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Further JPL Layoffs Amid Continued NASA Uncertainty

Damian R. Wilson
The Inside World

On October 13th, JPL announced that it will lay off roughly 550 employees—about 11 percent of its workforce—in [what Lab Director Dave Gallagher described](#) as a “reorganization” effort to “secure JPL’s future” through leaner operations and refocused priorities. The layoffs, affecting staff across technical, business, and support divisions, mark JPL’s fourth major reduction in the past two years, following cuts that eliminated more than 850 positions in 2024. Gallagher emphasized that the move was unrelated to the ongoing federal shutdown, though it comes amid sweeping budget and workforce reductions proposed by the White House, which include a 24 percent cut to NASA’s overall funding. Representative Judy Chu (D-Calif.), whose district includes JPL, called the layoffs an “absolute tragedy,” warning of an “untold loss of scientific knowledge and expertise.” In a message to the Caltech community, President Thomas Rosenbaum expressed “deep appreciation” for JPL’s staff and affirmed that the Institute is “doing everything possible to support affected employees.” With key missions like Mars Sample Return and Europa Clipper potentially facing reduced funding, the latest cuts underline a period of profound uncertainty for the nation’s leading center for robotic space exploration.

Beavers Battle Strong Across Fall Sports as Season Heads Into Home Stretch



(Photo: gocaltech.com)

Kyra Phaychanpheng
Sports

Since our last column, Caltech Athletics has continued to take great strides in the fall sports seasons! It’s almost the home stretch for many of these sports, so let’s catch up on the past couple weeks of updates:

Cross Country
The XC team has been competing quite a bit in the previous weeks, with the Pomona-Pitzer Invitational and the UCR Highlander Invite. At the PP Invitational, our men’s team had a standout performance by Stephen Goeringher (‘28) with a 39th finish out of over 200 competitors from schools of all divisions in the 8k event. The women’s team also took some great strides in the 6k event. In the UCR Highlander Invite, the beavers on both sides were in the open division and found great success, the women’s team taking 3rd place and 1st for the men’s team. Five of the beavers on men’s XC finished top 25 in the 8k event keeping great pace with each other. Gigi Pistilli (‘26) and

Katelyn Sadorf (‘28) on the women’s team found themselves placing in the 6k race at 3rd and 5th place, respectively.

Men’s Soccer
From our last men’s soccer update, the squad’s record was at 5-4. Since then, the beavers have added two wins to that and three losses, for an overall record of 7-7, in some really tough conference play. On 10/4, MSOC took on Cal Lutheran and ended up on top (1-0) with the goal by Etienne Cassanova (‘26) and the shut out defense in the goal by Alex Crowley (‘27) and Ethan Hamel (‘27). Following that game, Caltech had three games in a row, losing by only one goal. But, alas, the beavers took a huge win on Senior Day against Chapman University (1-0)! Cassanova again scored the game winning goal, leading the seniors to a celebratory day in front of many supporters at our home field. This goal added to Cassanova’s total of 8 goals, recently being recognized by SCI-AC as one of the conference’s leaders in goals, along with sophomore Matthew Luk (‘28)

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2025 Nobel Prizes Announced

Raquel Maldonado
News

Today, with honor and great enthusiasm, we share the winners of the 2025 Nobel Prizes, announced between October 6 and 13 in Oslo, Norway, and Stockholm, Sweden. The prize is divided into six categories: Physics, Chemistry, Physiology or Medicine, Literature, Peace, and Economics.

Physics
The winners are **John Clarke**, born in 1942 in Cambridge, UK. PhD 1968 from the University of Cambridge, UK. Professor at the University of California, Berkeley, USA. **Michel H. Devoret**, born in 1953 in Paris, France. PhD 1982 from Paris-Sud University, France. Professor at Yale University, New Haven, CT, and the University of California, Santa Barbara, USA. **John M. Martinis**, born 1958 in Los Angeles, CA, USA. PhD 1987 from the University of California, Berkeley, USA. Professor at the University of California, Santa Barbara, and Chief Technology Officer at Qolab, Los Angeles, CA, USA.

Their experiment on a chip revealed quantum physics in action. In 1984 and 1985, they conducted experiments with an electrical circuit that demonstrated both quantum tunneling and quantized energy levels in a system large enough to be held in one’s hand.

“In the circuit, the superconducting components were separated by a thin layer of nonconductive material, a setup known as a Josephson junction. By refining and measuring all the various properties of their circuit, they were able to control and explore the phenomena that arose when they passed a current through it. Together, the charged particles moving through the superconductor comprised a system that behaved as if they were a single particle that filled the entire circuit. This macroscopic particle-like system is initially in a state in which current flows without any voltage. The system is trapped in this state, as if behind a barrier that it cannot cross. In the experiment, the system shows its quantum character by managing to escape the zero-voltage state through tunneling. The system’s changed state is detected through the appearance of a voltage. The laureates could also demonstrate that the system behaves in the manner predicted by quantum mechanics – it is quantized, meaning that it only absorbs or emits specific amounts of energy. “It is wonderful to be able to celebrate the way that century-old quantum mechanics continually offers new surprises. It is also enormously useful, as quantum mechanics is

the foundation of all digital technology,” says Olle Eriksson, Chair of the Nobel Committee for Physics. The transistors in computer microchips are one example of the established quantum technology that surrounds us. This year’s Nobel Prize in Physics has provided opportunities for developing the next generation of quantum technology, including quantum cryptography, quantum computers, and quantum sensors.” *Press release: The Nobel Prize in Physics 2025, from The Royal Swedish Academy of Sciences.*

Chemistry
The winners are **Susumu Kitagawa**, born in 1951 in Kyoto, Japan. PhD 1979 from Kyoto University, Japan. Professor at Kyoto University, Japan. **Richard Robson**, born in 1937 in Glusburn, UK. PhD 1962 from the University of Oxford, UK. Professor at the University of Melbourne, Australia. **Omar M. Yaghi**, Born 1965 in Amman, Jordan. PhD 1990 from the University of Illinois Urbana-Champaign, USA. Professor at the University of California, Berkeley, USA. They created molecular constructs with large spaces where gases and other chemicals can flow. These metal-organic frameworks (MOFs) can be used to harvest water from desert air, capture carbon dioxide, store toxic gases, and catalyze chemical reactions.

“In their constructions, metal ions function as cornerstones that are linked by long organic (carbon-based) molecules. Together, the metal ions and molecules are organized to form crystals that contain large cavities. These porous materials are called metal-organic frameworks (MOF). By varying the building blocks used in the MOFs, chemists can design them to capture and store specific substances. MOFs can also drive chemical reactions or conduct electricity. “Metal-organic frameworks have enormous potential, bringing previously unforeseen opportunities for custom-made materials with new functions,” says Heiner Linke, Chair of the Nobel Committee for Chemistry. It all started in 1989, when Richard Robson tested utilizing the inherent properties of atoms in a new way. He combined positively charged copper ions with a four-armed molecule; this had a chemical group that was attracted to copper ions at the end of each arm. When they were combined, they bonded to form a well-ordered, spacious crystal. It was like a diamond filled with innumerable cavities. Robson immediately recognized the potential of his molecular construction, but it was unstable and collapsed easily. However, Susumu Kitagawa and Omar Yaghi provided this building method with a firm foundation; between 1992

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(Un)Fortunately, We Now Have an H-Index

Damian R. Wilson
Letter to the Editor

Dear reader,
The California Tech is at once delighted and horrified to announce that we have, as of October 2nd of this year, [been cited in another publication](#). Namely, by the National Association of Scholars (NAS), a conservative 501(c)(3) founded in 1987 for the preservation of “Western intellectual heritage.” In other words, we happened to wind up in an alt-right think piece that, while using an LLM to make its own case against DEI (as an editor, I can con-

firm diction and syntax speak volumes), happened to dig up our own reporting for Caltech statistics. The pieces in question are [Michael Gutierrez and Ling-Yi Wu’s report on last year’s peaceful Palestine sit-in](#), and [Troy Zhang’s article on DEI-related threats to federal education funding](#). While I briefly considered issuing a rebuttal, I feel awkward enough dignifying the NAS piece with even this many paragraphs. Its title alone (“Diversity Rocket Science at Caltech”) is emblematic of its stupidity.

The following advice will

suffice: **Don’t engage fascists.** Nothing comes of it. Ever. These people spend their lives peddling a mythologized version of America that never was—and, if we stay alert, will never be. To insinuate they belong to any genuine intellectual arena by indulging this nonsense would be a crime of which this paper refuses to be guilty. May we all immerse ourselves in better stuff. Reader, I hereby redirect you to any other part of this issue.

Warmly,
Damian R. Wilson
Editor-in-Chief

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Join the 2026 Student Life and Experience Conference (SLEC)

Joseph Greenwell,
Ashlyn Roice,
Elisa Grillo
Letter to the Community

Dear Students,

We are thrilled to have our new and returning students on campus. We are also excited to announce this year’s Student Life and Experience Conference (<https://slec.caltech.edu>) (SLEC).

As one of the many ways staff and students partner together, this conference is another opportunity to work together to assess and continually enhance the student experience at Caltech. The goal of SLEC is to plan for Caltech’s future through fostering open and constructive dialogue, developing actionable recommendations, and promoting a collaborative Caltech community. One example of such an enhancement came in response to the survey data received by the food committee during the inaugural SLEC. Based on that data, the committee recommended an adjustment of weekend dining hours and facility arrangements that would improve students’ weekend dining experience, which Dining Services then implemented for the 2025-26 academic year.

We look forward to partnering with each of you to make SLEC 2026 a success. Here is what you can expect:

- An academic year-long process that develops co-created recommendations founded in survey and institutional data.
- Six committees that will each explore a thematic area and develop survey questions to send to the campus community.
- Alumni and Community Engagement
- Athletics and Recreation
- Health and Wellbeing
- Housing and Residential Life
- Inclusion, Diversity, Equity, and Accessibility (IDEA)
- Transition to Caltech and First-Year Experience
- The committees will review the analyzed data and de-

velop actionable recommendations and present them to the campus community at the spring conference on **Friday, April 17th**.

- A short video with an overview of the SLEC process is available on the SLEC website (<https://slec.caltech.edu/>).

In addition to attending the conference, here are other ways for you to participate.

- Undergraduate students can sign up to participate on a committee here: (<https://forms.cloud.microsoft/r/59z1pw3Ca8>).
- We ask all undergraduate students complete the SLEC survey over winter break. Share your voice regarding what you enjoy about the student experience and what can be enhanced on a variety of topics.
- Continually give us your feedback. There is a form for general comments or questions (<https://forms.cloud.microsoft/r/zAoVLgVGnB>) available on the SLEC website in addition to the orientation video with more info about this process. Those forms are sent directly to a staff advisor who will work to incorporate your suggestions into the SLEC process.

Caltech is a unique place – with talented students, staff and faculty who are committed to the student experience. We thank everyone who already strives to continually assess and enhance the Caltech experience. We look forward to partnering with each of you to make Caltech the best student experience possible. Keep an eye out for updates along the way.

Joseph Greenwell
Associate Vice President of Student Life and Chief Student Affairs Officer

Ashlyn Roice
ASCIT President

Elisa Grillo
IHC Chair & SLEC Chair

An Appeal to the Seniors: Leave the Frosh Alone

Jieyu Zheng
Opinion

If you don’t know yet, Caltech’s [sex discrimination](#) policy includes a specific clause (Article 15.5) prohibiting any relationship between employees—meaning faculty, postdocs, and staff—and undergraduate students. It also advises caution and professionalism in any relationship where a power imbalance exists (Article 15.9). The policy further acknowledges that when power differentials exist, consent cannot defend the individual with greater power (Article 13.3).

However, after five years as a graduate student and from many stories I’ve heard, I can say these policies don’t go far enough. They leave a wide grey zone where inappropriate dynamics thrive—between senior and first-year members, even within the same category of students. There should be explicit protections for any first-year student, undergraduate or graduate, from romantic pursuit by more senior members, whether those are senior undergrads, graduate students, or employees. Until such rules exist, here is my moral appeal to the community.

You know what it feels like to be that new. The challenges of the unknown are everywhere in your work and life. You have to figure out how to get groceries in the vast sprawl of Los Angeles and how to enroll in classes through the obscure REGIS system, when the term begins just two days after your dazzling orientation week. It’s all fresh and exciting, yet nerve-wracking and anxiogenic at the same time. For this year’s new graduate students, another challenge awaits: research funding is limited, and only a few rotation spots are available for you and your peers. Your first year might be your last at Caltech if you don’t find a lab. All of this is an enormous amount of stress.

In this situation, your clueless and equally stressed-out peers might be good vents, but not immediate solutions to your problems. A chill senior student, on the other hand, is like an angel coming to the rescue. They have saved enough for a car and a Costco membership, and they buy you a hot dog when you forget to eat. They know which professors are grumpy and warn you that participation matters, even if it’s not on the syllabus. They might give you a quick answer about whether a lab has space for your rotation, long before the busy PI replies to your email after their two-month vacation. They know literally where everything is—when you run out of pipette tips, they hand you exactly what you need from a drawer you don’t yet dare to open.

All of this feels like timely help, like a torch passed down through generations. And these seniors have a soothing power. When you’re up late studying for midterms, worried to death that you’ll fail, they calm you down with reassurance and an ice cream from Afters. When you’ve spent 15 hours per day for a week preparing for quals and your friends are also too busy to hang out, they invite you to paint on their porch. When you’re desperate for a

breath of fresh air but have no way to reach the mountains, they take you on a joyride in their (second-hand) BMW coupe up Highway 2 to a hidden overlook of the Night City. And from there, things can so easily go further.

It’s easy to recognize power when it’s spelled out in someone’s title or prefix. But for a frosh, experience itself is a serious power differential. Seniors carry a kind of calmness and knowledge that make them magnetic. You find yourself comforted by that power, and before long, you may start to succumb to it. The imbalance deepens when they’re in your lab, with even a small influence over your projects or reputation.

It will take years — until you reach their age and stage—to realize that you could have done just as well as they did, maybe even better. What has appealed to you—the composure and seasoning—is just a natural product of time, and you will have it too. You have tried all the flavors in the new gelato shop in Old Town Pasadena. You are so familiar with every turnout on Highway 2 that you don’t have to yield to sports cars. But by then, the damage is long done, and there is no way to remedy yourself. Unlike the explicitly prohibited relationships (Article 15.5), the one between you and your senior looks, on paper, like just another office romance gone awry. If you dare to talk about it, people may call you bitter—after all, they had your consent, didn’t they?

This is where it becomes truly damaging—you start to believe it’s your fault. Every step is your own choice, so the blame falls squarely on you. Your professional confidence begins to crack under the weight of that power differential. And if you dare to speak about it publicly, your story becomes gossip material for the department, met with little sympathy, because it isn’t “Title IX-worthy.” How do you move on and seek mentorship again after that? How can this school still claim to be a safe environment for scholarship and mentorship? How do you even look at orientations, when those with experience may well treat the new as potential partners instead of protégés?

