



# Cognitive Science 102C: Cognitive Design Studio (6 credits)



Encourage wild ideas



Be visual



Prototype everything





# One Minute of Design Advice



# Week 2

See Piazza note about how to turn in your Thoughtless Act Project

Today:

Quickly review the project areas I introduced last week

Jaime Alexandre and members of his team and Nan Renner will describe two additional potential project area.

Then a quiz on last week's readings. Quizzes are very brief and mainly intended to motivate you to keep up with readings.

Groups will then have some time to plan. Remember that by the end of the week you must commit to a group, a chiseled in stone weekly on-campus meeting time, and a project area.

Thursday

Nate Bolt, Ed Langstroth, and Mike Towber will visit from the Bay area to describe life after 102C .





# Projects

This year is a different from previous years. Each project team will select a project from a set of areas. This is essential for linking 102C with 121 (HCI Programming).

Great to have multiple projects in the same area. Great to have multiple projects focused on exactly the same issue.

You will be the design and evaluation teams and the 121 groups will be the implementation/engineering teams.

Consider making your project or some aspect of it an entry in the [UXSD.ORG](http://UXSD.ORG) Design Competition.



# Project Area: Twitter Related

Chris Fry, Cogsci PhD, SVP Engineering@Twitter

cfry.net

Home | Work | Life

This is the home page of Chris Fry (SVP Engineering@twitter)

I work at twitter and live in Berkeley, CA.  
[My Linked in Profile](#)

Some things I've done:

- Led all development at salesforce.com [salesforce](#)
- A startup (now defunct):  
<http://www.thrownet.com>
- Some Neuroscience: [Auditory Processing](#)
- A standard: [Streaming XML](#)
- Speech Recognition & Production: [babel](#)
- A Ph.D.: [UCSD Cognitive Science](#)

The musings of Chris Fry



thisweek@ucsandiego

April 3, 2014

April 4 - 6 p.m.  
Baseball  
vs. Cal State LA

@work athletics people what's happening faculty authors press clips



It is Chris Fry's job, as senior vice president of engineering at Twitter, to make sure his flock of engineers continues to fly in formation. Fry is an expert engineer whose team does a number of things, including making sure Twitter can handle more than 500 million daily Tweets. Yet it is his ability to build and manage innovative teams that makes him one of the most valuable technology leaders in the business today. Fry credits his versatility to the interdisciplinary education he gained while pursuing a Ph.D. in cognitive science at UC San Diego — a path that has proven to be invaluable.



# Project Area: Twitter

Twitter is working on expanding **Twitter Cards** and would like our help. Cards make it possible for you to attach media experiences to Tweets that link to your content. There are 7 Card types that can be attached to Tweets for Twitter's web and mobile clients:

*Summary Card:* Default Card, including a title, description, thumbnail, and Twitter account attribution.

*Summary Card with Large Image:* Similar to a Summary Card, but offers the ability to prominently feature an image.

*Photo Card:* A Tweet sized photo Card.

*Gallery Card:* A Tweet Card geared toward highlighting a collection of photos.

*App Card:* A Tweet Card for providing a profile of an application.

