ERIC PAULOS

SELECTED WORKS 1992-2012

www.paulos.net • eric@paulos.net

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1992-2012

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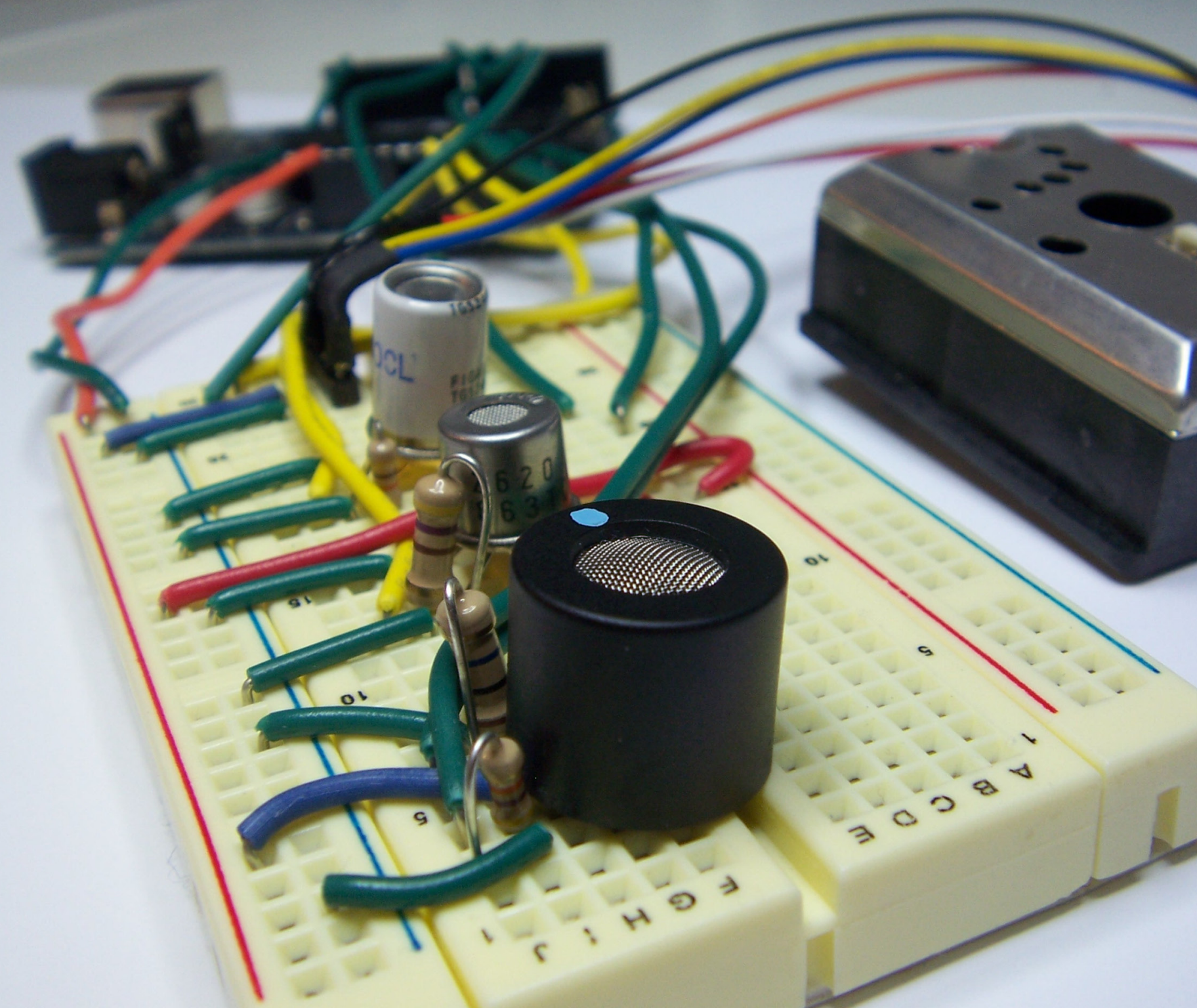


Living Environments Lab

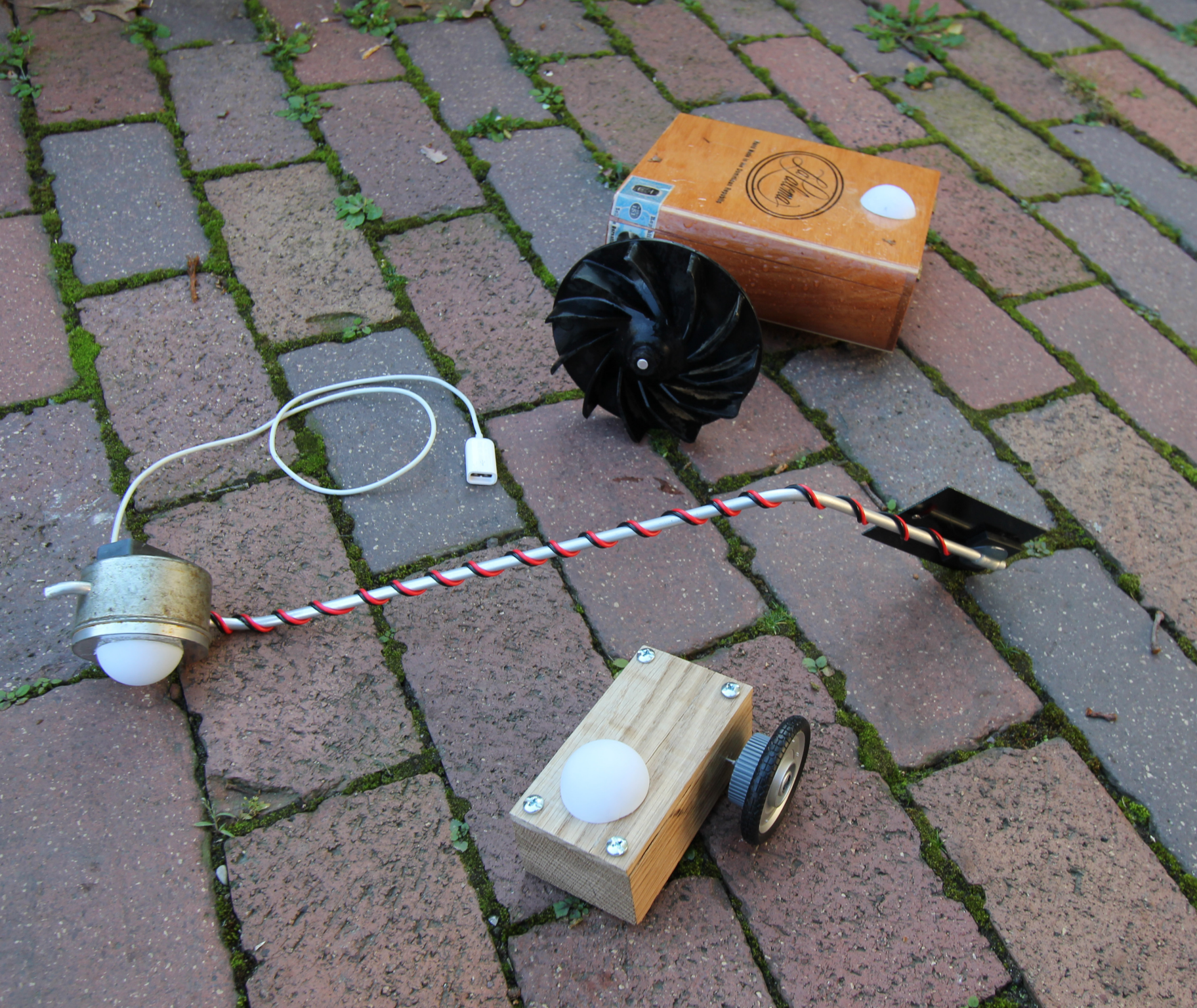
a collaborative research laboratory focusing on the critical intersection of human life, our living planet, and technology

