

LAPORAN KEGIATAN

**WEBINAR CRITICAL AND ETHICAL USE OF AI IN RESEARCH AND
TEACHING**



OLEH:

Yudi Santoso, M.Kom

FAKULTAS TEKNOLOGI INFORMASI
UNIVERSITAS BUDI LUHUR
GASAL 2025/2026

HALAMAN PENGESAHAN

- 1 Judul Seminar : Webinar Critical and Ethical Use of AI in Research and Teaching
- 2 Bidang Ilmu : Ilmu Pengetahuan dan Teknologi
- 3 Peserta :
 - a. Nama Lengkap : Yudi Santoso, M.Kom
 - b. Jenis Kelamin : Laki-laki
 - c. NIP/NIDN : 960029/ 0316017201
 - d. Jabatan Fungsional : Lektor
 - e. Jabatan Struktural : Dosen Tetap
 - f. Program Studi : Sistem Informasi
4. Tanggal Pelaksanaan : Rabu, 22 Oktober 2025
- 5 Lokasi Kegiatan : Online
- 6 Lama Kegiatan : 1 (satu) hari
- 7 Biaya yang diperlukan : -

Jakarta, Oktober 2025

Dosen Partisipan,



(Yudi Santoso, M.Kom)

NIP. 960029

KATA PENGANTAR

Dengan mengucapkan syukur Alhamdulillah, penulisan laporan *Webinar Critical and Ethical Use of AI in Research and Teaching* semester Gasal 2025/2026 yang berlangsung selama satu hari pada hari Rabu, 22 Oktober 2025 dilaksanakan secara online (via zoom) selesai dikerjakan.

Laporan ini disusun sebagai bentuk tanggung jawab saya sebagai peserta kepada Fakultas Teknologi Informasi Universitas Budi Luhur. Mudah-mudahan bermanfaat bagi pembaca. Terima kasih kepada semua pihak yang telah memberikan kontribusi dalam penyusunan laporan ini. Apabila terdapat kekurangan dan kelemahan dalam penyusunan laporan ini, saya menerima saran dan kritik guna penyempurnaan lebih lanjut.

Jakarta, Oktober 2025

Penulis

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I. KEGIATAN

1.1. Nama Kegiatan

Webinar Critical and Ethical Use of AI in Research and Teaching semester Gasal 2025/2026.

1.2. Latar Belakang

Tridharma Perguruan Tinggi yang selanjutnya disebut Tridharma adalah kewajiban Perguruan Tinggi untuk menyelenggarakan Pendidikan, penelitian, dan pengabdian kepada masyarakat (UU No. 12 Tahun 2012, Pasal 1 Ayat 9). Dosen sebagai anggota Sivities Akademika memiliki tugas mentransformasikan Ilmu Pengetahuan dan/atau Teknologi yang dikuasainya kepada mahasiswa dengan mewujudkan suasana belajar dan pembelajaran sehingga mahasiswa aktif mengembangkan potensinya.

Dosen sebagai ilmuwan memiliki tugas mengembangkan suatu cabang Ilmu Pengetahuan dan/atau Teknologi melalui penalaran dan penelitian ilmiah serta menyebarkannya.

Workshop ini memberikan manfaat yang sangat besar bagi dosen-dosen terutama dalam mengembangkan ilmunya yang tentunya akan membantu pengembangan Fakultas.

1.3. Tujuan Kegiatan

Webinar Critical and Ethical Use of AI in Research and Teaching bertujuan untuk sharing atau berbagi ilmu dan pengalaman serta pengembangan kompetensi karier sebagai Dosen.

1.4. Pembicara Seminar

Dr. Francisco Jose Castillo Centre of Learning and Teaching University of Groningen. Moderator Nuril Munfarudah, M.Pd., Ph.D. Kepala Pusat Kurikulum dan Pembelajaran Universitas Negeri Malang agar acara berjalan aktif dan lancar.

1.5. Pelaksanaan Seminar

a. Pembukaan

Pelaksanaan seminar hari Rabu , 22 Oktober 2025 pukul 13.00 - 16.00 wib dilakukan secara *Online via Zoom*.

b. Pemaparan materi Sharing

The poster is for a webinar titled "Webinar Critical and Ethical Use of AI in Research and Teaching". At the top, it features logos of various educational institutions and the website "DUNIADOSEN.COM". The main title is in bold black text. Below the title are two circular portraits: a man on the left and a woman on the right. Under the man's portrait, it says "GUEST SPEAKER" and "Dr. Francisco José Castillo, Centre of Learning and Teaching, University of Groningen". Under the woman's portrait, it says "MODERATOR" and "Nuril Munfaridah, M.Pd., Ph.D., Kepala Pusat Kurikulum dan Pembelajaran, Universitas Negeri Malang". Below the portraits, the date and time are listed: "Rabu, 22 Oktober 2025, Pukul 13.00 - 16.00 WIB", with a note "Online via Zoom". To the right, under "FASILITAS PESERTA", it lists "Serikat dan Materi", "Voucher Penyerahan Buku", and "Ebook Penelitian Buku". A red banner at the bottom says "Free Register" and "Free For Everyone". At the very bottom, it says "Diselenggarakan oleh Pusat Kurikulum dan Pembelajaran LPPDUM dan Duniadosen.com" and includes social media handles for "duniadosen.com" and "duniadosencom", along with logos for "sponsored by" and "eepublish".

