



FernUniversität
in Hagen

KI-Tools für das wissenschaftliche Arbeiten

ZLI TechTalk, 24.1.2024

Agenda

- Warum spezifische Werkzeuge?
- Vier Beispiele



SEMANTIC SCHOLAR



Elicit



ResearchRabbit



- Erfahrungsaustausch
- Wunschthema für den ZLI TechTalk am 7.2.2024



Warum spezifische Werkzeuge?

PRO

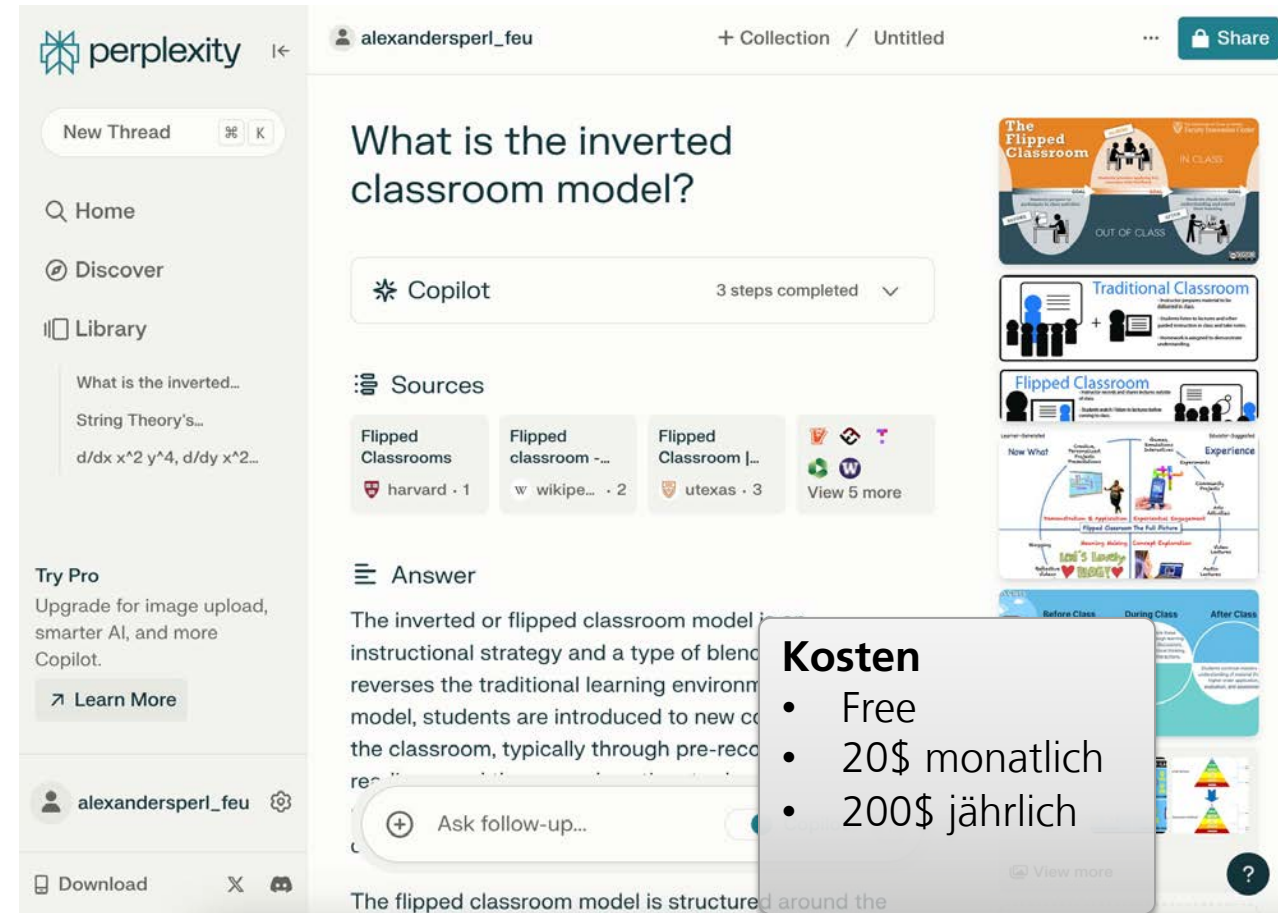
- Fokussierung bei Datengrundlage
- konsolidierte und vertrauenswürdige Datengrundlage
- automatisierte Ergänzung der Prompts durch Kontext, Rolle, Aufgabe u. ä.
- besondere Aufmerksamkeit auf korrekten Ergebnissen (mit Einschränkungen)
- Austauschmöglichkeiten mit anderen Wissenschaftler*innen

CONTRA

- Funktionalität unterschiedlicher Tools ähnelt sich (teilweise sehr)
- zugrundeliegendes LLM meist (aber nicht immer) von OpenAI
- unterschiedliche Nutzungsbedingungen