Urban Atmospheres

proactive archeology of our urban landscapes and emerging technology

Experimental Interaction Unit

research into the physical, aural, visual, gestural, and cultural interactions between humans and machines and the various permutations of those interactions



ENERGY PARASITES

REDIRECTING ENERGY USAGE

Energy parasites are handcrafted objects designed to opportunistically harvest small bits of energy across public landscapes. Agnostic to energy origin or ownership, these artifacts redirect their captured energy through a variety of means including expressing it and storing it for later reacquisition and usage.

CREDITS • eric paulos

2011

Increasing engagement and awareness of societal concerns across public spaces and communities with novel, expressive technologies. Using expressive balloons and air quality sensing clothing individuals engage in otherwise socially unacceptable behaviors such as overt public voyeurism, gossip and curiosity.

SPECTACLE COMPUTING

THE AUDIENCE IS PARTICIPATING

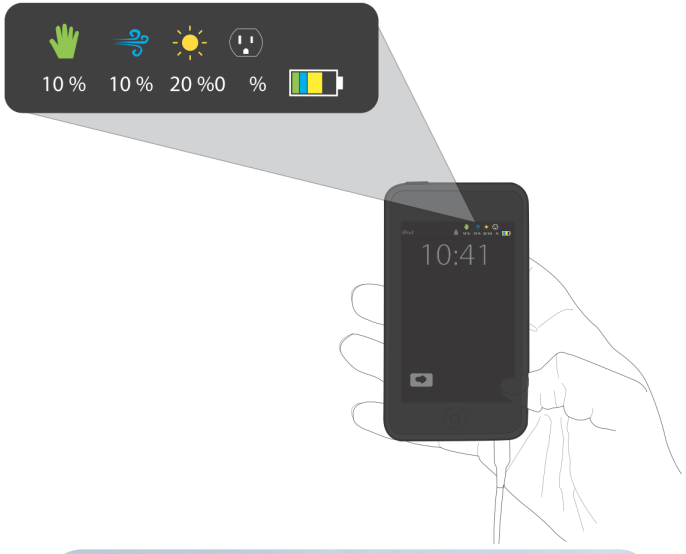
CREDITS • stacey kuznetsov • george noel davis • eric paulos • mark gross • jian chiu cheung

2009-2011

Collecting, keeping, sharing, and activating small personal interactive bits of energy. This project is focused on exploring new ways of experiencing and interacting with and through energy in everyday contexts. These artifacts promote new forms of emotional engagement with and attachment to energy. This work speculates on the emergence of new sociotechnical energy regimes—including decentralized modes of energy production and consumption.

