# **UC Davis, what are YOUR futures?**

Part of the University of the 21st Century Initiative







#### ABOUT THE INSTITUTE FOR THE FUTURE

The Institute for the Future is an independent, nonprofit strategic research group with almost 50 years of forecasting experience. The core of our work is identifying emerging trends and discontinuities that will transform global society and the global marketplace. We provide our members with insights into business strategy, design process, innovation, and social dilemmas. Our research spans a broad territory of deeply transformative trends, from health and health care to technology, the workplace, and human identity. The Institute for the Future is located in Palo Alto, California. | www.iftf.org

#### **ABOUT UNIVERSITY OF CALIFORNIA, DAVIS**

UC Davis is the home of the Aggies—go-getters, change makers and problem solvers who make their mark at one of the top public universities in the United States.

Since its founding in 1905, it has been known for standout academics, sustainability and Aggie Pride as well as valuing the Northern California lifestyle. These themes are woven into UC Davis' 100-plus-year history and its reputation for solving problems related to food, health, the environment and society.

The 5,300-acre campus makes Davis a vibrant college town of about 68,000 located in Yolo County. The state capital is 20 minutes away, and world-class destinations such as the San Francisco Bay Area, Lake Tahoe and the Napa Valley are within a two-hour drive. | www.ucdavis.edu

# **Table of Contents**

Executive Summary	1
Participation Statistics	2
Foresight Engine Game Mechanics	3
The Provocation	4
Analysis & Approach to Results	6
Opportunity Spaces: A 10-Year View	7
Top Things to Do Today	11
Appendix	14
Outlier Thinking	14
Top Ranking Students	15
Selected Press	16
Selected Social Media	16

# **Executive Summary**

On February 24–25, 2016 the UC Davis community convened to run a forecasting game about the future of UC Davis in the year 2026. The purpose of this game was to seek widespread community input as part of the University of the 21st Century Initiative.

Overall, players envision UC Davis as a well-connected leader in a global network of innovation and experimentation in the next decade.

As a research university, UC Davis is viewed as a laboratory that tests and shares bold new ideas with the world. Players believe UC Davis has a great deal to contribute and share, and should continue to be a leader in education and research by adapting to serve the changing needs of students and faculty in the 21st century.

#### **OPPORTUNITY SPACES: A 10-YEAR VIEW**

- Eradicate Degenerative Diseases
- Teach Real World Skills
- Explore Micro-Credentialing Systems with Alumni
- Address Uneasiness Over the Platform Economy
- Develop Technologies to Feed the World

#### TOP THINGS TO DO TODAY

- Enhance and Extend the Library
- Increase Internship Opportunities
- Be the Leader in Bike Network Architecture
- Conserve Resources
- Keep the Game Going

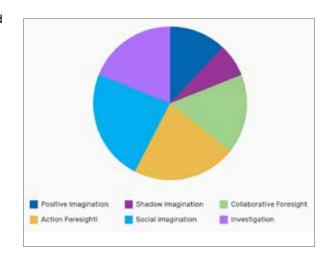
## **Participation Statistics**

#### **COLLECTIVE IMAGINATION**

2,492 players—ranging from students—to faculty, staff and beyond from across the UC Davis community registered to play.

Together, they shared 28,226 ideas in response to the question: UC Davis, what are YOUR futures?

The collective imagination of the crowd was action-oriented on the whole.

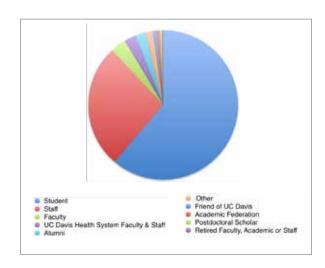


#### **PLAYER AFFILIATION**

Participants drew from many disciplines across campus, and consisted of students, faculty, staff, alumni, and more.

During game play, face-to-face game "huddles" took place in locations across campus so that people could meet up and play with their friends and colleagues.

The game trended on Twitter in the Sacramento area while it was live.



