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AI Plagiarism: Process over Product

URSA | July 2025

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Shilpa Duvoor

Head of Customer Success

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- History and Humanities teacher
- Principal of 6-12 public school
- Passionate about research, writing, and developing critical thinking skills in students
- Early adopter of Scrible
- My goal is to make sure you know how to use Scrible and love it!

Agenda

Why Scribble?

AI Plagiarism

Using AI Responsibly

Wrap up & Next Steps

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Problem: Research and Writing Skills Crisis

60% of even high achieving and well-resourced secondary students struggle with research skills.[1]

Pew Research Center

73% of 12th graders do not write proficiently.[2]

NAEP NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

61% of high school educators said their students have never written a paper more than five pages.[3]

THE CHRONICLE OF HIGHER EDUCATION

1. Purcell, Kristen et al. "How teens do research in the digital world." Pew Research Center (2012).
2. National Center for Education Statistics (2012). *The Nation's Report Card: Writing 2011* (NCES 2012–470). Institute of Education Sciences, U.S. Department of Education, Washington, D.C.
3. Sanoff, Alvin P., *A Perception Gap Over Students' Preparation*, The Chronicle of Higher Education, March 10, 2006

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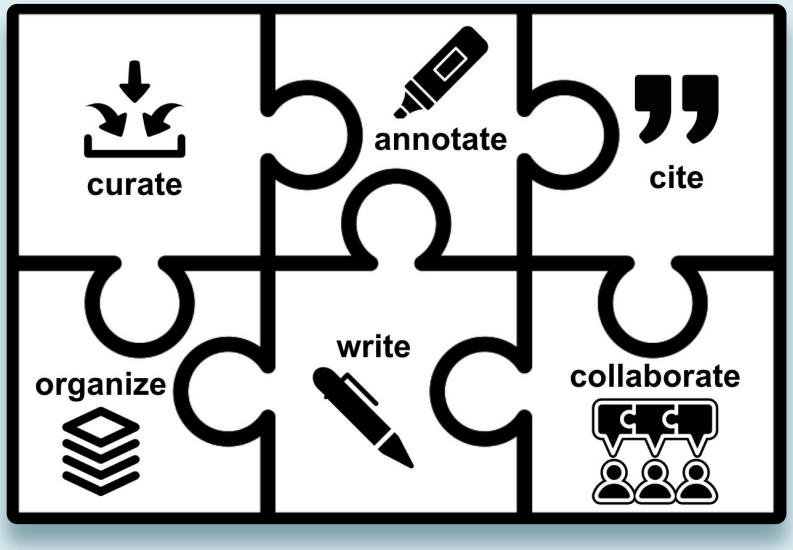
Problem: Research and Writing is Complex



- Many tasks requiring multiple apps
- Process-intensive & time consuming
- Hard for students to stay organized
- Hard for educators to access, assess and give feedback on student work