Definition

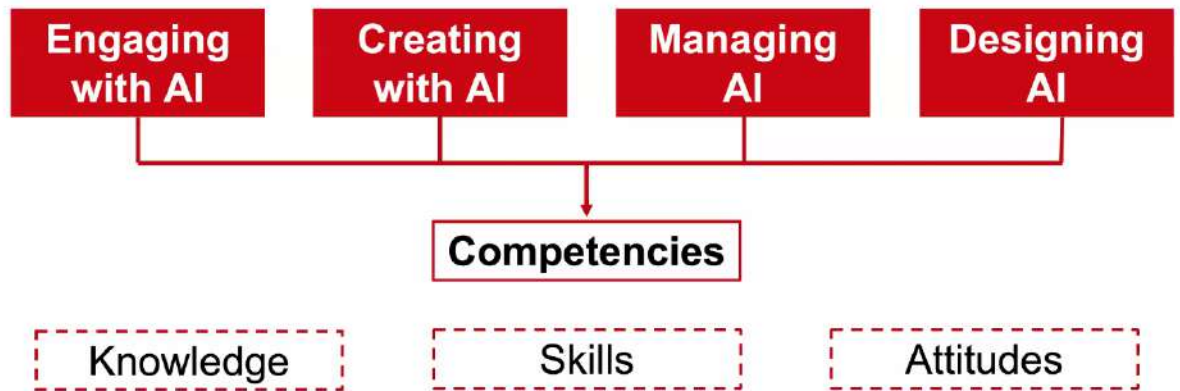
AI literacy represents the technical knowledge, durable skills, and future-ready attitudes required to thrive in a world influenced by AI. It enables learners to engage, create with, manage, and design AI, while critically evaluating its benefits, risks, and ethical implications.

Admin Dundos | Fran | Nurwati | Dunia Dosen_Rumbha... | Endah Setiyowati | Asriadi K.

Definition

AI literacy represents the technical knowledge, durable skills, and future-ready attitudes required to thrive in a world influenced by AI. It enables learners to engage, create with, manage, and design AI, while critically evaluating its benefits, risks, and ethical implications

Domains



Competences – Engaging with AI

Recognize AI's role and influence in different contexts

Evaluate whether AI outputs should be accepted, revised, or rejected

Examine how predictive AI systems provide recommendations that can inform and limit perspectives

Competences – Creating with AI

Use AI systems to explore new perspectives and approaches that build upon original ideas

Visualize, prototype, and combine ideas using different types of AI systems

Collaborate with generative AI systems to elicit feedback, refine results, and reflect on thought processes

Competences – **Creating with AI**

Analyze how AI can safeguard or violate content authenticity and intellectual property

Explain how AI systems perform tasks using precise language that avoids anthropomorphism

Competences – **Managing AI**

Decide whether to use AI systems based on the nature of the task

Decompose a problem based on the capabilities and limitations of both AI systems and humans

Direct generative AI systems by providing specific instructions, appropriate context, and evaluation criteria

Knowledge

Nature of AI

AI reflects human choices and perspectives

AI reshapes work and human roles

AI's capabilities and limitations

AI reshapes work and human roles



(OECD, 2025)