## **Foresight Engine Game Mechanics**

Envision UC Davis took place primarily on an online platform called Foresight Engine<sup>™</sup>, which the Institute for the Future developed to engage large numbers of people in a fast-paced ideation effort to map the future. Here are some of the basics about the Envision UC Davis game:

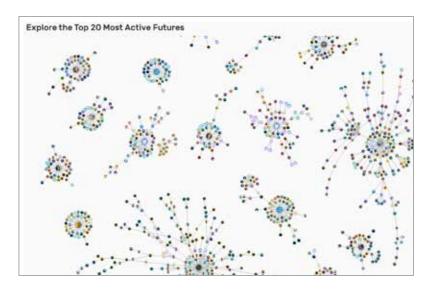
The game began with a video scenario—a peek into a possible future for UC Davis. This video was designed to be provocative; to invite players to think about how the world is changing and how those changes might change opportunities for themselves and for UC Davis.

Game participants "played cards." Positive Imagination cards answered the question: What would you want to do in this future? What great things could happen? Shadow Imagination cards responded to the question: What are you worried about in this future? What could go wrong? Players then built on these starting-place ideas with Predict, Act, Cheer, and Investigate cards.

Each idea was a micro-contribution—140 characters that captured the basics. Multiple players built on these ideas with additional cards, creating long chains that developed the ideas. Players won points whenever anyone built on their ideas, so you could see how other people responded to what you shared.

The game dashboard tracked ideas and points to show the flow of ideas in the game and the points that players accumulated. To find out game highlights, players also visited the game blog, which featured ideas that rose to the top.

The game was facilitated by a skilled group of Game Guides from IFTF who marked cards as Super Interesting, or called out cards as Conventional Wisdom if these didn't push beyond current boundaries. Game Guides also synthesized ideas, highlighted exceptional players for special recognition, and set challenges for the group.



#### **The Provocation**

The purpose of this provocation was to provide a scenario that was based in research about plausible futures in the ten-year time horizon. It primed the community for a more futures-oriented conversation.

It's February 23, 2026. And the world isn't the same as it was when you were a UC Davis student. Can you imagine ...



#### WHAT IF YOU COULD RIGHT-SWIPE TO VOTE?

Imagine that there was a way to spark change in your community with a single gesture. Voting on civic issues in Davis is now as easy as a right or left swipe, and voters today are more engaged than ever.

Could this really happen? Here are some clues ...

- Democracy OS www.democracyos.org
- · Loomio www.loomio.org
- Swipe the Vote blog.gotinder.com/post/141553241701/swipe-the-vote

#### WHAT IF NO ONE HAS A JOB?

Imagine that when you look for work, you're not looking for a job. Instead, you're searching for ways to pitch in on different challenges and projects. Most positions are short-term, and tied to specific tasks or initiatives. You move from gig to gig, based on your skills, your connections, and your availability.

Could this really happen? Here are some clues ...

- · Upwork www.upwork.com
- · Knack.it www.knack.it
- Gigwalk www.gigwalk.com

#### The Provocation (cont.)

#### WHAT IF GRADUATION NO LONGER EXISTS?

Imagine that your transcript remains open, even after you've earned your degree. Everything you learn counts towards your record. The audiobook you just read. A how-to you watched on Snapchat. Alumni also have early access to research data from UC Davis laboratories. You aren't just a graduate of UC Davis, you're a citizen of UC Davis. The university is your knowledge hub, and your diploma is your access pass to a lifetime of continued learning and growth.

Could this really happen? Here are some clues ...

- Degreed www.degreed.com
- · Learn PGH www.learnpgh.org/#/
- Mozilla Open Badges www.openbadges.org

In this world of 2026, what could you create? What could you help make different? What challenge could you help solve?

## **Analysis & Approach to Results**

With a higher than average number of players and cards, gameplay was fastpaced and exciting. We encourage all players to approach our games with a relaxed, playful and patient mindset, and the UC Davis community certainly did.

