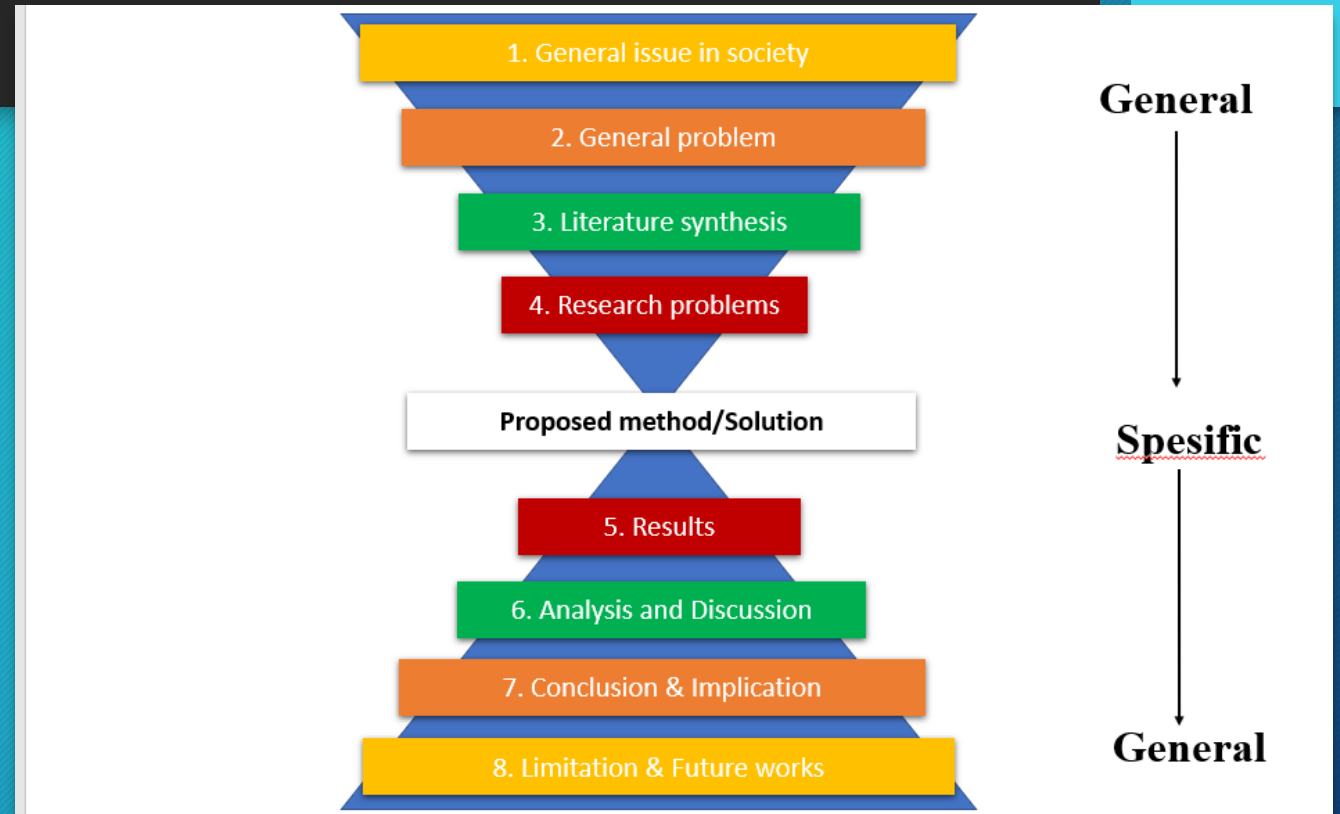
2. Review in a Brief : *Philosophy & Fundamentals of Research*

Finding The Most Fundamental on Research:

(1)What is the problem?