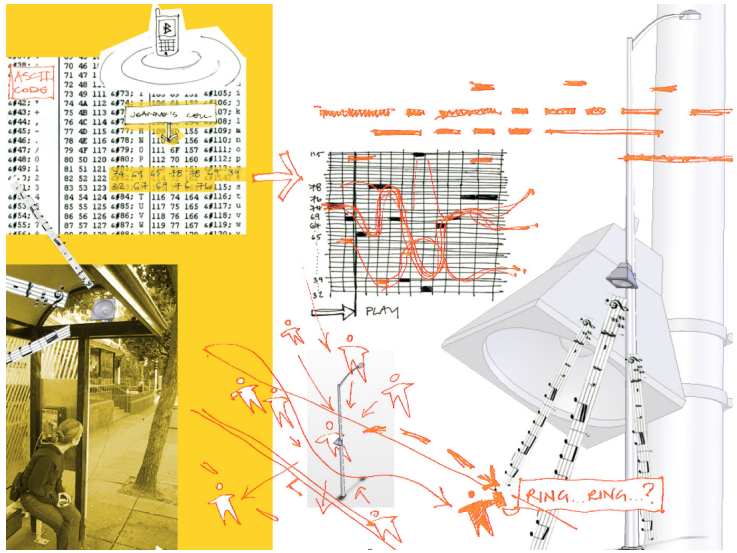
ENERGY MATERIALITY

SINGULAR EMOTIONAL BITS OF ENERGY



CREDITS • james pierce • eric paulos

2009-2011



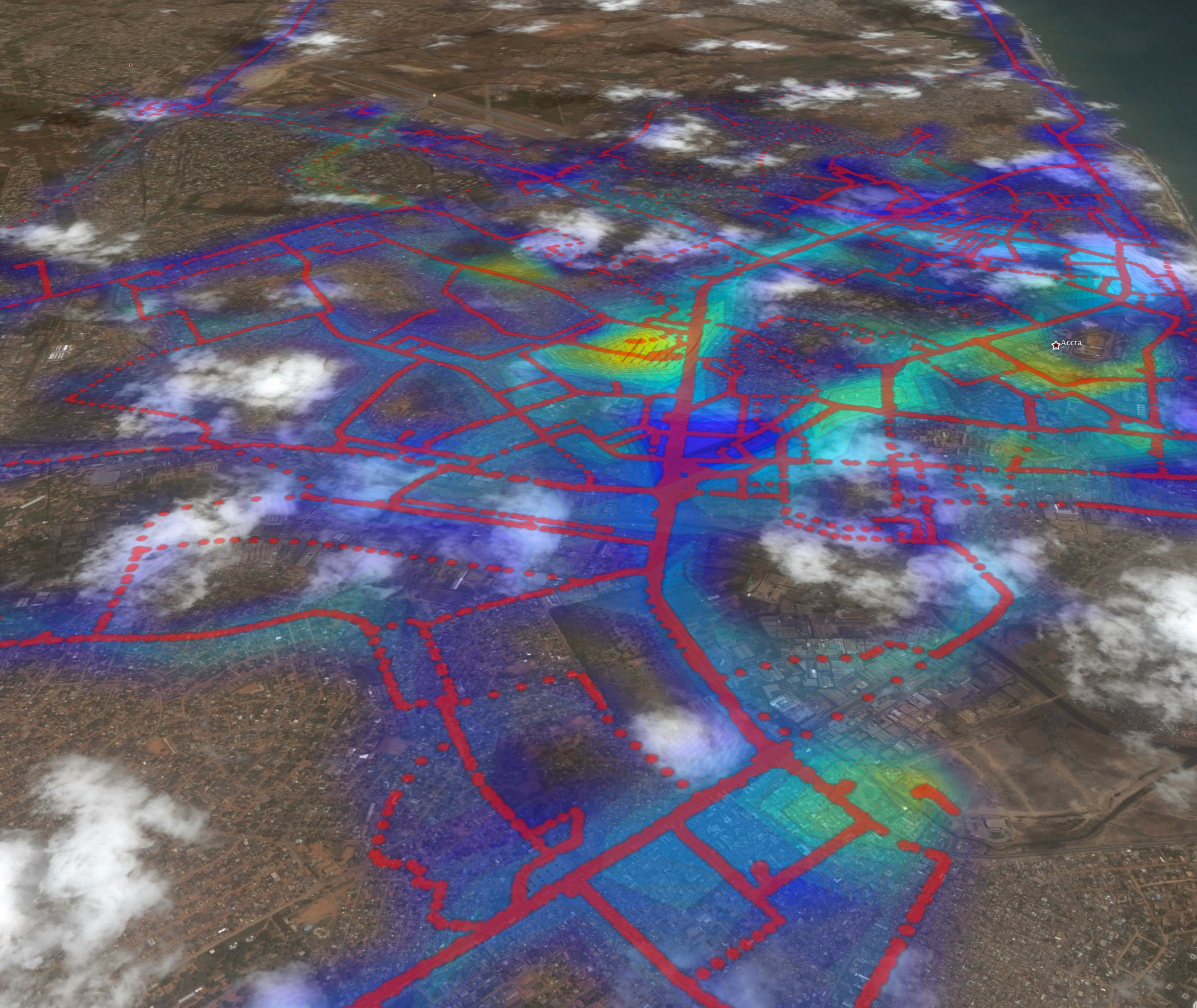
CREDITS • eric paulos • tom jenkins

OBJECTS OF WONDERMENT

EXPLORATIONS IN NEW URBAN ARTIFACTS

Hullabaloo was the first in a series of new public artifacts called Objects of Wonderment that were designed to radically expand expectations of mobile phones as they transform from personal communication tools and begin to interface directly with new sensors, actuators, and physical places. Objects of Wonderment repositions these devises as central elements in a participatory urban authoring toolkit.

2005-2006


Accra

CITIZEN SCIENCE

MOBILE SENSING FOR COMMUNITY ACTION

We have explored citizen science through a range of gallery exhibitions, workshops, and performances. Through new signage, sensing technologies, and urban interactive screens issues of ownership, authenticity, authority, activism, and grassroots participation have been critiqued.

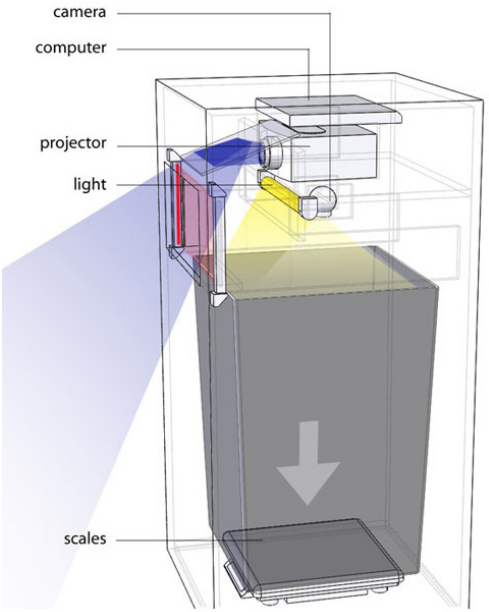
CREDITS • eric paulos • r.j. honicky • chris myers • ben hooker • allison woodruff • paul aoki