Perplexity.ai

- Kombination von Internet-Suche und Chatbot
- kuratierte Datengrundlage
- basiert auf GPT 3.5 in der kostenlosen Version
- Pro: Auswahl zwischen drei (vier?) LLMs:
 - GPT 4
 - Claude 2.1
 - Perplexity 70b
 - (Gemini Pro)
- Quick Search vs Copilot Search
- Search Focus (All, Academic, Writing (ohne Web), Wolfram Alpha, YouTube, Reddit)
- <https://www.perplexity.ai/>



The screenshot shows the Perplexity.ai interface. On the left is a sidebar with navigation options like 'New Thread', 'Home', 'Discover', and 'Library'. The main content area displays a search query: 'What is the inverted classroom model?'. Below the query, it indicates 'Copilot' and '3 steps completed'. There are sections for 'Sources' (listing Harvard, Wikipedia, and UTexas) and 'Answer'. The answer text is partially visible: 'The inverted or flipped classroom model is an instructional strategy and a type of blended learning that reverses the traditional learning environment. In this model, students are introduced to new content in the classroom, typically through pre-recorded video lectures. After class, students work on assignments and projects, often in a collaborative setting.' On the right side of the interface, there are several educational diagrams comparing 'Traditional Classroom' and 'Flipped Classroom' models, and a diagram showing the 'Before Class', 'During Class', and 'After Class' phases of the flipped classroom model.

Kosten

- Free
- 20\$ monatlich
- 200\$ jährlich

Perplexity.ai

[...]

User-Generated Content

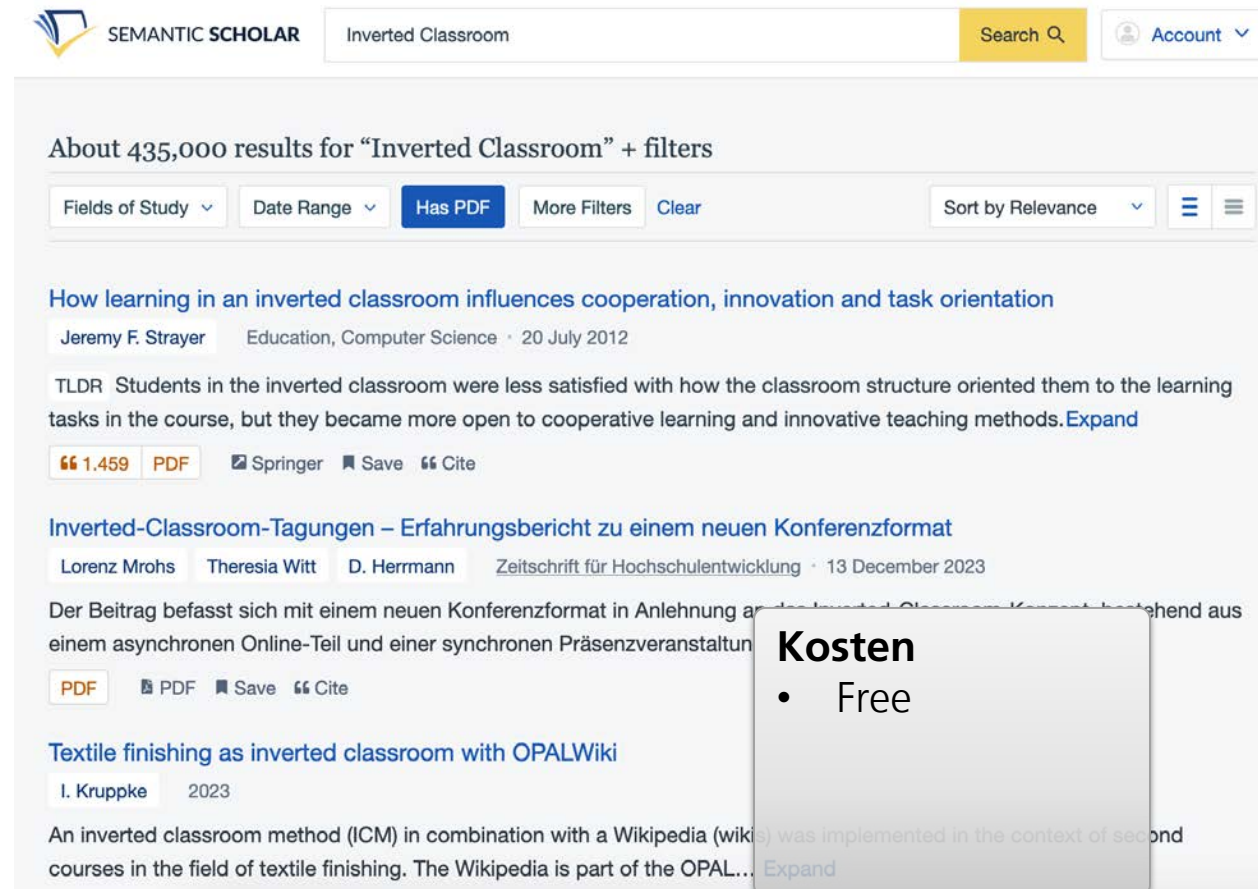
The Service may allow you to upload, submit, store, send or receive content. You retain ownership of any intellectual property rights that you hold in that content. In short, what belongs to you stays yours.