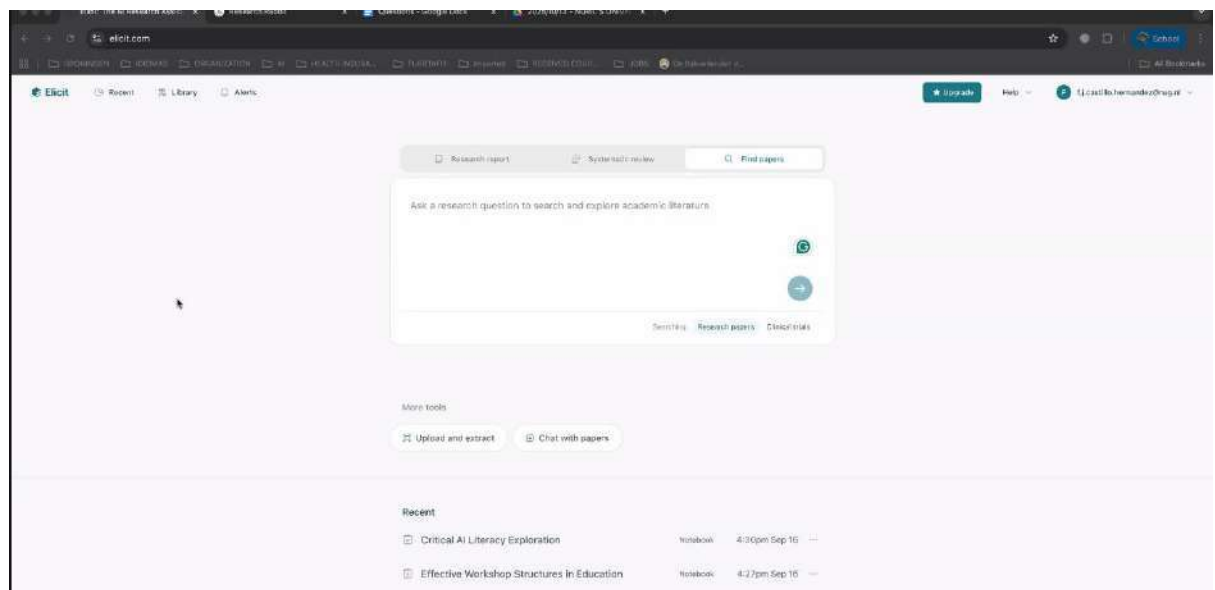
Section 2 – Exploring AI tools for research and teaching and analysing them critically

To explore how different AI tools can be used in research, and to analyse their advantages, limitations, and ethical implications through hands-on activities

AI tools (1)



Elicit AI is an artificial intelligence tool designed to optimize the academic research process



What is the impact of artificial intelligence on learning outcomes?

Sort: Most relevant | Search | Filters | Column | Export | UPGRADE | Save to library | Get full-text?

Sort	36 found	Summary
Most relevant		
Most recent		
Least recent		
Most cited		
Least cited		
Title (alphabetical)		
Journal of Digital Learning and Education, 2024, 16 citations		
Full text		
Impact of Generative Artificial Intelligence on Learning Outcomes:		Generative Artificial Intelligence has a significant positive impact on learning outcomes, with a combined effect size of 0.59, as found in a meta-analysis of 34 studies.
Journal of Artificial Intelligence Research, 2024, 6 citations		
Full text		
Impact of Artificial Intelligence on Student Learning Outcomes: A Systematic Literature Review		Artificial intelligence has significant potential to enhance educational processes and improve learning outcomes, with a systematic review of 38 articles from 2012 to 2023 indicating its benefits and challenges, including data privacy and system reliability concerns.
Journal of Educational Research, 2024, 3 citations		
Full text		
Enhancing Digital Learning Outcomes Through the Application of Artificial Intelligence: A Comprehensive Review		AI interventions enhance learning outcomes by personalizing instruction and providing immediate feedback, with high learner engagement and satisfaction, based on a comprehensive review of multiple studies.
International Journal of Research Science and Research Technology, 2024, 7 citations		
Full text		
Impact of Artificial Intelligence on Student Learning Outcomes - Advantages and Pitfalls:		AI improves academic performance and provides personalized learning, but may also lead to excessive technology use.
Advances in Education, 2024, 1 citation		

Chat with papers | Edit column

Summarize these papers

Artificial intelligence demonstrates a significant positive impact on learning outcomes, with consistent evidence across multiple meta-analyses showing moderate to strong positive effects.

The most comprehensive meta-analysis (Sun et al., 2024) found an overall effect size of 0.59 ($p < 0.001$), with particularly strong impacts in cognitive ($g = 0.795$) and competency ($g = 0.711$) dimensions. Liu & Wang et al., 2024 corroborated these findings in a separate meta-analysis of 50 experimental studies, confirming AI's potential to enhance student learning.

The impact varies by discipline, with the most pronounced improvements in mathematics, science, and humanities. While AI shows consistent benefits, researchers caution against over-reliance and emphasize the importance of human-machine collaboration (Liu & Wang et al., 2024).

What is the impact of artificial intelligence on learning outcomes?

Sort: Most cited | Search | Filters | Column | Export | UPGRADE | Save to library | Get full-text?