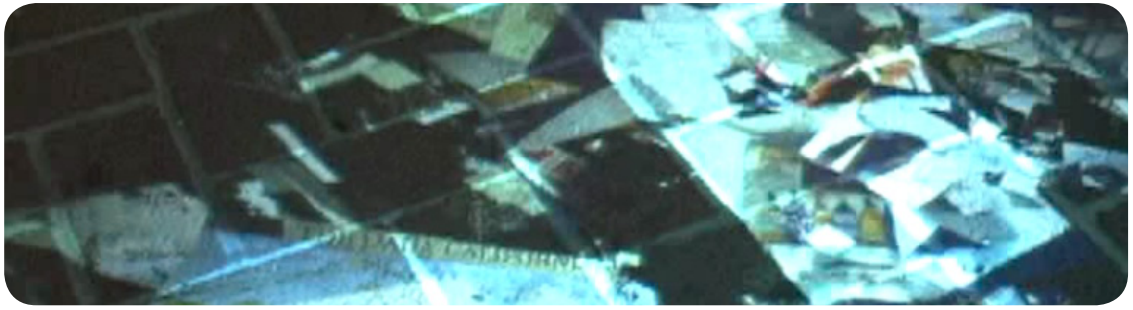
2006-2011

Urban life is largely composed of the movement, activities and familiar patterns of people within and across our crowded urban landscapes. There is also a curiosity, perhaps even verging on a voyeuristic interest in the lives of our fellow urban neighbors. We developed Urban Probes - specifically, Jetsam, to explore urban public trash, its meaning, patterns, and usage, and further critique technology and our emotional experiences of living in cities.

JETSAM

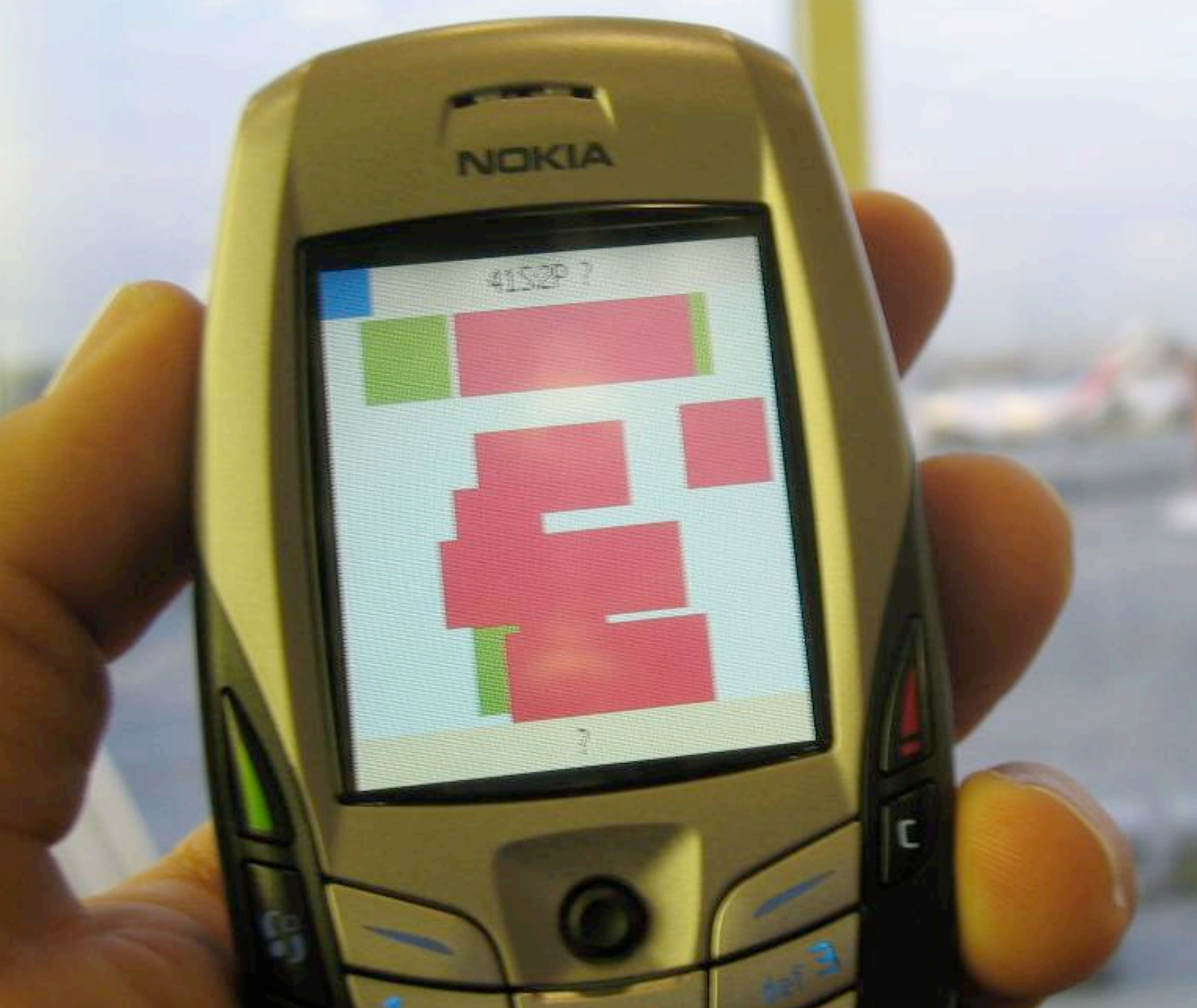
EXPOSING HUMAN TRACES ACROSS OUR URBAN LANDSCAPE





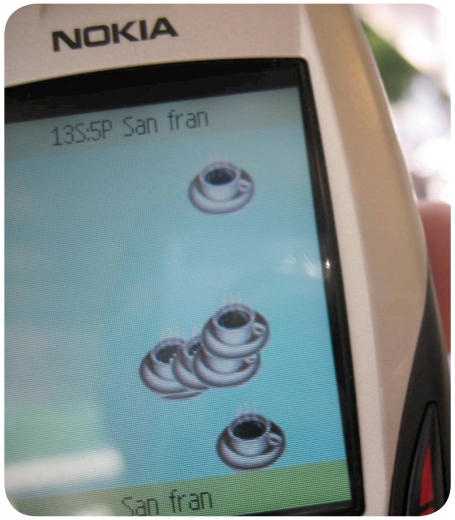
CREDITS • eric paulos • tom jenkins

2004-2005


NOKIA

FAMILIAR STRANGERS

JABBERWOCKY



The Familiar Stranger is a social phenomenon first addressed by the psychologist Stanley Milgram in his 1972 essay on the subject. Familiar Strangers are individuals that we regularly observe but do not interact with. Jabberwocky questions the dominant rhetoric of social networking and offers a new lens on our less understood but common social relationship with strangers.