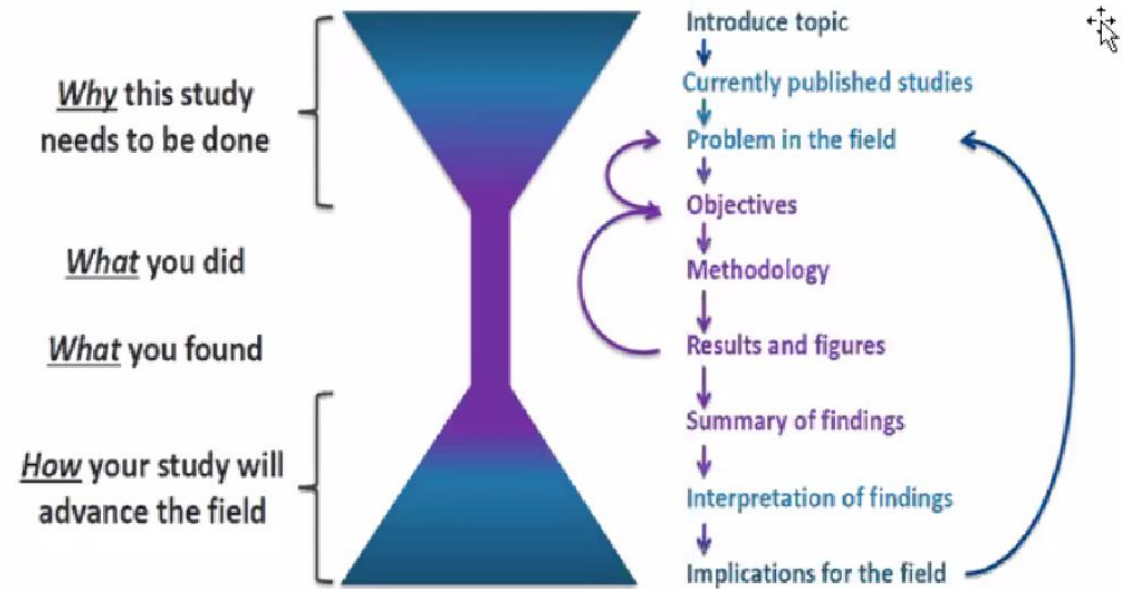
Alur Penulisan Artikel



Alur Penulisan Artikel

Logically linking your ideas

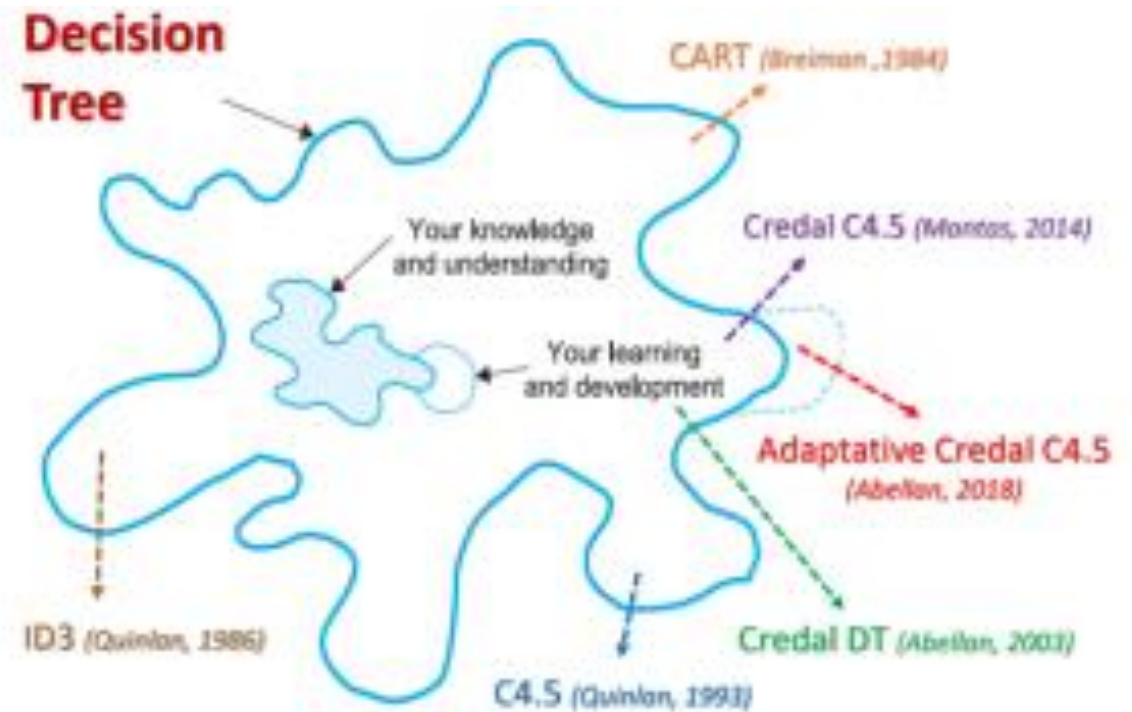
Answer the *four key questions* for your reader