It’s even sadder that society often praises such romance, admiring the supposed benefits it brings to the junior party. I recently realized I’m now the same age as Wendi Deng, 28, when she married Murdoch, then 66. She was celebrated across global media for her “boldness” and for “climbing the ladder.” While that voice is less dominant now, young people, especially women, still keep hearing that life could be easier if they wielded their youth as a leverage. On the other hand, when powerful people show off their younger spouses like badges of success, people nod to that and admit it as meritocracy. And it hurts those who made it too—even those who are now tenured professors with their own labs. People still whisper about how they “had three marriages during their studenthood” and wonder if they are ever up for their jobs.

We need to recognize that this is wrong—not just the re-

lationships already covered by school policies that protect undergraduates from employees, but also those that happen between students, including graduate students. This starts with everyday life and how we talk about it. Teasing your grad friend about mentoring a good-looking undergraduate as a “potential romance” should never be considered harmless fun. It’s as serious as implying they’re a predator. In both dynamics, consent simply doesn’t count. And if your friend is in a relationship with such power dynamics, watch out for them.

I’m not saying all such relationships are evil or should be outright banned. I’ve seen genuine, healthy couples come out of these situations. But they should always be handled with care. MIT has an unofficial “November Rule” advising against dating between freshmen and upperclassmen during the first few months of the term. Here at Caltech, our honor code states that “no member of the Caltech community shall take unfair advantage of any other member of the Caltech Community.” To practice this code requires active self reflection, and that should come from the party with higher power. So if you’re a senior undergrad, grad student, or anyone who’s been at Caltech for a while, and you find yourself hanging out with someone new, ask yourself these questions:

Are you interacting with the younger person in a safe environment? Can someone else supervise your interactions?

What specific traits do you find attractive in this person? Do you enjoy their company because of their admiration for you, their curiosity, or their receptiveness to most of your ideas? If so, be careful—those may simply be traits of youth.

Are you drawn to youthful traits? If so, that’s natural, but try to look for them outside someone who can fall prey to your power.

Are you isolating the younger person from their friends or peers? This includes claiming them to be special while denouncing their peers as “adorably annoying.”

Are you sharing your ideas in a way that encourages their independent thinking? Do you allow them to form their own opinions about Caltech and life, rather than unduly influencing them with your own – potentially jaded – perspective?

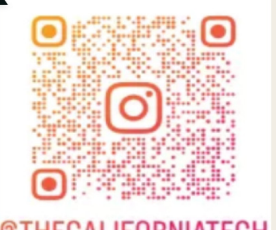
Would you feel comfortable if your actions were known to the broader Caltech community? Think about the consequences as if you were spending another four years here, rather than on the premise that you or they are leaving in a few months.

Could you wait until the power differential no longer exists before pursuing anything romantic—for example, after they have chosen a major, joined a lab, or otherwise achieved greater independence?

I truly believe that trust within the Caltech community isn’t about rules on paper alone; it’s about respect of boundaries in a scholarly manner. Therefore, I welcome any thoughtful arguments or perspectives on this opinion — let’s discuss how we can make mentorship, learning, and community safer for everyone.

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@THECALIFORNIATECH

Meet Joseph Greenwell, Caltech’s New AVP for Student Life

Damian R. Wilson
The Inside World

Content warning: This article contains brief mention of suicide.

A small layout hiccup in our last issue left Joseph Greenwell captioned, featuring Betsy Mitchell’s instead of his own. (Greenwell/Mitchell’s inscribed purpose: “D3 athletics at a D1 price.”) This coupled with Greenwell’s iconically bowtied image made for a curious moment that, in its way, captured something of the Caltech spirit. Now, with a proper introduction, meet the Institute’s new Associate Vice President for Student Life and Chief Student Affairs Officer: May you find him as engaging a subject in print as I did over coffee.

Thank you for your time! Could you introduce yourself?

My name’s Joseph Greenwell, and my pronouns are he/him/his. I’m the inaugural associate Vice President for Student Life and Chief Student Affairs Officer, which means I have the opportunity to work within a newly established team. The people were always there, but a new reorganization of a team that’s focused on the student experience in a variety of ways, and how we can continually look at our work, collaborate across the Institute, to continually enhance the student experience. Both outside the classroom, but everything we do outside the classroom is supportive of inside the classroom.

Could you speak to the inauguration of that position?

I wasn’t here when that was done, but the role emerged as part of a broader reorganization within Student Affairs. Ten departments now make up the new Student Life division created through that process.

Could you tell us a bit about your background?

I’ll go a little further back—how I even found my way into higher education. I could talk about my career path, but when people ask why I’m passionate about this work, it’s centered on a few aspects—or moments—of my life. The first is that I was raised on a farm. I only share that because farm work is all about collaboration and mutual support—making sure everyone stays safe while working with heavy machinery and long hours. That ties into my leadership today: bringing people together toward a shared goal and supporting one another along the way. Fast-forward: I’m a survivor of a suicide attempt in high school, back in 1986. I share that because mental health challenges touch almost ev-

eryone at some point—whether through grief, loneliness, or difficulty finding a sense of belonging. At that time, I felt isolated and unable to talk to anyone. Sharing that publicly feels vulnerable, but I think it’s important. We all go through times in our life when we need help, and it’s vital to know to reach out to others for that help. The vast majority of my life I would never have experienced otherwise, and it’s been beautiful. I’ve had a wonderful life, as the movie says, and I’m deeply grateful for that. Well-being has been central to everything I’ve done since. It’s the lens through which I view my work: How we can create environments that foster wellness and belonging for everyone. When I started college, that commitment deepened. My first year at Vanderbilt was hard—I struggled for the first time with academic rigor, and I felt I was the only one struggling. I didn’t seek help right away, partly from shame and imposter syndrome, but eventually I found tutoring and realized support was available. It took me a while to get tutoring and realize help was available. I also had a hard time making friends at first; I had to really go out of my comfort zone to do that, but by my second semester, I’d built a strong network. Then, at the end of my first year, my piano instructor—who, for a music major, is like a PI here—told me not to return, that I didn’t have what it takes to be a Vanderbilt student. That crushed me. It was already a hard year! I left not knowing if I could come back to Vanderbilt. But I could, and I did. I’m happy to say that, with support, I not only returned but thrived. I excelled, was on the Dean’s List, and earned all three of my degrees from Vanderbilt! (I joke that I overcompensate.) That experience is what led me to Student Affairs. My first real involvement was through orientation. I didn’t want any other first-year student to feel as lost or unsupported as I had, so I became an orientation leader. Someone eventually asked if I’d ever considered Student Affairs as a profession—I hadn’t—but that’s how I got into it. At one point I thought about pursuing music therapy, connecting it with my music degree, but I ultimately used my psychology background to focus on education instead. How does Caltech compare to other institutions you’ve worked with? Something unique about Caltech is its size. Being a smaller institution means people have the chance to know each other in a much more personal way than at most universities. My hope is that students here feel they truly have access—to faculty, to staff, and to

each other. At larger schools, that kind of close connection can be harder to come by. And the students here are incredible. What they bring to Caltech—their expertise, curiosity, and passion—really shapes the campus. I’ve been especially impressed by student governance so far. I’ve met with leaders from the undergraduate and graduate communities, through ASCIT, GSC, and the IHC, and I’ve been struck by their thoughtfulness and commitment. Caltech has a very distinctive vibe. Every institution has its own culture, but Caltech’s blend of brilliance, history, and intimacy gives it a special character. What do your responsibilities entail? I support ten wonderful leagues who create the Student Experience, each representing different aspects of the work. Three areas fall under Student Wellness Services—medical, counseling, and operations. Then there’s Athletics, Recreation, and Physical education; Performing and Visual Arts; the Center for Student Success, which includes disability services and the CARE team; Fellowships and Study Abroad; Student and Family Engagement; and everything Tom Mannion does around student events. Together, we’re looking for ways to collaborate across these areas, share goals, and strengthen how we support students. My role also involves partnering beyond Student Affairs—with faculty, alumni, and families—to make sure our efforts are coordinated and effective. I’ve only been here two months, so I’m still learning, but I’m excited about how interconnected this work can be. What has been most revealing in your first two months? I’ve realized how much opportunity there is to bridge and connect across Caltech. Even with its small size, silos can form simply because everyone is so busy doing important work. Finding ways to build more collaboration toward shared goals feels key. Another pleasant surprise has been the enthusiasm for this new position—not just for me personally, but for what it represents: a dedicated focus on student life at Caltech. My own background is entirely in Student Affairs. I earned my undergraduate degrees in music and psychology, my master’s in higher education administration, and my doctorate in education. I’ve been in the field for 28 years, and I’ve felt so supported here as I learn about the Institute and how best to serve the community. Have there been any memorable experiences



Joseph Defraime Greenwell, our new Associate Vice President for Student Life and Chief Student Affairs Officer. (Photo: LinkedIn)

with students so far?

It’s only been a few weeks into the term, but I’ve really enjoyed connecting with students and hearing their stories. I love learning together—sharing who we are and what drives us. Orientation was a highlight; I met many new students here and there during rotation events. I’ve also attended athletic events and other student gatherings. Each encounter helps me understand what excites students about Caltech and where they see opportunities for growth and support. I’ve been collaborating with student leaders, too—for instance, with SLEC. A joint letter went out recently from me, Elisa the IHC Chair and SLEC Chair, and Ashlyn the ASCIT President, encouraging students to get involved. [This letter was also published by the Tech as part of this issue.] That partnership model is something I hope to keep building on. What kinds of connections do you hope to strengthen? I’m interested in how aware students are of the resources that exist—and how we can make that information easier to find. Caltech has a remarkable network of support, but part of my work is to make sure it’s visible and accessible. I’m also thinking deeply about well-being—how every area, not just Student Wellness Services, contributes to it. For example, what does well-being look like in study abroad, or in performing arts, or athletics? How do we embed that perspective throughout everything we do? That’s a big priority for me. At present, I’ve been here for two months and fifteen days. I’m still very much in a learning phase, but also in

a listening and connecting phase. I want to engage with students in both formal and informal ways. If anyone sees me around campus, please say come up and say hi! I wear a bowtie every day—not just as a fashion choice, but so people can recognize me easily. Improvements at Caltech? I’d say that’s a conversation for the months ahead. Every institution has areas where it can grow. Right now, I’m still within my first ninety days—still listening, learning, and getting the lay of the land. I think of this first quarter as the “30-60-90” phase of on-boarding. It really takes a full year to experience the rhythm of a place—its traditions, its milestones, its flow. I’m not waiting a year to act, but I know understanding that rhythm takes time. It’s all part of the learning process. It’s funny—it feels like I’ve only been here a week, but it’s already Wednesday. And Homecoming’s this weekend, if you didn’t know! Closing comments? I’m super excited to be here—to partner with students, staff, faculty, alumni, and families to highlight what’s already great about Caltech and keep building on it. I want to make sure students feel connected to the many wonderful resources that exist, and to explore how we can enhance that experience together. I think I speak for many of us when I say we’re already grateful for the ways Joseph has helped bring the student community together. Thank you again for your time, Joseph.

QUESTION
THE QUAIL

Awoken from slumber, the QUAIL is hungry for your questions.



Feed the poor animal here:



A Conversation with Jocelyn Vargas and Chris Barragan, Caltech Accessibility Specialists

Damian R. Wilson
The Inside World

At the heart of Caltech’s accessibility initiatives are Jocelyn Vargas and Chris Barragan, who work side by side at the Center for Student Success. I sat down with them last week to discuss how they help ensure access and equity for all members of the community. The conversation below has been edited for length and clarity.

Lovely to be speaking with you both! Could we have some introductions?

Jocelyn: My name is Jocelyn Vargas, and I am the Student Accessibility and Neurodiversity Services Specialist. I’ve been at Caltech for two years, entering my third academic year. I am now the sole support for all Accessibility Services at Caltech, so primarily working with students with dining, academic, and housing needs—for both grad and undergrad—and working with all interdisciplinary departments to ensure all those changes are implemented within the Caltech experience.

Chris: Hi, I’m Chris Barragan, I’m the Director of the Center for Student Success, and I oversee Accessibility Services and the CARE Team. I’ve been with Caltech for the exact same length of time as Jocelyn, now entering my third academic year as well.

I’ll note that this is the very first time that, in a way that’s just not tabling, students may publicly hear of the CSS, and that’s because the Center is brand new. It’s only technically been in existence for 3 months. So where this is coming from, and why people may be like, “Why didn’t I hear about this?” is because CARE and Accessibility Services used to be completely separate.

The Institute saw value in bringing us together and to begin building and establishing the CSS. So, this is really just the beginning. There is a curiosity about what else might exist in the future within the Center, but this is just the starting point for creating a cohesive space for student support.

What are your histories at Caltech?

Chris: So I was brought on as the Student Affairs case manager, and when I started and the scope of my role was specifically case management for students of concern. Over the course of the last two years, that’s shifted and developed into my role now as the Director of the Center, where I continue to provide leadership to the CARE team, and also develop Accessibility Services while casting a vision for the future of student support at Caltech.

Jocelyn: Similar. I was brought on to be the Neurodiversity Specialist within the existing CASS structure, so my case load was seeing students who are neurodivergent, students who identify with learning disabilities, autism, dyscalculia, dyslexia, but within the neurodiversity umbrella. And with the current transition with just one person as you know, following staff transitions, now I oversee all of the streamlined processes with CASS. That includes facilities, consultation with faculty members, database management to really growing all of the processes of Accessibility Services and it’s very new exciting things that interact with the CARE team and the growth of the center.

About that name change...

Chris: Most people are familiar with “CASS”. However, part of the rebranding with the CSS is getting used to just saying Accessibility Services. Our hope is that stu-

dents are encouraged to connect with the Center as a homebase for student support services, which would of course include accessibility services.

Acronyms and initialisms can be tricky here!

Chris: It doesn’t help that this building is CSS, for the Center of Student Services, but also the Center for Student Success. Caltech loves their acronyms.

What were the beginnings of accessibility at Caltech?

Chris: You’re going to have a lot more to say here I’m sure, Jocelyn, but it’s important to note that when Accessibility Services began here, what it looked like then and what it looks like now is quite different. Now it’s a more comprehensive, much more holistic approach to student support.

Jocelyn: The history that I was aware of was that it’s very much like this: You go to the Dean’s Office, you apply for accommodations, and way back in the early 2000s, you’d fill out a form, they process you, put you in a file, and then someone from the Dean’s Office—or the dean themselves—would help with accessibility support. The changes are on par with the national trends in the increase of students with disabilities enrolled in higher education, so the institute acknowledged the need to invest in this area of the institute because we are also experiencing that growth at Caltech.

While that process is my responsibility, now that it’s no longer pen-and-paper in the Dean’s Office, but a whole dedicated office with the database, the workflow, a case management system, I’d say we’re very much supporting students holistically in all types of the student experience, even informally, so we have knowledge of people we can connect them to if we can’t directly support. It’s become an almost advisorship sort of structure.