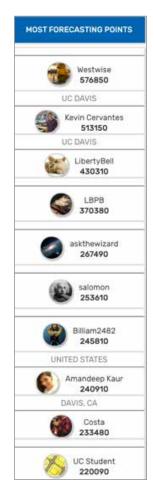
Both during the game and after, Institute for the Future staff followed individual cards, players, and discussions that developed between players to pull out common ideas and interesting themes. When putting together this post-game analysis, a number of elements were examined, including the game's leaderboard, prominent "builds" or conversations, and word frequency analysis, which are elaborated on below.

**Leaderboard** | The game's final leaderboard included a group of outstanding individuals—ranging from grad students like Westwise and salomon, undergrads like Kevin Cervantes, LibertyBell, askthewizard, UC Student and Costa, and staff members LBPB, Amandeep Kaur, and Billiam2482.

The disciplines represented in our Top 10 included genetics, entomology, applied statistics, electrical engineering, computer science, food systems, public policy, and medicine. One of the most diverse sets of conversation partners we've seen on the Foresight Engine platform.

Others played as teams who collaboratively contributed—from #TeamEducation to #TeamResearch, from #TeamEnvironment to #TeamRegenMedFutures and more. We applaud this approach that combines cooperation with competition.

Big Builds | The large number of cards played and the high percentage of follow-on cards combined to create a highly conversational game in which people engaged in long chains of ideas building off of one another. Often these "big builds" unfold from an initial, seemingly simple idea that sparks robust, innovative conversation.





# **Opportunity Spaces: A 10-Year View**

Below are five Opportunity Spaces for UC Davis to consider looking ten years out, based on player ideas.

### 1 | ERADICATE DEGENERATIVE DISEASES

Players were excited and proud to be connected to the UC Davis Institute for Regenerative Cures. 721 players hashtagged their cards with #RegenMedFutures. Players expressed confidence that stem cell and exosome researchers at UC Davis will lead the development of therapies to cure birth defects, chronic wounds, osteoporosis, Huntington's disease, and other degenerative diseases. The Big Build about Living Medicine was one of the most robust.

"At #UCDavis in 2026 we will be routinely delivering living medicines to treat disorders that currently have few options. #RegenMedFutures"

—Jan Nolta

"#HuntingtonsDisease will be cured #CureJHD #RegenMedFutures"-LBPB

"We are currently using stem cell #Exosomes to treat cardiovascular and neurological diseases!! #RegenMedFutures"—Johnathon D Anderson



#### 2 | TEACH REAL WORLD SKILLS

Players believe that UC Davis should give students the skills and knowledge to succeed in the real world, not just in the academic arena.

They asked for life advisors, mentors, and life skill classes. And while many players were enthusiastic about online learning, they stressed that the UC Davis campus is a place where people can interact with each other face-to-face and in real-time. It takes a great deal of time and money to bring human bodies together, and players voiced that the university should make good use of everyone's investment.

"Cooking, meal planning, finance (including understanding credit cards), basic auto/bike maintenance (how to change a flat tire), etc. "—Robert Pattison

"Students leave university having learned basic life skills like cooking, cleaning, finance, taxes, healthcare, home maintenance #lifeskills"

—Devon Rothchild

"Retired industry experts/enthusiasts volunteer to lead seminars/projects." —Jake

"I hope every student can have not only an under/graduate advisor, but a life advisor too. Especially on how to handle stress and depression"—Beta



#### 3 | EXPLORE MICRO-CREDENTIALING SYSTEMS WITH ALUMNI

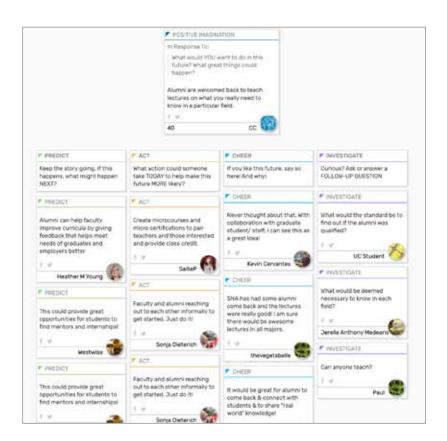
Player CC kicks off a lively conversation with this idea: "Alumni are welcomed back to teach lectures on what you really need to know in a particular field" and player SallieP builds on it by adding "create micro-courses and micro-certifications to pair teachers and those interested and provide class credit." Though most microcredentials are offered through third party services now, players thought it would be worth exploring how alumni and students might connect via a UC Davis-run microcredentialing system.