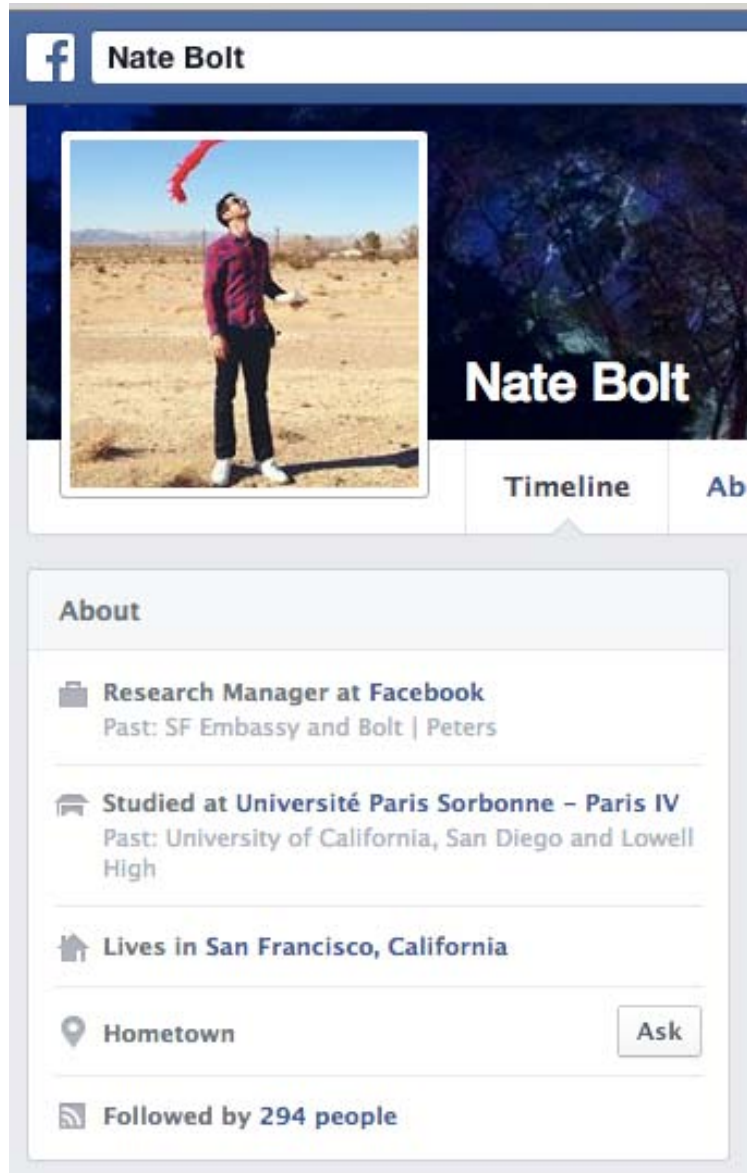
*Player Card:* A Tweet sized video/audio/media player Card.

*Product Card:* A Tweet Card to better represent product content.

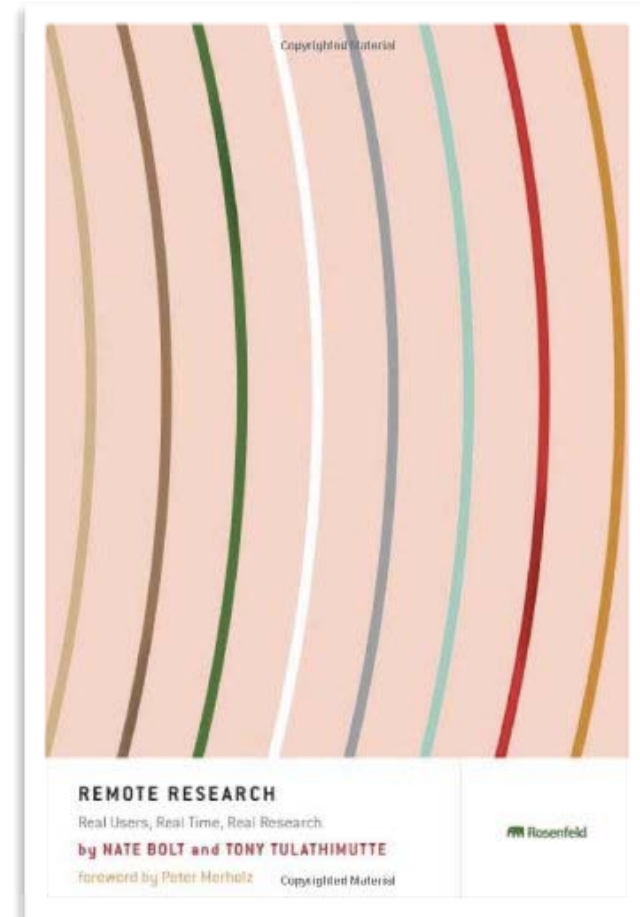




# Project Area: Facebook Related



Nate Bolt,  
UCSD grad,  
until last Friday  
was research  
manager at  
Facebook; will  
still advise but  
we also have  
links to others  
at FB.