Research Contributions



Research Contributions



5. How to Read a Scientific Paper: Are you read a paper rightly?

1. FIELD OF ESTABLISHMENT

2. PROBLEMS

3. SOLUTION

4. FINDINGS

5. CONTRIBUTIONS



Latihan Membaca *Scientific-Papers*

Main Aspects of a Paper

Finding Research Problem and Contribution



How to find a *STRONG
PROBLEM*



Understanding the *PROBLEM
DOMAIN*



Thinking of *CONTRIBUTION*

Know The Trending Topic, Key Issues and Seed Area

1. Baca Secondary Paper :

- *A Review of....*
- *Bibliometrics Analysis of....*
- *Scientometrics about....*
- *Scientific Landscape of....*
- Tools : VOS Viewer, Citespace, Bibliometrix



Literature Review (Prof Wisnu Jatmiko)

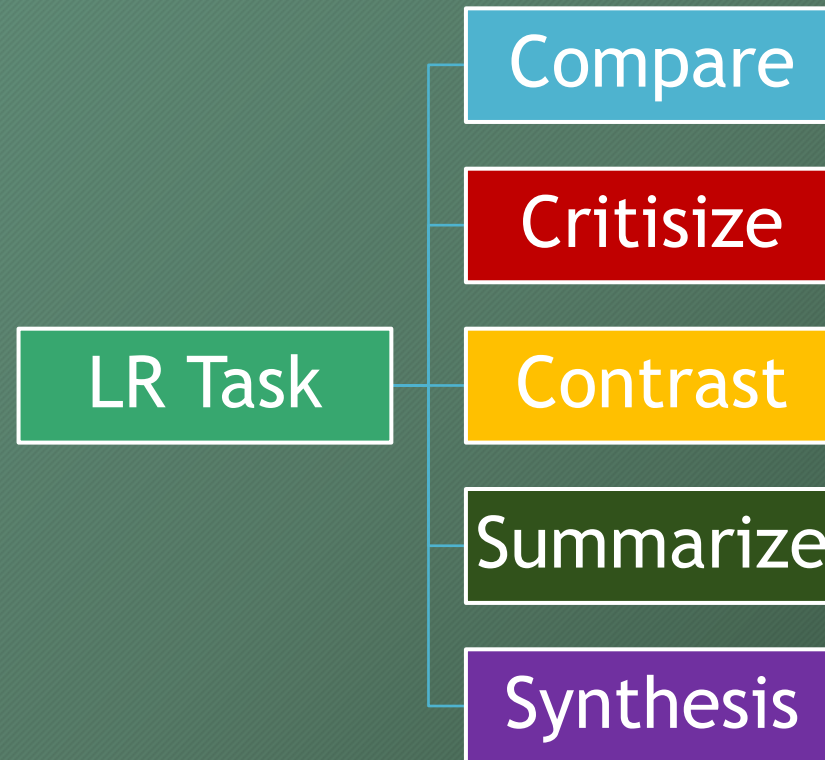


Matriks State of The Art

- ▶ Metode yang akan membantu dalam menentukan state of the art salah satunya dengan membuat matrix

	Metode 1	Metode 2	Metode 3
Problem 1			
Problem 2			
Problem 3			

Literature Review Task-> 3C2S



Reading papers



Why do we have to read good papers?



The quality of your writing depends on the quality of your reading



Failure of reading a good paper can bring you to *failure* in understanding the problem domain, the strong solution, the strong methods, etc.

Types of Papers



1. Primary Study Papers
(Experimental)



2. Secondary Study Papers
(Survey, Review)



3. Tertiary Study Papers (Scoping
Review)

How to Exploring Idea for Impactfull & Contributing Research?

- 3R : READ, READ, READ! (High Quality Papers Journal)
- Take Reputable International Conferences
- Ask and Collaboration from The Expert

