

Innovation Matters: Racing Ahead While Keeping the Lights On

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California State University, Northridge

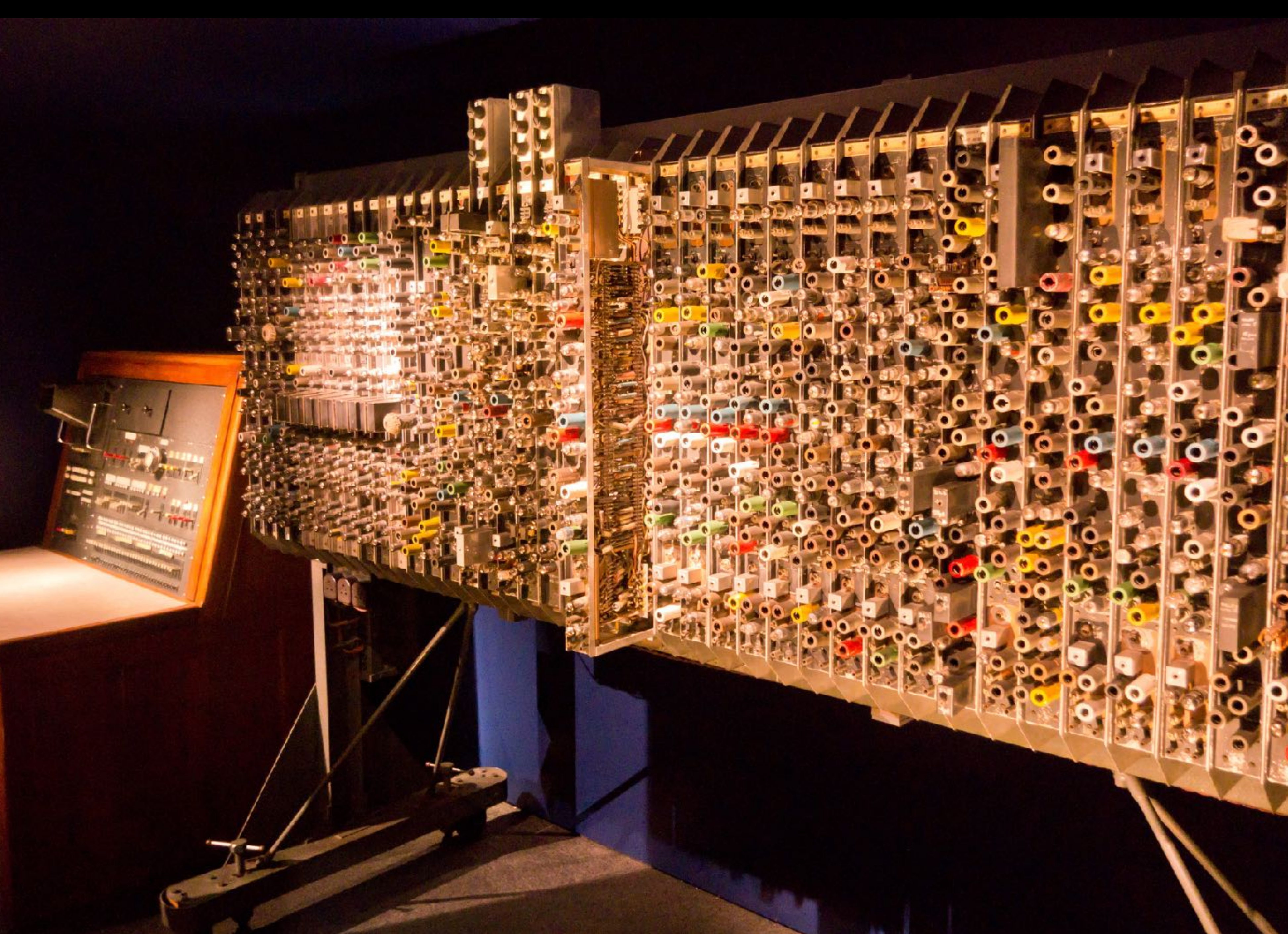




CSUN's focus on infusing innovation across the campus

Examples of CSUN innovative technology initiatives

How to balance innovative technology initiatives while "keeping the lights on"



**Ace
Computer**

Lat. innovare, to make
+ novare, to make

—in/nō·va'tor n.

in·no·va·tion (in-
thing new. 2. Some

adj.

In·no·va·tive

Infusing Innovation Throughout CSUN

"I am not talking about just "teaching" innovation to students. It is important that we "walk the walk" at CSUN and, as a university, embrace innovation ourselves."



"It is just a matter of harnessing and directing this energy in productive and targeted ways — and finding creative ways to encourage more innovation and creativity among students, faculty and staff."

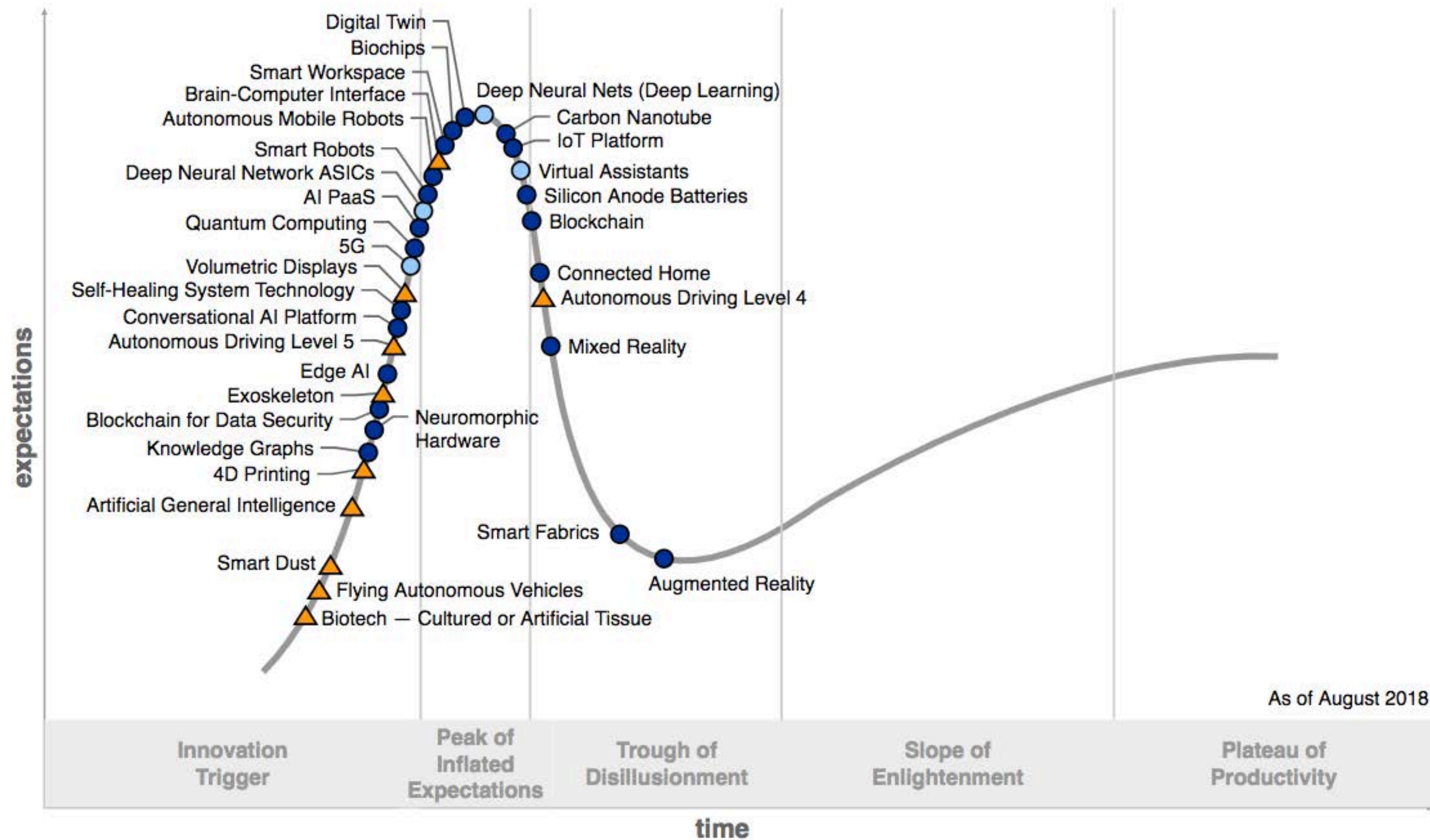
CSUN Innovates!





**Follow
Technology
Trends**

Interactive Hype Cycle

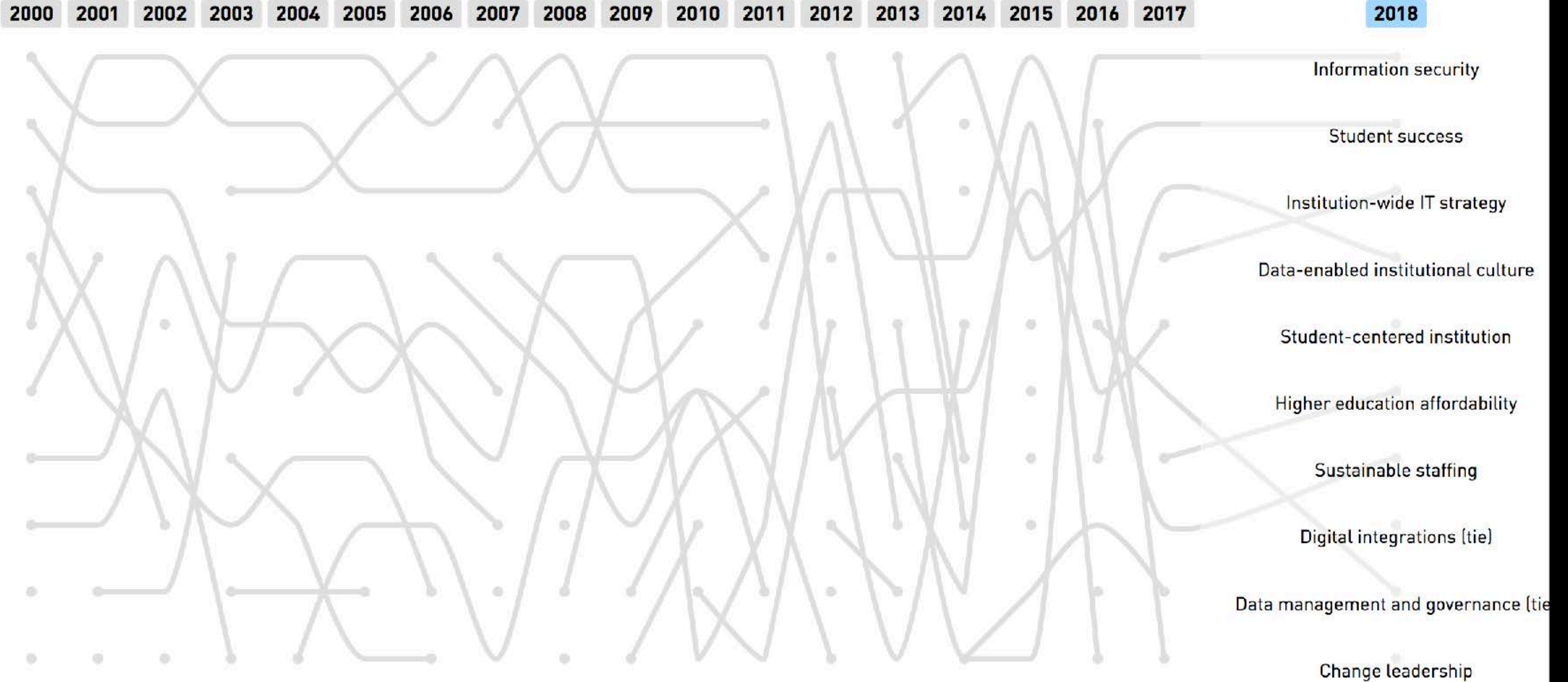


Gartner Hype Cycle for Emerging Technologies

Plateau will be reached:

○ less than 2 years ● 2 to 5 years ● 5 to 10 years ▲ more than 10 years ⊗ obsolete before plateau

EDUCAUSE Top 10 IT Issues



Source: 2018 IT Issues Report

Horizon Reports



Horizon Report > 2018 Higher Education Edition
Brought to you by EDUCAUSE

EDUCAUSE



1 year or less

- Analytics Technologies
- Makerspaces

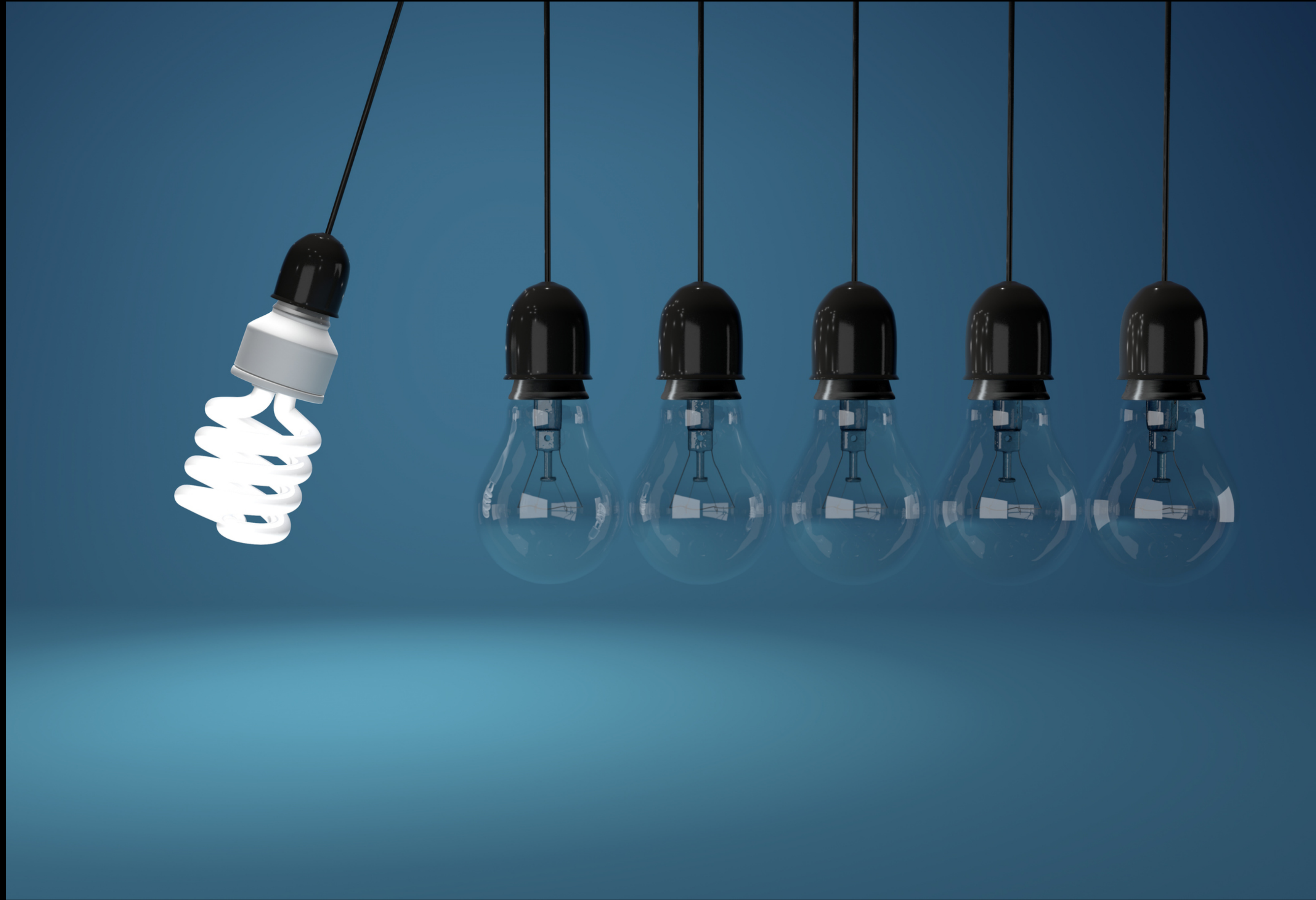
2-3 Years

- Adaptive Learning Technologies
- Artificial Intelligence

4-5 Years

- Mixed Reality
- Robotics

CSUN Technology Innovation



myCSUNtablet



Faculty-Authored Curricular Apps



Tree of Life: Explore
[View In iTunes ▶](#)



Elite Gene Team
[View In iTunes ▶](#)



Nematode Classification
[View In iTunes ▶](#)



Biostats Buddy
[View in iTunes ▶](#)



NetSim
[View in iTunes ▶](#)

VARx - Faculty Exploration



Artificial Intelligence Exploration (Aix) at CSUN



Aix Launches Year of Exploration

ALL CSUN FACULTY ARE INVITED

- Faculty "Brown-Bag" conversations
- Guest speakers on a variety of AI-related topics
- Access to AI tools and cloud platforms from IBM, Amazon, and more
- Learn about Chatbots being created on campus
- Work on AI projects with student researchers
- Explore research opportunities and grants related to AI
- Help inform [AI-Jam, the student competition](#) (Spring 2018)

Demo of Video Intelligence by Google

Watch on the right as the "shot labels" change as the scenes change. It's rudimentary, but the potential is enormous once the AI learns as it would become much more granular.

The screenshot shows the Google Video Intelligence interface. On the left is a video player showing a close-up of a monkey's face. On the right is a control panel with several sections:

- Labels:** A tab for viewing labels.
- Shots:** A tab for viewing shot changes.
- Explicit Content:** A tab for detecting explicit content.
- API:** A tab for API-related information.

The **Shot Changes** section shows a timeline for "Shot 14 of 35" with a vertical double-headed arrow indicating a scene change.

The **Shot Labels** section shows a list of detected entities with their confidence scores:

Label	Confidence Score
animal	97%
ape mammal	90%
wildlife animal	85%

At the bottom of the video player, there is a progress bar showing "00:01:16 / 00:02:42" and a volume icon.

Categories

Applications by College (107)

Arts, Media & Communication (14)

Business & Economics (22)

Education (6)

Engineering & Computer Science (18)

Health & Human Development (12)

Humanities (8)

Science & Math (13)

Social & Behavioral Sciences (8)

General AI (14)

Learning Videos (1)

Tools (16)