# Projects Area: FB Related

## James Fowler

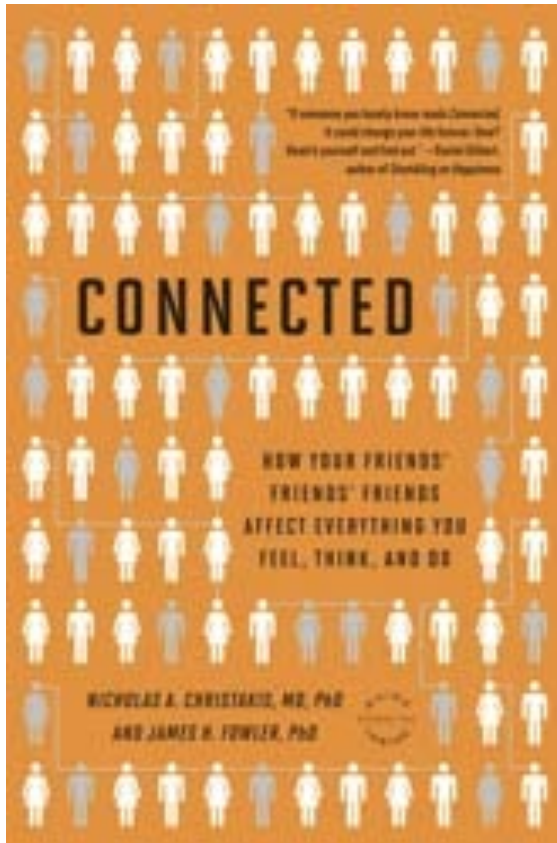
**James Fowler** is Professor of [Medical Genetics](#) and [Political Science](#) at the [University of California, San Diego](#). His work lies at the intersection of the natural and social sciences, with a focus on social networks, behavior, evolution, politics, genetics, and big data. His [CV](#) is [here](#).



Login with Facebook to share your UCSD course schedule with your friends!

Login to TritonSchedule

Coordinate schedules with friends, ask for advice on classes or professors,  
and find friends who may have old textbooks



UC San Diego wants to provide services to students that require access to Facebook social network data. The first of these services involves allowing students to share course information with friends via an application called “TritonSchedule.” We are asking students who sign up for this service to consent to research on social networks.

The goals of this study are 1) to map student networks in order to learn how they evolve over time (e.g. what role do classes play in the evolution of friendship?), and 2) to study important academic outcomes and how related behaviors spread from one person to another (e.g. to what extent do friends affect the classes students enroll in?)



# Projects Area: FB Related

## James Fowler

James Fowler is Professor of Medical Genetics and Political Science at the University of California, San Diego. His work lies at the intersection of the natural and social sciences, with a focus on social networks, behavior, evolution, politics, genetics, and big data. His CV is [here](#).

## General Platform for Sharing Data and Social Network Connections

The vision is an app that makes it possible for any organization to make use of their members' social networks.

Health eHeart™

Study Te

Be a real-life superhero in the fight against heart disease.

Heart disease is the greatest health supervillain of them all, affecting more people than every cancer combined. Join the study that turns your basic health information - like your blood pressure or exercise habits - into a weapon against heart disease.

Join the Study



# Project Area: Twitter and Facebook

**Real Time Big Data.** How can it be used, visualized, etc?

One goal here to give 121 students experience with Storm a free and open source distributed realtime computing system, with Bootstrap, a front-end toolkit for rapidly developing web applications, and with D3 (Data Directed Documents) visualization system.

Have a look at: [d3js.org](http://d3js.org)



Also have a look at

<http://thenextweb.com/apps/2013/08/22/15-apps-and-resources-that-do-cool-things-with-your-social-data/>

<http://www.wolframalpha.com/input/?i=facebook+report>





# Project Area: Fitbit Related



## Shimona Carvalho

Firmware Engineer at Fitbit

San Francisco, California | Consumer Electronics

Previous      Texas Instruments, Qualcomm

Education      UCSD

Potential  
projects:  
visualizing  
Fitbit data or  
others  
Shimona  
may suggest



Figure 1: Interactive Spaces configuration. The mobile system is composed of Kinect attached to the top a short-throw projector and is mounted on a tripod to ease portability and installation.