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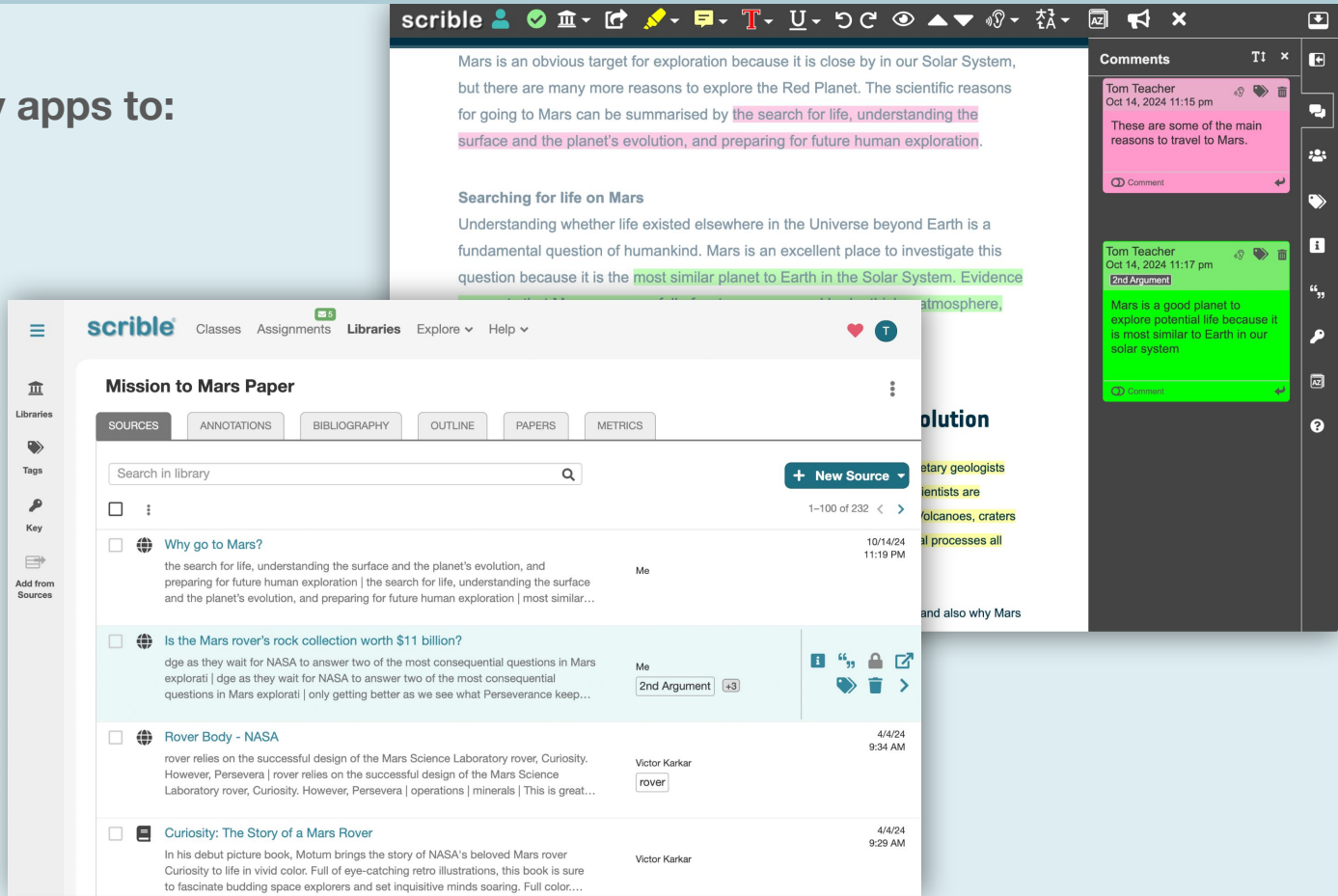
Solution: Writing Platform for Students

ONE workspace vs. many apps to:

- Curate sources
- Annotate evidence
- Cite sources
- Organize work
- Build bibliography
- Create outline
- Write draft
- Get feedback