CREDITS • eric paulos • elizabeth goodman

2003-2004


042

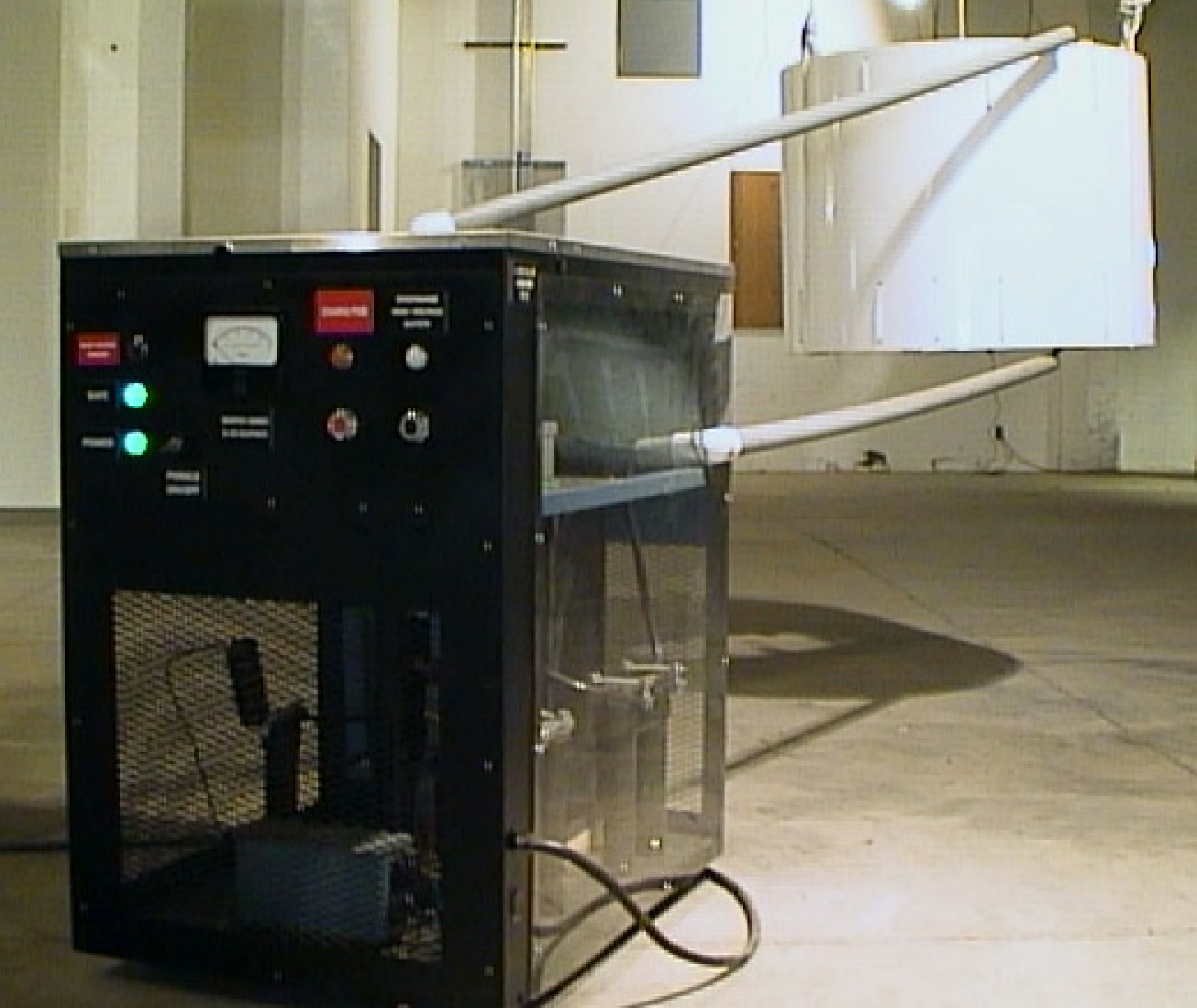
180 X 120

TAGS & TESSELLATED SURFACES FOR VISUALIZING BEHAVIOR

Appearing at SFMOMA, this installation explored the difference of statistically projected behaviors through an over-mapping with actual behavior. Using RFID tags individual behaviors were measured and exposed in real time.

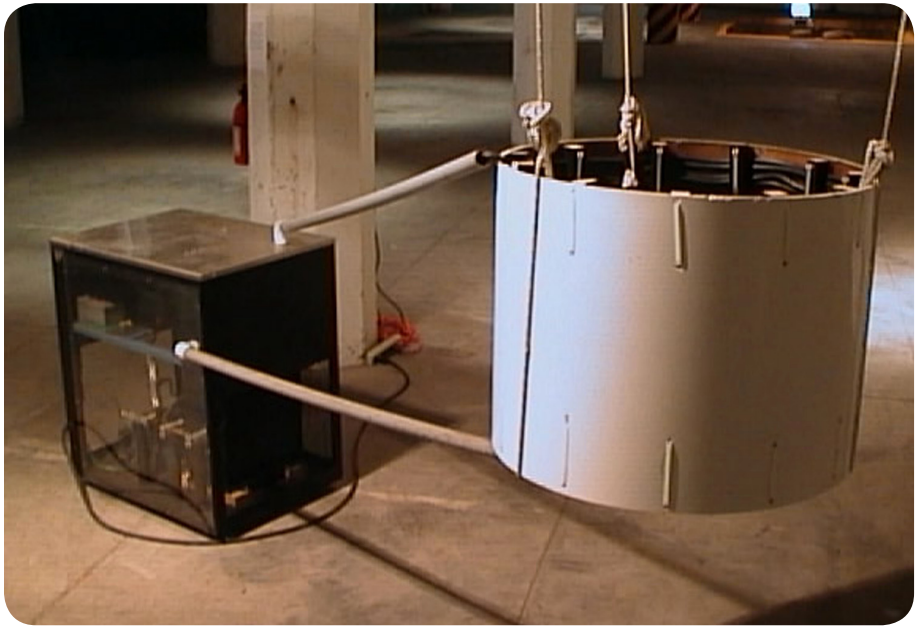
CREDITS • eric paulos • anthony burke

2005



I-BOMB

INEVITABLE DILEMMAS OF THE HUMAN CONDITION



The I-Bomb directly confronts our reliance on ubiquitous technologies by forcefully creating a technology free zone (TFZ) via a functional electromagnetic pulse device. It also presents dilemmas of personal ownership of unregulated weapons systems and a questioning of technology overreliance and saturation.

