SCI-TECH

"I was twenty-one when I wrote this song... and the leaves that are green turn to brown."
LEAVES THAT ARE GREEN SIMON AND GARFUNKEL

Two years into Yale's AI push, students say access still lags ambition

BY HAMZA MODAN
CONTRIBUTING REPORTER

Two years ago, Yale announced it would commit more than $150 million over five years to artificial intelligence. Since then, the AI platform the University built has been met with tepid applause.

Clarity, Yale's AI chatbot, was powered by OpenAI's GPT-4o when it was launched. The platform is free to anyone with a Yale email, though the University has not publicly released figures on who — from students to professors — uses either Clarity or Yale's graphics processing units, powerful chips designed to process numerous data points simultaneously.

According to Joseph Elsayyid '26 SOM '27, an inaugural member of the Yale College Council Tech Division, working with Clarity has been "a more mixed experience."

"I think its original mission was great, giving secure access to powerful models while making those capabilities available to students regardless of their ability to pay for commercial subscriptions," Elsayyid wrote in a text. "But for quite some time, it struggled with latency, and its models and capabilities weren't keeping pace with what students could access elsewhere."

Elsayyid said he was not sure what was causing so much latency in Clarity, but that the new upgrades seemed to address previous issues.

"This was something I raised quite a bit with Dean Lewis, including when I chaired the YCC Technology Division," Elsayyid said, referring to Yale College Dean Pericles Lewis. "I'm glad to see that Clarity received a major upgrade just this month, and I'm optimistic about where it can go."

Other students involved in the campus technology scene offered differing opinions. Zain Anwar '29, the YCC Tech Division's current chair, was less optimistic.

"Honestly, one of the main reasons we created the Tech Division was to push for a more robust tech presence at Yale and make sure students have a voice in how these tools are integrated into campus life," Anwar said in an interview. "Clarity hasn't really delivered on that vision yet."

According to Anwar, AI models have been broadly shifting away from a "typical chat interface" that generates responses toward models that actually execute tasks from start to finish.

This shift is one that Clarity has yet to catch up to. Some students noted Clarity's underutilization, a metric that measures the extent to which AI systems fulfill their potential and which is difficult to measure.

"If most students haven't even meaningfully used Clarity, it's difficult to argue that it's changing how they work," Anwar said. "We should be evaluating these platforms based on what students are actually able to do with them, not just whether we have an AI tool with Yale's name on it."

The latest release also added custom agents, user-defined AI assistants tailored with specific prompts, tools, rules and workflows to handle specialized tasks automatically.

However, Alex Berman '30, a Tech Division member who arrived at Yale interested in AI tools, said the newest release still falls short.

"I think the new version of Clarity that was just released is definitely a step up from before but it's still cumbersome, unadvanced, and the structure of it doesn't enable student exploration," Berman wrote in a text to the News. "Especially the agents are hard to work with if you just want to experiment."

Also included in Yale's proposal was a pledge to invest in GPUs, most of which were slated for clusters, or high-powered computers, run by the Yale Center for Research Computing. These GPU clusters are capable of processing large data sets for research such as historical site reconstruction and tracking animal migration patterns.



MARTÍN PERALTA / HEAD PHOTOGRAPHY EDITOR
The University has expanded the computing capacity of Clarity, its artificial intelligence platform, since committing millions to artificial intelligence in 2024, but student tech leaders say Yale's tools are difficult to build on.

Elsayyid said he has utilized the Yale GPUs in his AI research.

"Yale has definitely made real progress," Elsayyid said. "I've gotten access to Yale's GPUs for AI research, and the demand for them is definitely substantial. Jobs have to be scheduled through shared queues, and you have to be thoughtful about GPU utilization."

Students also said it was difficult to access top-of-the-line AI models.

"Currently the best way to get access to these tools is through club sponsorships which are often temporary and hard to come by," Berman wrote. "Students should be on an equal playing field, and they shouldn't be expected to have to pay out of their own pocket to keep up with others who have the means to pay on their own."

A spring 2026 update from Yale Health Sciences IT opened requests for application programming interface access. APIs allow an AI model to interact with external applications like Gmail or Slack.

Elsayyid said he thinks the next big step for Yale would be to make these resources more accessible to students.

"Yale already offers AI model APIs, but access still requires approval and faculty sponsorship for students," Elsayyid said. "I'd love to see easier access to some API credits and GPU compute for independent student projects."

He pointed to Yale's Center for Engineering Innovation and Design as a model.