Finding Research Gap(RG) dan Defining Novelty

1

Use Publish or Perish(PoP) -> Scopus

2

Use VOS Viewer

3

Discuss with Expert

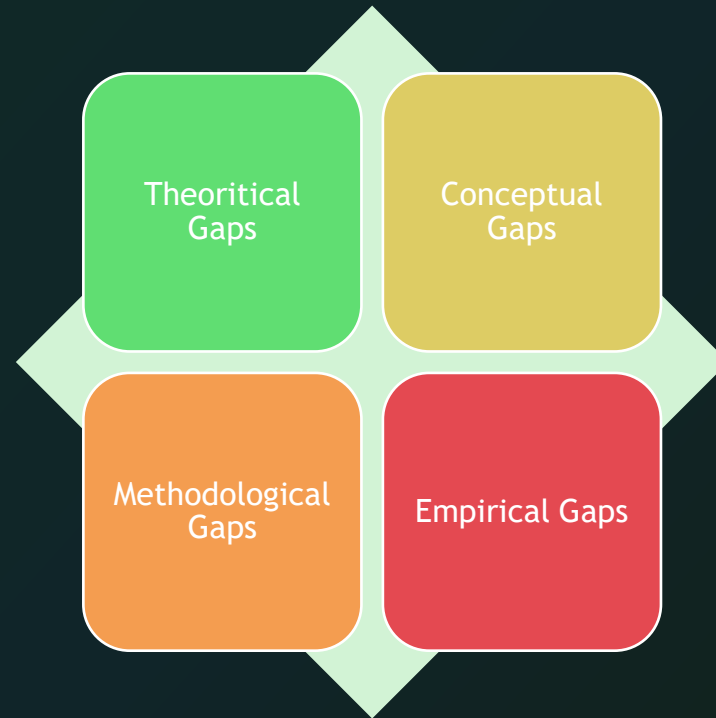
4

Take out Reputable Conferences

5

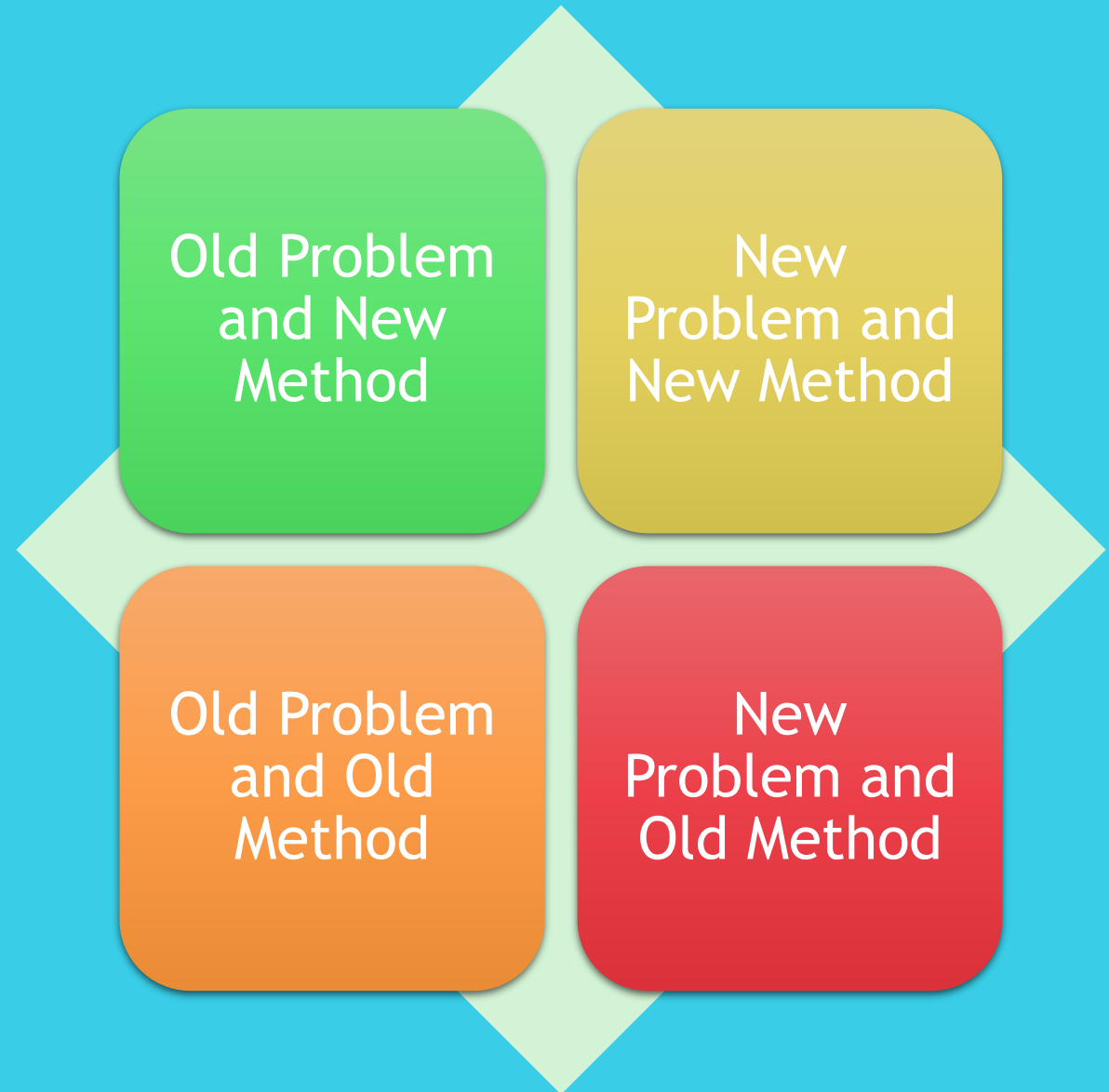
Read many Reputable Papers

Types of Research Gaps(RG)



Determining Research Contributions

(Dr. Sunu Wibirama)



The Types and Degree of Novelty

Theoretical Novelty

Methodological Novelty

Empirical Novelty

The Matrix of Novelty

	Metode 1	Metode 2	Metode 3
Problem 1			
Problem 2			
Problem 3			

Make a Claim of Novelty



Based on my best knowledge, it was still no research on...



Based on LR we have studied , it was still no research on....

3. *The Eight Fundamental Steps* of Research



The Eight Fundamental Steps of Research



AI-Powered Apps & Platforms for Scientific Research

No	Roles & Features	Apps & Platforms	No	Roles & Features	Apps & Platforms
1	Literature Searching	Semantic Scholar (https://www.semanticscholar.org)	4	Research Methodology Consultation	OpenAI ChatGPT-3 (https://chat.openai.com/chat)
		Google Scholar (https://scholar.google.com/)			Jasper.ai (https://www.jasper.ai)
		Science Direct (https://sciencedirect.com)			Bing Chat (https://www.bing.com)
		Scopus (https://www.scopus.com)			OpenAI ChatGPT-3 (https://chat.openai.com/chat)
		SpringerLink (https://link.springer.com)	Grammarly (https://www.grammarly.com)		