CREDITS • eric paulos • eiu

1998


Dispersion
Your easy one stop choice for personal lethal biological pathogens
Salmonella enteritidis
Bacillus anthracis (anthrax)


Infection
2 years
3 days
3 hours
5 min

DISPERSION

YOUR ONE STOP CHOICE FOR PERSONAL PATHOGENS

Dispersion, which received an Ars Electronica Distinction Award, is a functional personal pathogen vending machine that presents a seductive visual and interactive experience framed within the context of a common vending machine and a resulting ethical and moral dilemma.

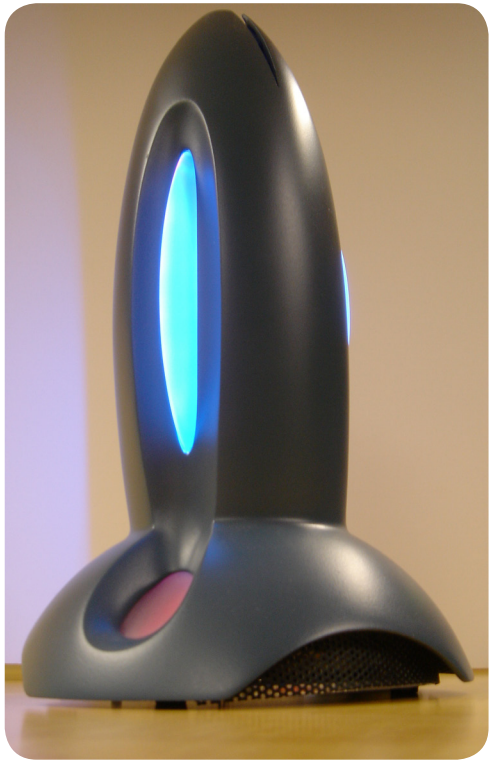
CREDITS • eric paulos • eiu

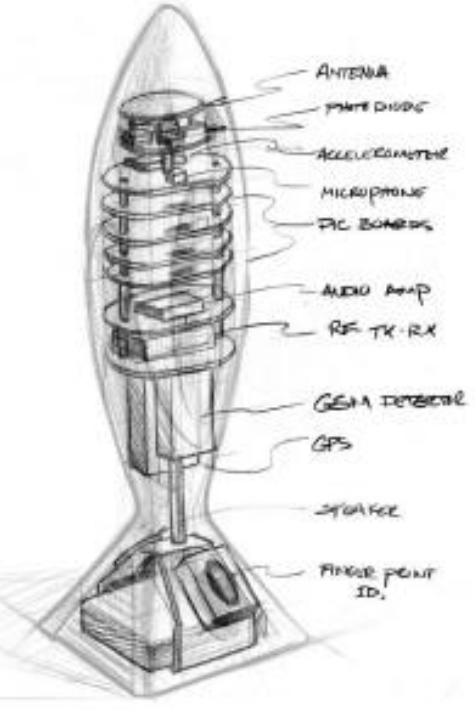
1999

LIMELIGHT

SEEING IS DECEIVING

Limelight critiques the culture of fear by presenting a functional technology that automates the process of anxiety and worry. The system uses remote and local sensing with learning algorithms to calculate a fear index. The system predates the US government's own threat level system.