And to me it feels less sterile, less transactional, in the way I do Accessibility Services. I make an effort to feel approachable, like it’s humanized, and that it’s just another part of the student experience that should be respected, intentional and supportive.

Chris: Other folks in the Institute will now come to us for consultation about ways to make the student experience more accessible across the board. We don’t just do the case management of students, but we’re part of the folks who are thinking more broadly about how to help students thrive here. There’s something called universal design that is really driving us: How can we make accessibility at Caltech not just something for those who need the accommodation, but for everyone?

The example Jocelyn uses is the curb on a sidewalk—how it indents down, while people who have mobility issues use that as well as able-bodied folks. So our hope is to build a Caltech where every class, assignment, building, etc, is built in such a way that you don’t even technically need an accommodation because it’s designed in such a way that it is accessible for everyone, regardless of accessibility need.

Jocelyn: I’ll add, too, that when I started at Caltech two years ago, it seemed siloed in the way you’re mentioning. The curiosity was there from people all over campus that now we can easily directly connect to people with accessibility concerns, you have a facilities concern, you know you can go to Todd or Jasmine in CTLO [the Center for Teaching, Learning, & Outreach] rather than trying to build that structure when we first started. There’s been a lot of progress in the two years that we’ve existed.

Where does Caltech struggle, and where does it excel?

Chris: This is the part where an answer can get us in trouble...!

Jocelyn: I think all of higher education right now is in a space where most students with more complex needs are coming in. It’s not just one individual thing that students may experience, complex needs where they’re really pushing the boundaries of where accessibility even was 10 years ago. I’d say all universities are probably subpar and in need of continuous growth. Caltech excels in some categories, but falls short in others.

Chris: Let’s highlight some areas we excel in before talking about the old buildings.

Jocelyn: I think we excel in faculty communication and intervention. If a student has a specific concern in the classroom I have the confidence to go to a faculty member and go, “Here’s the concern the student brought up. How can the three of us mediate a solution?”

Can we talk about those old buildings?

Chris: We do need help—our buildings are old. And sometimes we as an institute can be reactive to the student’s needs as opposed to proactive. And so, sometimes, we wait until the need presents itself and then the Institute will absolutely do what they need to do to meet that need. But our buildings weren’t always designed with accessibility in mind.

Jocelyn: And then you can add the budget constraints in all of higher education, even at Caltech, which does not help in that regard.

Chris: I have often heard that when the Institute was established, there were people who believed that the students who needed the services we have now wouldn’t—shouldn’t—show up in our student population. I think that plays a part somewhere deep down our roots. There was a time when students with accessibility needs were seen as less than.

Jocelyn: That’s definitely not just not Caltech; it’s also higher education in general!

What improvements would you like to see in the near future?

Jocelyn: I immediately, urgently, would love to get more on the student perspective on how accommodations exist in their everyday Caltech experience. I can give them accommodations in the classroom, but unless a student comes to me and says, “This is not happening,” I wouldn’t know. I’d love for students and faculty not to feel any shame or worries about coming back and saying, “Hey, I had this experience in the classroom and want to talk about it.”

I want to create a culture where we can engage in dialogue around accessibility concerns to increase accessibility for everyone who comes afterward. I’ve seen students come in, and express a concern that opens the door for so many other students that come afterwards.

Chris: We deeply believe that support is not a sign of weakness, but a strategy for excellence. We find very often that students here are sometimes extremely resistant to receiving any type of support because they see it as a type of weakness as opposed to an opportunity to, honestly, be excellent. But that’s a big shift internally for some students. Sometimes we won’t be aware of something unless it’s really catastrophic and I wish students could see that the catastrophe is avoidable with some support along the way.

Jocelyn: I’ve definitely seen that. Chris: To come to Caltech, and to be here, you have by every mea-



Jocelyn Vargas (left) and Chris Barragan (right) work to make Caltech more accessible. (Photo: Jocelyn Vargas and Chris Barragan)

surement, excelled academically. You’ve reached this point where you were at the top of your class your entire academic career, and you come here, and you realize, “Oh my god. I’m kind of mediocre when you look at the pool.” It’s a shock to some students who are just as brilliant as they are, and sometimes I think that that even presses in a lot more on people’s unwillingness to ask for support because they already feel at a deficit because they look at their peers and perceive them to be thriving, and excelling.

But, they don’t know that every day we’re sitting in our offices with students who think they are the only ones who are struggling. Our students will often think they are the only ones facing the challenges they encounter, but they are really not. The reality is virtually every student needs support at some point in their journey here.

Jocelyn: I have an anecdote about this: I’ve been a staff advisor/mentor for two years. This year, each first year student wrote a letter to their faculty and staff advisors saying what they’re worried about, and the most common comment is, “I’m worried I don’t have the knowledge to succeed in my classes.” That’s literally everyone! Nine out of nine, in one group. They wouldn’t admit that to one another. And I’m like, you all share those feelings! I will highlight it! Like, folks, you’re all saying the same thing!

Chris: This is a hard place academically, that’s just the reality. And as a staff advisor, I saw the same things as Jocelyn and the other faculty.

Could you speak more to the evolution from CASS to CSS?

Chris: That honestly might be a little harder to verbalize. The non-polished way of saying that is that Accessibility Services was floating without structure, and so I was tasked with doing just that. Now what we’re doing is giving it shape, and mission, and vision. We are now one team, trying to deeply influence the Institute. Which feels a little overwhelming, just with the two of us.

Jocelyn: Yeah. Accessibility connects everyone.

I really like this universal design paradigm.

Chris: Yeah, it’s deep in our hope and there are faculty who’ve essentially already designed their courses in such a way.

Jocelyn: Universal design, which stems from architecture, so the impetus of that was actually through architecture and physical design and physically creating accessible spaces. It has now shifted through the disability space into Universal Design for Learning, where we create curriculum and tests and learning that are also accessible. For faculty members who’ve created universal design in their curriculum. [For more infor-

mation on UDL at Caltech, please refer to [this page](#) linked by the QR code below.]



Chris: Currently we have a small handful of faculty that have designed their courses in such a way that they don’t need accommodations due to how they’ve structured their course. I think if I were a student it would just be a morale boost as a student not to feel like your professor is doing anything special for you, but that the course was designed with you in mind.

Any closing comments, between the two of you?

Chris: We love our jobs!

Jocelyn: We’re two really cool people. I think we’re two of the more relatable members in Student Affairs—not to say there aren’t lots of cool people! But we’re some of the most approachable in how we deal with something that seems so scary and so transactional. You think of accessibility services, you think of crisis management, you think sterile, but we’re not sterile people.

Chris: No, we’re the opposite of sterile. The scope of my work is so broad: a day can go from a crisis to one-on-one student connections creating meetings and belonging. (And we really are trying to cultivate a sense of belonging on our campus.) But I think when some people think of the CARE Team, or Accessibility Services, to Jocelyn’s point, it sounds really clinical or sterile—procedural—but the truth is that there are portions of that to our work. Yet, we add a human element to it that I hope allows students to feel like they can be entirely who they are at Caltech.

Thanks again for agreeing to this. We’re happy to feature you two in the Tech!

Chris: This is our debut!
Jocelyn: We’re going to be in the Caltech Archives. FOREVER.

Chris: I honestly feel so special. Thank you so much for taking the time to do this for us.

Chris and Jocelyn would like all readers to know that, for any concern, discomfort, or challenge, be it formal or informal, you are more than welcome to contact them at cbarragan@caltech.edu and jocelynv@caltech.edu, respectively. The author would like to thank them again for their time.

How do we as scientists respond to data erasure?

Myles Sherman
Opinion

As Caltech researchers, there is perhaps nothing so guarded as *data*. We scrutinize with excessive detail our data collection methods, data analysis methods, false-positive and false negative rates, and possible sources of bias to ensure that our interpretation of said data is trustworthy. But even before that...we make sure the data is *there*.

So, reading Jordan Marie-Smith's NPR article, "USDA cancels survey tracking how many Americans struggle to get enough food," felt like a punch in the gut. I thought I had misunderstood; but sure enough, the [U.S. Department of Agriculture's](#) website confirms, "the termination of future Household Food Security Reports," describing them as, "redundant, costly, politicized," "extraneous," "fear monger[ing]," and "subjective liberal fodder."

No evidence is presented to back this invalidation of 30 years of data collection, which assessed the needs of low-income households and determined budget allocations for the Supplemental Nutrition Assistance Program (SNAP) that serves ~12.3% of the population. Instead, emblazoned in a lovely brown at the top of the webpage is a banner reading, "President Trump has made it clear he wants to keep the government open and support those who feed, fuel, and clothe the American people." NPR speculates this survey was curtailed to avoid assessing the effects of the administration's "One, Big, Beautiful Bill" Act, whose expansion of SNAP work requirements is expected to halt food assistance for millions of Americans.

This is only the most recent instance of data censorship, an effort to minimize opposition to their political agenda by the current administration. In February, they eliminated the National Law Enforcement Accountability Database which tracked police misconduct ([Tom Jackman, Elisabeth Dwoskin, The Washington Post](#)). [Executive Order 14253](#) in March prompted the

review and removal of Smithsonian exhibits in the American Art Museum and National African American History Museum exhibits, claiming that their acknowledgement of racism in American history amounts to, "ideological indoctrination or divisive narratives" rather than focusing on, "American greatness" ([Alex Greenberger, ArtNews](#)). In August, they removed from the Department of Justice website a report on "[What NIJ Research Tells Us About Domestic Terrorism](#)," most likely because it states that, "Since 1990, far-right extremists have committed far more ideologically motivated homicides than far-left or radical Islamist extremists." ([Joseph Gedeon, The Guardian](#)). And last month, the records of roughly 1200 (yes, 1200) detainees at the condemned "Alligator Alcatraz" immigration detention center simply "disappeared" from the Immigration Customs Enforcement (ICE) database, leaving their families, friends, and lawyers with no information on their whereabouts or well-being ([Amy Goodman, Democracy Now!](#)). As dystopian as it may sound, the Trump Administration is waging a coordinated attack on our access to un-biased data, studies, and statistics that may injure their political image.

I don't need to further publicize past examples of authoritarianism for you to understand the implications of data erasure. More qualified people than I have compiled libraries of literature on the subject. Instead, I'll pose a question to the Caltech community at large, one which surfaced at the start of World War II and rang through the throes of McCarthyism: *what is our role as researchers and scientists to respond to misinformation from our political leaders?*

Perhaps the question is deceptively simple; the naive answer would be that we should do as we always do. We should continue to practice responsible data collection, peer review, and statistical inference to ensure that our own publications meet the world's standard of objectivity. This role remains, but I would caution that we can easily isolate

ourselves from the broader community. I'd liken my experience in academia to a walk through a redwood forest; while exploring with awe the nature around us, we can easily become lost in the trees. Immersed in research, we can lose sight of our commitments to the public good beyond results and publications. At this point in history, the forest has once again been set ablaze, and we are reminded we are not alone; our role in society must evolve to preserve our right to information.

Our responsibility as agents of research is not only to produce and interpret data, but to ensure it can be accessed freely, without censorship from political or financial interests. So how do we defend the independence of research? I propose that our mission is to leverage our unique skill of *scrutiny*: our ability to discern good research from bad, to call out our government for deleting, altering, or misrepresenting data. Perhaps we take for granted the tens or hundreds of Arxiv papers, requests for peer review, and the occasional pseudo-scientist's email we must ingest and pass judgement on every week. But this is not a typical exercise undertaken by our neighbors outside of academia; overwhelmed by the internet's information firehose, people are pressured every day to make snap judgements on complex issues based only on biased headlines and cherry-picked data. By flagging unreliable or missing data using well-practiced peer-review techniques rather than political hearsay, we can cut through the noise. We can present informed perspectives on important issues while building the research literacy of our communities.

An example that demonstrates the positive impact of researchers' activism is [Save our Signs](#), a volunteer initiative started by librarians at the University of Minnesota to document signage at National Parks at threat of being removed in response to Executive Order 14253. Georgetown University historians Jim Millward and Chandra Manning have expanded this effort with

[Citizen Historians for the Smithsonian](#) to document exhibits at Smithsonian Museums. In both projects, academics identified the alarming political cleansing of American history and informed the wider public of its danger to free speech and dissent in our democratic society. They called upon everyday citizens to volunteer by taking photos of signs and exhibits with their own phones, standing for the freedom of information. So far, over 40,000 photos of National Parks signs and Smithsonian exhibits have been preserved by over 1400 volunteers through these programs. One example is an [infographic at Muir National Park](#) which was initially updated to document the genocide of the Coast Miwok people and theft of their ancestral lands, the racist policies and views of John Muir, William Kent, and Gifford Pinchot that excluded indigenous and Asian immigrant people from the National Park, and the contributions of women's clubs and Elizabeth Kent to preservation efforts and the Women's Suffrage Movement. The physical sign has been reverted to make no mention of the Coast Miwok, Asian immigration, or women's clubs, but thankfully, the original was preserved online by Save Our Signs. Millward from Citizen Historians speaks about the importance of presenting the full range of perspectives in our history in an interview with *NPR*, saying, "I'm a historian of China, and so I'm really used to when governments are stepping in trying to whitewash history and censor history..We want [a museum] that's honest and can talk about the whole range of our history and culture" (Elizabeth Blair, *NPR*).

Our voices, as researchers in higher education, are invaluable at a time when our neighbors are unsure what data to trust and when their elected officials have proven that they will lie under oath to maintain power. Our voices are essential in a time when history has been erased, research has been hidden, books have been burned, and science is sold for profit. We must speak up, LOUDLY and often, to protect

our society from tyrannical data erasure.

Recall that we are not research machines, we are contributors to our society at large. Einstein did not limit himself to physics; in 1949, he wrote "*On Socialism*" for the Monthly Reviews, weighing the trade-offs between socialism and capitalism. Even though he was not an expert on the economy or politics, he realized that "...we should not assume that experts are the only ones who have a right to express themselves on questions affecting the organization of society." In these times of tension, I urge you to express yourself: call out the censorship and erasure of data directly to your [local lawmakers](#). Contribute photos to [Save our Signs](#) and [Citizen Historians for the Smithsonian](#). Sign petitions to preserve funding for life-saving scientific research, like the [American Cancer Society's petition](#) opposing cuts to federal cancer research funding. Protect your community with vigilance from the spread of misinformation, even just by discussing science policies with your loved ones or pointing out political bias masquerading as fact. In the midst of chaos, science, too, can speak truth to power.

Do you have ideas or resources that could help people combat data erasure? Share them with the Caltech community through [this page](#) linked by the QR code below:



“the eight directions of the wind” at The Huntington

Emily Yu
Culture

How can clay from the Appalachian Mountains, Kilkenny stone from Ireland, and porcelain made in the Song Dynasty come together cohesively? In “the eight directions of the wind” at The Huntington, lauded author and artist Edmund de Waal explores how art made from these materials, among many pieces of porcelain and poetry, connects histories across borders and through time.