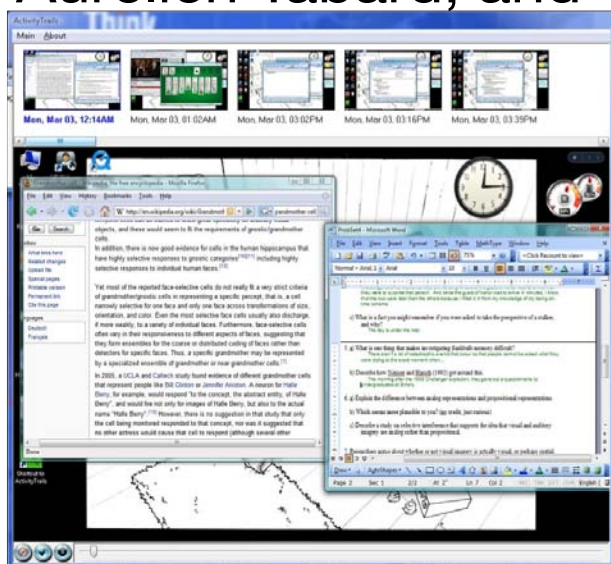




# Project Area: Visualizing Computer-Mediated, Gesture, and American Sign Language Activity

Adam Rule, Aurélien Tabard, and  
Jim Hollan

ActivityTrails



ChronoViz

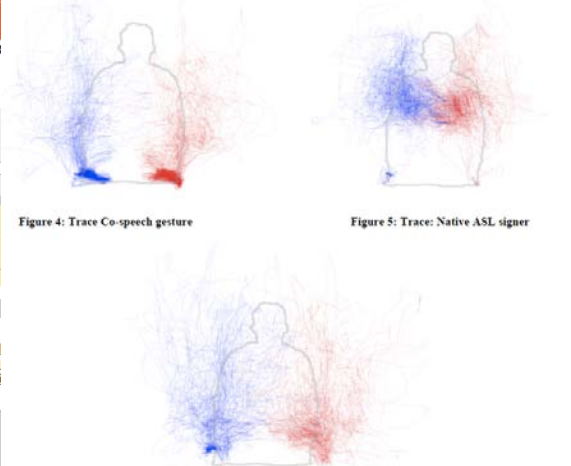
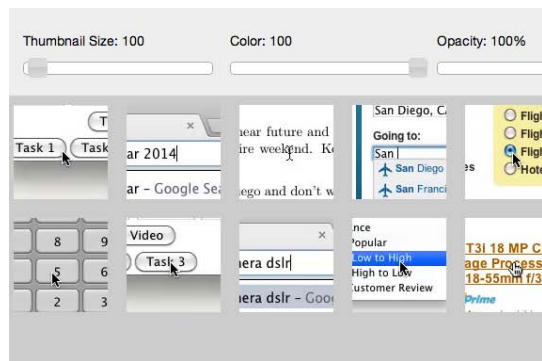
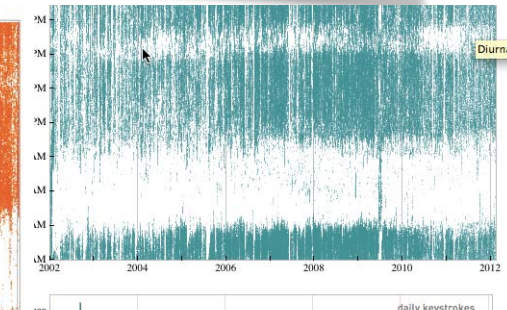
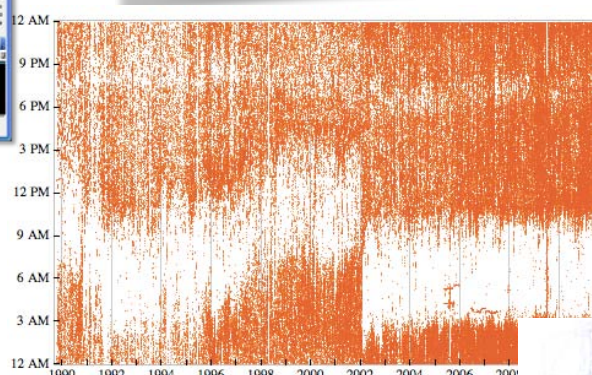
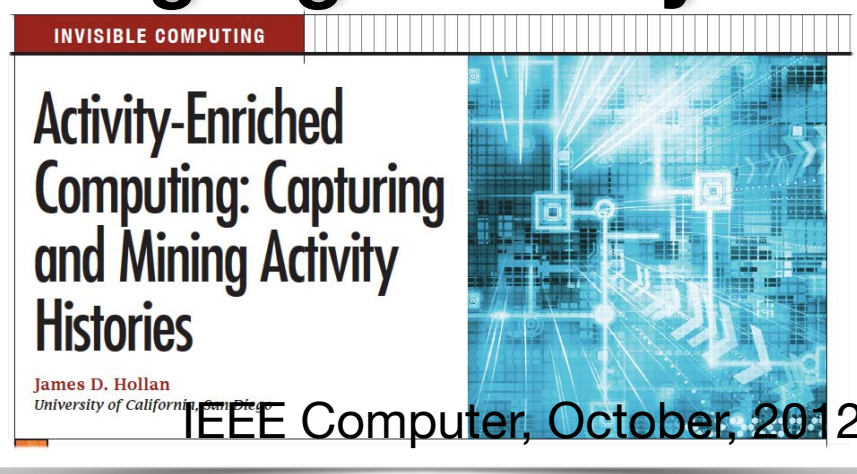
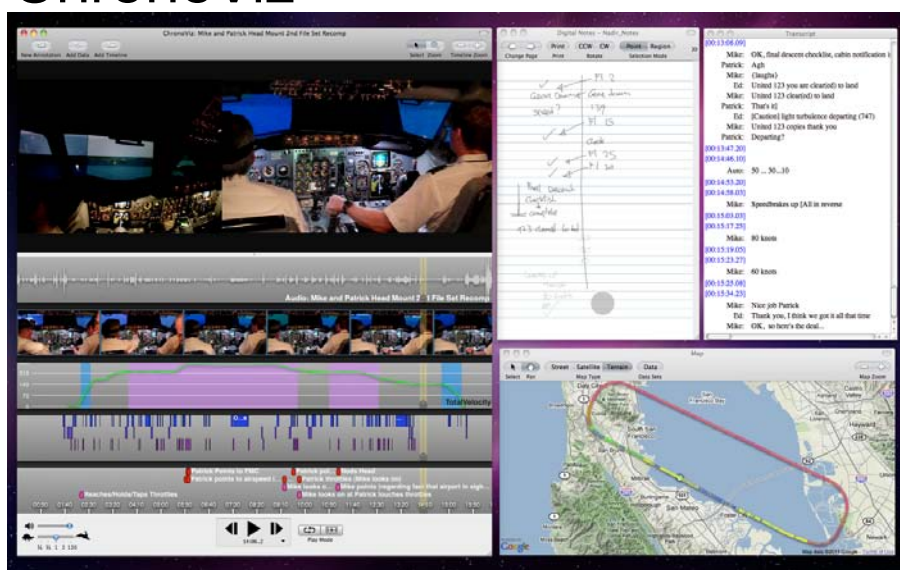