CREDITS • eric paulos • eiu

2004

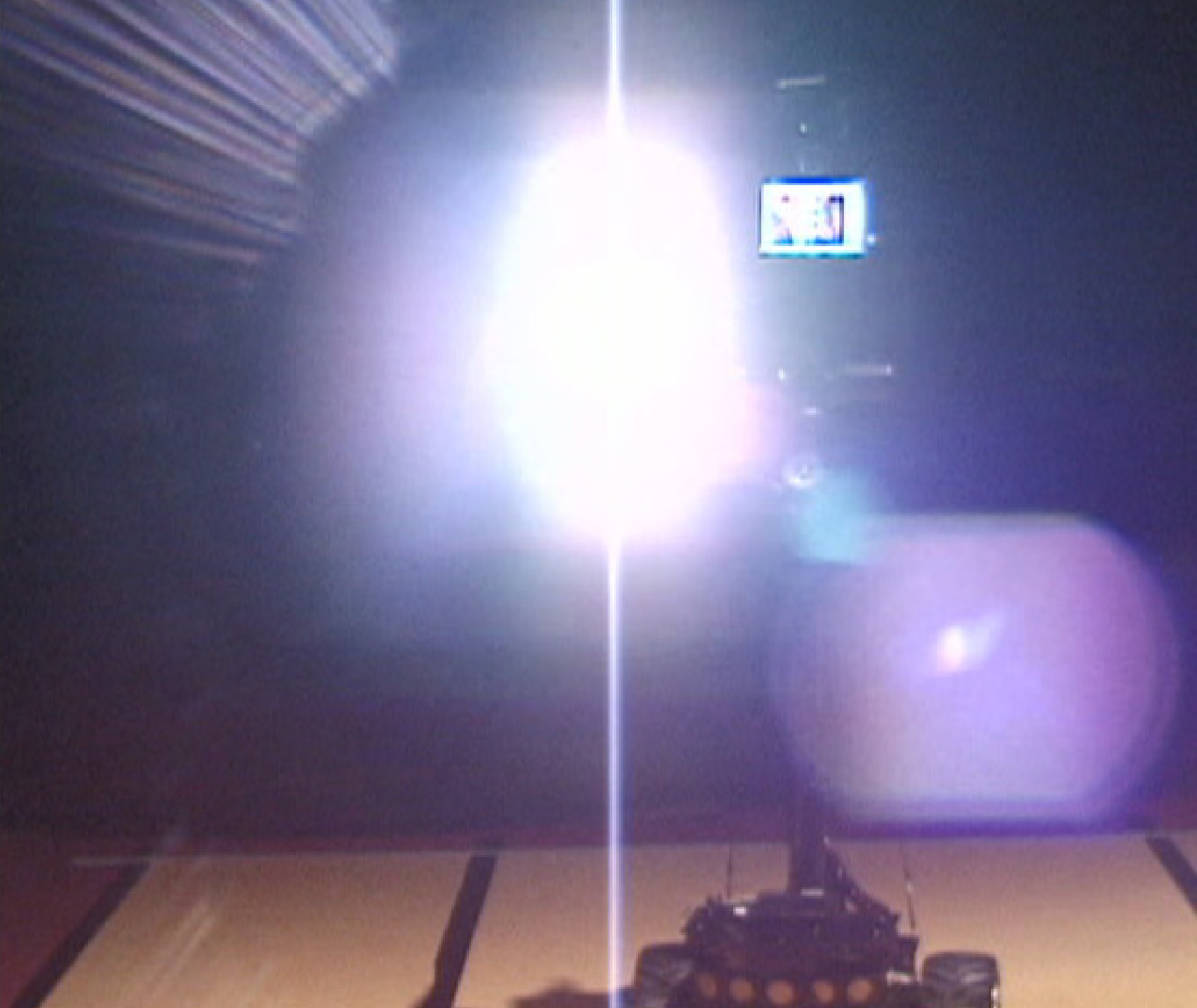
BLIMPS AND PROPS

EXPERIMENTS IN PERSONAL TELE-EMBODIMENT

PRoPs are simple, inexpensive, internet-controlled, untethered tele-robots that strive to provide the sensation of tele-embodiment in a remote real space. Numerous airborne blimps and ground robots were developed and deployed across a range of settings including Ars Electronica, SIGGRAPH, Exploratorium, etc. These systems all predate the development of commercial internet telepresence robots by more than a decade.

CREDITS • eric paulos • john canny

1992-2001



INTERNET AGITATION AND THE TARGET AUDIENCE

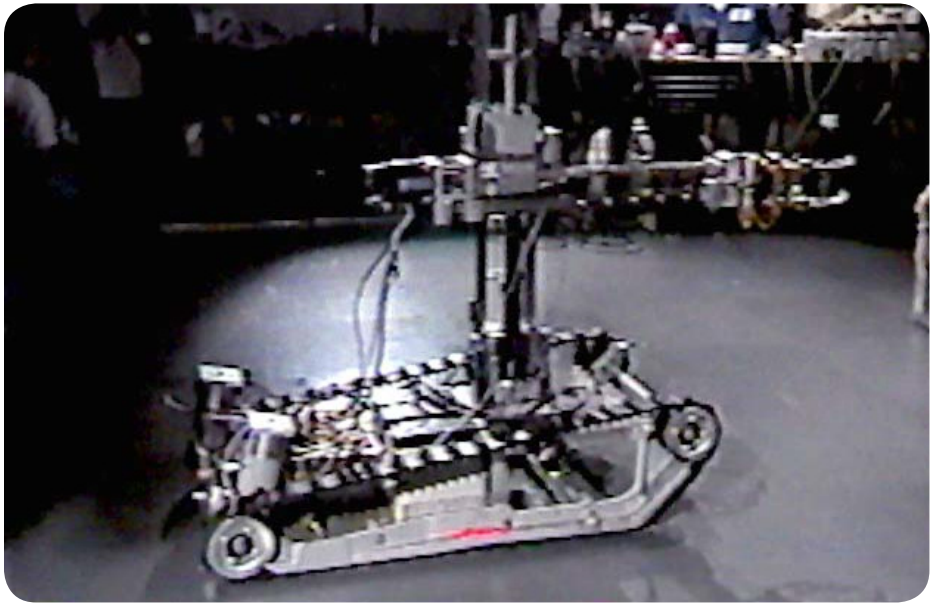
EIU joined forces with ®TMark in a performance allowing remote faceless corporations to embody a novel, expressive, mediated physical form ranging from pleasant and happy to hostile and disruptive. The project explored non-verbal, bodily, and facial cues to further disruptive, distract, and distort corporate messaging and media.

CREDITS • eric paulos • eiu • ®TMark

2000

EXPLORATIONS IN LETHAL EXPERIMENTATION

ENABLING TELE-OBLITERATION



The first of its kind every - a series of tele-operated lethal experiments in collaboration with Survival Research Laboratories (SRL) allowed anonymous participants full remote control of a range of dangerous and lethal devices. Performances includes those at ZKM and ICC.

CREDITS • eric paulos • eiu • srl

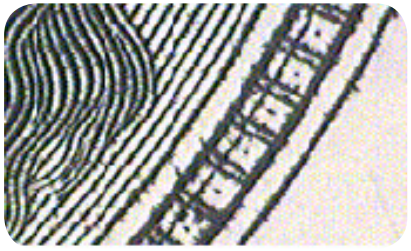
1995-1997

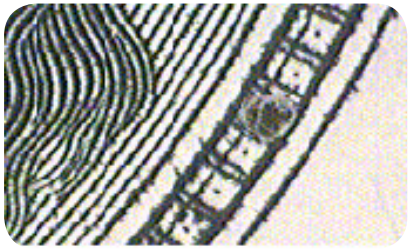

FEDERAL RESERVE NOTE
AL 45025671B
L12
THIS NOTE IS LEGAL TENDER
FOR ALL DEBTS, PUBLIC AND PRIVATE
Treasurer of the United States.
SERIES 1996
100
FRANKLIN
THE UNITED STATES OF AMERICA
100
AL 45025671B
Robert E. Rubin
Secretary of the Treasury.
100
ONE HUNDRED DOLLARS