Began
with a
Blog

Faculty Alx Conversations



- Arts
- Business
- Education
- Engineering
- Healthcare



- Humanities
- Science
- Ethics
- Assistive
Technology

Culminated with Research Focus



Culminated with Research Focus

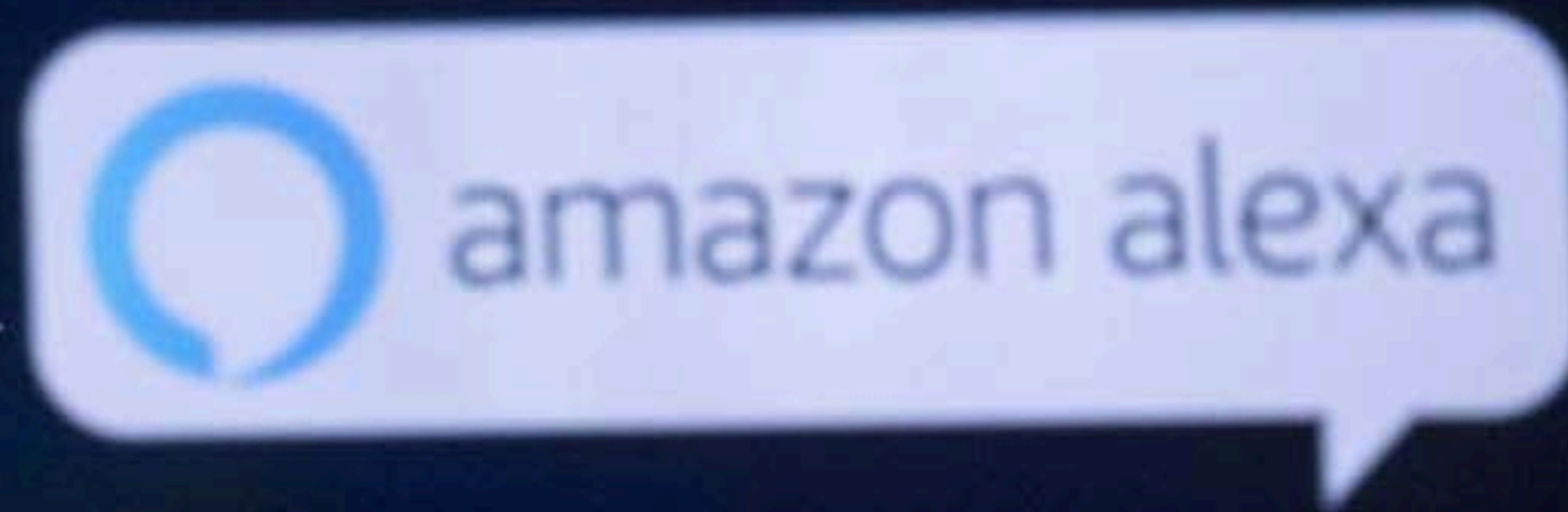


Digital Humanities - Deciphering Medieval texts using AI

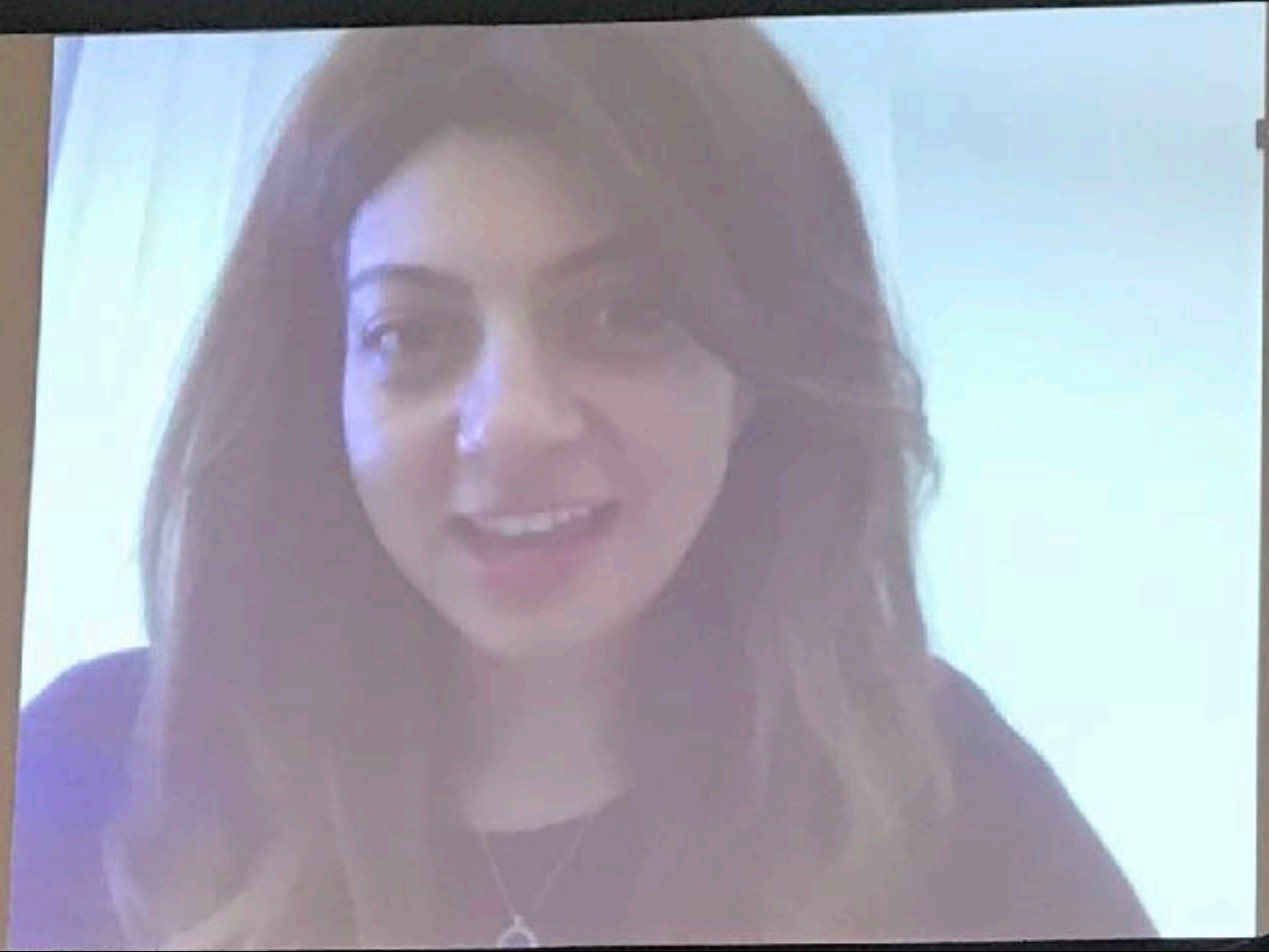
Hosted Series of Guest Speakers



“Alexa, Call Steve”



