10124 others who have contributed to California's collective intelligence.
CITRIS is...

**Center for Information Technology Research**
in the **Interest of Society**

- A Governor Gray Davis Institute of Science and Innovation since 2001
- A multi-campus, multidisciplinary research institute
- Charged with creating IT solutions for society’s most pressing challenges
**CITRIS: An Institute for Science & Innovation**

**UC CAMPUSES**
- Berkeley
- Davis
- Merced
- Santa Cruz

**ANNUAL RESEARCH INCOME**
leveraged from ~$4M in university funds

**$90 million**

**START-UP companies**

**50+**

**CORE FACULTY members**
(300+ affiliates)

**80+**
Research Initiatives

Sustainable Infrastructures

Health

People and Robots

Connected Communities
Connected Communities

**Code Correctness & Style in MOOCs**
Armando Fox (UC Berkeley) & Premkumar Devanbu (UC Davis)

Application of machine learning and software analysis to generate immediate, customized, actionable feedback on the correctness and quality of students’ computer code.

**Bodie Digital Community**
Nicola Lercari & Marcelo Kallmann (UC Merced), & Arnav Jhala (UC Santa Cruz)

Augmented reality app created in collaboration with California State Parks, to promote public engagement in heritage preservation, foster connection among visitors, and generate management data.
Motivation
Related Work
Interface and Design
Implementations of CAFE
Motivation

- Participatory Assessment
- Qualitative & Quantitative Data
- Rapid Exploratory Analysis
- Reduce Error
Crowdsourcing & Collaborative Filtering

- Soliciting Feedback
- Ranking
Goals for each Community Member
- Understand relationships with others
- Discover a diversity of viewpoints and ideas
- Express ideas and be heard

Goals for an Organization
- Engage with their community
- Solicit feedback and creative suggestions
- Rapidly identify patterns and insightful ideas
- Understand the diversity of their community
Social Innovation Tools

spigit

IdeaScale

BRIGHTIDEA

INNOCENTIVE

OPENIDEO


Opinion Space

A Universe of Viewpoints and Ideas

225 opinions expressed.
Join the 10124 others who have contributed to California's collective intelligence.
The California Report Card
25,000 Participants
From all 58 counties
50,000 Grades Assigned
Over 500 Suggestions
1. Quantitative Evaluation
   - Open-Ended Question

2. Qualitative Collaborative Filtering
   - Peer-to-Peer Ratings

DevCAFE v1.0 for Uganda
Tools for Statistical Analysis

- Quantitative
  - Principal Component Analysis
- Qualitative
  - Uncertainty Sampling
  - Wilson Score Ranking:
  
  Take mean evaluation $g$ then calculate the approximate 95% confidence interval of the $g$ using the standard error of $g +/- 1.96*SE(g)$. We rank the comments by the lower bound $g - 1.96*SE(g)$. 
Interface

DevCAFE v2.0 for Uganda
DevCAFE v2.0 for Uganda
DevCAFE v2.0 for Uganda
DevCAFE v2.0 for Uganda
DevCAFE v3.0

v2.0 +
1. Quantitative Evaluation

2. Qualitative Collaborative Filtering

Mexico Participa (mxparticipa.org)
Malasakit

- Disaster Risk Reduction in the Philippines
- Interactive Voice Response
- Rapid insights
- User-friendly
Contact Info

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CITRIS and the Banatao Institute
Survey Monkey Comparison