		Clarivate Analytics (https://clarivate.com)	Mendeley (https://www.mendeley.com)		
		DeepDyve (https://www.deepdyve.com)	Turnitin (https://www.turnitin.com)		
2	Bibliometric Analysis & Visualization	VOSviewer (https://www.vosviewer.com)	5	Scientific Writing	Google Translate (https://translate.google.com)
		Connected Paper (https://www.connectedpapers.com)			QuillBot (https://quillbot.com/word)
		Iris.ai (https://iris.ai)			
		Bibliometrix (https://bibliometrix.org)			
		Dimensions (https://www.dimensions.ai)			
3	Literature Management	Mendeley (https://www.mendeley.com)			
		Researcher (https://researcher-app.com)			
		Zotero (https://www.zotero.org)			
		Papers (https://papersapp.com)			

4. *Preface of Best Five AI-Tools* for
Research & Scientific Writing

Best Five AI-Tools for Research & Scientific Writing

No	AI-Powered Apps for Research	Fungsi	Link
1	Elicit-AI	Literature review, exploring, Bibliometric, Key finding, research assistant	https://elicit.org/
2	SciSpace-AI-Co Pilot	Literature review, exploring, Bibliometric, Key finding, research assistant	https://typeset.io/
3	IRIS-AI	Literature review, exploring, Bibliometric, Key finding	https://iris.ai/
4	Chat-GPT	Exploring ideas, trend research, finding gaps, novelty, research assistant	https://chat.openai.com/
5	Quillbot	Paraphrase, Summarizer	https://quillbot.com/