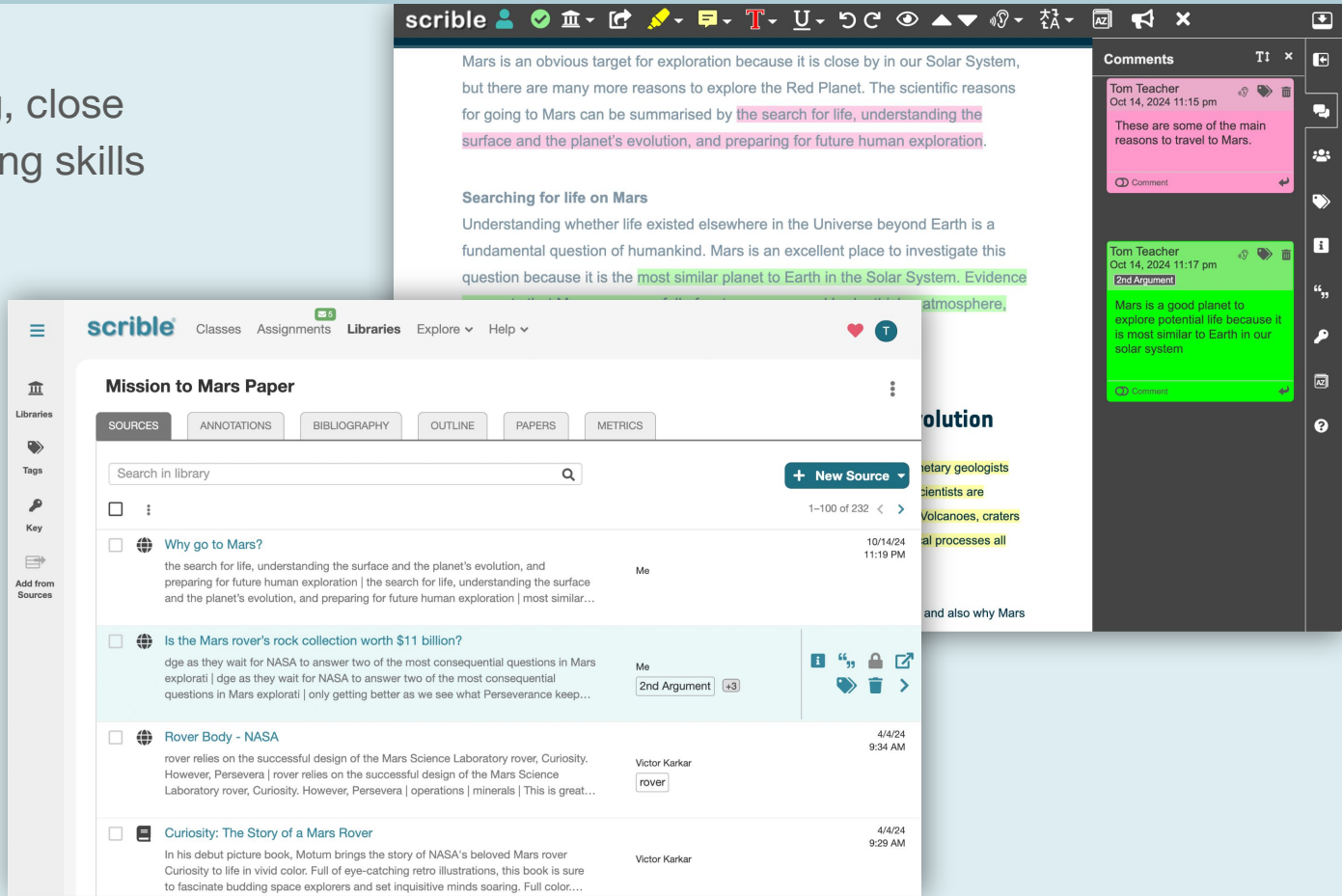
Solution: Writing Process Platform for Students