"Alumni can pay down their student loans by giving lectures on campus or mentoring students in their field. #PayItForward" –Jane McGonigal

"Our Alumni Association creates a virtual environment where national/international alum express interest & a coordinator matches w/courses." –TJS

"Create ways for alumni to actively engage with and mentor students." -VicB

"SNA has had some alumni comes back and the lectures were really good! I am sure there would be awesome lectures in all majors." –thevegetabelle



#### 4 | ADDRESS UNEASINESS OVER THE PLATFORM ECONOMY

Students are concerned and confused about the future of work. Traditional employment is being replaced with short-term gigs. Will UC Davis graduates—who are straddling the shift between W-2 and 1099 work—be able to adapt to the platform economy and enjoy the same standard of living of the previous generation? Over 360 players mentioned "jobs" or "employment," and almost 60 cards with the word "gig" were played.

"Task based employment makes the full-time jobs obsolete. Workers become more 'expendable.'"—Tom Burmester

"Isn't 'gig to gig' just another name for Temporary Employment Services?" —David Potts

"How would employees maintain stable income? Retain health benefits? Retirement? Working from gig to gig is too unstable for many..."

—Christine Munsterman

"Micro-job/gig idea in video seems very stressful, financially, not knowing if you'll have enough money to pay your mortgage"—John Schutzman

#### **5 | DEVELOP TECHNOLOGIES TO FEED THE WORLD**

Everyone is an eater, so perhaps it's not surprising that 489 cards focused on this topic. Many shared ideas for how to grow food on campus with a goal towards local, self-sustainability.

Others described how UC Davis can combine its core strengths in agriculture and technology to be a leader in solving hunger and nutritional challenges worldwide.

"We grow food everywhere, in every way possible on campus. We mobilize and build community around food while empowering ourselves."—Kate

"Edible landscaping would be throughout the university. This would include protein sources such as nuts. No student should go hungry! "

- Rebecca Linvill

"In 2026, the food innovation program will partner with the engineering and computer science departments as a leading edge community"—Tessa Finlev

"I would like to see courses that tackle real world problems. Food and nutrition course tackling hunger in specific regions of the world." —MBarr

"Efforts from the World Food Center and the Innovation Institute for Food and Health make UC Davis a global headquarters for #foodaghealth"—Costa



# **Top Things to Do Today**

Here are five things UC Davis can start working on today, based on players' ideas.

#### 1 | ENHANCE AND EXTEND THE LIBRARY

Players love the Shields Library and cherish it as a place for study. But they want the library to adapt to meet the changing needs of its users. They envision the library as a combination maker space, research lab, shared workspace, tool library (and yes, nap space).

"The library becomes a hub for information visualization, introductory programming classes, and more effective research techniques."—14 kh125

"Help people connect using technology! Make the library a hub of technology and learning!"—Darkstar

"Shields Library hosts a Digital Research Lab where Undergrads and Grads collaborate in interdisciplinary, big-data projects."—Trilling

"Like the Sacramento Library of Things—it could include tools, sewing machines, small appliances that students need for temporary jobs."—thevegetabelle

"3D printers and bioinformatics workstations are available for Student use in the library."—Meow meow

Immediate action to consider: Players asked for more charging stations and power outlets at the library. They discussed Wi-Fi problems and asked for filtered water stations and a full-service cafe.

#### 2 | BE A LEADER IN BIKE NETWORK ARCHITECTURE

Players contributed nearly 400 bike-themed cards, so it is clear bikes are mission-critical tools on campus. Players imagined bike share programs, safety training, parking apps, repair lessons and repair facilities, better security, and improved bikeways for the campus and community.