Steve Rabuchin, VP for Alexa

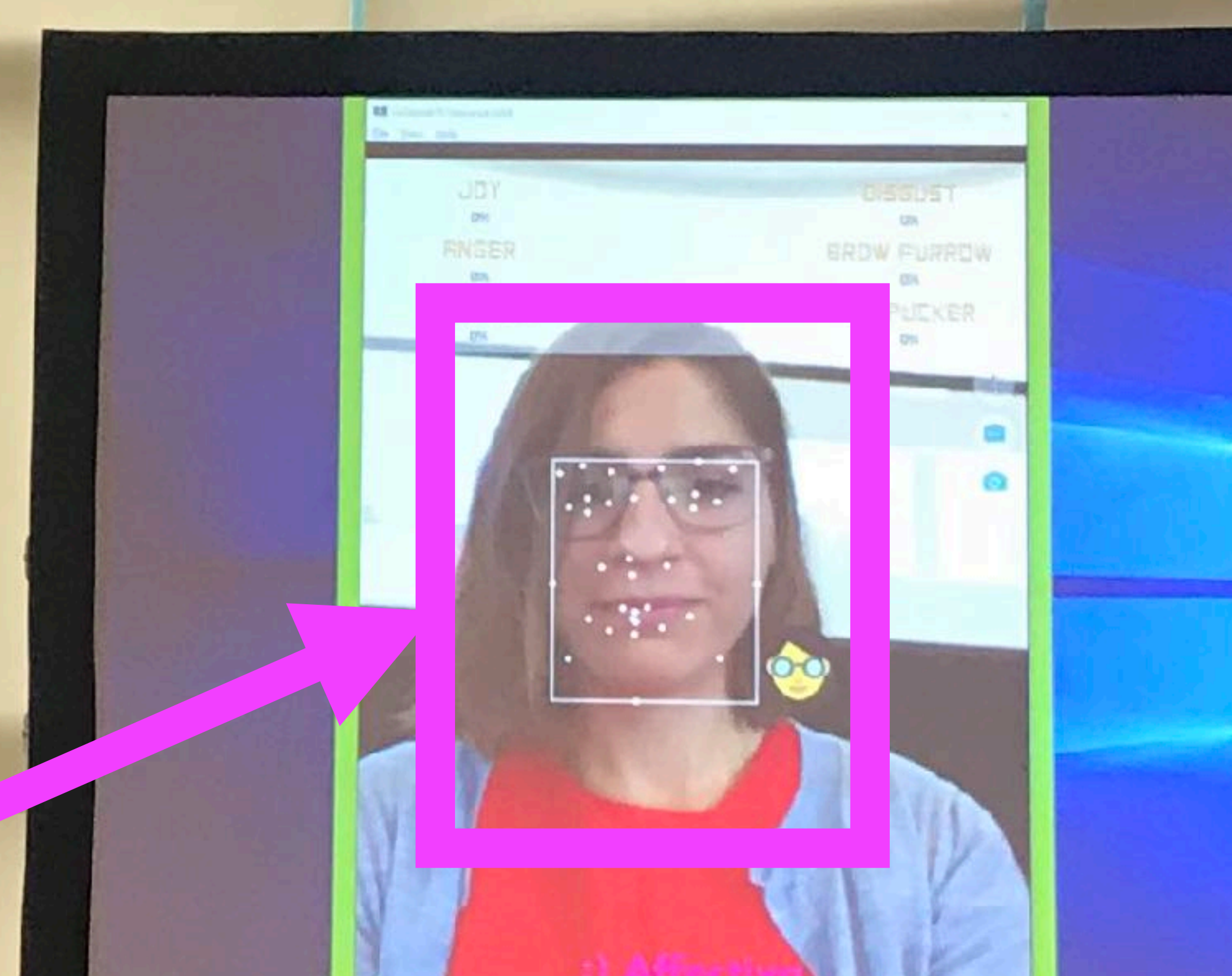


The Power of Emotions in Technology: Thoughts for Higher Education

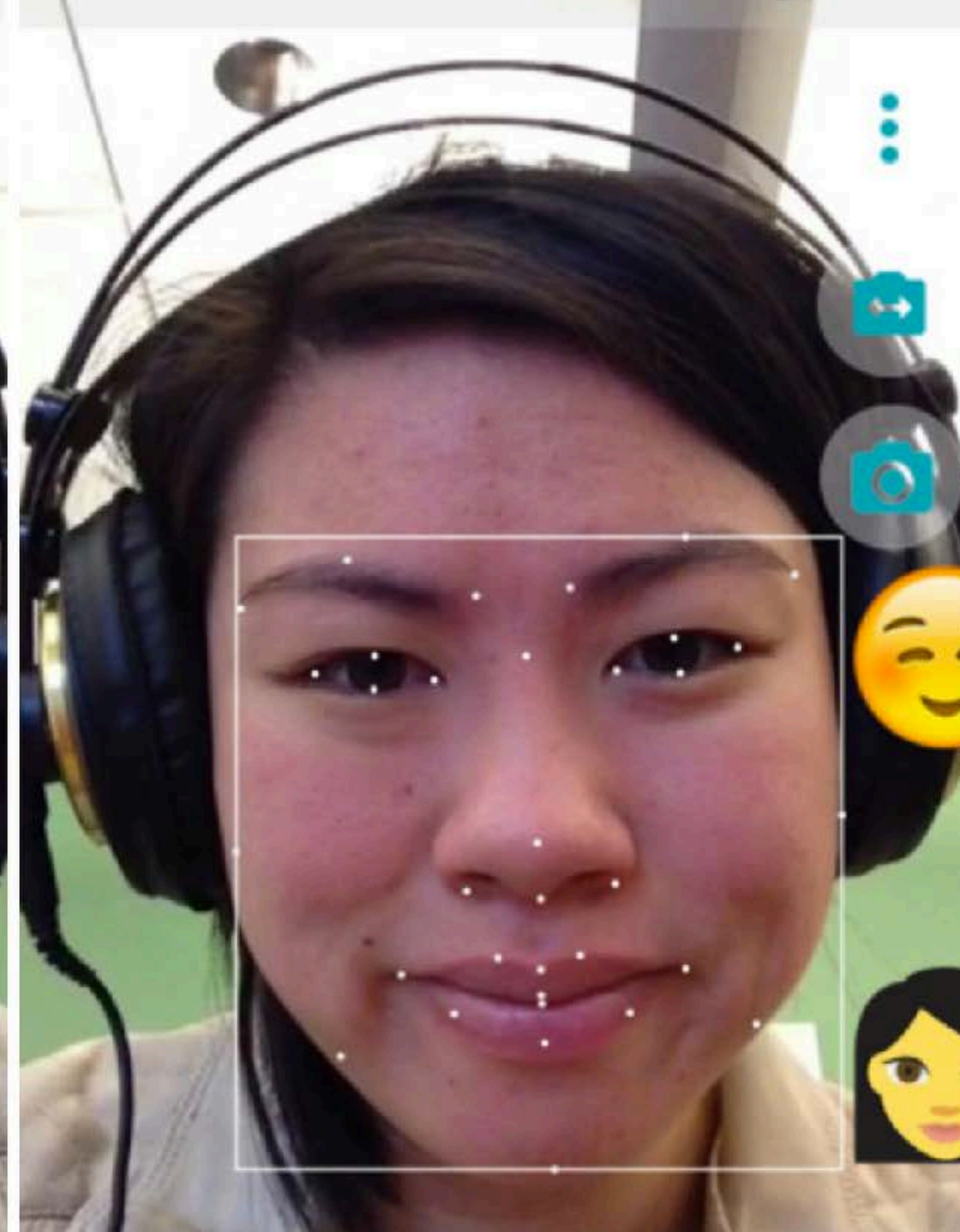
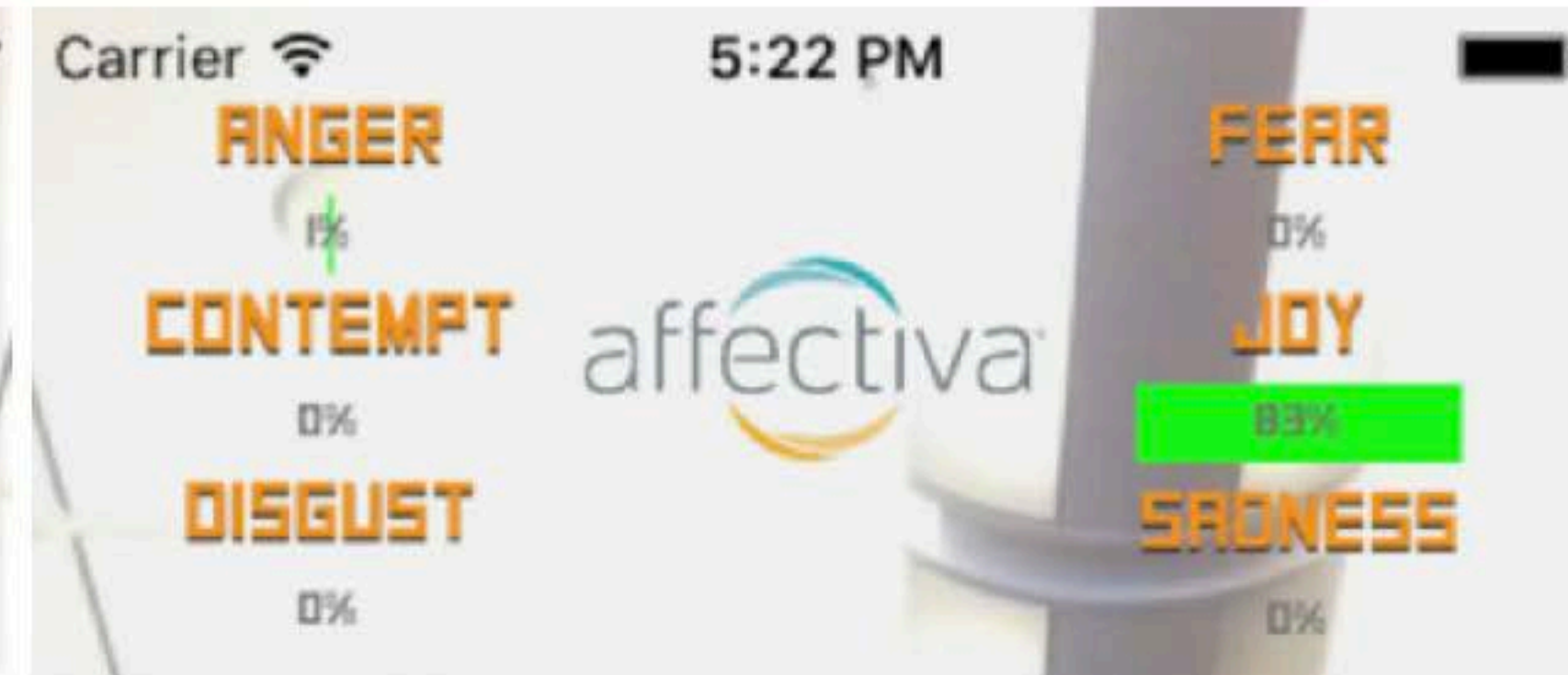
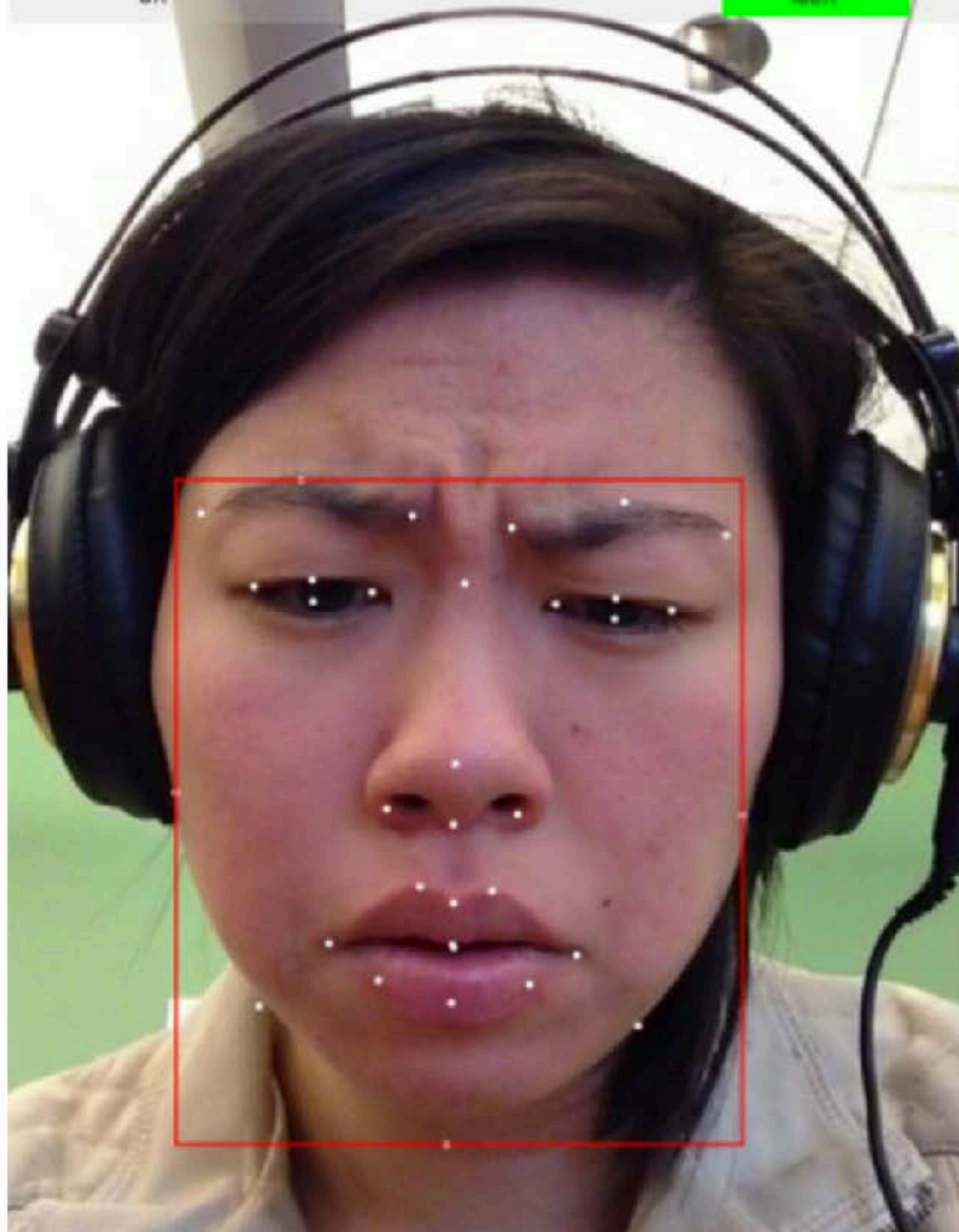
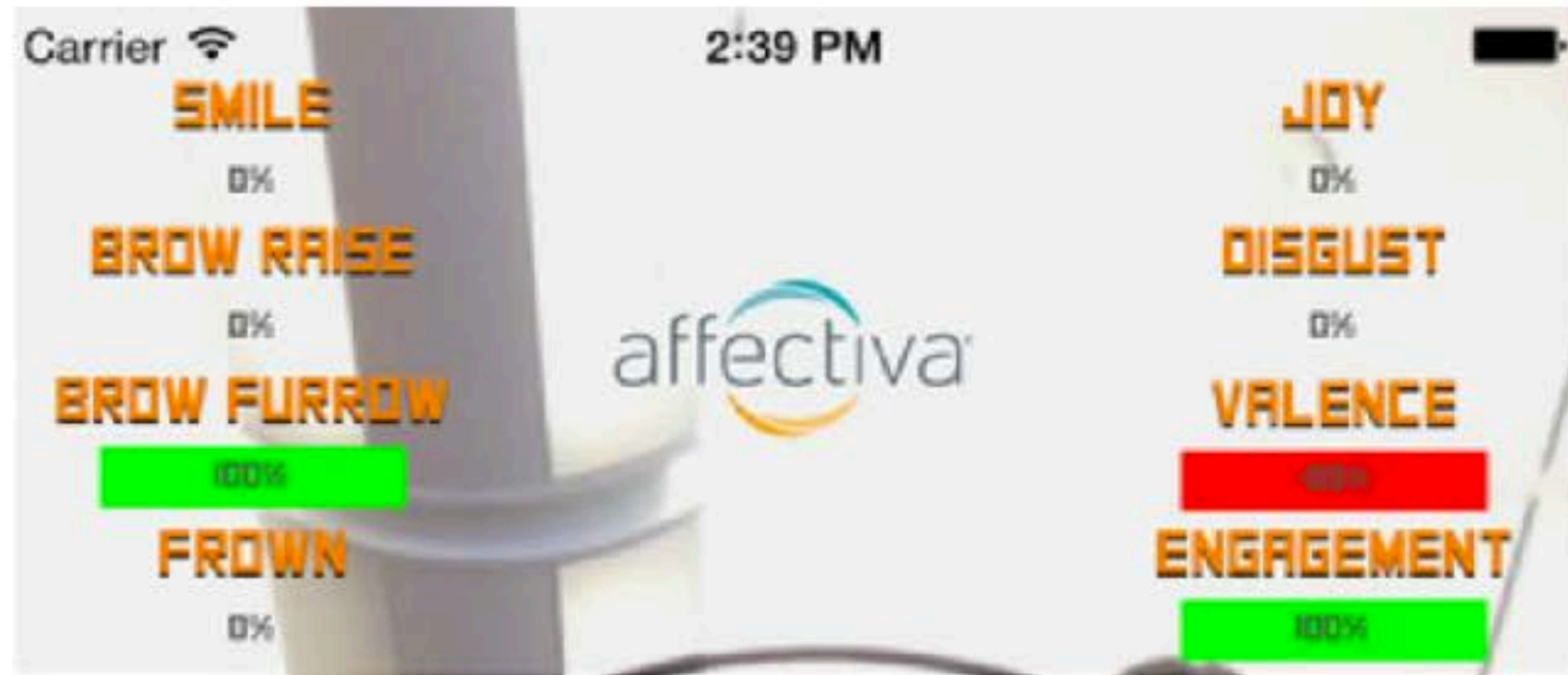
—
Rana el Kaliouby, PhD
Co-founder and CEO
Affectiva