Figure 4: Trace Co-speech gesture

Figure 5: Trace: Native ASL signer





# Project Area: KA Lite

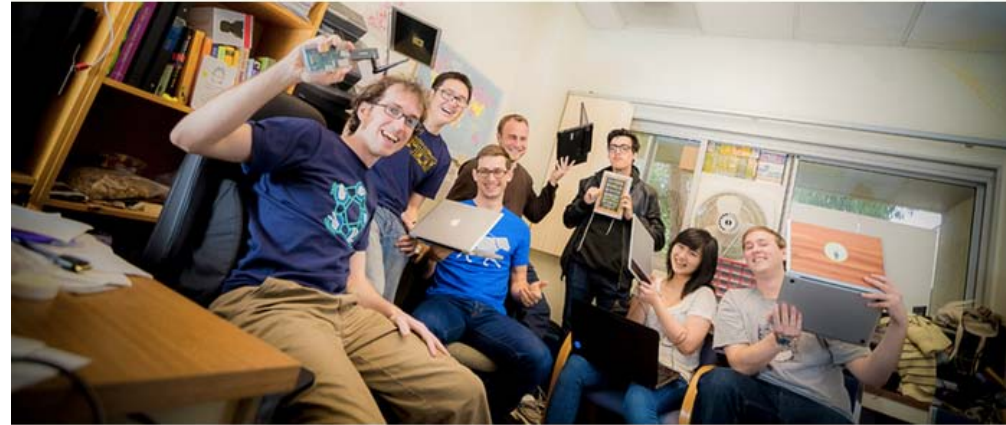
Today Jaime Alexandre  
and some members  
of KA Lite team.

**65% of the world lacks  
internet access. 100%  
of the world needs education.**

KA Lite is an offline version of Khan Academy that runs  
on almost anything.

## Breaking Down Barriers to Online Education

Social sciences students develop app to bring online content to those without Internet access



Photos by Erik Jepsen/UC San Diego Publications

The self-described "tinkerers" and "hacker-ninjas" behind a free web app they call "KA Lite" have an immodest goal: They aim to bring the revolution in online education to the 65 percent of the world that isn't online.