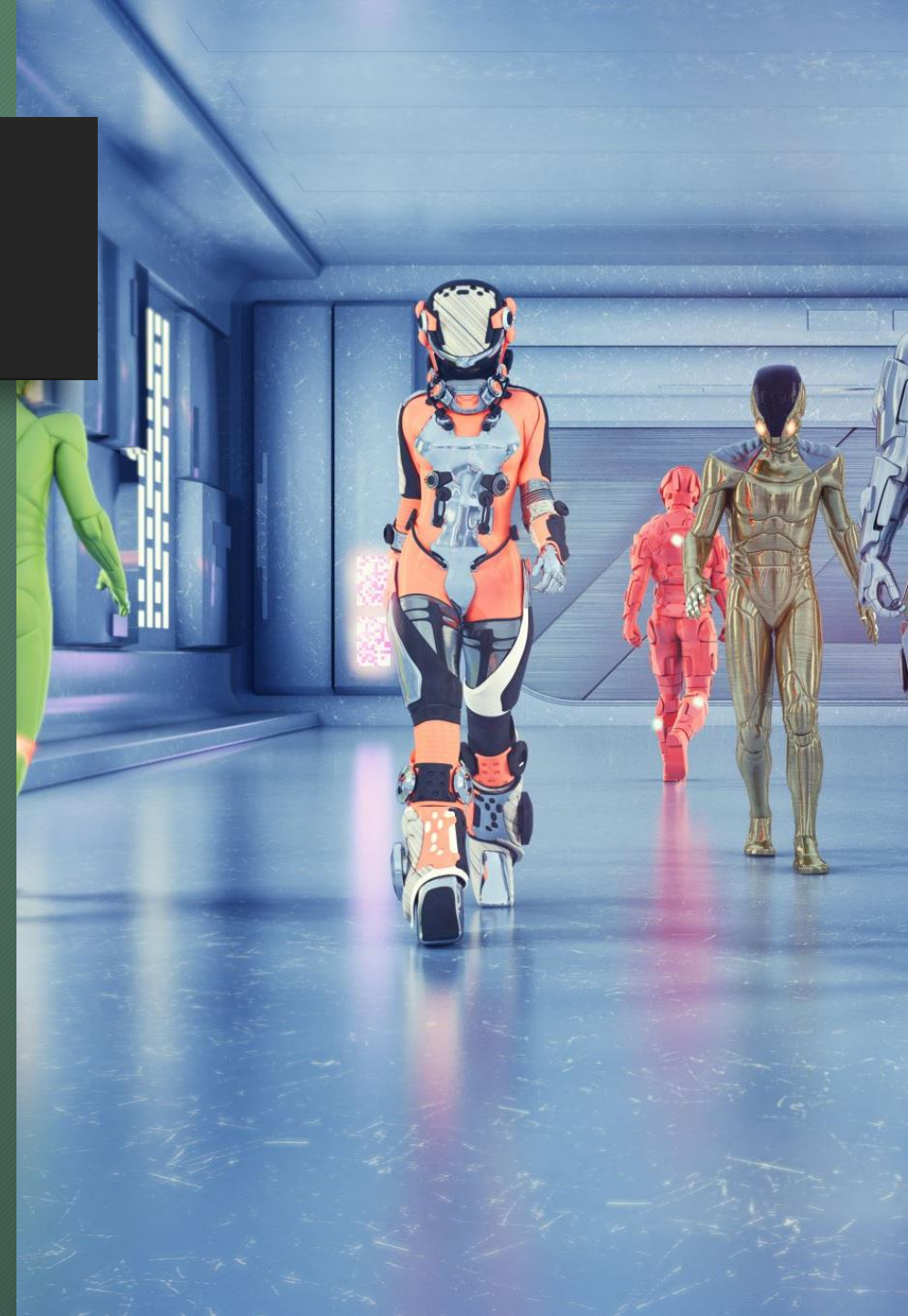
Other AI-Tools for Research & Scientific Writing

No	AI-Powered Apps for Research	Fungsi	Link
6	Scholarcy	Summarizer, key finding otomatis	https://www.scholarcy.com/
7	Raxter-IO	Summarizer, key finding otomatis	https://www.read.enago.com/
8	Scite-AI	Smart Citation, research assistant	https://scite.ai/
9	Connected Paper	Literature review, exploring, Bibliometric, Key finding	https://www.connectedpapers.com/
10	Research Rabbit	Literature review, exploring, Bibliometric, Key finding	https://www.researchrabbit.ai/