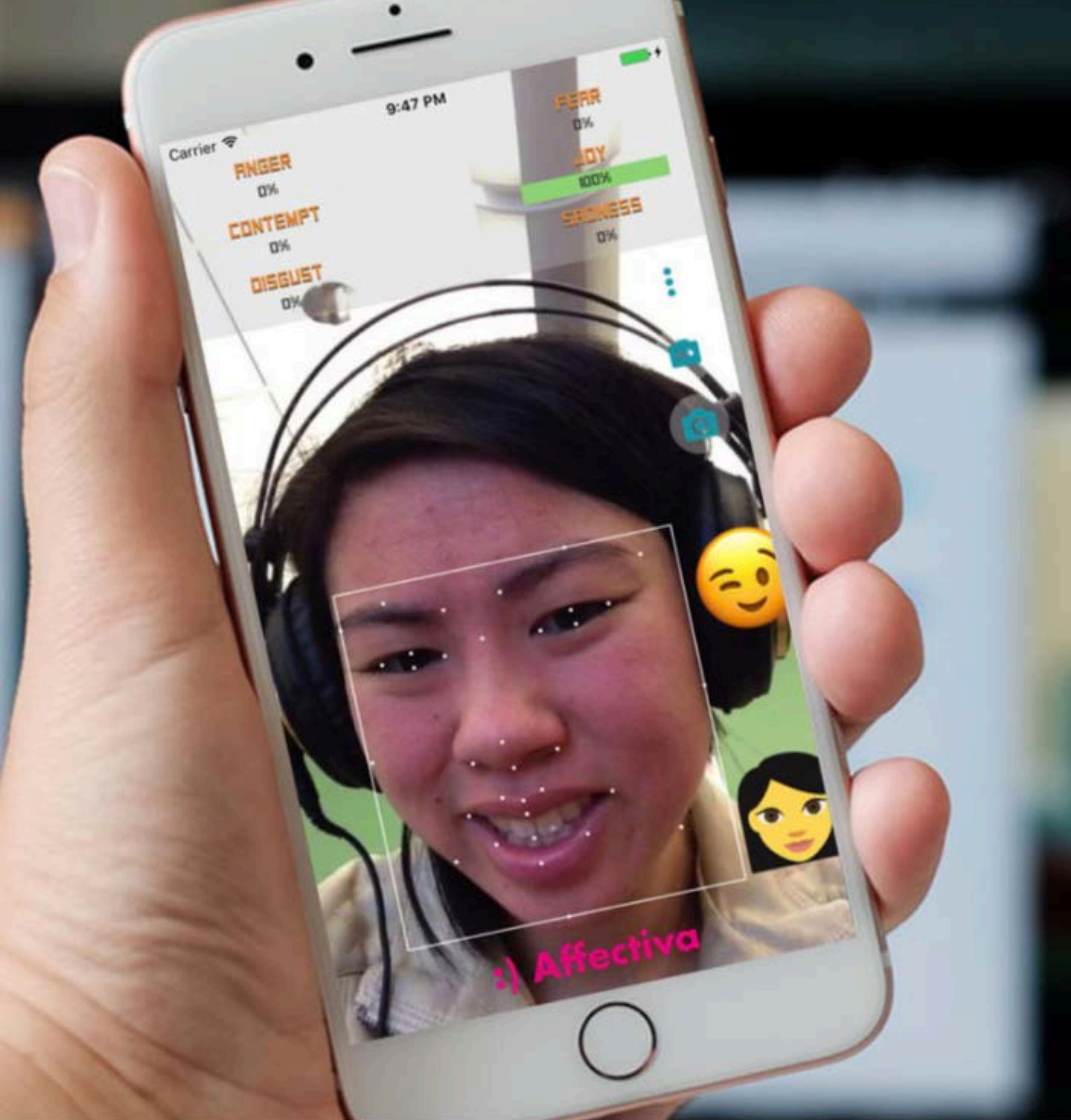
Dr. Rana el Kaliouby
Co-Founder and CEO, Affectiva



Real-Time
Emotion
Recognition



Measuring
Understanding
Using
Emotions



Use Your Phone
Read Your Emotion

**Try AffdexMe for iOS to see a
demo on your iPhone**



AI Chatbots at CSUN



Ask a question like:

*How do I apply to
CSUN?*



ASK MY QUESTION

Ask Matty

CSUNny

Who are you?

I am CSUNny from CSU, Northridge. 🤖

How do I apply for financial aid?

To apply for financial aid (including grants, loans, work-study, and scholarships), the most important thing is to complete the FAFSA at fafsa.ed.gov

Is there housing at CSUN?

We have different rates for different housing options! Check them out here: bit.ly/csun-housing-rates. 🏠

Student AI Competition



APPJAM
CSUN · 2015

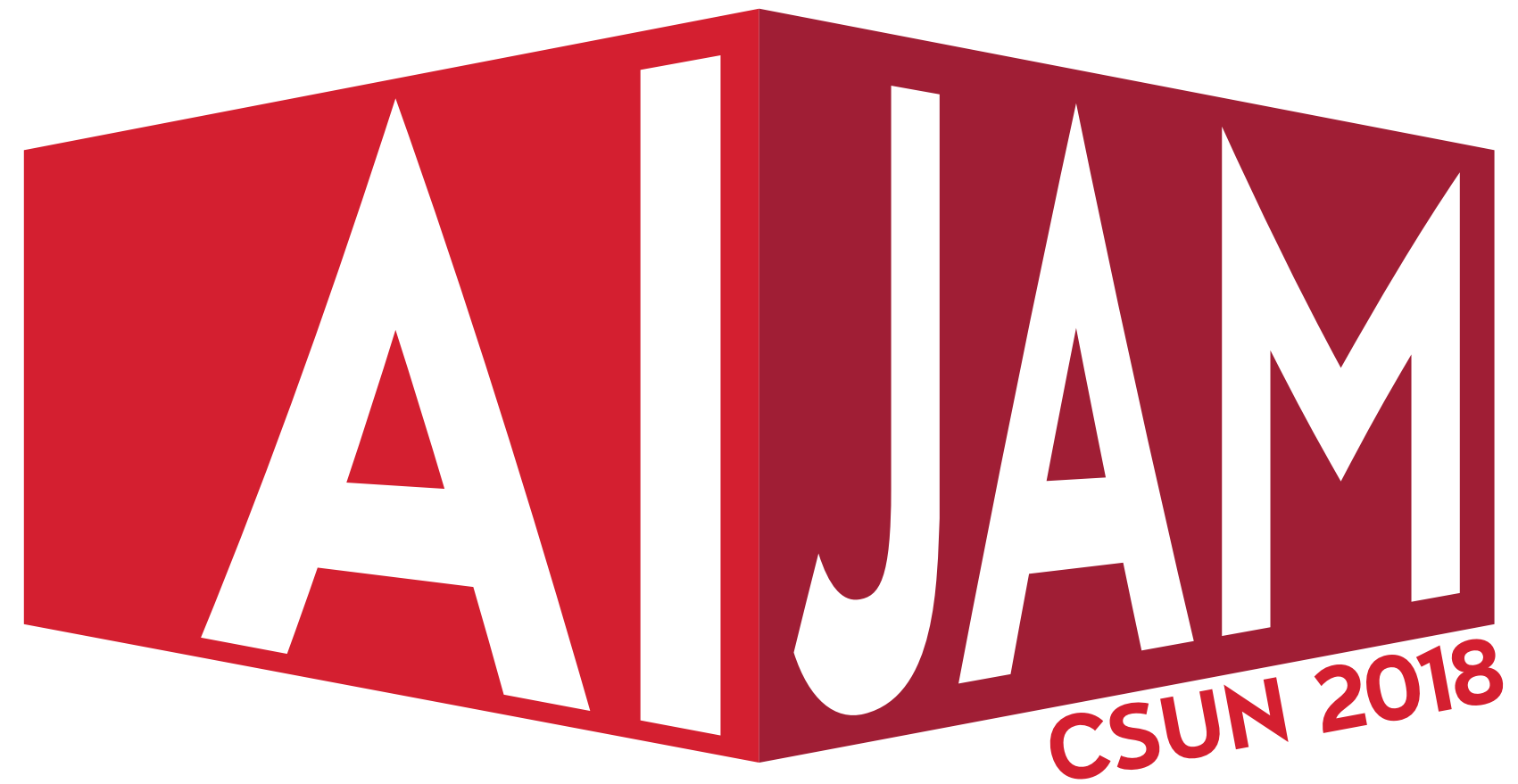
APPJAM
CSUN · 2016

VARJAM
CSUN · 2017

DATAJAM
CSUN 2017

AIJAM
CSUN 2018

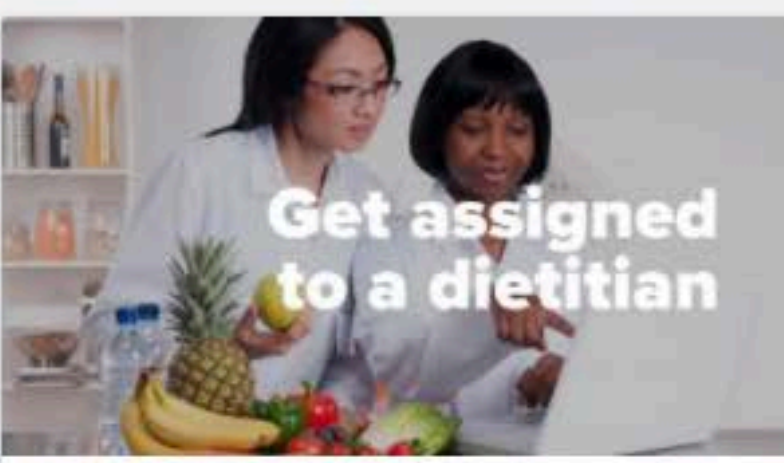
AI-Jam Was
Built on Past
CSUN Jams



ARTIFICIAL INTELLIGENCE (AI) COMPETITION

Learn about AI and apply your knowledge
to creatively solve a problem.