Edmund de Waal was born in Nottingham, England, in 1964, and is the son of the former Dean of Canterbury, Victor de Waal. At The King's School in Canterbury, he began working with Geoffrey Whiting, a student of the famous English potter, Bernard Leach. At 17, he deferred entry to Cambridge for a two-year apprenticeship with Whiting. “Was I a normal teenager? No, not really,” de Waal once told [The Guardian](#). “I had a strange, attenuated life – living in the Deanery in Canterbury, which is a vast medieval and Elizabethan house, with 15 bedrooms and a library and 50 portraits of deans on the wall; and there was a curfew bell at 9 o'clock, when the cathedral

gates were locked, and you had to be let out by a porter.”

After studying English at Cambridge, de Waal began in British studio pottery before turning to porcelain in the late 1980s. Both his art and literature have redefined the possibilities of ceramics through dialogue with other media, such as poetry. He investigates themes of diaspora and materiality with his works, which have been displayed in several renowned museums, including the Rijksmuseum in Amsterdam, the British Museum in London, and the Kunsthistorisches Museum in Vienna. De Waal was awarded a CBE (Commander of the Order of the British Empire) for his services to art in 2021 and received the Chevalier de l'Ordre des Arts et des Lettres in 2024.

“De Waal is among the most innovative and intellectually profound artists working today, and we are honored to collaborate with him on a project that so deeply resonates with The Huntington's efforts to illuminate the movement of ideas across time and place,” said Christina Nielsen, Hannah and Russel Kully Director of the Art Museum at The Huntington. “His installations offer meditations on beauty, displacement, and the fragility of culture.”

“the eight directions of the wind” is a yearlong exhibition that is composed of three site-specific installations: “on sanctuary” in the Huntington Art Gallery, “on porcelain” in the Chinese Garden's Studio for Lodging the Mind, and “on shadows” in the Japanese Garden's Marsh Tea House. Each installation weaves new connections and serves as a contemplative guide through The Huntington's spaces.

As part of “on sanctuary,” de Waal displays restored 18th-century Meissen plates once owned by the von Klemperer family. The pieces were plundered by the Nazis and later damaged during the Allied bombing of Dresden in World War II. In collaboration with artist Maiko Tsutsumi, the plates were restored using the traditional Japanese art of kintsugi. Fractured pieces are repaired with urushi lacquer dusted or mixed with powdered gold, silver, or platinum. “It's a way of using gold and lacquer to mark loss; to mark all the brokenness of the history of these objects,” stated de Waal. “For me, these objects are a way of showing history; of showing a family's loss; of marking hugely painful, complicated, and unfinished history.”

The installations also feature



Meissen plate from the collection of Gustav von Klemperer, ca. 1760–1765. Porcelain, with kintsugi by Maiko Tsutsumi. Courtesy of Edmund de Waal. Photo by Alzbeta Jaresova.

objects made by several famous artisans. Among them is a teapot made by Kazimir Malevich, a pioneering Russian avant-garde artist who paved the way for 20th-century abstract art. Another work includes porcelain produced by Sèvres, the celebrated French manufactory that created pieces for royalty, inlaid into a secretaire made by Bernard Molitor. Molitor, an *ébéniste* (cabinetmaker) to Marie-Antoinette and the French aristocracy, continued to find success after the French Revolution. Additionally, “on

sanctuary” includes fragments of 18th-century basalt ware by Josiah Wedgwood, a visionary potter and industrialist whose innovations transformed Britain and the ceramics industry.

When viewed together, the works, their origins, and their histories create a reflective cross-cultural experience. “This exhibition is a meditation on belonging and the stories that objects carry,” de Waal said. “Porcelain, to me, is a way to speak across cultures and time.”

Caltech Wildlife: Crows and Ravens

Jieyu Zheng
The Inside World

Correction of the previous issue "Caltech Wildlife: A Welcome Guide:" The caption for the first photo "a mysterious snapping turtle" should actually be "a razor-backed musk turtle." **Many thanks to Hannah Way**, the current president of the Caltech turtle club, for pointing that out. According to Hannah, "we have two of these turtles in the pond. They can be identified by their tall and ridged shell with distinct overlapping diamond-shaped scutes down the middle. These turtles can actually breathe underwater by utilizing special papillae on their tongue to extract oxygen from the water. This means they can stay underwater for months at a time, which makes it a rare and special occasion for them to be spotted basking on the shore!"

We will have a special column dedicated to the turtles in future issues.

Now, time to talk about the corvid.

Who's the smartest creature on the Caltech campus? You might think of a brilliant classmate who is always on top of everything, or a witty professor known for sharp remarks during your torturing candidacy exams. But at the pinnacle of the non-human world are a group of birds you might easily mistake for shadows—members of the corvid family: American crows and common ravens.

Crows on campus like to hang out in gangs, giving them an unmistakably gangster-like vibe. Their favorite spots include the rooftops of Caltech's parking structures. On a hot summer day, you might see them lined up in a row, panting with open beaks under the shade. It's a scene straight out of a movie: a group of watchful figures crouched on the pavement, eyes following every passerby. Then, without warning, they swoop down—the fast sweep of black wings casting shadows over the lawns, prompting every terrestrial creature (me included) to instinctively look up. That's an innate response towards the looming stimuli.

Crows do act like gangsters. With harsh cries, they mob and chase away birds of prey like Cooper's hawks or red-tailed hawks. I once saw a young red-shouldered hawk wander into campus, perhaps seeking new territory. Within moments, a group of crows had spotted the intruder. They surrounded it midair, screeching and dive-bombing until the hawk flew away. These high-speed aerial chases are like action scenes unfolding above your head on Caltech campus.

And crows don't just pick fights—they play pranks, too. I once spotted two crows and a squirrel standing together on the fence outside Beckman Auditorium. The squirrel stared curiously into my camera, anticipating treats, completely unaware of a crow sneaking up behind it. The crow, perfectly aware of my presence, didn't care about its deed being recorded. It hopped in tiny steps and suddenly – it plucked the squirrel's tail and sent it flying in panic! I was laughing so hard that the photos were shaking out of focus – so I only had one taken of the imminent moment.

Besides crows, we also have ravens on campus. Telling crows and ravens apart is a required lesson for beginner birders. Online guides will tell you to examine their calls, wing shapes, tail profiles, beak curves, body size, and more. These details are scientific but can be overwhelming and difficult to catch with the naked eye. But here's a tip: listen for a sound like water drops falling from a fountain, or like a monk rhythmically striking a wooden fish. That Zen-inducing, percussion-like call is unique to female ravens. We still don't know why only females make it—but it's mesmerizing. The sound is so odd that you'll look up and be surprised to find a raven as the broadcasting source on the top of pines.

Crows and ravens are undeniably intelligent. People often try to quantify animal intelligence by comparing it to human development, saying things like "crows are as smart as 8-year-old kids." Personally, I find this comparison anthropocentric. These birds are fully functional adults—self-sufficient and navigating complex social lives in

the wild. Adult birds form life-long partnerships and organize themselves within strict social hierarchies. They forage and scavenge in their territories. At dusk, they will fly together towards the same roost to rest for the night. They have close friends and distant acquaintances, and even attend what appear to be funerals (source: National Audubon Society). They recognize humans who are kind or mean to them. They also engage in tool use and playful behaviors—like snowboarding on plastic lids for fun.

Rather than measure them by standards of human intelligence, it's more fitting to appreciate crows and ravens as they are: clever, complex beings perfectly adapted to their world. The Caltech corvids occupy their own ecological niche, and I invite you all to observe their behavioral richness while you take a stroll around the campus.



You are very likely to be under the observing gazes of a crow while you walk around the campus.



A common raven enjoying a little snack from the human photographer.



An american crow pondering the next move of its prank.



A raven in flight. Notice the diamond-shaped tail, thick beak and sharp wing tips.

Editor's Note:
We want to
hear your
perspective!

We strive to represent every voice in the Caltech Community with fairness, accuracy, and impartiality in our news reporting.

Send submissions or contact the *Tech* editorial team at

tech@caltech.edu

Submissions are due at 12 p.m. on the Saturday before each biweekly Tuesday publication.

2025 Pasadena Coffee Passport: Second Round of Reviews

Victoria Davis Column

Time to review another four coffee shops featured in the 2025 Pasadena Coffee Passport! Last issue, I reviewed Rosebud Coffee, Copa Vida, Republik Coffee, and Jones Coffee Roasters. Since then, I have gone to another four coffee shops of the fourteen shops in the passport.

Mandarin Coffee Stand

Passport description: “This is Pasadena’s only woman-owned AAPI specialty coffee shop, which was created to highlight Chinese specialty coffee. They have coffee that has been grown and roasted all over the world.”

Passport benefit: 15% off

I tried the signature Vienna Latte, which is described as house-made sweet cream, house espresso, milk of choice, brown sugar, and coffee grounds. This was by far the best coffee drink I have ever had. It was well-crafted, made with masterful attention to flavor and texture. The bitter espresso was balanced with a dab of delicious thick and sweet cream. It was absolutely amazing. Mandarin Coffee Stand is located super close to Caltech. I actually passed this coffee shop every day on my morning walks for the past few years and didn’t realize this was the place I’ve always wanted to stop by! While walking on Lake Ave, you can smell the delicious coffee wafting heavenly down the fancy and somewhat out-of-place alcove of shops across the street from Macy’s. Every time

I walk by, I love the aesthetic of shops in this alley and smell the coffee shop call my name. Each time I pass by, there appears to be a long line. When I went to get my stamp for this shop, I was delighted to discover it was a place I had been longing to try for a while. Be warned, though, that the line is always long! I went on a week day, and it took an hour to reach the front of the line. When it is your turn to order, you walk into a tiny lobby for the coffee stand which doesn’t fit many people, so outdoor seating is your only option. I loved the vibe of the lobby though, and while I waited for my drink, the music was excellent and off-beat, just my type. I recognized the song being played (Sexy Boy by Air) because it transported me to my favorite movie, 10 Things I Hate About You. I also ordered the Matcha Donut, which was exquisite. While you are at Caltech, you MUST invest the time and go to Mandarin Coffee Stand. The coffee is worth every last drop. I will be going back again. (Hint: I hear the line isn’t as long on the weekends).

Nosy Neighbors

Passport description: “Enjoy a range of coffee, tea, and other drinks at Nosy Neighbors alongside their specialty: mini donuts! Perfect to grab and go while shopping on South Lake or enjoy their cozy seating.”

Passport benefit: Free half-dozen fresh mini donuts

I was stoked to go to this coffee shop. I had seen the giant google eyes on the side of the building for months, but had

no idea what this place was, or that the name was Nosy Neighbors! From the street on Lake, you can’t tell what this coffee shop is or why there are googly eyes in the window. Heck, you might not even notice the googly eyes. The large text reads “Coffee & Donuts” and its very easy to miss the actual name of the coffee shop “Nosy Neighbors” in small orange font with a black background. Apparently, the original concept for the coffee shop started in Claremont (see photos) which had a much clearer message that the coffee shop was “Nosy Neighbors” in orange font on white background, and the googly eyes are next to the sign peaking out between blinds. So cute! But the Pasadena shop, sadly, is no more. Honestly, it was only the coffee passport that made me look up Nosy Neighbors, and when I saw where this was located, I was shocked to realize that this was the name of the (what I thought was pretty generic) “Coffee & Donuts” shop that opened not too long ago on Lake Ave! Once you visit their website, the concept is cute and I was excited to go! I was also very stoked to get my free half-dozen mini donuts. The location is not easy to get to, but when I pulled into a random parking garage on Green St, I was able to see two parking spaces for Nosy Neighbors. As I got out of my car, the parking attendant yelled at me that I can’t park there. I said, “Oh, I’m just going to Nosy Neighbors,” to which she answered “it’s out of business.” Tragic. This passport will never have all its stamps.

The Boy & the Bear

Passport description: “The aesthetic interior of The Boy & the Bear is as stunning as their coffee. Their drink menu and shop highlight Colombian culture and the best of Colombian coffee”

Passport benefit: 15% off

I went here with my Caltech bestie, Kayane Dingilian. She ordered an Iced Caramel Macciato and I ordered a Mocha Late. I truly love Colombian coffee, so this was a solid drink. Very enjoyable. What surprised me, though, was how good the pastries were! They looked a little burnt, so I wasn’t expecting anything amazing. Kayane and I both ordered a Tomato, Parmesan, and Cashew Pesto Croissant. It was delectable! Weeks later, I am still thinking about this croissant. It was SO good. I miss it. I’ll be back again for it.

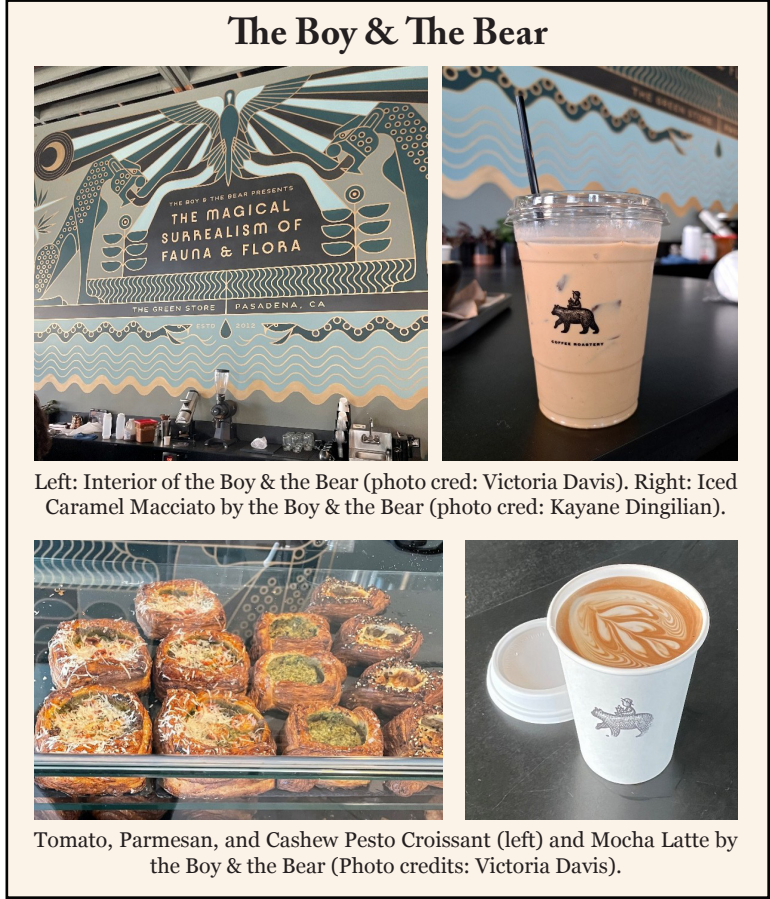
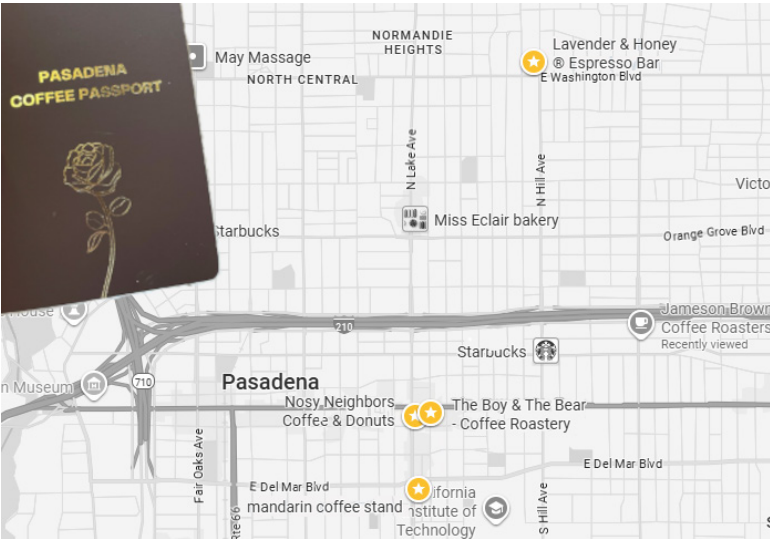
Lavender & Honey

Passport description: “L&H made a splash by bringing lavender into this area’s coffee scene. It has thrived over the past decade due to its quality coffee, tea, food, and warm, inviting space.”