"Incorporating a campus/city bicycle program, one checks out a bike from a kiosk and returns it to any kiosk all over town, free with tuition"—Steven Collins

"Repair damaged bike paths on campus and improve safety downtown bike paths. "
—Arden

"Smart bike parking and apps that let you know general locations for open spots" —UC Student

"It'd be great if there are also bike repair lessons for everyone as well." - Crystallize

Immediate action to consider: UC Davis has the opportunity to become a testing ground for the future of two-wheeled mobility. Designate 2-3 pilot projects to carry out in the near-term.

#### 3 | INCREASE INTERNSHIP OPPORTUNITIES

Players expressed that they would like to have even more awareness of internship opportunities, to be connected with more paid internships, and develop relationships with companies who hire new college graduates.

"More partnerships with companies to actively place students in quality internships and jobs."—Patrick Branaman

"Classes would only be taught Mon-Thurs so that students could have Fridays to work/ intern off campus and professors could focus on research."—Naftali Moed

"Create short intern opportunities for staff at departments they collaborate with to improve communication and understanding of challenges."—bjrxflyer

"Work with companies to design courses/degree requirements. They know what they need in new hires. Incentivize same comp. to hire interns."—Patrick Branaman

"More publicity for internship opportunities is definitely a way to accomplish this. Perhaps a clearing house of some sort. #regenmedfutures"—Billiam2482

Immediate action to consider: Look at the existing volunteer/internship program at UC Davis' school of bio research as a model for other departments. Establish a central clearinghouse for internships opportunities throughout the University.

#### **4 | CONSERVE RESOURCES**

Players had a number of interesting ideas to reduce energy use on campus.

"Reduce our electricity costs by upgrading our old buildings to motion sensor lighting. #TeamEnvironment"—Jessica Potts

"This one is boring but really important: Each building will pay its own utility bill, and thus start caring more about energy waste."—secole

"All campus electrical needs are met via solar collection from our on campus roads, parking lots and buildings. "—Catherine Olvera

"Graywater nourishes lush plant life on campus. state-of-the-art composting toilets all over the place. step out of a classroom into nature." — Barbara Anne Bauer

The Arboretum Waterway is engineered so that it is holding that gray water and recycling it...while fixing the algae problem. #teamhealth"—Susanne Rockwell

"Have waterless urinals been installed in any men's restrooms on campus? It seems like we could be doing a lot more to conserve water."—Brad

Immediate action to consider: Install waterless urinals. Research energy savings potential of motion-activated lighting in any areas where it isn't already present. Give each building an energy budget.

#### **5 | KEEP THE GAME GOING**

Players want to see action taken on the ideas developed in the game. They also want to continue the discussion and play an active role in planning the future of UC Davis.

"This game was very insightful to me, lots of ideas shared. Would any of you want to give some of your background and maybe keep in touch?"—sean

"I hope these inputs make a real difference, and that the university will implement these ideas to make changes"—LBPB

"I'm worried that we all wasted our time on this site because people are not willing to make these great ideas a reality now!"—VirusGirl

"I think every comment/suggestion should be studied."—Keatley Garvey

"Different groups on campus can start implementing some of the ideas now without a directive from the administration - lots of good ideas!"—Jen Wade

"At least these ideas can be given as class projects." - salomon

Fear: "Brainstorming all these fantastic ideas, but not following through with concrete actions!"—G.K.

Immediate action to consider: Establish an Envision UC Davis team to give players an ongoing opportunity to follow up on ideas.



# **Appendix**

### **Outlier Thinking**

Hidden within the tens of thousands of cards played were a number of buried gems. Here are some of our favorites:

## Use exercise equipment to generate electrical power for the campus

"If we made power generation from the ARC and the machines, this could definitely help students get fit and generate power for studying. — If we made power generation from the ARC and the machines, this could definitely help students get fit and generate power for studying."