Develop research, writing, close reading and critical thinking skills

Simplify mundane manual tasks

Shift to higher order cognitive work

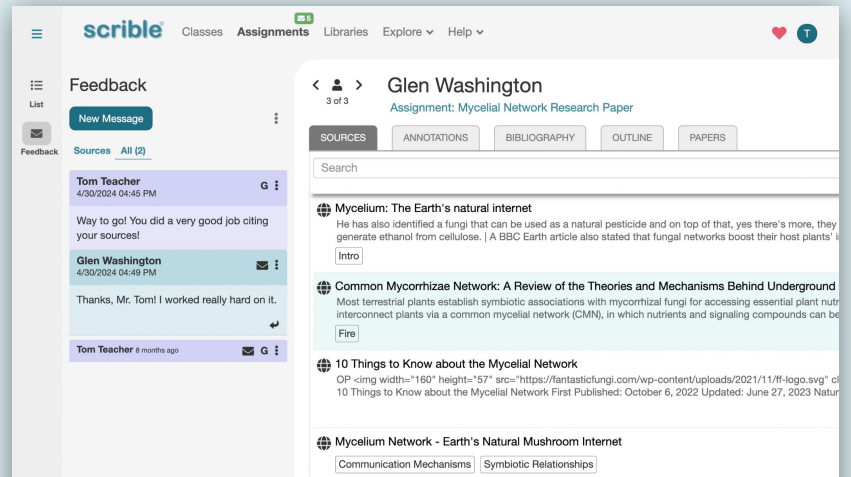
Take account and data to college

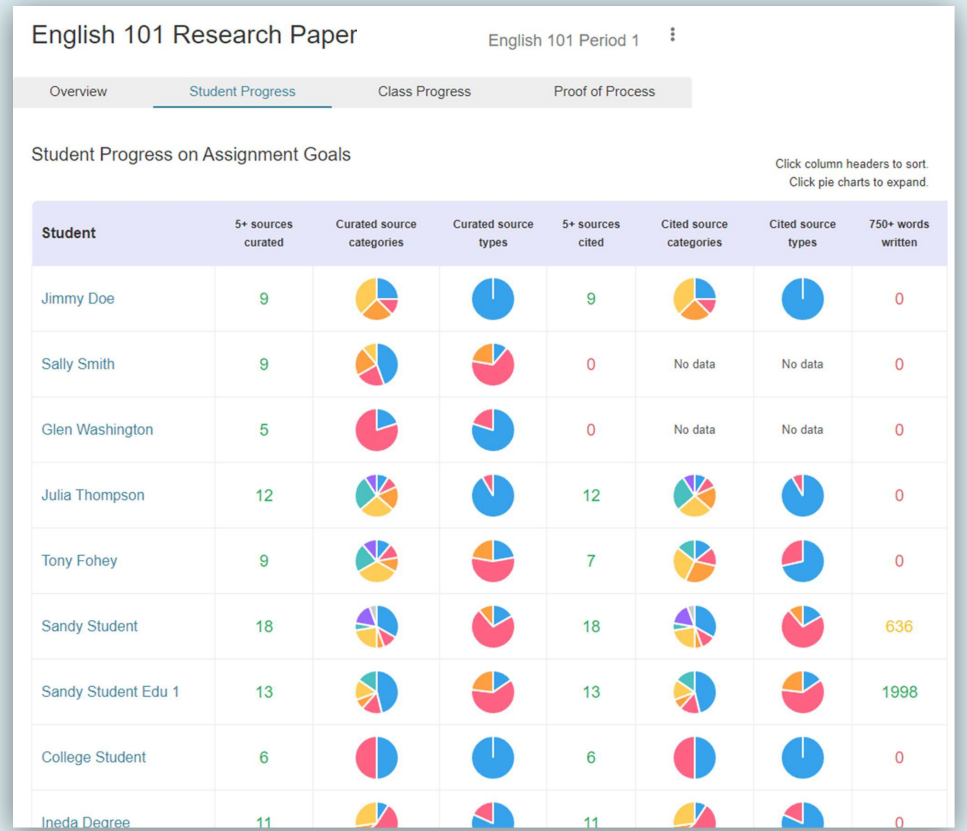


Solution: Writing Platform for Teachers

ONE workspace and dashboard to:

- Access all student work
- Give timely, specific feedback
- Monitor real time progress
- See the whole writing process





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AI Plagiarism Risk to Authentic Learning

AI plagiarism bypasses the **productive struggle that develops critical thinking and key cognitive skills** (evaluation, organization, prioritization, sequencing, synthesis, etc).