Paper	30 found	Summary
The impact of artificial intelligence on learner-instructor interaction in online learning		Not directly relevant to the research question. The paper explores the impact of AI on learner-instructor interaction rather than learning outcomes.
International Journal of Educational Technology in Higher Education, 2021, 443 citations		
Full text		
The potential of learning with (and not from) artificial intelligence in education		The impact of artificial intelligence on learning outcomes is primarily focused on optimizing AI systems rather than improving learning quality. Students using ITS outperform those in nonadaptive classes 92% of the time. The evidence is based on a review of 48 articles, which highlights the effectiveness of ITS in improving academic performance.
International Journal of Artificial Intelligence, 2022, 37 citations		
Full text		
The Efficacy of Artificial Intelligence-Enabled Adaptive Learning Systems From 2010 to 2022 on Learner Outcomes: A Meta-Analysis		AI-enabled adaptive learning systems have a medium to large positive effect size ($g = 0.70$) on cognitive learning outcomes, supported by a meta-analysis of 45 studies from 18 databases.
Journal of Educational Computing Research, 2024, 21 citations		
Abstract only		
Enabling learner independence and self-regulation in language education using AI tools: a systematic review		AI-driven tools significantly enhance language learner's outcome by promoting engagement, providing immediate feedback, and facilitating personalized learning experiences, as evidenced by a systematic review of 18 peer-reviewed articles.
Open Access Journal of Current Education, 2024, 17 citations		
Full text		
Impact of artificial intelligence adoption on students' academic performance in open and distance learning: A systematic literature review		AI has a positive impact on learning outcomes in ODL environments, with machine learning methods effectively predicting academic achievement, and enhancing learner-educator interactions. The systematic review of 64 papers provides strong evidence for this positive correlation.
Journal of Pedagogical Research, 2024, 13 citations		
Full text		

Back | New column

Name: Methodology

Instructions: [input field]

Answer structure: Any | Sequential | New

Cancel

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In order to continue receiving your personalized Grammarly suggestions, please sign back in.

Sign back in

Don't show this again

AI tools (1)

1. Go to elicit.com and search for 2–3 articles on a topic that interests you.
2. Explore how the tool works (filters, summaries, etc.).
3. Scan the QR code and answer: 1) What are the advantages?; 2) What are the limitations?; 3) Do you think using this tool is ethical? Why or why not?



**15
min**

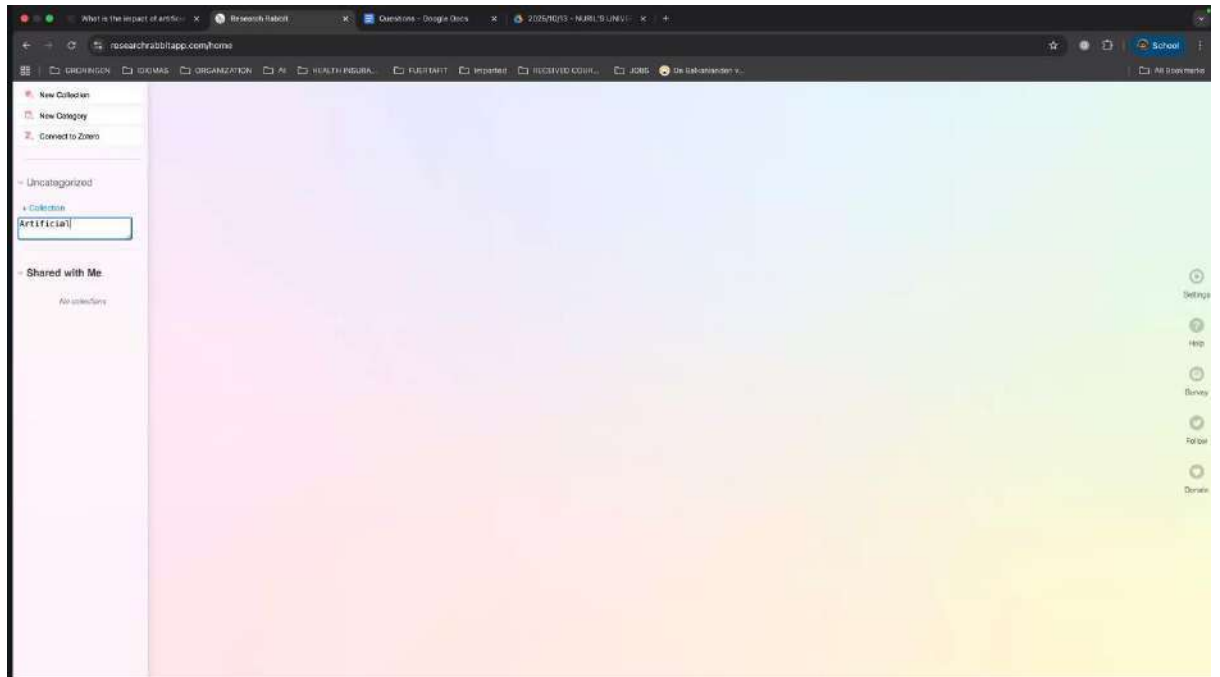
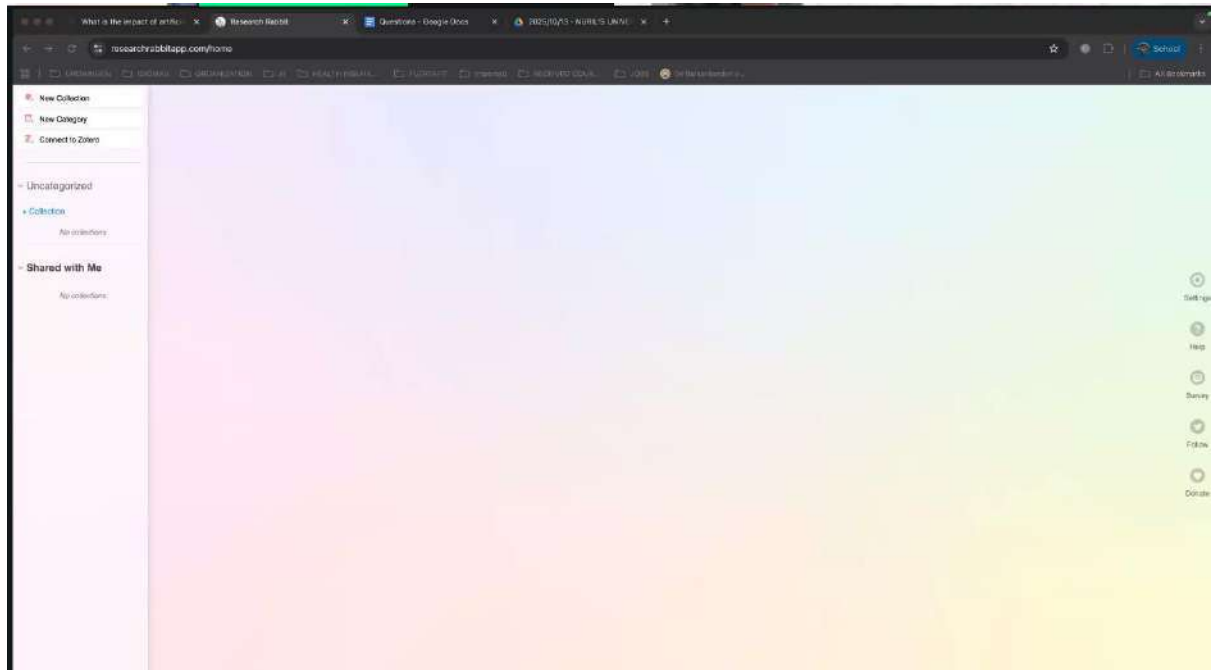
AI tools (2)