When you upload, submit, store, send or receive content to or through the Service, you give us (and those we work with) a worldwide license to use, host, store, reproduce, modify, create derivative works (such as those resulting from translations, adaptations or other changes we make so that your content works better with the Service), communicate, publish, publicly perform, publicly display and distribute such content. The rights you grant in this license are for the limited purpose of operating, promoting, and improving our Service, and to develop new ones. Make sure you have the necessary rights to grant us this license for any content that you submit to our Services.

[...]

Semantic Scholar

- Suchmaschine für Artikel basierend auf Deep Learning Technologien
- Suchergebnis mit Filtermöglichkeiten
- TL;DR: KI-generiertes Abstract des Artikels
- „Library“- und „Alert“-Funktionen
- Detailseite mit „Citations“
- Ask this paper (ChatGPT 3.5 Turbo)
- Semantic Reader
- <https://www.semanticscholar.org/>



SEMANTIC SCHOLAR Inverted Classroom Search Account

About 435,000 results for “Inverted Classroom” + filters

Fields of Study Date Range Has PDF More Filters Clear Sort by Relevance

How learning in an inverted classroom influences cooperation, innovation and task orientation
Jeremy F. Strayer Education, Computer Science · 20 July 2012
TLDR Students in the inverted classroom were less satisfied with how the classroom structure oriented them to the learning tasks in the course, but they became more open to cooperative learning and innovative teaching methods. [Expand](#)
1.459 PDF Springer Save Cite

Inverted-Classroom-Tagungen – Erfahrungsbericht zu einem neuen Konferenzformat
Lorenz Mrohs Theresia Witt D. Herrmann Zeitschrift für Hochschulentwicklung · 13 December 2023
Der Beitrag befasst sich mit einem neuen Konferenzformat in Anlehnung an das Inverted Classroom Konzept bestehend aus einem asynchronen Online-Teil und einer synchronen Präsenzveranstaltung. [Expand](#)
PDF PDF Save Cite

Textile finishing as inverted classroom with OPALWiki
I. Kruppke 2023
An inverted classroom method (ICM) in combination with a Wikipedia (wiki) was implemented in the context of second courses in the field of textile finishing. The Wikipedia is part of the OPAL... [Expand](#)

Kosten

- Free

Elicit

- Assistenz für die wissenschaftliche Recherche
- basiert auf Semantic Scholar
- mehrere LLMs
- durchsucht und fasst zusammen:
 - Open Access Literatur im Volltext
 - auch Preprint
 - ansonsten nur Abstracts
- Datenbank-Update einmal pro Monat
- factored verification
- <https://elicit.com/>

Find papers

What is the inverted classroom model?

- Searching more than 125 million academic papers
- Summarizing the first 4 abstracts
- Results