5. *Exploring Ideas* with AI-Tools

Exploring Idea with AI-Tools

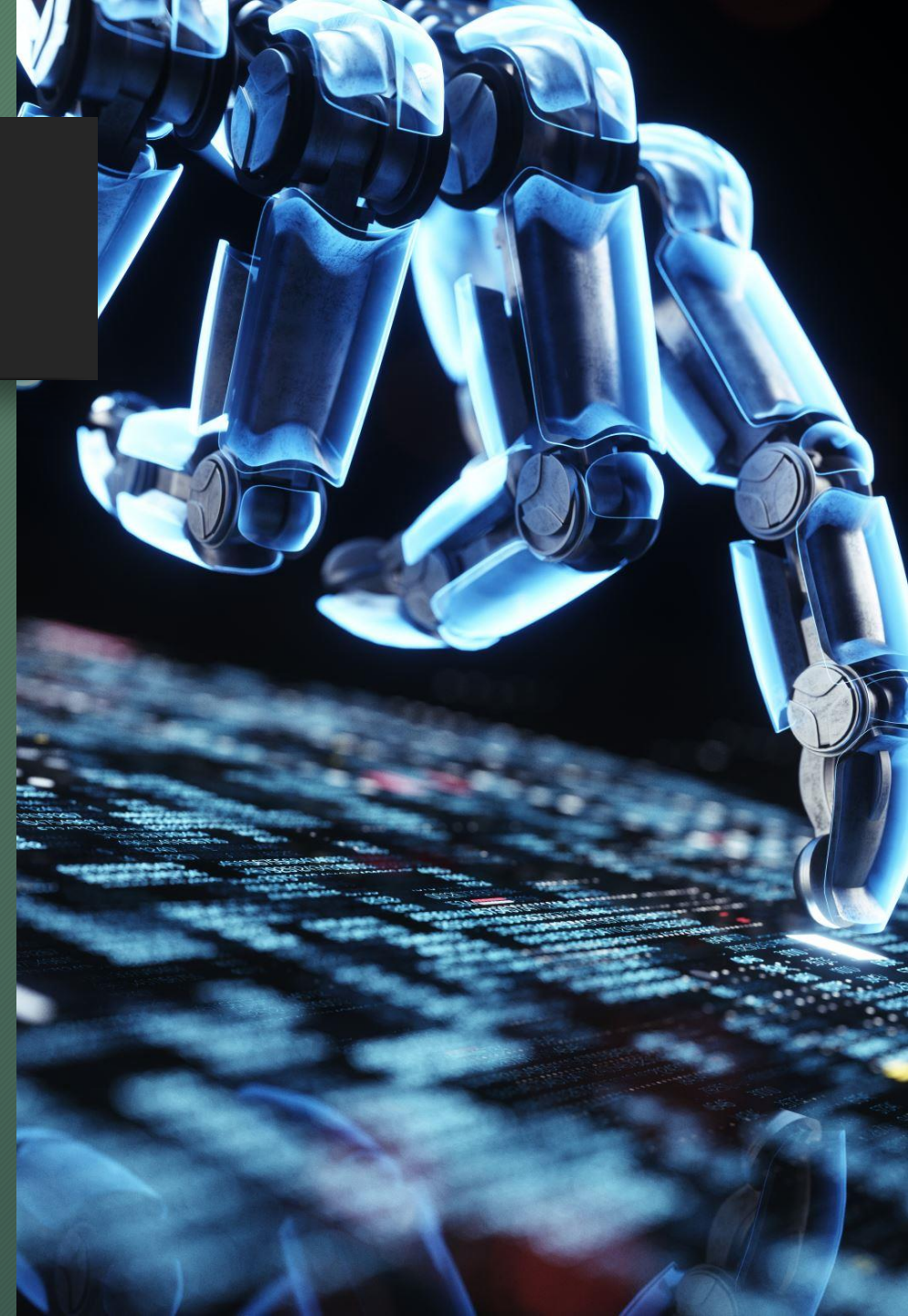
- 1. Elicit-AI
- 2. SciSpace-AI-Co Pilot
- 3. IRIS-AI
- 4. Chat-GPT



6. *Defining Problems Domain & Research* with AI-Tools

Defining Problems Domain & Research with AI-Tools

- 1. Elicit-AI
- 2. SciSpace-AI-Co Pilot
- 3. Chat-GPT
- 4. SCite-AI



7. *Defining Contribution* (Novelty & Originality) and *Make its Claims* with AI-Tools



Defining Contribution (Novelty & Originaliy) and Make its Claims with AI-Tools



1. CHAT-GPT



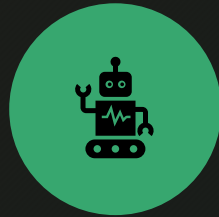
2. QUILLBOT

8. *Best Practice* AI-Tools

Best Practice AI-Tools



1. ELICIT-AI



2. SCISPACE-
AI-CO PILOT



3. IRIS-AI



4. CHAT-
GPT



5. QUILLBOT