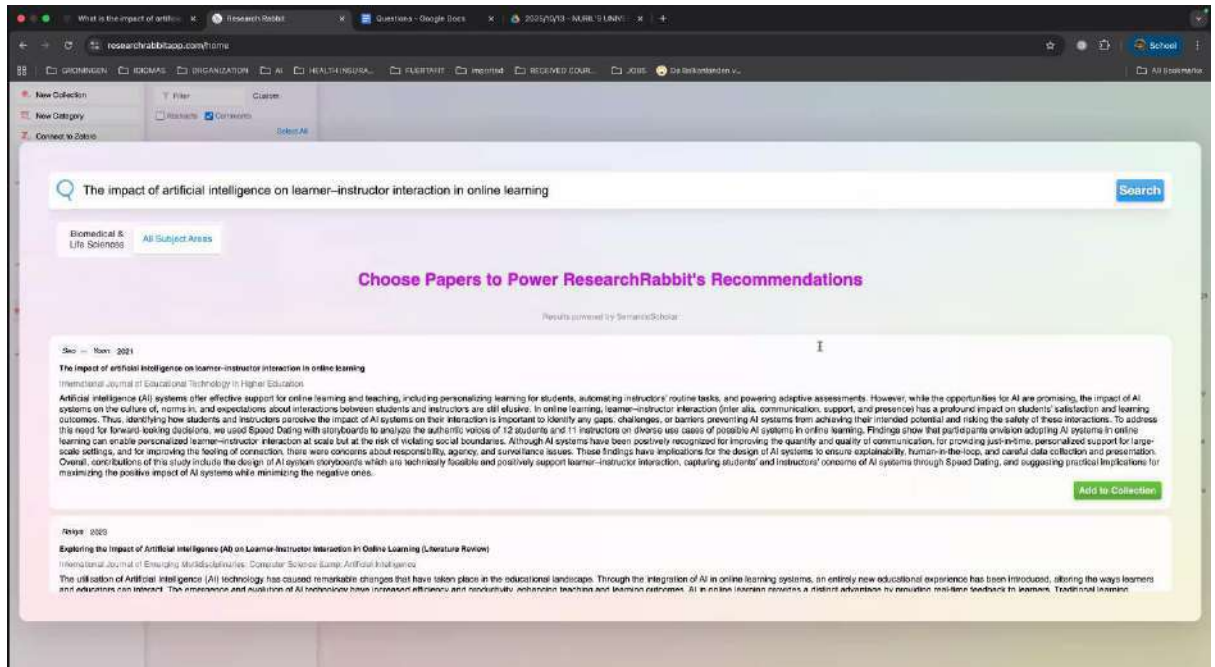
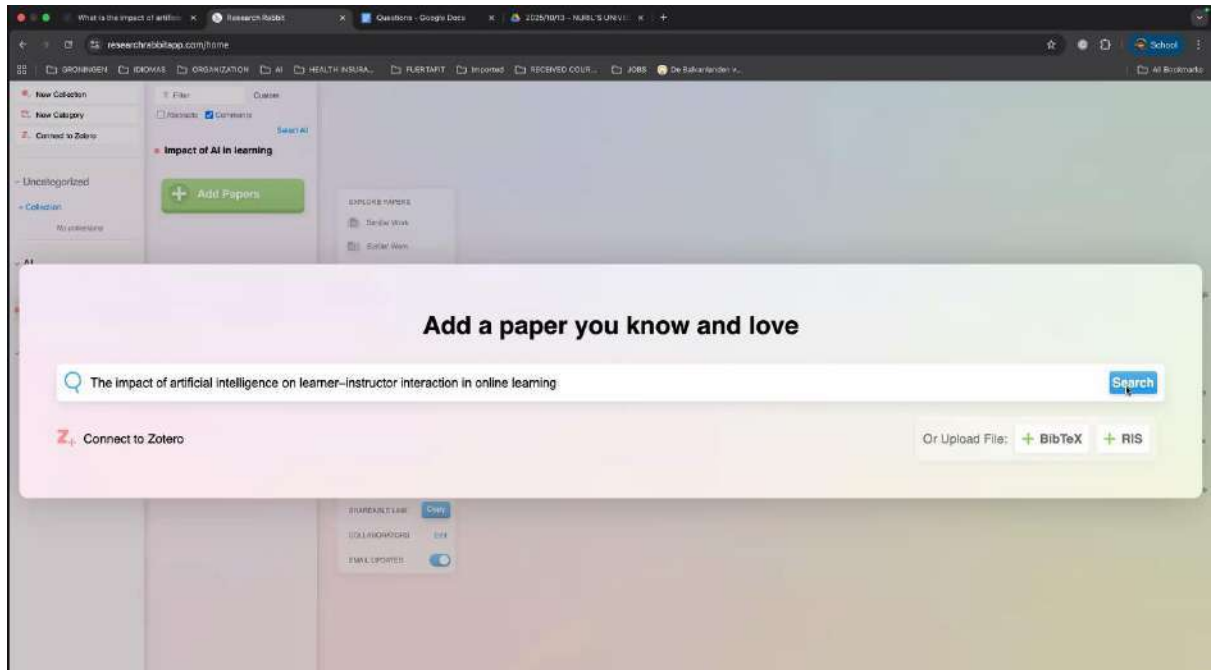