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Teens Will Use AI for Schoolwork, But Most Think It's Cheating, Survey Says, Education Week, Langreo, Lauraine, July 28, 2023

GenAI Risk to Skill Development

Research shows AI improves performance, but harms skill development as a crutch unless safeguards are used.

Generative AI Can Harm Learning

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Generative artificial intelligence (AI) is poised to revolutionize how humans work, and has already demonstrated promise in significantly improving human productivity. However, a key remaining question is how generative AI affects *learning*, namely, how humans acquire new skills as they perform tasks. This kind of skill learning is critical to long-term productivity gains, especially in domains where generative AI is fallible and human experts must check its outputs. We study the impact of generative AI, specifically OpenAI's GPT-4, on human learning in the context of math classes at a high school. In a field experiment involving nearly a thousand students, we have deployed and evaluated two GPT based tutors, one that mimics a standard ChatGPT interface (called GPT Base) and one with prompts designed to safeguard learning

Human Detection Problems

Research shows that most teachers can't reliably detect AI text and are overconfident in their ability to do so.

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Do teachers spot AI? Evaluating the detectability of AI-generated texts among student essays

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Teachers
Essay writing
ChatGPT

ABSTRACT

The potential application of generative artificial intelligence (AI) in schools and universities poses great challenges, especially for the assessment of students' texts. Previous research has shown that people generally have difficulty distinguishing AI-generated from human-written texts; however, the ability of teachers to identify an AI-generated text among student essays has not yet been investigated. Here we show in two experimental studies that novice ($N = 89$) and experienced teachers ($N = 200$) could not identify texts generated by ChatGPT among student-written texts. However, there are some indications that more experienced teachers made more differentiated and more accurate judgments. Furthermore, both groups were overconfident in their judgments. Effects of real and assumed source on quality assessment were heterogeneous. Our findings demonstrate that with relatively little prompting, current AI can generate texts that are not detectable for teachers, which poses a challenge to schools and universities in grading student essays. Our study provides empirical evidence for the current debate regarding exam strategies in schools and universities in light of the latest technological developments.

1. Introduction

Generative AI is a broad term for any type of artificial intelligence (AI) that can produce new texts, images, videos, or computer code. Based on massive amounts of training data, generative AI can use prompts written in natural language to generate new output. Large language models (LLM), such as the Generative Pre-trained Transformer 3 (GPT-3), can generate human-like text and complete other language-related tasks such as translation, question answering, and coding. The use of LLM like GPT-3 in educational contexts has been a recent matter of discussion (Cotton et al., 2023; Kasneci et al., 2023).

As a variant of the GPT-3 model, the chatbot application ChatGPT is optimized for conversation modeling, which makes it a user-friendly tool. With the growing distribution of ChatGPT, the public has become aware of the impact that automated writing will have on schools and universities. On the one hand, educators see great potential in optimizing teaching and learning processes (Cotton et al., 2023; Sailer et al., 2023). AI is in particular helpful in schools to give feedback to student achievements which is process-oriented and available in real-time to high numbers of students. In their experimental study, Sailer et al. (2023) showed that AI-generated adaptive feedback facilitates pre-service teachers' quality of justifications in written assignments as a part of their diagnostic competence. Jansen et al. (2024) showed that automatic feedback including goal-setting support is in particular helpful when students had to revise their texts. In one of the first experimental studies on the use of LLMs for feedback generation, Meyer et al. (2024) showed that AI-generated feedback increased students' revisions, motivation, and positive emotions. On the other hand, there are certain caveats regarding the role of generative AI. Cotton et al. (2023) discussed the challenges concerning the use of ChatGPT in higher education. These include cheating and deception, causing issues for assessment and learning. Students who use tools like ChatGPT in written assignments have an unfair advantage when it comes to assessment and grading. At the same time, they might miss out on learning

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AI Detectors are not reliable

- Research shows AI detectors are unreliable & manipulable.
- AI detectors fail because they only assess the paper

“…detection tools are neither accurate nor reliable and have a main bias towards classifying the output as human-written rather than detecting AI-generated text.”

