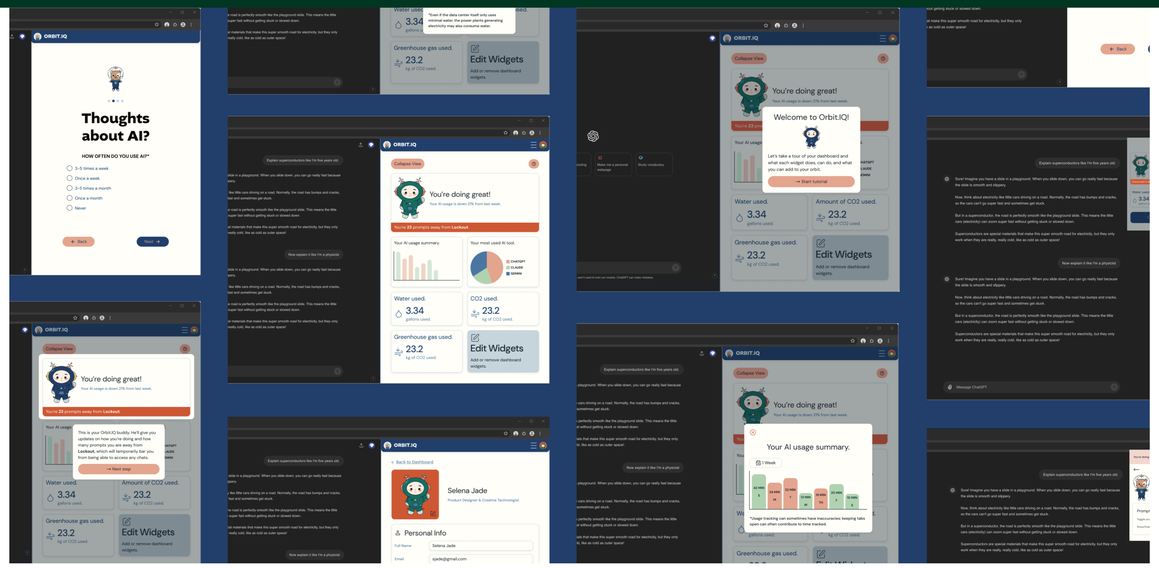
Orbit.IQ: An AI Usage Awareness Tool

Cahlan Kim, Nikita Shankar, Elisha Lee, Sophia Koruga
Department of Graphic Communication, College of Liberal Arts, California Polytechnic State University, San Luis Obispo, CA



Background

Artificial intelligence has quickly become part of how people work, learn, and solve problems. Within educational spaces, a global survey by the Digital Education Council found that 86% of college students use AI in their studies. AI tools streamline study and homework workflows, reducing cognitive load for efficiency.

Introduction

This study focuses on college students who use AI as a shortcut for immediate answers and risk trading these skills for efficiency. We interviewed eight students across Graphic Communication, Computer Science, and Biology. They value AI for saving time and reducing overwhelm, but they worry about over-reliance and want to keep ownership of their work.

This research aims to answer one question: how might we help students use AI to strengthen learning rather than replace it? Through journey mapping, Crazy 8s, solution sketching, and paper prototype testing, we developed Orbit.IQ, a browser side panel that works alongside the AI tools students already use. It summarizes their usage, shows the water and carbon cost of their prompts, and uses a prompt budget (“Lockout”) to make students more aware of the environmental and educational impact of each prompt. Orbit.IQ helps students reframe AI from a shortcut into a tool they can use with awareness and intent.

Research Questions

This exploratory research was guided by the question:

How might we help students use AI to strengthen learning rather than replace it?

Methods

Competitor Analysis

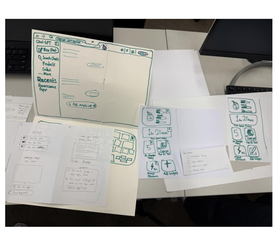
There were nine competitors that were analyzed in terms of context, target users, first impressions, key actions, strengths & weaknesses, layout & navigation, and opportunities & gaps. Competitor analysis was utilized to identify market gaps and value proposition.

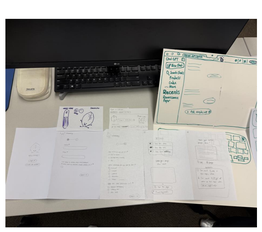
Observational Analysis and Interviews

There were eight participants interviewed, four of whom were interviewed in class and four outside of class regarding school usage with AI.

Paper Prototyping

Usability testing was conducted with two participants to validate the designs.





Findings

The findings suggest that AI in educational spaces has reshaped how students critically think and their approaches to classwork. Findings from initial observational and informational interviews are detailed below:

1. Reduce Overwhelm

Students use AI to reduce overwhelm in multiple mental processes such as summarization, brainstorming, and clarification.

2. Save Time

Students simplify topics to help with mind blocks and complex tasks to save time and work on other pressing items.

3. Worry About Dependence

Students do value ownership and will fact-check information with fears around potential risks of losing critical thinking.

Quotes

“It’s difficult not to use AI.” - User 1

“It’s more rewarding that I did it myself.” - User 3

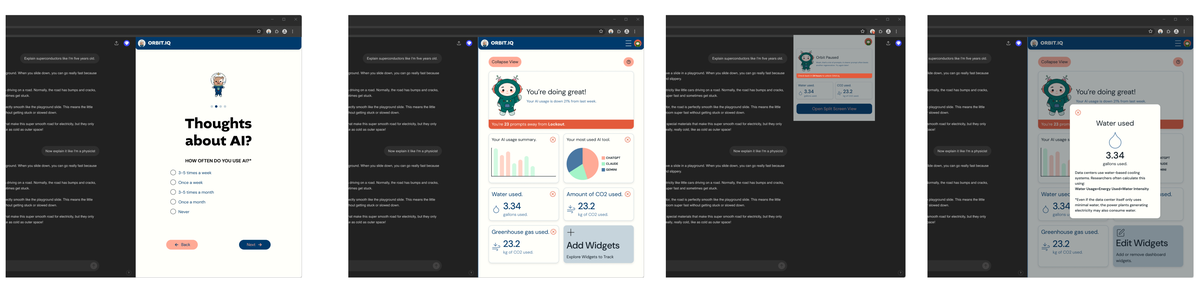
“I try not to use AI to not be dependent on it.” - User 2

Key Insight

Students value AI for its efficiency but still want to maintain ownership over the learning process.

The Solution: Orbit.IQ

After analyzing interview insights and paper prototyping with initial wireframes, the final iterations of the high-fidelity prototype were created. A side panel shown below lives next to the AI tool students already use, so they can see their usage, stay in control, and keep ownership of their learning.



Vibe Coded Prototype

Scan this QR code to try out our interactive prototype. This was created with Claude Code, Visual Studio, and Vercel.

REFERENCES

1 Digital Education Council. (2024). *Digital Education Council*. Digitaleducationcouncil.Com. https://www.digitaleducationcouncil.com/resource-library-items/digital-education-council-global-ai-student-survey-2024