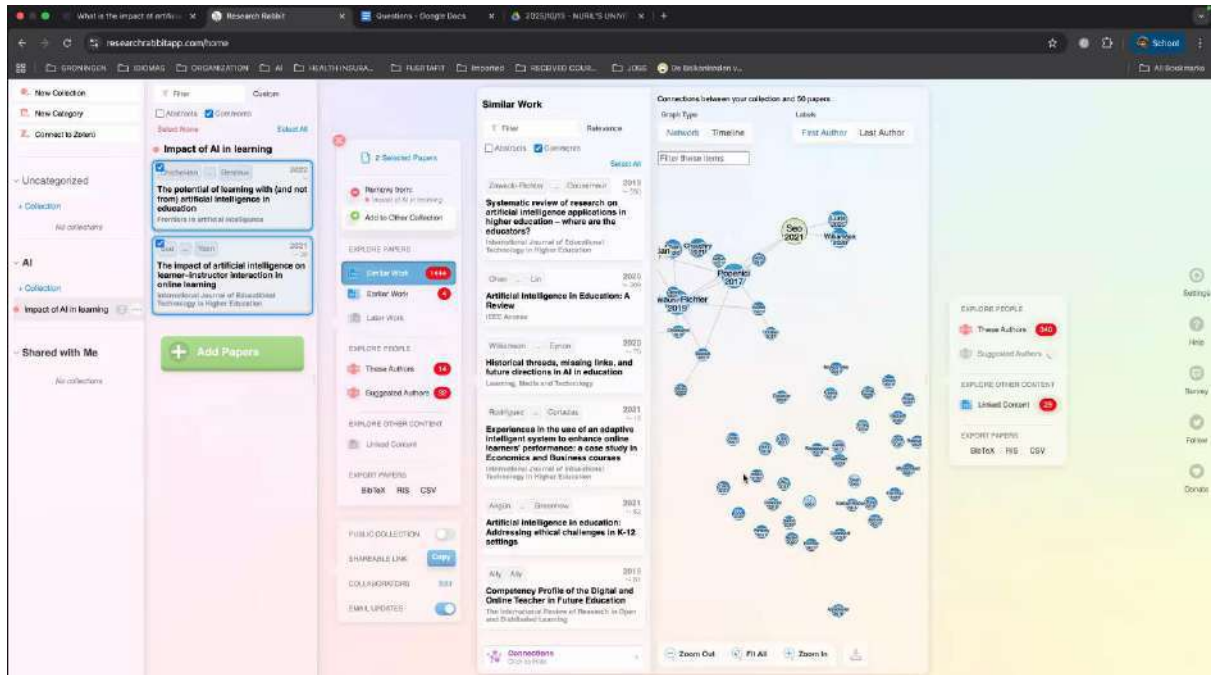
Research Rabbit is an artificial intelligence tool designed to:

- Search academic articles
- Visualize connections between articles and authors
- Create collections of relevant articles
- Receive personalized recommendations based on previous interests
- Integrate with Zotero for citation and bibliography management

Show hidden icons





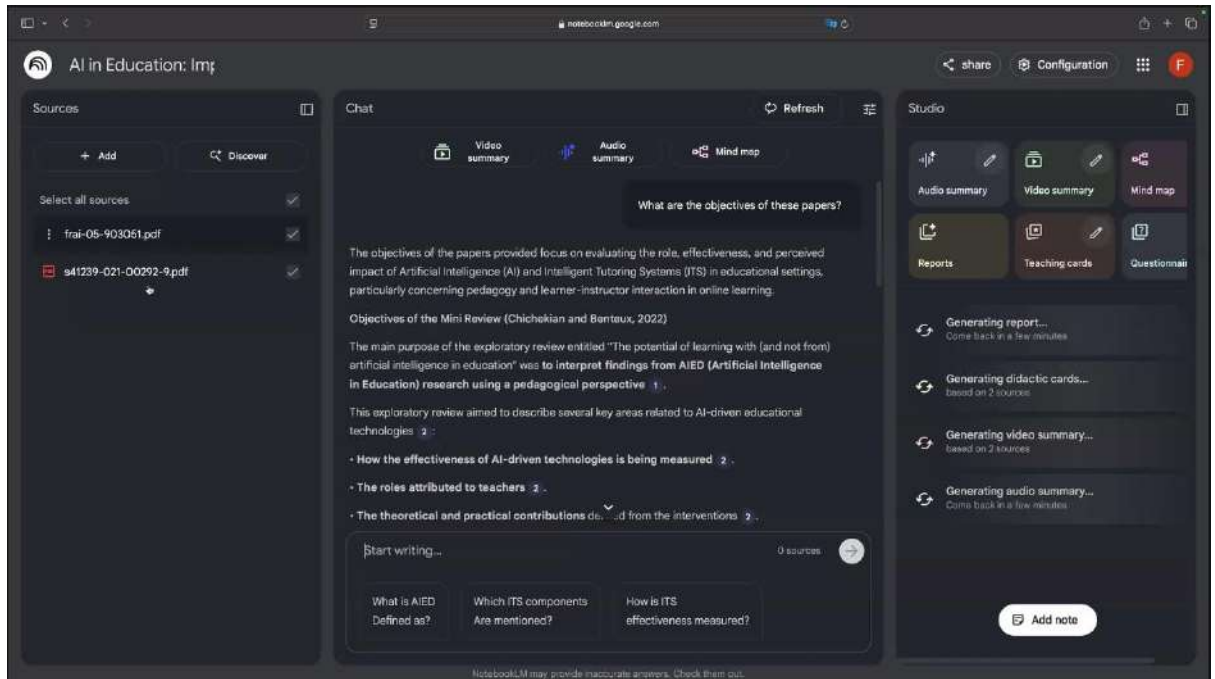
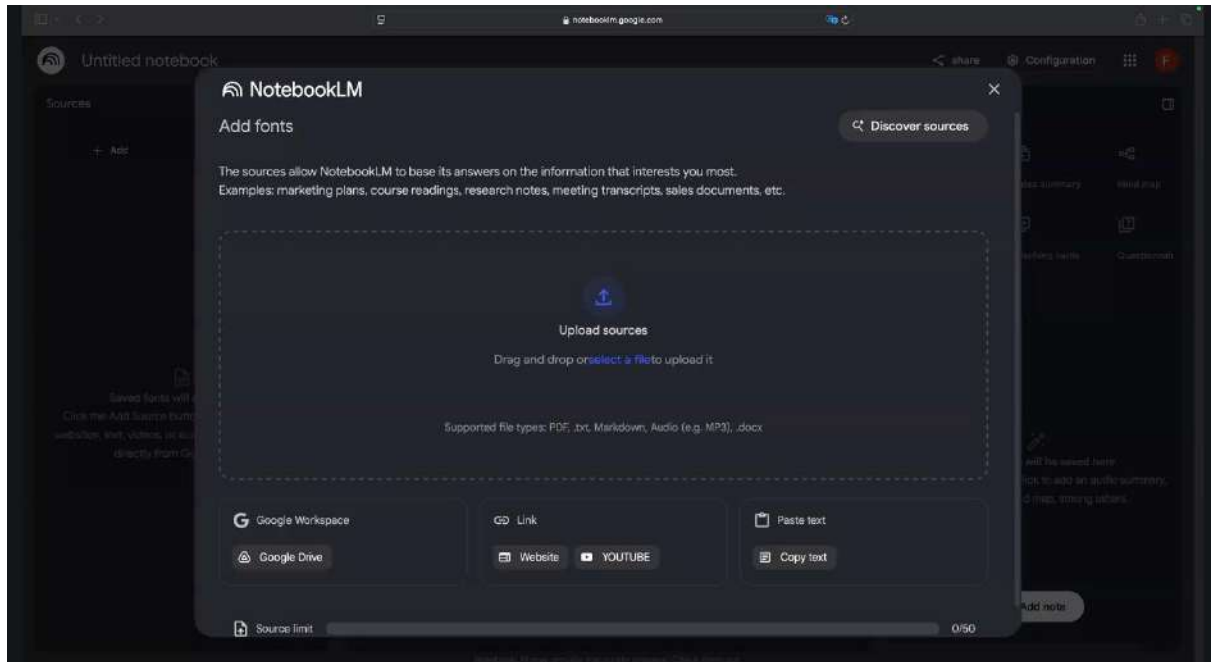