Passport benefit: One free drink

Kayane and I went on another coffee adventure, this time to try Lavender & Honey. IT WAS GLORIOUS. I ordered the French Lavender Breve and the Cream Cheese Tartine Toast. Both the coffee and toast were so delicious! I’m not usually a flora flavor fan, so I was happily surprised that the lavender was subtle. The French Lavender

Breve is made with espresso, French vanilla and Lavender syrups, and half-and-half over ice. All the flavors blended well, making a very refreshing iced drink. The toast was made with sundried tomato and basil cream cheese on fresh artisan bread. It had excellent crunch with no crumb mess. The two paired together nicely, and the atmosphere of the coffee shop was bright, soft, colorful, and chill. Kayane ordered from the Fall Seasonal menu: an Apple Pie Matcha and the Brie & Pear Sandwich. The Apple Pie Matcha is a traditional matcha latte sweetened with M. Greenwood’s handmade spiced apple syrup with cinnamon milk. The Brie & Pear Sandwich is made with creamy brie, sliced bartlett pear, arugula, sprouts, and honey on a country white bread. Kayane described the drink as an spice-flavored matcha. She realized she is not a matcha fan while drinking her drink, but enjoyed it enough to finish it. She described herself as a horse eating grass. It was fun to laugh and drink and enjoy the L&H vibes with her as she said, “Yep, I really don’t like matcha” with each sip. If you’re a matcha fan, I’m sure this is a must-try. Kayane loved her sandwich though. She swallowed her final bite and said, “that was amazing.” We can’t wait to go back and try more of their sandwiches and options from their toast bar! I’ll be getting the French Lavender Breve again!



This Week in Tech History
October 21, 1948

CAMPUS BREWINS

Once again, after a slow start, the social leopards of Caltech are roving hither and thither in search of their prey, dropping the old, worn-out baggages and sinking their salivated fangs into fresh, new blood. One who has yet to pounce this year, however, is Blacker's Art Bruington. It seems he finally learned the truth about Scripps women and hasn't strayed to the telephone all term. Maybe their new switchboard system confused him.

Credit

On the credit side of the ledger though, we have Blacker frosh John McCourt, who was hard put to keep his arms around two Oxy women at the Whittier game. Can it be that Oxy has warmer blood than Scripps? Silly boy! Speaking of football, the sidelines are beginning to look almost collegiate this year. The band is the best in years, and the Dabney Chorus girls are setting a new high in—uh, are setting a new high.

Look North

Tiring of the local scene, a number of Techmen are looking north for their love life these days—even frosh Dick Bartlett is more or less true to a Stanford woman.

What's This?

What's this! What's this! Is the supposed leader of Tech social life short on dates this year? It seems that playwright Carl Price was put to the extremity of dating his cousin last Friday. Even then, she so exhausted him that Bill Woods had to take her back to Oxy. What an example to set our impressionable frosh.

Looped Y's

Wish I could keep up with the loves of Al (Come-up-to-my-room-and-give-me-a-sample-of-your-handwriting) Eschner. One woman to the theater party Friday, and another to the Whittier game Saturday. Maybe they don't loop their y's right.

Simile

Although Dabney lost Tom Hamilton by graduation last June, they gained another of the same name in the frosh class. Sensing the possibilities inherent in such a fortuitous circum-

stance, the clever Dabney boys ordered him, during initiation, to imitate all the old Tom's characteristics, from playing the piano before dinner to breathing down the necks of all girls who come into the lounge. Now it seems that the current Hamilton is not only conscientious but literal minded, so when a visiting Oxy girl appeared in a fairly low-backed dress, he followed orders to the n'th degree. It will probably be weeks before the poor girl's color is back to normal.

Cool Water

Most hilarious sights of the week were undoubtedly the two Blacker sophomores standing staunchly in the middle of the three house courts singing "Cool Water" while streams and buckets of the stuff played over their sodden figures. Obviously, the newspapers are fabricating when they claim there is a shortage of water in California. Just ask Ed Pyatt.

Bruised Knees

To get back to the Whittier game, an accounting is in order for the no-doubt-observed bruises on the knees of one of the prettier girl song leaders. It seems she rode to Whittier with four people crowded into the front seat of a 1928 Chevy, having the dubious honor of being in the middle next to Fred Wood, who was driving. The old rod had a very short gear shift lever and Fred dutifully kept his eyes on the road whenever he had to reach for it. His sense of direction, we hear, is not too good.

Out of It

P. S. Ricketts is sort of out of it this year, but we're happy to report that the Rowdies blew their budget at the Skip-In, Monday night. Sublimation, you know.

Frosh

There will be a very important meeting of the Freshman Class this Monday, October 25, at eleven a. m. in 201 Bridge.

All Frosh are expected to attend this meeting which will take up important problems such as financial matters, how to beat the Sophs in the Mudeo, and other business of importance to the entire class.



on the road whenever he had to let it this year, but we're happy

ASCIT Board of Directors Meeting Minutes

October 19th, 2025
2 p.m. — 4 p.m.

Members Present: Ashlyn, Angie, Elisa, Hannah, Bis, Ivy, Parker

President's Report (Ashlyn):

- Things are looking difficult with loss of external funding, but we will get through it.
- Introduction with Title IX
- Increase in poor Title IX sentiment among the student body.
- Spoke with Lindsey.
- Students do not know how Title IX works, but they want to know. They deserve opportunities to engage with the Title IX office directly. Ashlyn wants to host a Title IX roundtable at some point this term.

- The Title IX office is slower at processing cases due to new Trump policies. Not many people know about this. Ivy: Caltech is statistically above average at processing Title IX cases.

- Met with CCID
- Inclusion issues with rotation. If someone goes to Title IX/CCID for a violation during rotation, they are still allowed to rotate. Need to discuss further with IHC since this is a huge concern. Hannah: concerned that preventing someone from rotating could be perceived as punishment without due process (retaliation clause).

V.P. of Academic Affairs (Angie):

- Spoke with CTLO, had VPSA meeting
- Sounds like the petition will not accomplish that much according to CTLO.
- Admin asked Angie to send out a questionnaire. Ashlyn: A lot of people are upset with REGIS and would like an open forum to discuss the changes. Guest: Advisors did not know about this change until students reached out to them. Hannah and Ivy: Advisors have retired and left students with-

out signatures.

- Discussed methods of making the questionnaire secure and anonymous.
- Angie intends to continue work on the questionnaire.
- Selected Frosh Reps: 3 integrated core, 3 normal core. Upcoming ARC meeting. Heard rumors that Profs don't like teaching integrated core.

V.P. of Non-Academic Affairs (Elisa):

- Alumni Weekend
- Houses had their events. Sounds like it went well. CDS handling food made it a lot easier. Maura has one-on-one meetings with every president.
- Meeting Friday with algorithm team to go over rotation results
- Everything was typical and normal, the only thing to discuss in the future is immediate unaffiliations from Bechtelites. Had issues this rotation.
- Need to be more strict with preseason athletes knowing about rotation.
- Ongoing conversations about minor adjustments to algorithm, pre- and post-rotation activities.

Director of Operations (Hannah):

- Club Funding Announcements
- The form went from 20 submissions to 50 submissions on Friday. Will need to delay announcements until next Monday. Will be able to give provisional funding if needed.
- Donut Devs
- Need to recruit new devs for Donut.
- What to do with the ascit.caltech.edu domain?
- Big T
- Yearbook Plan: All seniors receive a free yearbook. Everyone who's not a senior will have the opportunity to purchase one. The yearbook will include photos and fun events that happened while the seniors were at Caltech.
- Intend to sell advertisements to boost funding.

- Discussed which classes should be included in the yearbook and what the yearbook should look like to fulfill requirements of the bylaws.

Treasurer (Bisrat):

- A club alum was not reimbursed last year. \$400 total. Sent off to Bursar's office.
- Budget meeting with Ryan on Friday
- Last year we allocated \$37.5k for clubs.
- MHF should still be allocating the same amount as last year for ASCIT formal.
- Admin thinks Orange Watch should not be funded through GrubHub credits.
- Current budget: 152k. Should receive another 40k by the end of October. 4k of that will go to the Tech for operating costs. Will receive our endowment by the end of November: another 7k. Will have around 200k total, which is similar to last year. This does consider drawing funds from the Big T balance.
- Sponsors for the little t owe us around \$600.
- Increasing dues
- Jonathan pushed for a due increase last year. Do we push for another due increase? Hannah: Need a bylaw for the yearbook. Printing only 250ish isn't a quarter of the cost, it's half the cost. Need to adjust that bylaw and do a due increase at the same time. May be an unpopular change. Ashlyn: Perhaps do an informal poll to see thoughts on increasing dues.

Social Director (Ivy):

- ASCIT Halloween Decorations coming up, need volunteers
- Proposal to change ASCIT formal date from April 11th to April 18th? Possible venue: California Space Center

Secretary (Parker):

- Scheduling Dinner with Tom
- Monthly Reports

Schissler, Oregon Coach, To Speak At Assembly Tomorrow

Tomorrow's assembly in Culbertson at 11:00 will feature Mr. Paul Schissler, former football coach at Oregon State and now with the L. A. Rams. He will address the assembled multitude on "How to Watch a Football Game." Mr. Schissler is well known here as a top man in football and it is an honor to have him here.

Many Absent

It is too bad that anyone should have missed Dean Jones' address last week. Unfortunately, many did; and most of those who weren't there were the ones who should have heard what he had to say. Dean Strong introduced Dean Jones as a "man who wears many caps." Dean Jones then welcomed back the student body.

Training vs. Education

In his address he said that too many people have the idea that a trained man is an educated man. He said that pure training encouraged passivity and receptivity; that it is too much a matter of stuffing oneself with facts to be regurgitated at regular intervals. People feel that the completion of so many courses with so many grade points means they are educated and have been

(Continued on Page 4)

Senior Class Meet

Carroll Wax's Band To Play; Rustic Costumes In Order
Oakmont Country Club Be Scene Of Milking, Pie Eating Contests

Climaxing the ASCIT social schedule is the Throop County Fair dance to be held Saturday night from 8:30 to 12:00 at the Oakmont Country Club. Carroll Wax will furnish the music again as he has ably done in the past. The entertainment program is vast and colorful with variety for all.

The gigantic midway, the fabulous lane of fun at any Fair, will be open from 8:30 until 10:30. There will be games of skill, games of chance, and educational and edifying exhibitions to delight the young and astound the old. For the herdsmen and farmhands with talent there will be milking and pie eating contests. All the unusual animals and produce of Throop County will be displayed.

How to Get to the Oakmont
Go west on Colorado until you reach Verdugo Road in Glendale, go north on Verdugo until you reach the Oakmont Country Club.

Eastman Kodak To Interview Seniors, Graduates For Jobs

The Eastman Kodak Company of Rochester, N.Y., is interested in seniors and graduates in the fields of business, science and engineering. To a lesser extent there may be opportunities for young men interested in sales, advertising, and related fields. Employment information and application blanks are available at the Placement Office, 120 Throop Hall. Those men interested should obtain and complete the form by the end of November.

Gingham in Order

Gingham dresses or other typical rural fashions will be proper for the girls, while the men will find levis and bright shirts appropriate and comfortable. Get together with your date and cook up something really good.

Student Body Card

Admission is by student body card, and bids are available to grad students for \$1.50. This event has been well planned, and there will be some surprises during the evening. Refreshments are on hand for those interested.

All Should Attend

All in all it will be a very memorable affair, and it is hoped everyone will attend. Get on the phone if you don't have a ticket. This dance is financed

Every Game Shown at Summer Games Fest

Clare Wu
News

By the time this comes out it will almost certainly be outdated, but here is the list and my initial impressions.

Mortal Shell II (2026) — 6/10
Very cool trailer. While it seems like a *Dark Souls* game in terms of aesthetic, with grotesque and twisted beings in a dark world, it is not a FromSoftware title. The monster and character designs truly speak to something sinister in the world, but the included combat clips are much more gorey than you would see in Soulslike gameplay. While it could be that the featured clips are not representative of the gameplay, if they are accurate to player experience, I could see it having a fast paced hack and slash environment somewhat similar to *Doom Eternal*. However, I find this unlikely as the first *Mortal Shell* was a Soulslike R.P.G., meaning combat will probably consist of unsuccessful dodges and yelling at a stamina bar to refill.

Galactic Battle V: Death Star Sabotage (June 7th) — 0/10
Special event that already happened. The visuals look cool, but I'm not interested in the *Star Wars* franchise.

Death Stranding 2: On the Beach (June 2025) — 10/10
The game has already come out by this article's release, but that doesn't mean I can't still be happy about it. To begin with, Hideo Kojima is an icon of the video game industry. The mastermind behind *Metal Gear Solid*, is back with his sequel to *Death Stranding*. He's one of the best at storytelling, but his games also have a unique sense of humor about them that can balance the heavy atmosphere of a desolate and isolated landscape. For example, in his newest game you can obtain a rabbit hat of real-life Japanese VTuber Usada Pekora. Once equipped Sam Porter Bridges, the main character, will say only "Peko" while delivering precious packages through strong winds and earthquakes for the survival of humanity.

Chronicles: Medieval (Early Access 2026) — 3/10
I'm personally not a big fan of tactic simulators or medieval settings, so I'm not very interested. However, it does seem to have a more in-depth approach to tactics games that I've previously seen, and it has some of the most beautiful graphics I've seen for a tactics game. While the usual approach to this genre places the player in an omnipotent, birds-eye view position, Chronicles has you as a commander on the ground. Additionally, it utilizes geographical layout to its advantage in creating natural complexity that I see often disregarded in army battle simulators. Still, it seems too early for it to be announced as only early access will come in the coming year.