OPEN TO ALL CSUN STUDENTS
Apply by March 2 at csun.edu/it/ai-jam

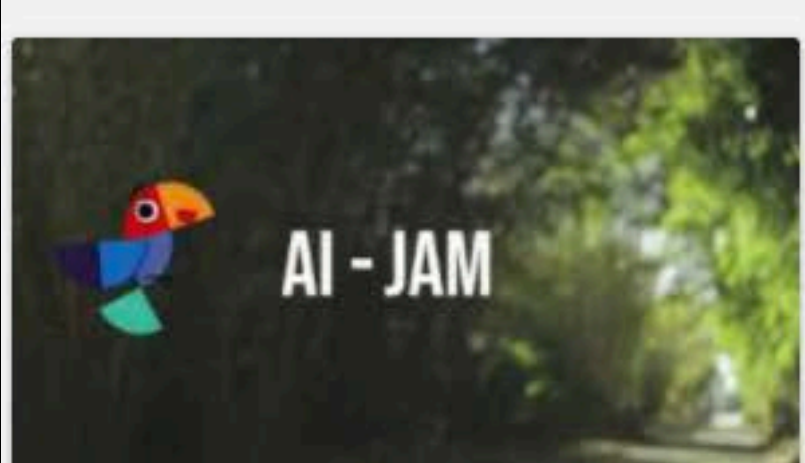


Get assigned to a dietitian

AI-JAM: Helia Nutrition & Helath

Other

☆ VOTE 




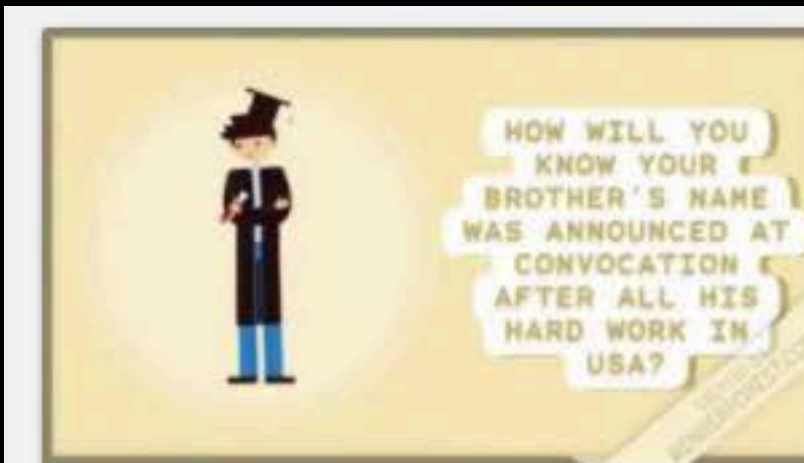
AI - JAM

AI-MIGOS presents: Cinthy

The problem: Most students in universities feel an overwhelming anxiety when...


Technology

☆ VOTE 

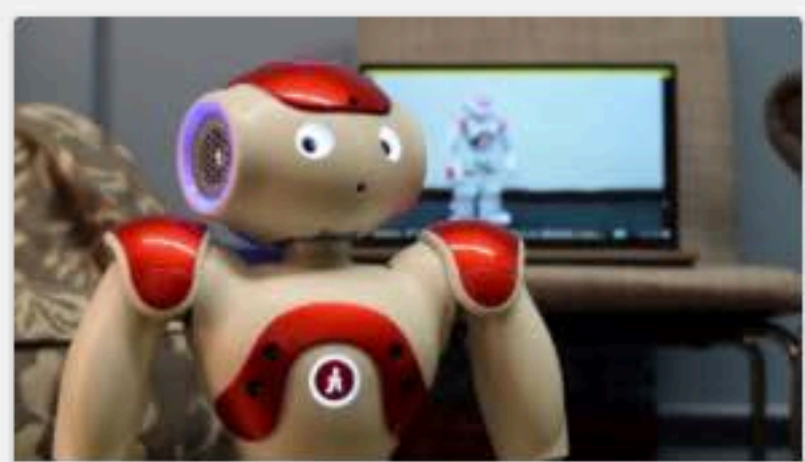


Deaf-Connect (CSUN AIJAM 2018)

Other

☆ VOTE 


All Entries Posted on Portfolium



No Meebie, Don't Cry!

To deal with the increasing number of children with behavioral and learning...

Technology

☆ VOTE 



Tasti

Other

☆ VOTE 



Turing the Tables

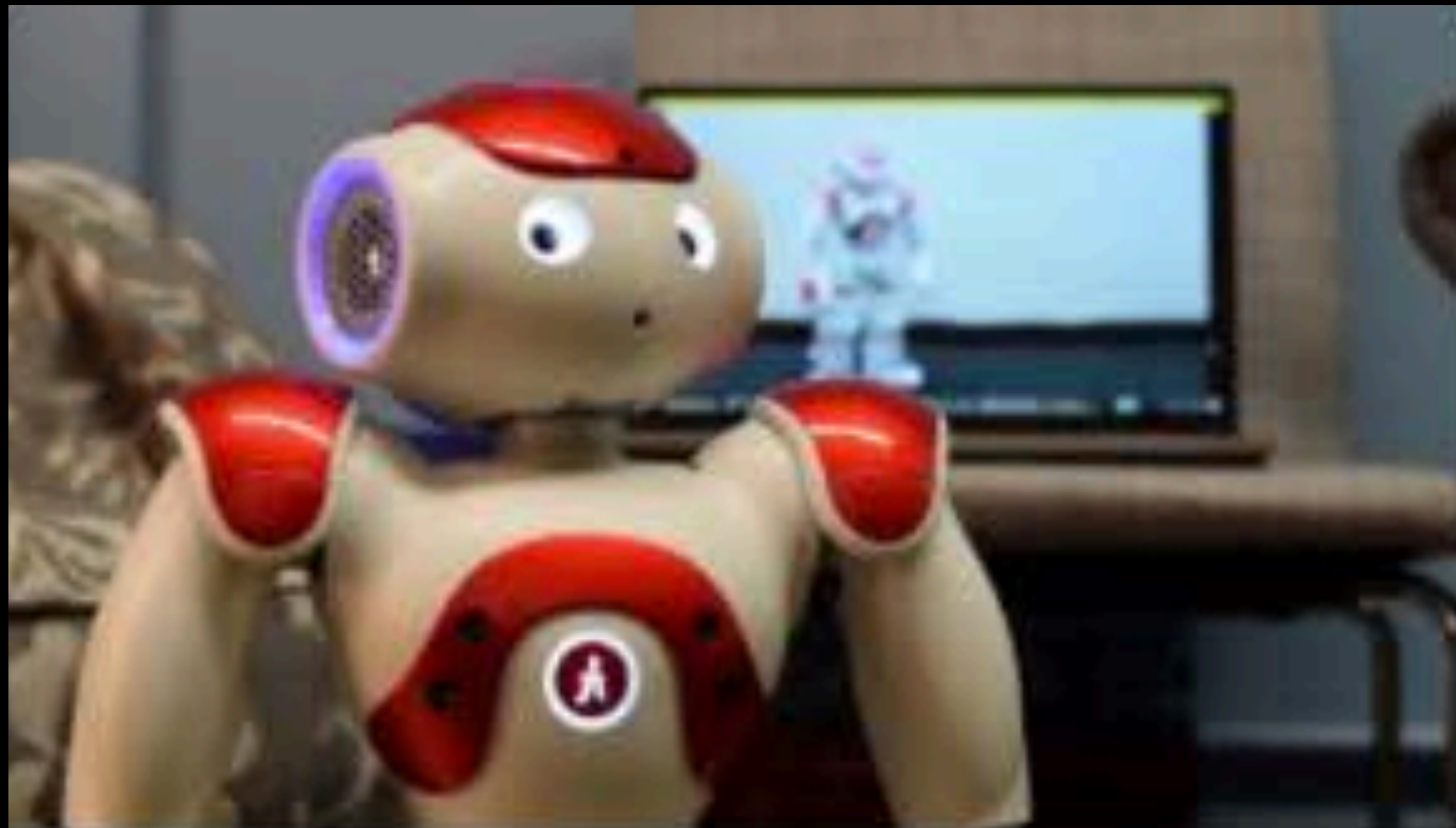
Agora gives the user strategies which can be used to gain a statistical advantage when...

Business

☆ VOTE 



Winning Entries



No Meebie, Don't Cry!

To deal with the increasing number of children with behavioral and learning...







AI - JAM

AI-MIGOS presents: Cinthy

The problem: Most students in universities feel an overwhelming anxiety when...






So, What Did We Learn About AI at CSUN last year?

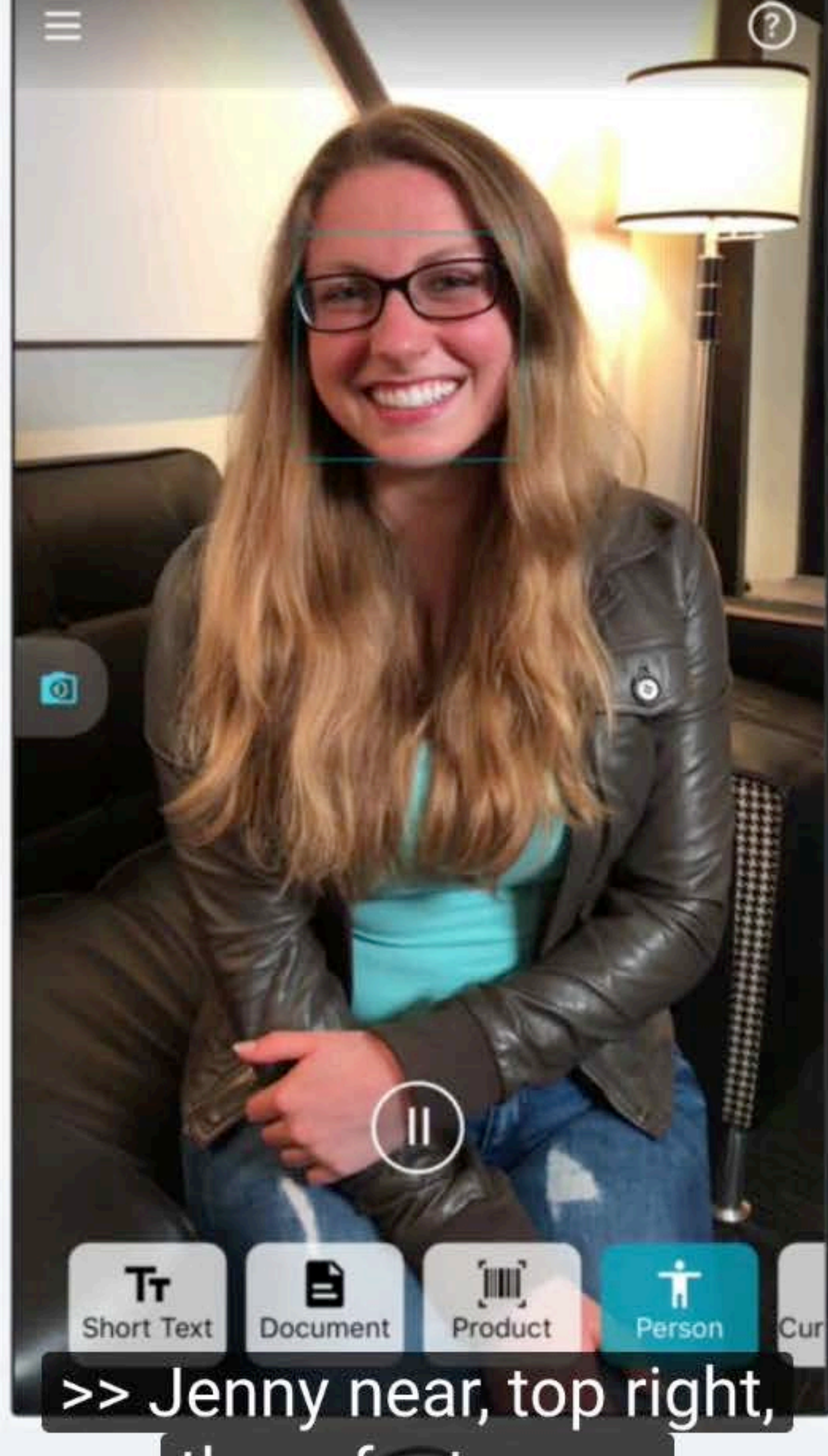
-  AI applications for all disciplines
-  Some faculty already getting involved with AI
-  Students want to invent with AI
-  Faculty ready to expand AI in research

What's Next for Innovation at CSUN?