AI tools (3)

NotebookLM

NotebookLM is an online research and writing tool developed by Google Labs that uses artificial intelligence, specifically Google Gemini, to help users interact with their own documents.

- Generation of summaries and explanations based on user-uploaded content.
- Creation of mind maps
- Development of personalized study guides
- Smart annotations and conversational chat for searches and questions
- “Audio summary” feature that condenses complex documents into podcast-style audio files



AI tools (3)

1. Go to notebooklm.google.com
2. Explore how the tool works (uploading documents, chatting with them...)
3. Scan the QR code and answer: 1) What are the advantages?; 2) What are the limitations?; 3) Do you think using this tool is ethical? Why or why not?



**15
min**

Section 3 – Ethical dilemmas

**To reflect on the ethical dilemmas that can arise from using AI tools
in academia**

Ethical dilemmas

(Long & Magerko, 2020; Pérez Torres & Castillo Hernández, 2025)

Accountability

Bias and fairness

Authorship and intellectual property

Ethical decision-making

Inequality

Privacy

Conclusions

- › Start from a position of mistrust
- › Investigate the tool
- › Ask the right ethical questions
- › Take responsibility for the decision
- › Stay informed and alert
- › Build collective awareness

Critical and ethical use of Artificial Intelligence in research and teaching

Dr. Francisco José Castillo Hernández

f.j.castillo.hernandez@rug.nl

Assistant Professor at the Centre for Learning and Teaching, University of
Groningen

The Netherlands

c. Penutup

Dengan adanya webinar ini, diharapkan dosen memanfaatkan dan mengoptimalkan AI beserta tools nya untuk penelitian dan mengajar sehingga meningkatkan kinerja akademik dosen di era digital ini, serta mempersiapkan lulusan yang adaptif dan siap menghadapi tantangan dunia teknologi informasi di masa depan.



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Perkembangan Baru, Transformasi dan Kolaborasi

SERTIFIKAT

22.10.1/UN32.15/DL/2025

Diberikan kepada:

Yudi Santoso

Atas partisipasinya sebagai **Peserta** pada kegiatan
Webinar Critical and Ethical Use of AI in Research and Teaching
Yang diselenggarakan oleh Pusat Kurikulum dan Pembelajaran LPPP
Universitas Negeri Malang bekerja sama dengan Duniadosen.com
secara online melalui zoom pada
Rabu, 22 Oktober 2025

Ketua LPPP UM
Prof. Dr. Hardika, M.Pd.
NIP: 196310201988121001