- Danielle Mae Santiago

"I think that financially it isn't a good plan, but that might be greatly offset by the awareness it generates!" —Jake

# Weekend classes for local high schoolers, taught by college students

"A Mini Medical School for local high school students interested in medicine. 1 month, Saturdays Taught by Med Students #TeamHealth" —Kally O'Mally

"Great idea, good way to allow students to see what they might be getting themselves into"

—Easton White

#### Portfolios instead of (or in addition to) grades

"Students of the future won't just have exam scores, they'll have a collection of work they can portfolio as a product of their classes." —Amtom

#### **On-Campus Entrepreneurship Training**

"Create a shark tank-like competition to get investments. Perhaps bring in successful business people from Sac and SF." —kh125

"Can this be done for any student, not just business majors? That way anyone can learn how to run a business." —Costa

#### Self-tracking to accelerate learning

"Advances in biofeedback + wearable electronics result in dramatically increased self-knowledge/control, improving educational outcomes." — lan

"Better diagnostic tests on admission would enable personalized learning plans and suggested opportunities for qualified students" —Amtom

"Good. We should embrace technology, rather than shy away from it." —Plaustrum

"Alarm clocks that create a sound specific to your ears, so you won't always wake up your roommate." — Miranda

## **Top Ranking Students**

Envision UC Davis is a collaborative game, so the top players were not only competitive, but also collaborative. They didn't earn any Foresight Points (FP) for playing cards. Instead, they earned points when someone else was inspired to favorite their card, or to build on their card! The more inspiring, creative, intriguing, or provocative the ideas, the more likely they were to earn points. The winning players let their imaginations run wild! Here are all the ways players earned:

- Another player favorited their card + 10 FP
- Another player built (played a follow-up card) on their card + 100 FP
- They were part of a "big build" with 5+ different players + 1000 FP
- They were part of a "mega build" with 20+ players + 5000 FP
- A guide marked their card Super Interesting + 2,500 FP
- SUPER BONUS! Earned 10 favorities on a single card + 1000 FP
- MEGA BONUS! Earned 50 favorities on a single card + 7,500 FP
- ULTIMATE BONUS! Earned 100 favorities on a single card + 10,000 FP

#### **Top Graduate Student**

PlayerName: Westwise (Sam Westreich) Affiliation: Genetics PhD Student

#### **Second Place Graduate Student**

PlayerName: salomon (Sedef Savas)

Affiliation: Graduate Student, PhD candidate in the

Computer Science Networks Research Lab

#### **Third Place Graduate Student**

PlayerName: Easton White (Easton White)
Affiliation: PhD student, Center for Population Biology

#### **Top Undergraduate Student**

PlayerName: Kevin Cervantes (Kevin Cervantes)
Affiliation: Undergrad student (Alumni of Chiu Lab)

#### **Second Place Undergrad Student**

PlayerName: LibertyBell (Spencer Ryan Phillips)
Affiliation: Undergraduate Student | RA | Sophomore |
Double major: Applied Statistics and Economics

#### **Third Place Undergraduate Student**

PlayerName: askthewizard (Jacob Lee Holiday)
Affiliation: Undergraduate Student | Junior | Electrical
Engineering

#### Congratulations to all players!

#### **Selected Press**

## UC Davis uses online game to crowdsource its future

Center for Digital Education, March 3 http://www.centerdigitaled.com/higher-ed/UC-Davis-Uses-Online-Game-to-Crowdsource-its-Future.html

# **UC Davis will play a massive online game** for 36 hours straight

CBS13's Good Day Sacramento, Feb. 25 (live) http://gooddaysacramento.cbslocal.com/show/live-video/video-3365293-36-hour-gaming-event/

# UC Davis students play online game to reshape university

Sacramento Bee, Feb. 24 http://www.sacbee.com/news/local/education/ article62339422.html

#### UC Davis builds a video game to chart its future

DailyMe, Feb. 23 http://dailyme.com/story/2016022300004185

#### UC Davis builds a video game to chart its future

Global Services, Feb. 23 http://globalservicesmedia.com/2016/02/23/uc-davis-builds-a-video-game-to-chart-its-future/

#### UC Davis builds a video game to chart its future

VentureBeat, Feb. 23 http://venturebeat.com/2016/02/23/uc-davis-builds-a-video-game-to-chart-its-future/

### **Selected Social Media**