Sonic Racing Crossworlds (September 2025) - 9/10
Am I gonna play this game? No. Almost certainly not. But I think just its existence is important. First of all, there are so many characters I care about in this game: Jet from Sonic Riders, Hatsune Miku from Hatsune Miku Colorful Stage, and probably Goro Majima from the Yakuza series. To see Sega embrace their catalogue and leverage their widely beloved franchises in a Smash Bros style crossover is fun. Second of all, it's cross-platform and you can race through Minecraft. Third of all, Nintendo needs competition. With Mario Kart World already out to mixed reviews and an \$7/80 price tag, a cheaper racing game could be what drives prices down for Nintendo Switch 2 games if the free market is to be believed. Furthermore, from my experiences with Sega's mobile games (read: Hatsune Miku Colorful Stage) they provide more active support than Nintendo's Mario Kart team which is actively killing its online scene. Perhaps with their success, they can set a good example and we can hope to see a decrease in game prices overall. However, I have to keep my expectations low because what will most likely happen is that they'll just also slap a \$70 price tag on this game. In the end, my rating can only be justified by "Yay! Hatsune Miku!"

Code Vein II (2026) — 6/10
Another nitty gritty Soulslike sequel. With a post-apocalyptic future reminiscent of the future in Sonic '06 the Silver the Hedgehog comes from, the world and monster designs look cool. My only exposure to Code Vein was through the lens of its character customization, so I do expect for that small part of the game to be quite robust. The gameplay itself looks like a nice action-y combat experience, but my lack of familiarity with Soulslikes tempers my excitement. It seems like it'll follow the classic story

of restoring some ancient claim to power to save a lost world.

End of Abyss (2026) — 7/10
The trailer gave me Little Nightmares vibes. You play as a small little guy (of ambiguous gender) in a world of enemies that look like mutated humans generated by A.I. Adding to the Little Nightmares comparison, these enemies are of course much larger and faster than you. The gameplay also seems quite similar as it centers around walking "forward" in a mysterious apocalyptic world.

Mouse P.I. for Hire (late 2025) — 10/10
Employing the black-and-white rubberhose style, Mouse P.I. for Hire draws on the aesthetics of classic animation to flesh out a rodent-based first person shooter. The trailer provides immediate appeal with the amazing voice acting, starring legendary Troy Baker, the voice of Joel in The Last of Us and Booker DeWitt in Bioshock: Infinite, as Jack Pepper. Speaking of Bioshock: Infinite, the gameplay seems somewhat similar albeit slightly more 2-D with a wide variety of satisfying weapons to use. This indie noir game seems promising.

Game of Thrones: War for Westeros — 2/10
I don't care about *Game of Thrones*. Also the trailer for this real-time strategy game showcased zero gameplay which leads me to think that it is much less exciting than the epic battle shown.

Atomic Heart II — 4/10
Futuristic first-person shooter rpg. Beautiful and diverse settings, including some awe-inspiring space stations. The announcer took care to put emphasis on the role-playing elements and player freedom, so possibly a well-written story waiting for those who play.

The Cube: Atomic Universe (2026) — 4/10
From the same studio as the previous game we get another futuristic first-person shooter rpg. However, unlike the previous single-player entry, The Cube is a MMO (Massively Multi-Player Online) game which advertises custom guns created by personal combinations of parts.

Marvel Cosmic Invasion — 5/10
The artstyle looks amazing, 16-bit and well-animated. Hectic combat using a cast of 15 iconic Marvel characters. I do fear that if it's more than \$20 it's not worth it.

Onimusha: Way of the Sword (2026) — 6/10
Another Soulslike, this time with more Japanese influence in the setting and characters. Most notable to me, is the presence of a snarky rival character. Another cool game, another Soulslike I won't play.

Felt That Boxing — 8/10
Punch Out meets the Muppets, in this comedic boxing game. Every character is a puppet and it instantly becomes clear that this is a game that doesn't take itself too seriously. I'm interested to see how it plays as I feel that this game could truly benefit from the Wii's motion controls. With many mini-games involving repetitive motions, I think that being able to punch with your puppet could bring a level of immersion to this game that would make the puppets even more surreal. Though with the use of Unreal Engine 5, it would be possible to mod it for VR, so maybe one could live out their puppet Rocky dreams. I hope that it will inspire more puppet based games in the future.

Killer Inn — 8/10
Multiplayer social deduction game. Set in a large inn, players are split into wolves and lambs. Each team will try to eliminate the other, but each player only knows their own role. Beyond standard guns as weapons, Killer Inn introduces other hazards like the opportunity to poison others or place traps. The atmosphere perfectly fits the murder mystery genre, and playing with the right group of people is sure to delight.

ARC Raiders (October 30th, 2025) — 5/10
Set in a post-apocalyptic world, ARC Raiders is a third-person shooter that allows for singleplayer and multiplayer action. What stands out to me is the PvPvE (player vs player vs enemy) combat, but not much else. I'm not familiar with the franchise, but it somewhat reminds me of Fallout.

Dune: Awakening (June 10th, 2025) — 1/10
I really don't care about TV/movie franchise games. It's kinda cool that it's an MMO.

Chrono Odyssey (Playtesting June 20th-22nd, 2025) — 7/10
Another Soulslike, but this one has time stop mechanics and demonstrates

cooler movement options. The setting is once again a gritty doomed world, however, I would argue that slapping Chrono onto things does make them slightly cooler.

Wuthering Waves 2.4 — 0/10
I thought this was Honkai Star Rail, another game I don't care about, and really that just goes to show you how much all of the mobile/PC anime open world look the same. Looks fun enough.

Mio: Memories in Orbit — 7/10
Techno-futuristic Hollow Knight. The movement demonstrated actually leans more towards what we've seen of Silksong platforming than Hollow Knight (which is not a complaint). Additionally, the atmosphere is much different with lasers and evil robots waiting to be fought. The demo is currently available, and I can see it facing intense plagiarism accusations upon release. To be clear though, I do not think that there is any plagiarism in the game. I just think they are heavily inspired which is perfectly fine.

Out of Words — 8/10
Stop motion is back, baby! This co-op puzzle platformer features Kurt and Karla, who can't speak, navigating the fantastical world of Vokabulantis populated by beautiful handmade backgrounds and vaguely British NPCs. It promises an emotional story and a lesson on communication. Fans of It Takes Two or Split Fiction will probably enjoy it.

Mafia: The Old Country (August 8th, 2025) — 4/10
Another dramatic trailer. My impression of this game, is Red Dead Redemption meets Italian mob. However, that could just be because the slide showing the release date had a guy with a horse.

Lego Voyagers — 8/10
This game looks so fun! The graphics are wonderful. It looks like Minecraft with shaders on, but made of Lego of course. Furthermore, the gameplay really takes advantage of the uniqueness of Lego to create its puzzles and platforming segments. The movement is truly distinct as you play as a 1x1 brick, and the way you move will change as you attach to more bricks. Additionally, it has taken inspiration from *Split Fiction* and *It Takes Two* to have a Friends Pass, so only one person will have to own the game for two people to play together.

Nicktoons & The Dice of Destiny (September 30th, 2025) — 7/10
I don't think anyone was expecting another Nicktoons game. For context, the last Nicktoons game was released in 2008, 17 years ago. However, the franchise is back and maintains the same style of gameplay that the original *Nicktoons Unite!* (2005) featured. However, the cast of characters is no longer limited to Jimmy Neutron, Timmy Turner, Spongebob Squarepants, and Danny Phantom. With 15 characters to choose from, including Katara from Avatar and Mikey from Teenage Mutant Ninja Turtles, up to 4 players can battle through a variety of nostalgic Nickelodeon shows.

Lies of P: Overture (June 6th, 2025) — 4/10
DLC for the Pinnocchio Soulslike.

Fractured Blooms — 9/10
"Doki Doki Literature Club meets *Silent Hill*," is how this game was announced and aesthetic-wise that feels like an apt description, the actual gameplay looks more like a walking simulator, kind of like Gone Home. Similarly, the established atmosphere easily achieves the eeriness expected of a horror game inspired by *Silent Hill*. There is clearly something wrong with the cozy house you tend to, but it's not clear what. I'm excited to learn more.

Blade & Soul Neo — 0/10
Generic anime girl action open-world MMORPG with controversy. This remaster is a blatant cash grab with gutted mechanics and poor decisions from the company. The gambling has been increased, and the free-to-play has become even more pay-to-win. The original might've been successful and beloved, but the same cannot be said about the remaster.

Blade & Soul Heroes (September 2nd, 2025) — 1/10
Hopefully, a redemption from the failure of Neo, but with the understanding that the company itself is at fault for Neo's disappointing experience, it would be best not to hope.

Crystal of Atlan x One Punch Man — 1/10
Crystal of Atlan looks like any other action MMORPG (yawn), but *One Punch Man* is funny.

The Seven Deadly Sins: Origin — 0/10
Seems like a Genshin style game, but based off of the Seven Deadly Sins an-

ime.

Jurassic World: Evolution 3 (October 21st, 2025) — 2/10
What if Roller Coaster Tycoon has dinosaurs instead of roller coasters?

Mina the Hollower (October 31st, 2025) — 9/10
From the studio behind *Shovel Knight*, we get another retro style game with a whip-wielding mouse. The combat, exploration, and platforming all looks very clean and fleshed out, like *A Link to the Past* on steroids. One can also expect a good challenge if *Shovel Knight* is anything to go off of.

Deadpool VR (Late 2025) — 5/10
The trailer was funny and showcased the classic *Deadpool* wit. I look forward to seeing clips of *Deadpool* quips from this game on my Instagram Reels sometime next year. Also, Neil Patrick Harris is Deadpool?

Dying Light: The Beast (August 22, 2025) — 5/10
Did somebody say zombies and human experimentation? Play through one man's revenge story in this first-person shooter rpg.

Mixtape — 9/10
Set in 1980s suburbia, *Mixtape* tells the story of three high schoolers reminiscing about their adolescence while heading to their final party together. From the creators of award-winning game *The Artful Escape*, I expect a well-crafted and bittersweet story that'll make you cry. I'm a sucker for coming-of-age stories, sue me.

Towa and the Guardians of the Sacred Tree (September 19th, 2025) — 9/10
Gorgeous graphics in this roguelite combat game. With unique combat styles and combinations, I'm reminded of Hades, which I love. I hope that it will maintain a similar hack'n'slash approach. Moreover, unlike Hades it will also offer local and online co-op. I'm genuinely excited, of all the games shown this might be the game that I buy first.

Acts of Blood (Summer 2026) — 7/10
From a team of only 10 developers in Indonesia, this hand-to-hand combat game looks incredibly well made. It also takes the record of most gameplay shown in a trailer which I appreciate. Knowing that hand-to-hand combat can get very messy, it's impressive how well-telegraphed the characters moves are.

Scott Pilgrim EX (2026) — 6/10
Obviously coming off of the success of the Scott Pilgrim cartoon, this video game utilizes the same art style, though a bit more retro and pixelized, to deliver a 2D beat 'em up. While I don't know anything about Scott Pilgrim, the combat does look fast and fun with colorful explosions and a wide variety of attacks.

The First Descendant: Breakthrough (August 7th, 2025) — 3/10
Third-person techno-futuristic shooter. This update seems to be trying to save The First Descendant from its poor performance in its first year. With player participation decreasing, Breakthrough wanted to bring life into a dying game. It seems like it will pay off, particularly for those that have stuck through the first two frustrating seasons.

Scum v1.0 (June 17th, 2025) — 0/10
There was someone's bare ass in the trailer.

Mindseye (June 10th, 2025) — 0/10
Mindseye first presents itself as a fairly standard third person shooter RPG. Following in the footsteps of Cyberpunk 2077, we have a world with a mysterious protagonist reluctantly harboring a bio-chip. Similarly, it released with numerous bugs and performance issues. However, Mindseye could not be saved by its story, unlike Cyberpunk 2077 and thus is in contention for one of the worst games of the year.

Hitman x Mindseye (Summer 2025) — 1/10
I like Hitman.

007 First Light (2026) — 2/10
Briefly mentioned.

Hitman: Lechiffre from Casino Royale — 7/10
Having already come out, I can confirm that Mads Mikkelsen did a great job, and Hitman is still cool. The James Bond and Hitman crossover just feels natural.

Lego Party (2025) — 6/10
It's Mario Party but with LEGO. Still, the minigames look fun, and the maps are dynamic enough.

Wildgate (July 24th, 2025) — 5/10
Have you ever wondered what Capture the Flag would be like in space? This game answers this question with online co-op and first person shooter gameplay. Teams of players compete to break into each other's ships and steal each other's "artifact." While the combat looks good, I think it'll have a hard time maintaining popularity in the long run with more popular online shooters taking their audience.

Blighted — 8/10
Love a 2.5D hack-and-slash.

Ill — 3/10
Survival horror first-person shooter. I am scared. Do not like.

Mechabreak (July 1st, 2025) — 4/10
Mecha fighting game. Probably good for fans of *Armored Core*. What's not to love about giant robots?

Infinitesimals (2026) — 3/10
Looks like a third-person shooter taking place in someone's overgrown lawn.

Street Fighter 6 — 5/10
While I like fighting games, I'm more of a *Guilty Gear* kind of guy.

Last Flag — 6/10
Almost immediately, I see a lot of similarities to *Team Fortress 2*. To begin with, it's an online shooter where you play as different archetypes. There's the guy with the machine gun, the one with the turret, and even one called "Scout." However, this game's main mode is centered around Capture the Flag where each team must either hide or hold onto their flag. One might then make the observation that Capture the Flag is one of *TF2*'s game modes. I think this game can still differentiate itself though as it showcases more fluid movement and complex maps.

Wuchang: Fallen Feathers (July 24th, 2025) — 4/10
Coming off of the success of *Black Myth Wukong*, we get another Chinese Soulslike. Once again we have beautiful graphics and distinctly Chinese aesthetics. It seems like it has also been met with high praise. Many compliment its well-made and diverse combat system and responsive gameplay while others disparage its intensely difficult bosses. Overall, probably won't surpass *Black Myth Wukong*.

Wu-Tang: Rise of the Deceiver — 7/10
I don't know much about the Wu-Tang Clan, beyond that they're a hip hop group, but I can say that I love a beat 'em up. The Afro-surrealism mixed with anime aesthetic is very appealing.

Guild War 2 — 0/10
MMORPG update.

Mongil: Star Dive — 2/10
Another *Genshin*-style anime game, but instead of Paimon there's a cute cat.

Cyberpunk 2077 on Nintendo Switch 2 — 0/10
Wasn't expecting to see a Nintendo Switch 2 ad, but here we are. I have my doubts on if the console can actually keep up with the intense graphics of Keanu Reeves. Most likely, they'll have to tone it down a little for the port.