“…the tools exhibited inconsistencies, producing false positives and uncertain classifications.”

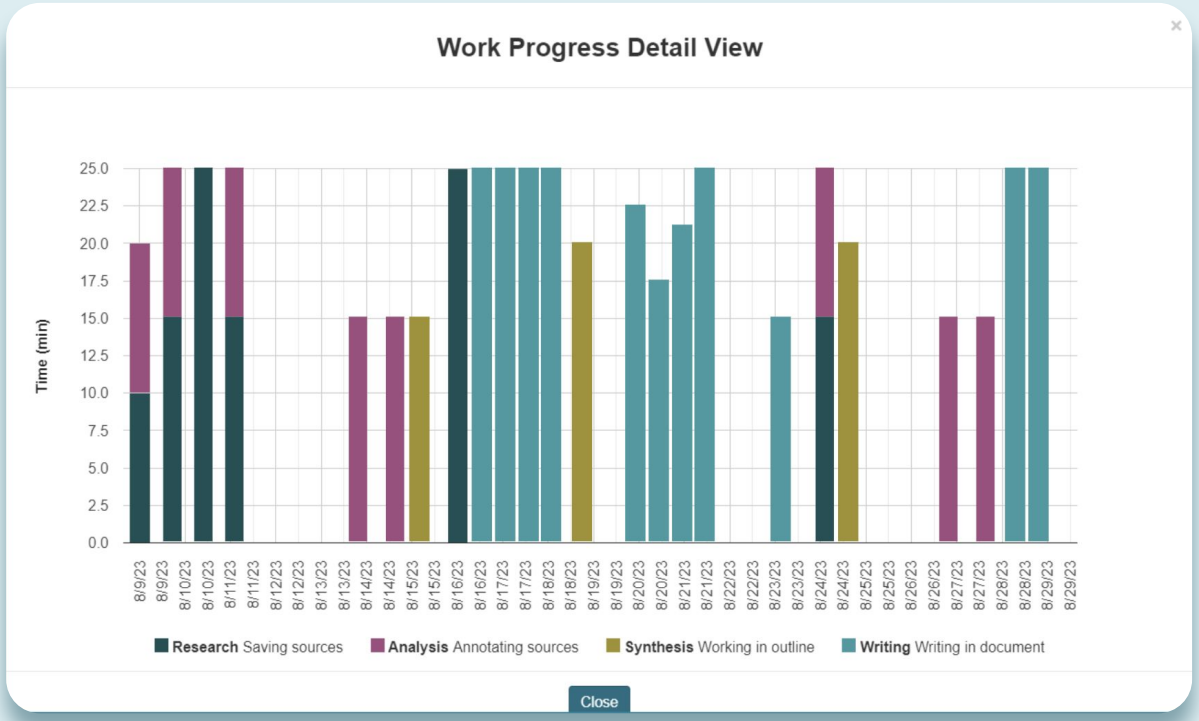
Solution: Show Your Work

- Focus on writing as a process, not just the end product
- “Process > Product” is best practice for assessment
- Scrible makes the writing process visible to instructors.
- We do for writing what’s done in math: *Show Your Work*

"I really recommend Scrible because it allows me to see my students’ work as they are crafting an essay. So, I know it’s their authentic work. By the time they’re done, I saw the process be built and I know that that work is their own.”