AIx continues at CSUN

-  AI for Assistive Technology
-  Virtual Assistants in the Classroom
-  Virtual Tutors



>> Jenny near, top right,
three feet away.

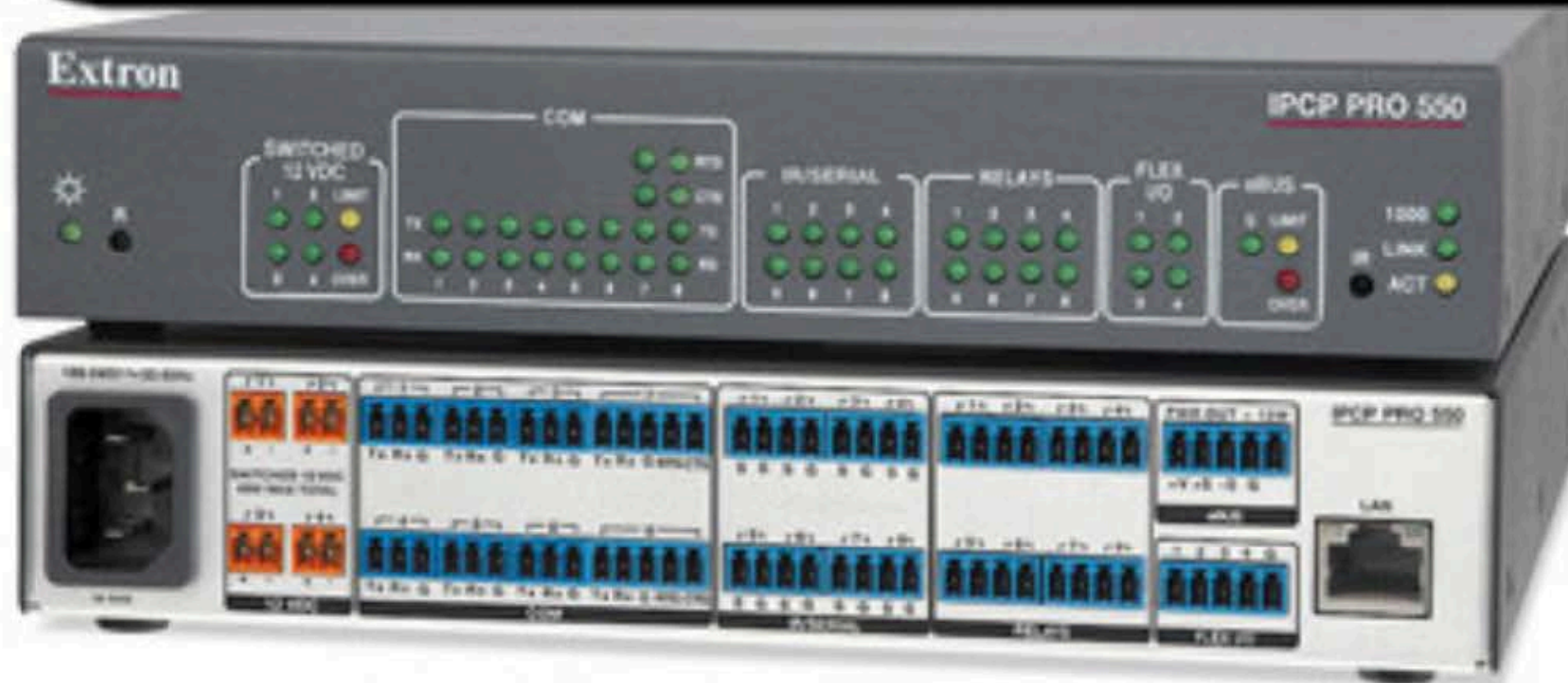
Exit full screen



Virtual Assistants in Classroom



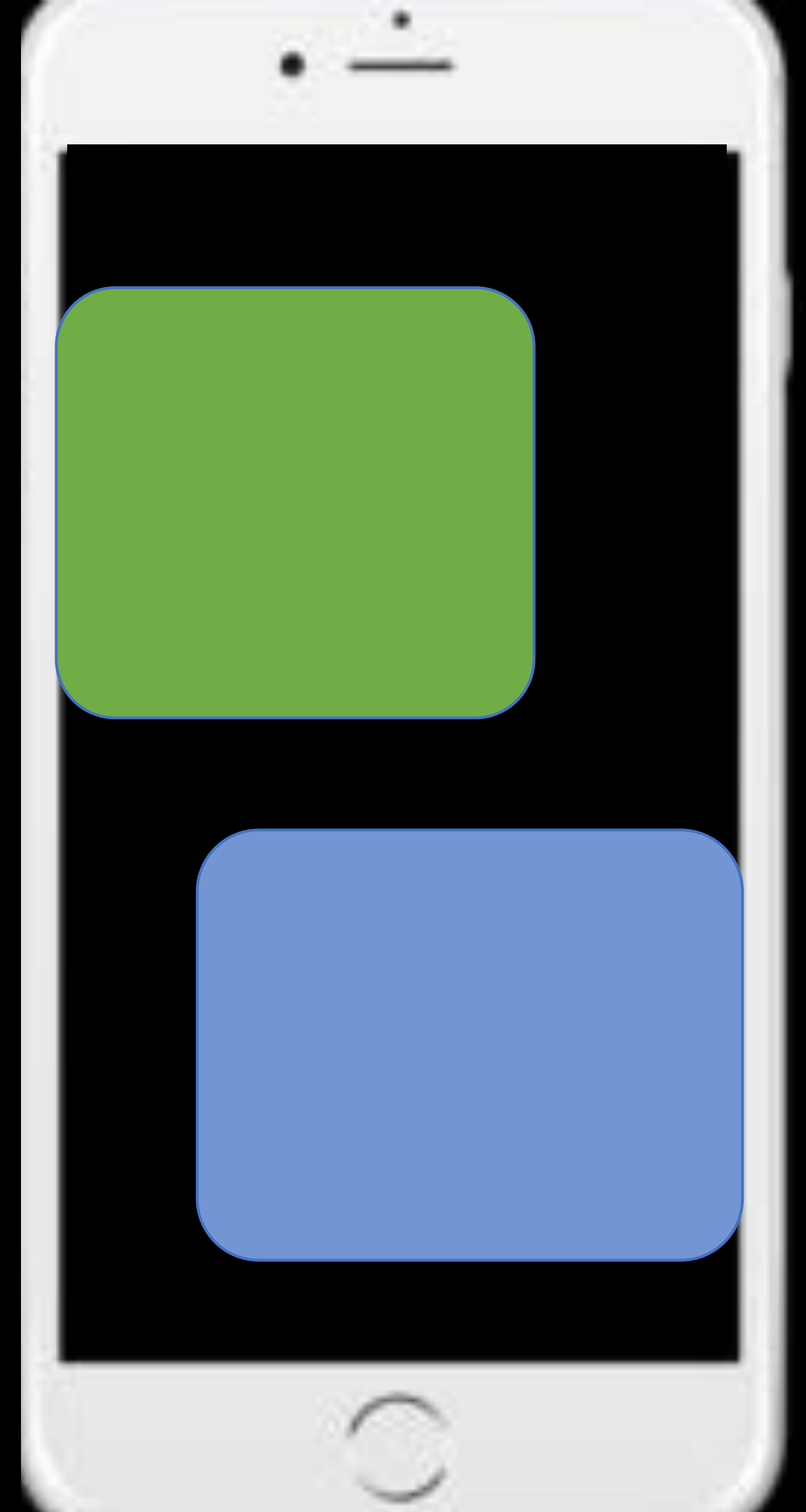
Alexa, ask Extron to show the document camera on the left display.



Virtual Tutor Ideally Knows When To...

- Ask questions
- Be experiential
- Decipher nonsensical questions
- Link to prior knowledge
- Provide an analogy