The CEID is open all day, every day, and is designed to provide students and faculty with the physical tools and resources for prototypes, to be used for classes, design projects and collaborative activities.

"I think of it similarly to the CEID at Yale, where students can walk in, learn to use equipment, 3D print things and experiment with ideas," Elsayyid said. "Why not have a similar philosophy for compute?"

Compute refers to the computational resources, such as processing power from CPUs and GPUs, used to run AI models, process data and build their own tools.

Anwar shares this vision.

"The goal is to make Yale a place where students are actively shaping how emerging technology gets used, rather than playing catch-up after everyone else has already figured it out," Anwar said.

The $150 million pledge has three years left to run.

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How Yale researchers use AI, from genetic disorders to psychiatry

BY MEKHI GARDNER
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Artificial intelligence is ushering in a new era of scientific inquiry research institutions, and Yale is not an exception.

Five Yale researchers the News spoke with described various applications of AI to computational research, from analyzing rare genetic disorders to standardizing psychiatric diagnosis.

"You might have thousands of different drugs that you want to try. You can't do all of those in a lab setting," Aakash Patel GRD '30, a doctoral student in the Computer Science Department, said. "There is no lab that I know of out there right now that has that kind of throughput capability."

Patel is the first author of a project titled "The AI Neuroscientist," a supportive language agent that hopes to bridge the gap between raw neurological data and clinical application, allowing neuroscientists to interpret data quickly and accurately without the use of intermediaries.

Patel's project was sparked by the Wu Tsai Institute's Grand Challenges, which invited researchers to develop models to simulate cognition. The University has made efforts to encourage the use of AI in scientific inquiry through such initiatives.

"We're not trying to use this to kind of work on its own, but rather be an assistive tool for a neuroscientist," Patel said. "Kind of like a junior partner or something, maybe like a graduate student or an undergrad you can hand some data off to and have it kind of do what you tell it to do."

Alma Dubuc GRD '31, a doctoral student in the Computational Biology and Biomedical Informatics Department, said she uses AI to investigate the biological foundations of neuropsychiatric conditions like profound autism.

Like Patel, Dubuc said AI has enabled her to engage in novel research that might otherwise be prohibited by cost. There are thousands of rare genetic disorders that only affect 10 or 20 people, she said, noting that pharmaceutical companies would "never look at them" due to their rarity.

To address this issue, Dubuc trains models on available biomedical data to simulate and investigate rare conditions. Without these AI tools, Dubuc said, she doesn't think her research would be possible.

Kevin Jin GRD '29, a doctoral student in Computational Biology and Bioinformatics, has a different focus. His work on clinical support large language models hopes to standardize psychiatric diagnosis.

"Over decades, and even now, psychiatry has suffered from a lack of objectivity," Jin said. "You can give five psychiatrists the same case, and they can walk away with five different treatments."

A goal of his research is to discover if AI can be useful to normalize practice, then build a model to do so, he said. In collaboration with physicians, Jin is working to better understand large language model reasoning — not just the diagnosis it arrives at.

"If the model is supposed to help physicians think, if it's supposed to guide clinical reasoning, then the reasoning becomes relevant," Jin said.

Varada Khanna GRD '31, a doctoral student in the Biomedical Informatics and Data Science Department, said she utilizes frontier AI models such as Claude or ChatGPT in her research on standardizing disease phenotyping.

The uses of AI are not universally lauded across campus, however.

Andrew Buzza, a postdoctoral fellow at the Yale School of Medicine, said he has reservations about AI's future applications in research. Buzza's research uses mathematical modeling to analyze a common protein group whose mutation is found in 20 to 30 percent of cancers.

"If you're really trying to push something forward, or understand something more deeply that's not known, I think AI and those LLMs can have a tough time with the extrapolation," Buzza said.

While he conceded that AI can be a useful tool for synthesis and debugging, he said models may struggle to understand the nuances needed to truly advance research.

Buzza emphasized that a researcher could approach a problem from creative angles that AI could fail to see.

"You can measure the same thing ten different ways, right?" Buzza said. "I don't know that LLMs or AI understand the different strengths and weaknesses in those things."

The Wu Tsai Institute is located at 100 College St.



ANYA GEIST / CONTRIBUTING PHOTOGRAPHER
Five Yale researchers spoke to the News about how they use artificial intelligence in their research and what their hopes are for future applications. One researcher said AI may fail to see a problem from creative angles like humans do.

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