Summary of top 4 papers

Copy

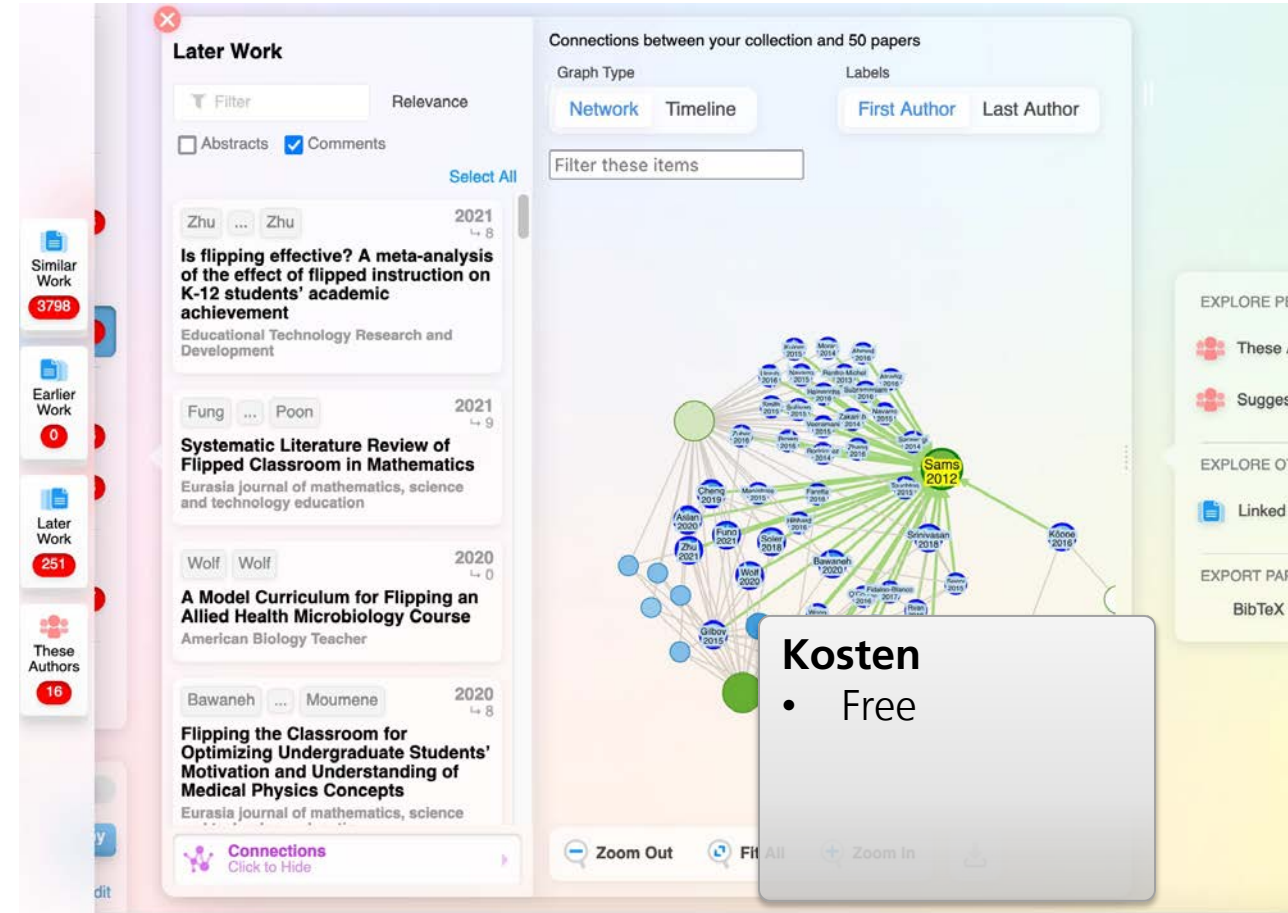
The inverted classroom model, as discussed by [Talbert \(2014\)](#), [Gannod \(2008\)](#), [Braun \(2014\)](#), and [Reza \(2015\)](#), involves students engaging with new information outside of class and using class time for higher-level activities. This model has been used in various fields, including linear algebra ([Talbert, 2014](#)), software engineering ([Reza, 2015](#)), and electrical engineering ([Braun, 2014](#)), and computer science. This model has been shown to improve learning outcomes, particularly in programming.

Kosten

- 5.000 Credits Free
- weitere 1.000 Credits 1\$

Research Rabbit

- textuell-grafische Darstellung von Publikationen und ihren Zusammenhängen auf Basis der Zitation
- basiert auf PubMed und Semantic Scholar
- Zeitleisten- und Netzwerkdarstellung
- spaltenweises Vorgehen:
 - Basis-Artikel
 - Zitation und „Similar Articles“
 - Liste und grafische Darstellung
 - Autor*innen
- Vorschlagssystem intransparent
- <https://researchrabbitapp.com/>



The screenshot displays the Research Rabbit app interface. On the left, a sidebar shows navigation options: Similar Work (3798), Earlier Work (0), Later Work (251), These Authors (16), and a search bar. The main content area is titled 'Later Work' and features a list of articles with filters for 'Relevance', 'Abstracts', and 'Comments'. The articles listed include:

- Zhu ... Zhu (2021): 'Is flipping effective? A meta-analysis of the effect of flipped instruction on K-12 students' academic achievement'.
- Fung ... Poon (2021): 'Systematic Literature Review of Flipped Classroom in Mathematics'.
- Wolf | Wolf (2020): 'A Model Curriculum for Flipping an Allied Health Microbiology Course'.
- Bawaneh ... Moumene (2020): 'Flipping the Classroom for Optimizing Undergraduate Students' Motivation and Understanding of Medical Physics Concepts'.

On the right, a network graph titled 'Connections between your collection and 50 papers' is shown. The graph type is set to 'Network', and labels are set to 'First Author' and 'Last Author'. A search filter 'Filter these items' is present. The graph shows a central node 'Sams 2012' connected to numerous other nodes representing authors and papers. A tooltip box in the bottom right corner of the graph area contains the text: 'Kosten • Free'.

Wunschthema 7. 2.

<https://app.conceptboard.com/board/gyct-1ien-ts5s-in61-xgcx>



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