Developed by a ragtag team of dedicated volunteers led by UC San Diego cognitive science doctoral candidate Jamie Alexandre, the app fords the digital divide by making available offline the online videos and exercises of the popular Khan Academy – which tallied 5.5 million unique users in January. The team also has a vision of expanding to include other educational content that's freely available on the Internet commons. Project Gutenberg, perhaps, or Wikipedia.

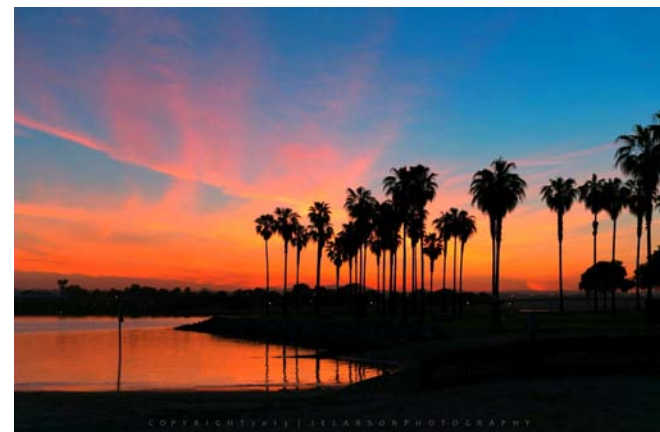
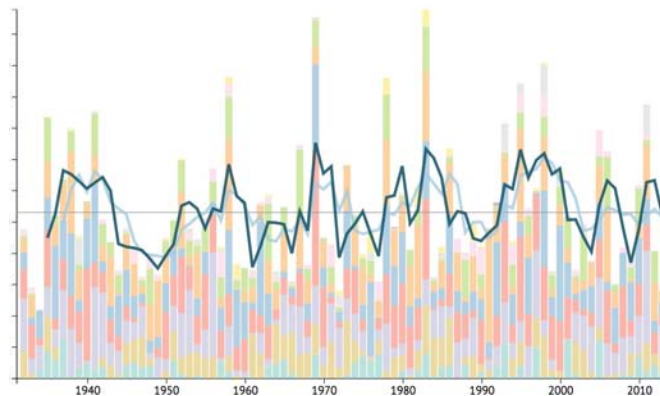
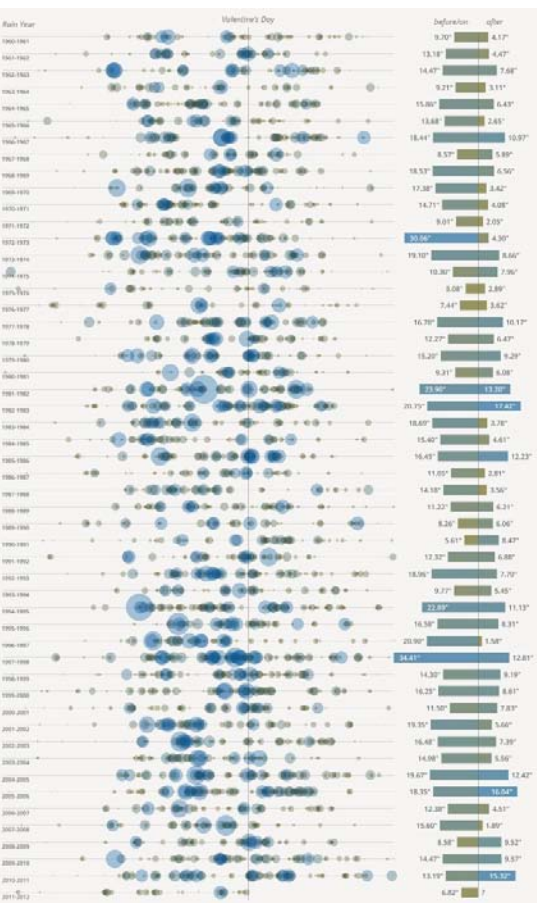




# Project Area: SD Water Platform

Nan Renner  
Incubator for Innovation  
[nan.renner@bpcp.org](mailto:nan.renner@bpcp.org)

Collaborate with Innovation Fellows  
to create a web-based platform for  
water-related data sharing,  
visualization, and  
scenario building.



The **Art** of  
**SCIENCE**  
Learning

BALBOA PARK  
CULTURAL PARTNERSHIP