Into the Unwell — 9/10
I love classic animation, and we have another game utilizing its goofiness to offset a more serious and dark world. This game explores a mentally unwell cat fighting his inner demons. The standard squash and stretch is utilized to emphasize damage and telegraph incoming attacks in fast-paced combat. I quite like the look and humor.

Splitgate 2 — 6/10
Online shooter, but now you're thinking with portals. Very fun.

Stranger Than Heaven — 4/10
This game ambitiously aims to take place across multiple time periods in Japan. First seeing the trailer, I was pretty excited as 1943 Japan is an underappreciated setting and aesthetic. I loved the Jazz music and violent hand-to-hand combat. However, upon learning that it will most likely release in 2027, I have become a lot less excited.

Resident Evil Requiem (February 27th, 2026) — 8/10
Yay! *Resident Evil*!

The science of thought: philosophical insights into scientific practice

Scientific Discovery as Sacred Encounter: Reflections on Quantum Fields and Faith

Camilla Fezzi
Inner Voices

The second floor of Kerckhoff had an unusual stillness that evening. People trickled into the small library room for the Science and Faith Examined (SAFE) talk, uncertain yet curious. I sat near the back, notebook open, listening to Tara—a physics PhD student and president of GCF—unfold her reflections on quantum field theory and the Bible. The hum of conversation faded as she spoke about particles, fields, and the hidden architecture of creation. Her words carried not only the weight of scientific precision but also the wonder of a believer searching for coherence between equations and eternity.

As she described the universe as a network of fluctuating fields, I felt an ache of recognition. I, too, had wrestled with the distance between what I study in the lab—the coded dance of molecules, the stubborn complexity of cancer cells—and what I feel when I stand under a cathedral ceiling or read the Psalms. The quantum and the sacred seemed, at first glance, to inhabit different languages. Yet something about Tara's talk suggested that both reach for the same horizon: the invisible made knowable, mystery glimpsed through pattern.

I have often felt small on this sprawling campus, dwarfed by the intellect around me, chasing data that never fully align. And yet, in those moments of humility, I glimpse the possibility that my research—the effort to heal broken cells—participates in a grander tapestry of restoration. Perhaps, as both physicists and theologians like John Polkinghorne and Ian Barbour suggest, knowledge itself is an act of faith, an echo of divine curiosity. Quantum field theory, with its unseen fluctuations, may not only describe the universe but also whisper something about how God sustains it: in motion, in uncertainty, in relation.

The Quantum Tapestry: Where Physics Meets the Divine

Quantum field theory suggests that what we perceive as solid matter is ultimately the manifestation of invisible fields—continuous and dynamic sheets of energy whose vibrations give rise to particles. The universe, in this view, is not made of discrete building blocks but of intertwined forces continually fluctuating, appearing, and vanishing in the silence of subatomic space. Tara's explanation of this theory that evening at SAFE felt curiously intimate; it evoked an ancient truth that theologians had voiced long before quantum physics gave it mathematical form: that creation is sustained moment by moment by an underlying presence, unseen yet active.

John Polkinghorne in his *Belief in God in an Age of Science* (1998), himself both physicist and priest, often wrote that quantum uncertainty reveals "a creation allowed to make itself." To him, the indeterminacy woven into matter testified not to chaos, but to divine generosity—the Creator granting autonomy to creation. Ian Barbour (1997) echoed this harmony, suggesting that science and faith describe the same reality through distinct, yet complementary, methods of interpretation. For both, faith does not oppose empirical reasoning; it frames it within purpose. Similarly, Pierre Teilhard de Chardin envisioned the cosmos as charged with divine life, evolving toward an ultimate union he called the Omega Point. In his mystical language, the physical and the sacred are entwined expressions of one creative pulse.

When the speaker reflected on these ideas, she pointed out that quantum theory's relational structure—that particles gain meaning only through interaction—offers a fitting mirror of theological thought. The God of the Bible, she noted, is relational: a trinity of love and mutual indwelling, an eternal communion. Likewise, the physical world emerges from relationships rather than isolated entities. Nothing exists alone; everything participates in the whole.

Listening to her, I began to sense that quantum physics and theology might share an underlying metaphor: that of interconnected being. If creation is indeed a continuous flow of di-

vine energy, then perhaps the fields described by physics echo what Scripture names as Spirit—a breath permeating all existence (Genesis 1:2). Theologian Philip Clayton in his *Mind and Emergence* (2004) suggested that divine action might be subtle, manifesting not as intervention but as influence within the openness of physical processes. This notion fits within quantum indeterminacy, where potential and realization coexist until observation. It invites an understanding of God not as a distant artisan but as an abiding presence woven into every vibration of reality.

As Tara closed her slide deck with an image of overlapping waves, I thought about how belief often stands at that same threshold between the measurable and the mysterious. Quantum field theory does not explain God, yet it gestures toward an order and beauty that faith calls divine. In this intersection, both the scientist and the believer become co-seekers, looking into depths where knowledge gives way to wonder.

The Microcosm Within: Protons, Particles, and Divine Patterns

The research conducted at the Relativistic Heavy Ion Collider (RHIC) offers a fascinating parallel to these theological reflections. Scientists at RHIC have been peering into the teeming microcosm within protons, examining how quarks and gluons interact through properties such as spin and color charge. This color charge—not visible color, but a fundamental property that comes in three forms combining to create neutrality—mirrors the trinitarian concept Tara discussed. Just as red, green, and blue light combine to form white light, the three color charges of quarks must unite to achieve balance.

The STAR detector (for Solenoidal Tracker at RHIC), among the four experiments at the Relativistic Heavy Ion Collider (RHIC) in Brookhaven National Laboratory (BNL), New York. (Photo: BNL)

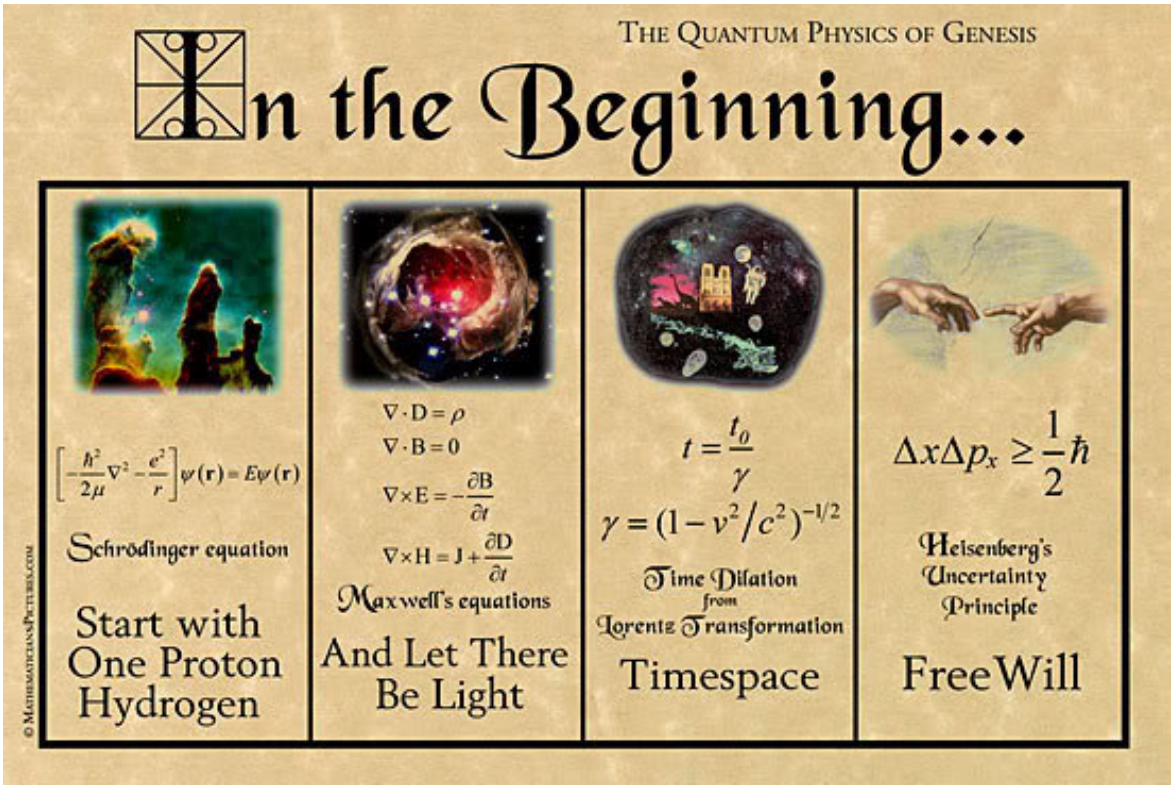
The experiments at RHIC's STAR detector reveal something profound about the nature of reality: that beneath the apparent simplicity of protons lies extraordinary complexity. By colliding polarized protons and analyzing the resulting particle debris, scientists have measured effects of the color interaction—the basis for the strong nuclear force binding quarks within protons. This measurement tests theoretical concepts essential for mapping the proton's three-dimensional internal structure.

What strikes me about this research is its resonance with theological inquiry. Both seek to understand what cannot be directly observed. The scientists cannot see quarks or gluons directly; they must reconstruct their behavior from the traces they leave behind. Similarly, theologians seek to understand the divine through its manifestations in creation, through Scripture, through human experience. The W bosons produced in RHIC collisions decay almost instantaneously into electrons and neutrinos—particles that are difficult or impossible to detect directly. Yet by tracking the jet of particles that recoil in the opposite direction, scientists can reconstruct what happened in that fleeting moment of creation.

This methodology mirrors contemplative practice. We cannot grasp the divine directly, but we can observe its effects—the transformations it works in matter and spirit, the patterns it leaves in the fabric of existence. The 'single transverse spin asymmetry' that RHIC physicists measure—an imbalance in particle production depending on proton spin orientation—reveals something fundamental about how nature operates at its deepest levels. It shows that even in the subatomic realm, there is order, pattern, and relationship.

Smallness as Vocation: Finding Meaning in the Microscopic

As the room slowly emptied, I lingered in my seat, thinking about the idea that every field vibration, every quantum fluctuation, carries meaning only through connection. That sense of interrelation mirrored something deeply personal to me. On a large campus, surrounded by voices louder and minds quicker, I often feel like one tiny particle in a vast field. My research—long hours spent manipulating cells to find ways to halt cancer's advance—can



feel both monumental and minuscule. Yet when I consider what Tara and the theologians she referenced had suggested, I realize that my smallness is not insignificant. Rather, it reflects a divine pattern: meaning unfolding through the minute, miracles arising from the microscopic.

Biology magnifies this truth daily. The human body thrives because of the choreography of unseen processes: DNA unwinding, proteins folding, neurons firing in silent sequence. Each living system echoes the principle of the quantum—hidden layers of motion giving rise to the tangible. The 20th-century Jesuit thinker Pierre Teilhard de Chardin (1955) saw this as no coincidence. He imagined evolution as the universe awakening to consciousness, a gradual unfolding of divinity within matter. In his view, every molecule participates in the spiritual ascent toward wholeness; every cell carries divine potential. My cancer studies, then, are not merely biochemical puzzles—they are small acts in the universal drama of healing, each experiment a humble collaboration with creation's continual self-restoration.

Pierre Teilhard de Chardin (1881-1955), French philosopher and Jesuit priest. (Image: Prisma/UG/Getty Images)

That thought challenges the loneliness I sometimes feel as a student scientist. It reframes my work within something vast yet personal: a participation in divine creativity. In theology, humans occupy a middle ground—creatures capable of questioning the cosmos that birthed them. Similarly, in quantum physics, observers influence reality through their recognition; in biology, life sustains itself through feedback and response. These patterns suggest that consciousness and existence are not detached elements but mutual reflections.

John Polkinghorne in his later *Quantum Physics and Theology* (2006) wrote that science gives us the "how," but faith points toward the "why." Sitting there, I began to see the lab bench as an altar of inquiry. The movements of pipettes, the fluorescence of stained cells, the fluctuations in quantum fields—all gestures of the same cosmic curiosity embedded in the divine image. God, as some theologians propose, might be felt most profoundly where the infinitely small meets the infinitely meaningful. Quantum fields vibrate unseen; so do prayers whispered in the silence between hypotheses.

Uncertainty as Sacred Space: The Convergence of Knowledge and Trust

One of the most profound tensions in both science and faith is the desire to know and the willingness to trust. During Tara's lecture, as she described how quantum fields defy deterministic predictability, she smiled slightly and said, "Faith lives where certainty leaves off." That line unsettled and comforted

me at once. It echoed experiences in the lab where results never align perfectly, where experiments veer unexpectedly, and where I am called to continue believing in the process even without clarity. Science and faith both demand perseverance amid uncertainty—each a different expression of commitment to truth.

Ian Barbour in his *Religion and Science* (1997) proposed that science and religion inhabit "distinct but complementary domains of inquiry," while science analyzes through verification and faith approaches reality through trust and meaning. The more I contemplate this, the more I sense that both are languages for understanding one creation. As a biology researcher, I search for molecular explanations of life; yet as a person of faith, I respond to life's call with awe. John Polkinghorne (2006) suggested that "faith is motivated belief"—not blind acceptance, but trust shaped by experience and reason. That resonates each time a hypothesis fails but my curiosity persists. Every repeated experiment becomes an act of hope, a small prayer disguised as scientific method.

Tara's reflections illuminated how these modes of knowing and believing interact rather than collide. She spoke of her struggle as a physicist who sought beauty both in mathematical symmetry and Scripture. To her, the wave functions of quantum mechanics resemble verses of a liturgy—patterns revealing invisible coherence. Listening, I recognized echoes of my own internal dialogue: the scientist skeptical of unsupported claims and the believer unafraid of questions. These two voices no longer seem opposed; they form a duet, each keeping the other from absolutism.

Teilhard de Chardin's *The Phenomenon of Man* (2006) might have called this the "convergence of truth," where the pathways of intellect and spirit ultimately meet at a horizon of meaning. Similarly, theologian Sarah Coakley in her *God, Sexuality, and the Self* (2015) describes contemplation as a method of knowing distinct from analysis but equally disciplined—a surrender that invites insight beyond control. In that sense, both equations and prayer can be acts of attention. The scientist studies patterns in matter; the believer contemplates order in mystery. Each posture opens a window into reality's depth.

As I walked back from Kerckhoff that evening, the boundaries felt thinner—the gaps between laboratory and chapel, literal and figurative light. The fluorescent glow of my research lab no longer seemed separate from the candlelight of faith but part of a continuous illumination. To believe is not to abandon reason, and to reason is not to exclude wonder. The dialogue between the two refines both, teaching me to look closer, question deeper, and love the search itself.

In the end, the intersection of quan-

tum field theory and faith was not, I realized, an attempt to force agreement between science and spirituality. Rather, it was an invitation to inhabit both—to dwell in the mystery that neither can fully contain. I began to see that uncertainty is not the enemy of faith but its atmosphere, just as indeterminacy is not the flaw of creation but its freedom.