Mariano Loza-Coll, Ph.D. Biology

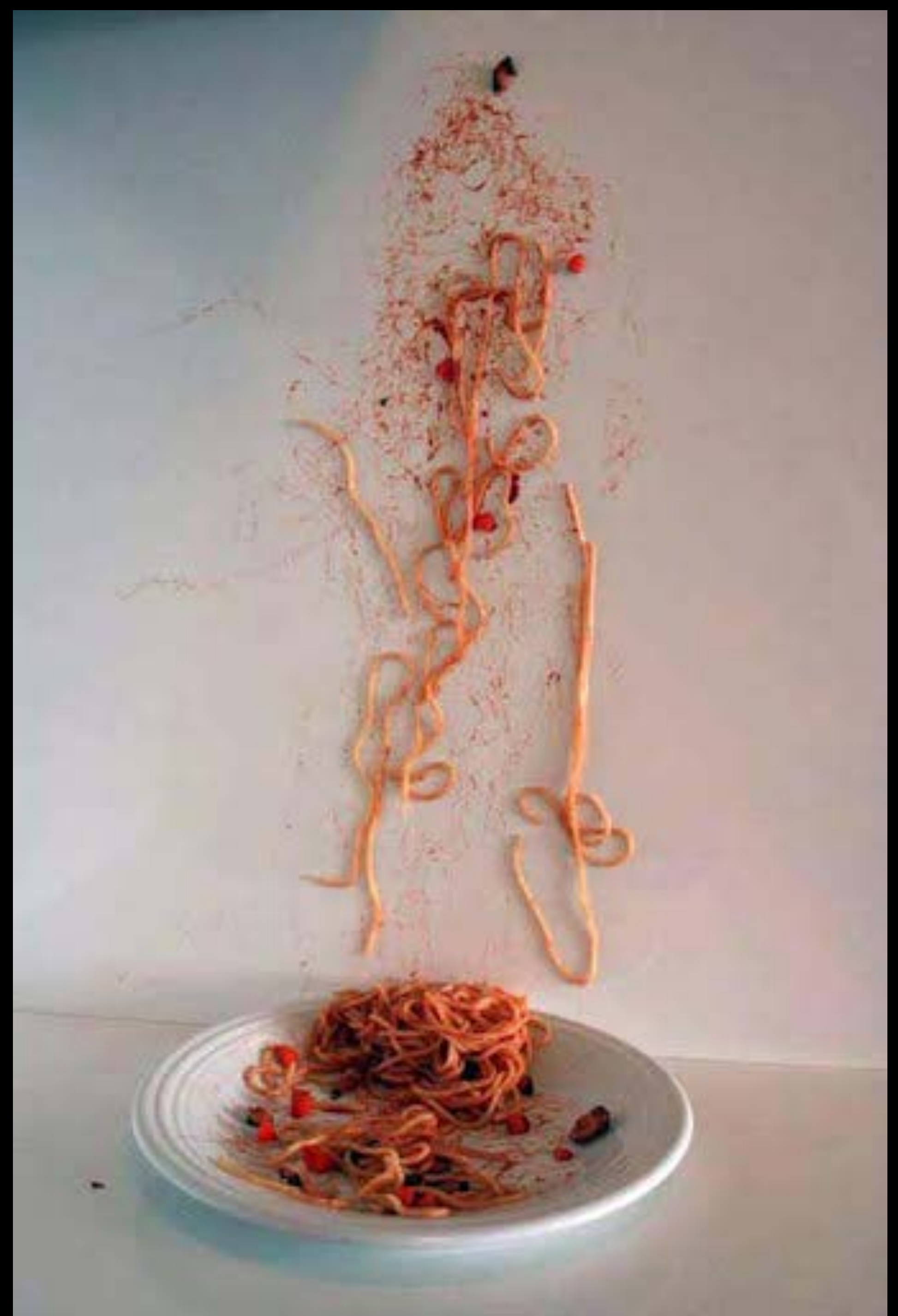


LESSONS



LEARNED

**Innovation -
seeing what
sticks!**



Select Innovative Efforts Strategically



- **Consider your campus culture**
- **Align with University goals**

Innovation is risky, some will fail

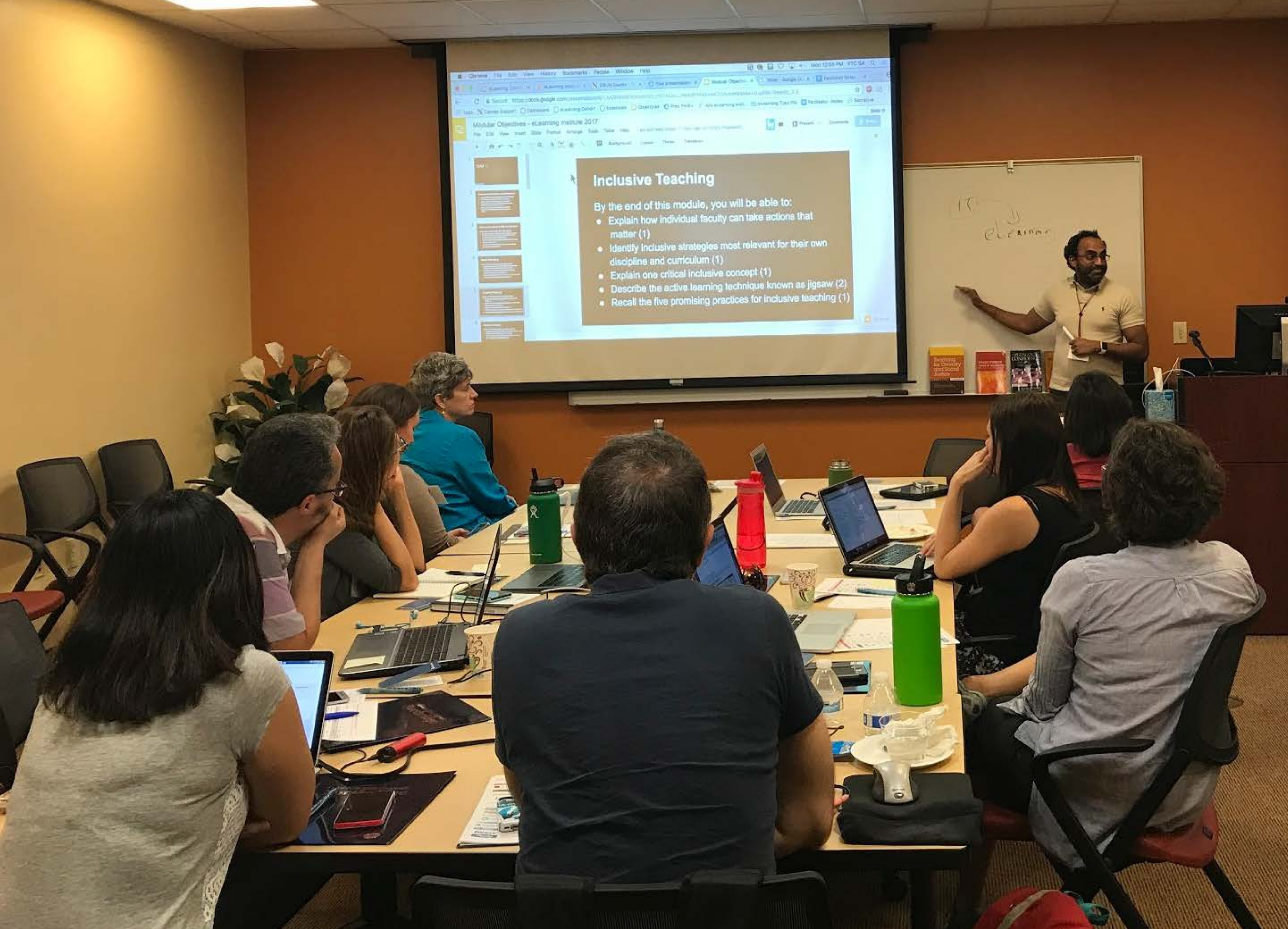


Status Quo versus Innovation Balance



Funding





Chrome 75.0.3770.100
Modular Objectives - eLearning Institute 2017

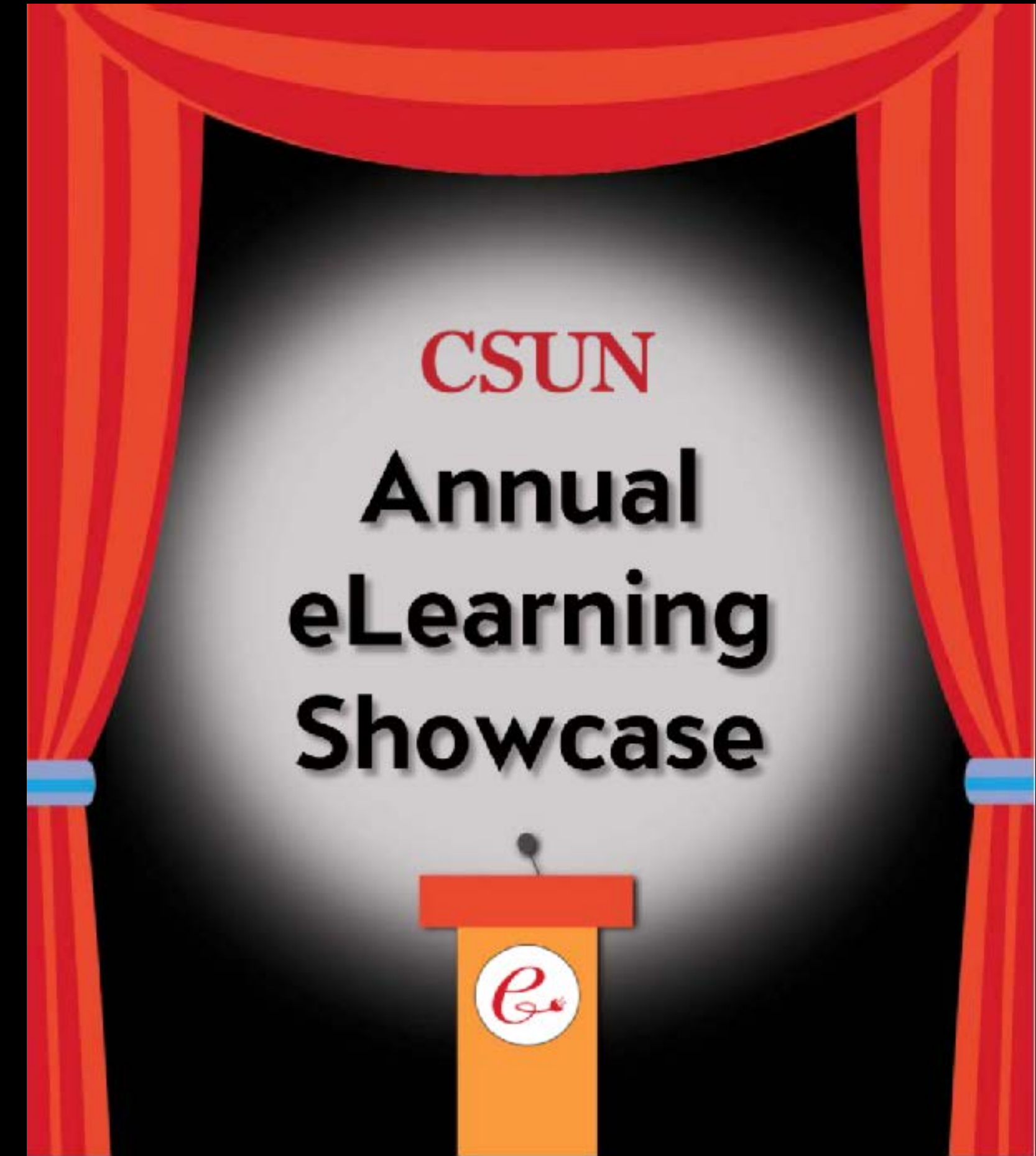
Inclusive Teaching

By the end of this module, you will be able to:

- Explain how individual faculty can take actions that matter (1)
- Identify inclusive strategies most relevant for their own discipline and curriculum (1)
- Explain one critical inclusive concept (1)
- Describe the active learning technique known as jigsaw (2)
- Recall the five promising practices for inclusive teaching (1)

10
eLearning

People





**It
Takes
a
Village**



**It Takes
a
Village
Campus**

Opportunities for Enabling Innovation