Scrible Mitigates the Downside Risk of AI

- Shifts assessment from paper to process
- Provides details on time spent throughout the research and writing process
- Easier for student to be ethical
- Instructive vs. punitive
- Teachers can focus on the ethical use of AI



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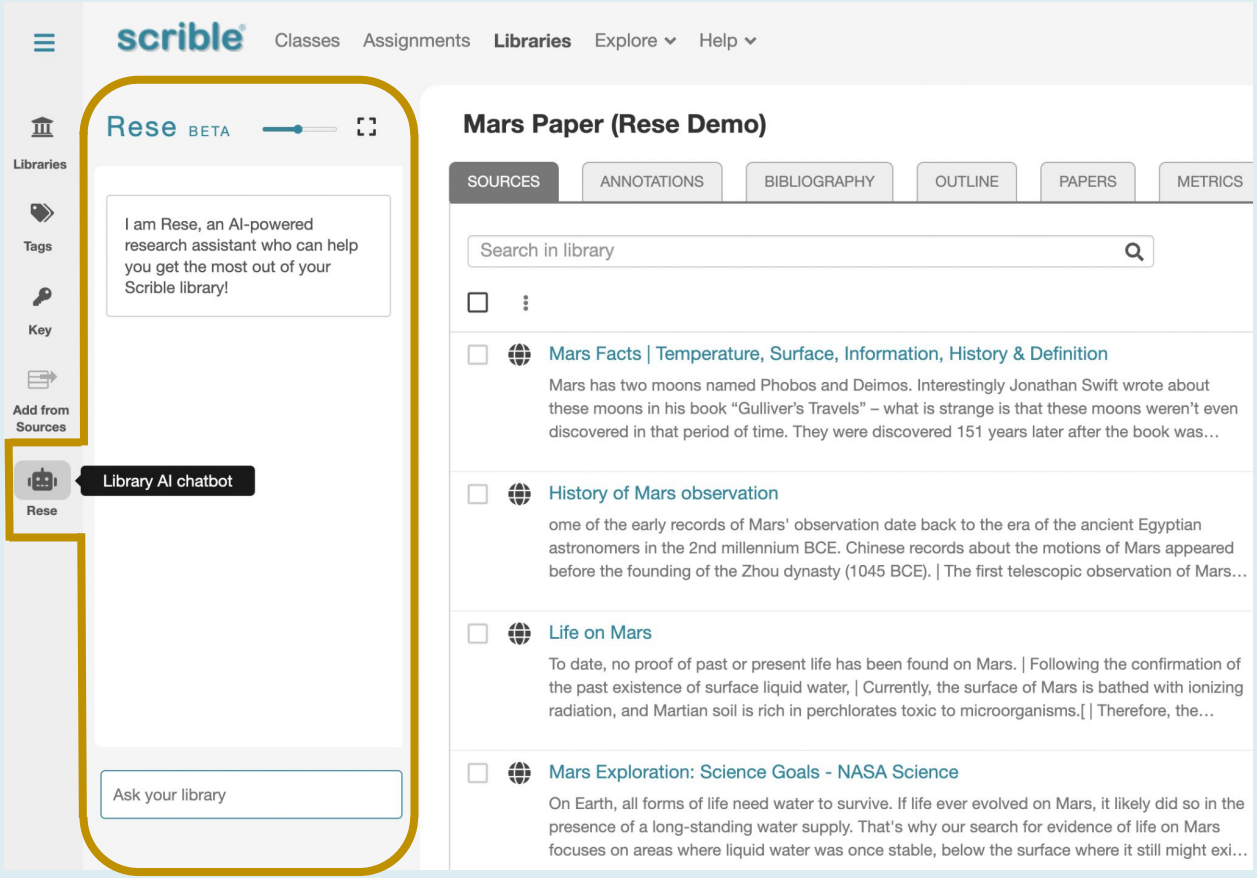
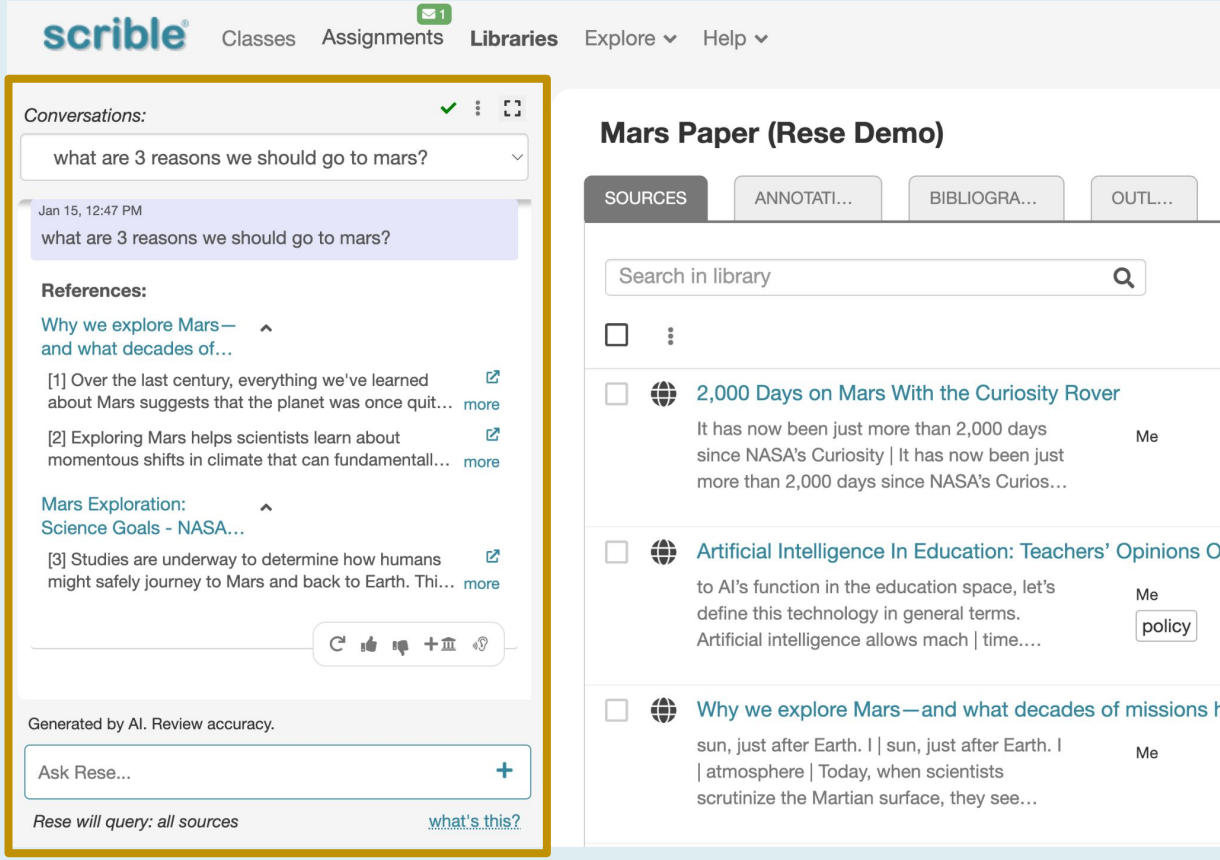
NEW Introducing Rese by Scrible

- New genAI research assistant chatbot
- Embedded in your Scrible library
- Enables conversation about your sources
- Solves problems with consumer chatbots
- Best practices built in for responsible AI use



Why RESE is Unique

- Save and cite Rese responses
- Trace Rese answers to the source
- You control who uses Rese
- Built in accessibility features
- Audit your students' use of Rese



Scrible Demo

Rese: Smarter research management

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More Scrible at URSA!

Thursday, July 10th	Friday, July 11th
Scrible 101: Free Research and Writing Platform for Newbies, 11:10am	How to Solve the AI Plagiarism Problem: Process over Product, 9:45am
Scrible 102: Scaffolding Research and Writing in ELA and Social Studies, 1:40 pm	Scrible: Elevate Student Research ad Writing in Your K-12 Classroom, 11:00am

Wrap Up & Next Steps

What we did today

- AI plagiarism: process over product
- Rese: AI Research assistant

Do Now

- Feedback survey