Feeling small on campus, I used to equate significance with scale. Yet through this dialogue between science and faith, I have come to understand that wholeness begins in the smallest interactions—whether in the subatomic dance of particles or in the microscopic layers of living tissue that I study. Each whisper of movement, each random fluctuation, participates in the divine rhythm of becoming. Faith gives that rhythm shape; science gives it texture. Together, they form a harmony that humbles and inspires.

When I returned to my lab bench, the pipettes and microscopes still surrounded me, but their silence spoke differently then. The patterns I chased were no longer detached from meaning but were filled with resonance—the same resonance that vibrates through quantum fields and the same stillness that Scripture calls the breath of God. To know, to believe, to wonder—these are not opposite pursuits but one continuous act of reverence before the mystery of existence.

The work at RHIC continues, seeking to nail down the "sign change" in particle asymmetry, hoping to confirm theories about color charge interactions. Scientists there plan future electron-ion collider experiments to produce three-dimensional pictures of the proton's momentum structure. These are not merely technical achievements; they represent humanity's persistent desire to see more deeply into the fabric of reality. And in that persistence, I recognize something sacred—the same impulse that drives contemplatives into silence and researchers into laboratories, the hunger to encounter truth in all its forms.

Perhaps this is the gift of that evening at Kerckhoff: not answers, but a deeper comfort with questions. Not certainty, but trust in the process of seeking. Not a merger of science and faith, but a recognition that both arise from wonder and return us to it, transformed.

Nobel Prizes

continued from page 1

and 2003, they made, separately, a series of revolutionary discoveries. Kitagawa showed that gases can flow in and out of the constructions and predicted that MOFs could be made flexible. Yaghi created a very stable MOF and showed that it can be modified using rational design, giving it new and desirable properties. Following the laureates’ ground-breaking discoveries, chemists have built tens of thousands of different MOFs. Some of these may contribute to solving some of humankind’s greatest challenges, with applications that include separating PFAS from water, breaking down traces of pharmaceuticals in the environment, capturing carbon dioxide, or harvesting water from desert air.” Press release: The Nobel Prize in Chemistry 2025, from The Royal Swedish Academy of Sciences.

Physiology or Medicine

The winners are **Mary E. Brunkow**, born in 1961. Ph.D. from Princeton University, Princeton, USA. Senior Program Manager at the Institute for Systems Biology, Seattle, USA. **Fred Ramsdell**, born 1960. Ph.D. 1987 from the University of California, Los Angeles, USA. Scientific Advisor, Sonoma Biotherapeutics, San Francisco, USA. **Shimon Sakaguchi**, born 1951. M.D. 1976 and Ph.D. 1983 from Kyoto University, Japan. Distinguished Professor at the Immunology Frontier Research Center, Osaka University, Japan.

They understood how the immune system must be regulated, otherwise it can attack its own organs. Their research laid the foundation for a new field of study, such as the treatment of cancer and autoimmune diseases.

“The laureates identified the immune system’s security guards, regulatory T cells, which prevent immune cells from attacking our own body. “Their discoveries have been decisive for our understanding of how the immune system functions and why we do not all develop serious autoimmune diseases,” says Olle Kämpe, chair of the Nobel Committee. Shimon Sakaguchi was swimming against the tide in 1995 when he made the first key discovery. At the time, many researchers were convinced that immune tolerance only developed due to potentially harmful immune cells being eliminated in the thymus, through a process called central tolerance. Sakaguchi showed that the immune system is more complex and discovered a previously unknown class of immune cells, which protect the body from autoimmune diseases. Mary Brunkow and Fred Ramsdell made the other key discovery in 2001, when they presented the explanation for why a specific mouse strain was particularly vulnerable to autoimmune diseases. They had discovered that the mice have a mutation in a gene that they named Foxp3. They also showed that mutations in the human equivalent of this gene cause a serious autoimmune disease, IPEX. Two years after this, Shimon Sakaguchi was able to link these discoveries. He proved that the Foxp3 gene governs the development of the cells he identified in 1995. These cells, now known as regulatory T cells, monitor other immune cells and ensure that our immune system tolerates our own tissues. The laureates’ discoveries launched the field of peripheral tolerance, spurring the development of medical treatments for cancer and autoimmune diseases. This may also lead to more successful transplantations. Several of these treatments are now undergoing clinical trials.” Press release: The Nobel Prize in Physiology and Medicine 2025, from The Nobel Assembly at Karolinska Institutet.

Literature

The winner of the Nobel Prize in Literature 2025 was the author **László Krasznahorkai**, who was born in 1954 in the small town of Gyula in southeastern Hungary, near the Romanian border. He is known as the master of apocalyptic, dystopian, and melancholic worlds, as well as horror. With more than 22 published books, six screenwriting credits, and two operas based on his works, László worked as a book editor before becoming a freelance writer. According to the committee, he won “for his compelling and visionary oeuvre that, in the midst of apocalyptic terror, reaffirms the power of art”.

“I would leave everything here: the valleys, the hills, the paths, and the jaybirds from the gardens, I would leave here the petcocks and the padres, heaven and earth, spring and fall, I would leave here the exit routes, the evenings in the kitchen, the last amorous gaze, and all of the city-bound directions that make you shudder, I would leave here the thick twilight falling upon the land, gravity, hope, enchantment, and tranquility, I would leave here those beloved and those close to me, everything that touched me, everything that shocked me, fascinated and uplifted me, I would leave here the noble, the benevolent, the pleasant, and the demonically beautiful, I would leave here the budding sprout, every birth and existence, I would leave here incantation, enigma, distances, inexhaustibility, and the intoxication of eternity; for here I would leave this earth and these stars, because I would take nothing with me from here, because I’ve looked into what’s coming, and I don’t need anything from here.”

László Krasznahorkai. The story was published by The New Yorker in 2017.

Peace

The winner was **Maria Corina Machado**, a Venezuelan politician, activist, and opponent of the governments of Hugo Chávez and Nicolás Maduro in Venezuela. According to the Nobel Prize committee:

“The Nobel Peace Prize for 2025 goes to a brave and committed champion of peace – to a woman who keeps the flame of democracy burning amid a growing darkness. As the leader of the democracy movement in Venezuela, Maria Corina Machado is one of the most extraordinary examples of civilian courage in Latin America in recent times.

Ms Machado has been a key, unifying figure in a political opposition that was once deeply divided – an opposition that found common ground in the demand for free elections and representative government.”

Maria Corina Machado meets all three criteria stated in Alfred Nobel’s will for the selection of a Peace Prize laureate. She has brought her country’s opposition together. She has never wavered in resisting the militarization of Venezuelan society. She has been steadfast in her support for a peaceful transition to democracy.

Economic Sciences

The winners are **Joel Mokyr**, born in 1946 in Leiden, the Netherlands. PhD 1974 from Yale University, New Haven, CT, USA. Professor at Northwestern University, Evanston, IL, USA, and Eitan Berglas School of Economics, Tel Aviv University, Israel. **Philippe Aghion** was born in 1956 in Paris, France. PhD 1987 from Harvard University, Cambridge, MA, USA. Professor at Collège de France and INSEAD, Paris, France, and The London School of Economics and Political Science, UK. **Peter How-**

itt was born in 1946 in Canada. PhD 1973 from Northwestern University, Evanston, IL, USA. Professor at Brown University, Providence, RI, USA.

They won the prize “for having identified the prerequisites for sustained growth through technological progress”, according to the committee.

“Technology advances rapidly and affects us all, with new products and production methods replacing old ones in a never-ending cycle. This is the basis for sustained economic growth, which results in a better standard of living, health, and quality of life for people around the globe. However, this was not always the case. Quite the opposite – stagnation was the norm throughout most of human history. Despite important discoveries now and again, which sometimes led to improved living conditions and higher incomes, growth always eventually leveled off. Joel Mokyr used historical sources as one means to uncover the causes of sustained growth becoming the new normal. He demonstrated that if innovations are to succeed one another in a self-generating process, we not only need to know that something works, but we also need to have scientific explanations for why. The latter was often lacking prior to the Industrial Revolution, which made it difficult to build upon new discoveries and inventions. He also emphasized the importance of society being open to new ideas and allowing change. Philippe Aghion and Peter Howitt also studied the mechanisms behind sustained growth. In an article from 1992, they constructed a mathematical model for what is called creative destruction. When a new and better product enters the market, the companies selling the older products lose out. The innovation represents something new and is thus creative. However, it is also destructive, as the company whose technology becomes passé is outcompeted. In different ways, the laureates show how creative destruction creates conflicts that must be managed in a constructive manner. Otherwise, innovation will be blocked by established companies and interest groups that risk being put at a disadvantage. “The laureates’ work shows that economic growth cannot be taken for granted. We must uphold the mechanisms that underly creative destruction, so that we do not fall back into stagnation,” says John Hassler, Chair of the Committee for the Prize in Economic Sciences.” Press release: The Nobel Prize in Economic Sciences 2025, from The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2025.



Fall Athletics

continued from page 1

with 7 goals himself. Men’s soccer looks forward to adding more wins to close out the season, with their three final games against SCIAC teams they have previously taken dubs against. Wishing them the best of luck!!

Men’s Water Polo

Our men’s water polo team has also found some success in the past couple weeks of games, starting off with a neutral game against Wheaton College (Mass.) on 10/4. The beavers outscored Wheaton (20-11) with a plethora of goals from Eric Verheyden, Bram Schork, and Axel Haydt. The beavers also performed well in the steals column, with 16 for the game, compared to Wheaton’s seven.

Following the match, the Beavers have faced incredibly tough competitors in SCIAC play, including Occidental, Cal Lutheran, and the most recent game against 7th nationally ranked, Whittier Poets. However, MWAPO found some success in goal, sinking 10 goals for the game despite the loss. Most recently, the team welcomed some alumni back on campus for the Alumni game, which brought smiles to everyone’s faces. Caltech still has six more games of the regular season, aiming to add more wins to the total.

Volleyball

The women’s volleyball team has continued to fight through intense SCIAC competition and show grit throughout all the games thus far. One of the highlight games recently was against the cross-town rivals, Occidental College, on 10/10.

Our beavers opened up the game with a 25-23 win in the first set. After two closely lost sets to Oxy, Caltech fought back in the fourth set and snagged

another win before ultimately losing the game 2-3. Some incredible stats from the game included 17 service aces in the match, as well as individual performances from outside hitter Alize Bakker (‘27) with 20 kills and 15 digs while hitting .314, and setter Ailsa Shen (‘28) led both teams with 43 assists. Shen was also recently highlighted as the conference leader in assists per set.

Volleyball still has eight games remaining for the regular season and is looking to find some late season success.

Women’s Soccer

WSOC has faced great competition within the SCIAC conference play in the past couple weeks. Some great games included the 1-3 loss against CMS, and the tied shutout against Whittier (0-0) on 10/15. In the first, junior Alexa Baxter (‘27) scored her first goal of the season, sinking it after a 20-yard right-to-left service. Against Whittier, Goalkeeper Haleigh Gardner (‘27) earned her second shutout of the season at this match. Women’s Soccer also celebrated their seniors this past weekend against Pomona-Pitzer, holding them to no goals in the first half, but ultimately losing the game 0-3. Only three more games remain for the Beavers in conference play!

Make sure to cheer on your fellow beavers at their upcoming games! With fall sports almost nearing their end of seasons, winter sports have also been ramping up. Swim and Dive had their alumni meet to kick off the start of their season, and will host another pre-season meet next weekend on 10/25. Men’s Basketball is taking on Stanton in an exhibition game at home on 10/24. Women’s Basketball is also opening up their preseason with a home game against Westcliff on 10/28. That’s it for today, stay tuned for more coverage on Caltech athletics!

The “Wild West of the Internet” Returns

Theodore Havel News

OpenAI recently launched their latest image and video generation model, Sora 2, a tool enabling the production of images and video from a text prompt. The initial Sora model debuted in February 2024, and had the capability to generate short clips without any sound. The output was limited to a few seconds in length, or up to 20 seconds for the highest paid subscription. While the earliest models did not produce very high quality clips, the model technology has advanced quickly. At this point, it is able to generate high quality videos with audio up to a length of about 10 seconds.

I attempted to get a Sora 2 invite code but I was unable to find one, as their service is not yet easily accessible. However, I was able to watch videos generated by other users and

the video and sound quality is excellent. The newest models require powerful graphics processing units (GPU chips) to run the models on OpenAI’s servers, mainly H100 and H200 GPUs from NVIDIA.

Within the first week of its release, users created videos with copyrighted characters and logos, which quickly became a liability for OpenAI. Their initial policy was to allow any content to be generated unless specified as not allowed (anything against their guidelines or that which had been specifically). However, after facing the threat of copyright lawsuits just days after release, they changed their policy to be inclusive, meaning corporations must specify that their images or intellectual property be allowed for generation. However, users are still finding ways to bypass these restrictions. This could be a resurgence of the ‘90s’ “Wild West of the Internet” phase, albeit in a new domain.



Image credit to 9to5mac https://9to5mac.com/2025/10/04/sora-2-clones-start-flooding-the-app-store-worldwide

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All facts of major significance and relevance to an article shall be sought out and included.
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That being said, we realize that some sources are unwilling to reveal their identities publicly when it could jeopardize their safety or livelihood. Even in those cases, it is essential that the Tech Editor-in-Chief knows the identity of the source in question. Otherwise, there can be no certainty about whether the source and their quotes were falsified. This also applies for Letters to the Editor and Opinion submissions to the Tech. If the author requests that their piece is published anonymously, they must provide a reason, and we shall consider it in appropriate circumstances. No truly anonymous submissions shall be published. Conversely, no submissions shall be published with the author's name without their consent.
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Honor Code Applies
In any remaining absence of clarity, the Honor Code is the guiding principle.

The California Tech

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The California Tech CalGuesser #28



Every issue we'll show you a different location on campus. Find the place and find the QR code hidden there to sign the log book and **win a fabulous prize, actually this time! Gift cards sponsored by CalGuesser Benefactor Kevin Kan, but only if you find it before he does!!!**

“On campus” is defined as the convex hull of the buildings shown on caltech.edu/map/campus.
The QR code will be hidden somewhere within the pictured area.

TECH EDITOR'S CORNER

For, among other things, lovely poetry not remotely relevant to any current events. From your favorite *Tech* editors <3



By the way, re the NAS piece... For what it's worth, Caltech did literally put DEI on the Moon. Thank you Harrison Schmitt, Apollo 17 crewmember and fellow Darb! — Damian

I Know a Man

BY ROBERT CREELEY

As I sd to my
friend, because I am
always talking,—John, I

sd, which was not his
name, the darkness sur-
rounds us, what

can we do against
it, or else, shall we &
why not, buy a goddamn big car,

drive, he sd, for
christ's sake, look
out where yr going.

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