FEDERAL RESERVE NOTE
AL 45025670B
L12
THIS NOTE IS LEGAL TENDER
FOR ALL DEBTS, PUBLIC AND PRIVATE
Treasurer of the United States.
SERIES 1996
100
FRANKLIN
THE UNITED STATES OF AMERICA
100
AL 45025670B
Robert E. Rubin
Secretary of the Treasury.
100
ONE HUNDRED DOLLARS

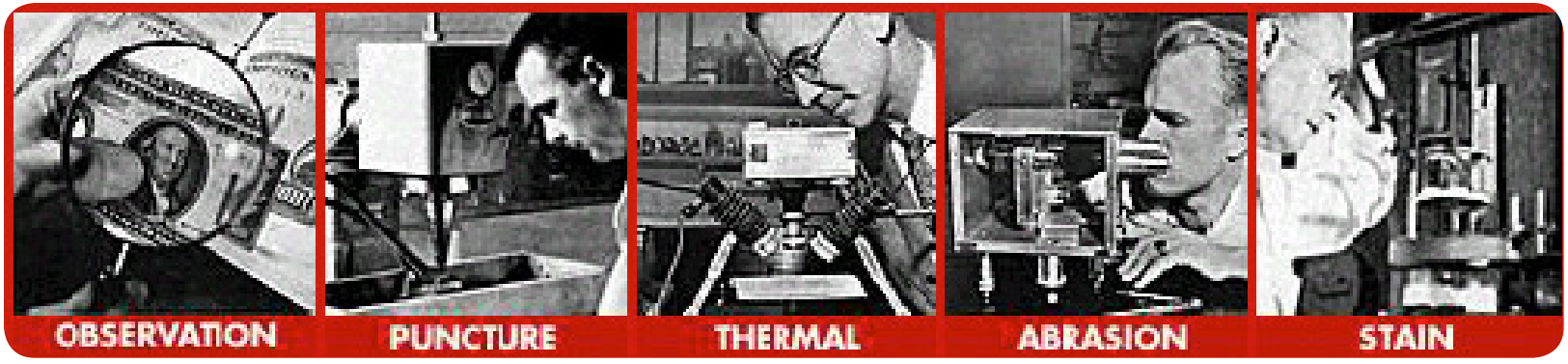
LEGAL TENDER

WWW.COUNTERFEIT.ORG





Legal Tender was the first publicly accessible online tele-robotic laboratory where remote viewers give up their anonymity and accept full responsibility for actions they perform on a pair of purportedly authentic US$100 bills. Users are also reminded that it is a Federal crime to deface US currency.



CREDITS • ken goldberg • eric paulos • judith donath • mark pauline

1996

File Edit View Go Bookmarks Options Directory Help

Back Forward Home Reload Images Open Print Find Stop

Gecko Central

Leopard Geckos are a nocturnal, insectivorous lizard. They come from arid regions in Pakistan. The beautiful tails are the Leopard Gecko's fat and water store. Leopards are members of the eyelid Gecko family, but unlike many Geckos, they don't have fringed, suction cup feet. They can climb, but you won't see them walking up the sides of the enclosure like some other Geckos species. They are most active around sunset or sunrise. Leopards have a large ear opening which looks pink from each side, and from the right angle, you can literally see right through the Gecko's head. The terrarium contains a male and a female (the more brightly-colored, intelligent one).

| Comment | Prev World | Next World | Exhibits | Home | Help | Quit |

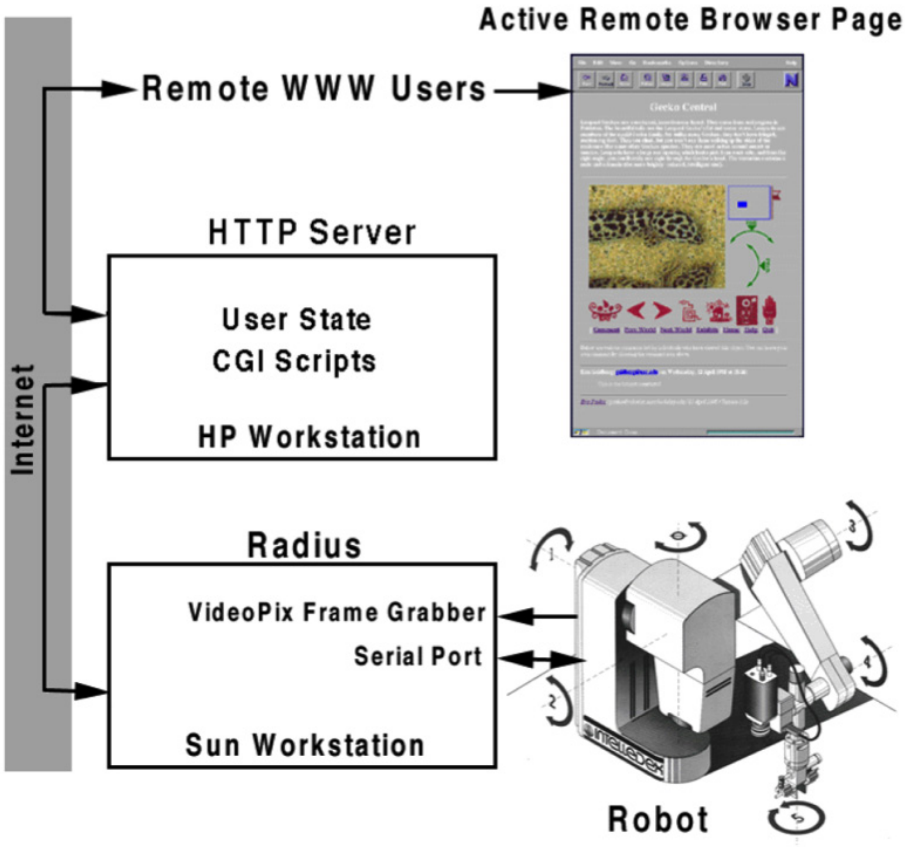
Below are various comments left by individuals who have viewed this object. You can leave your own comment by choosing the comment icon above.

Ken Goldberg (goldberg@usc.edu) on Wednesday, 12 April 1995 at 18:26:

This is the funnest museum!

MECHANICAL GAZE

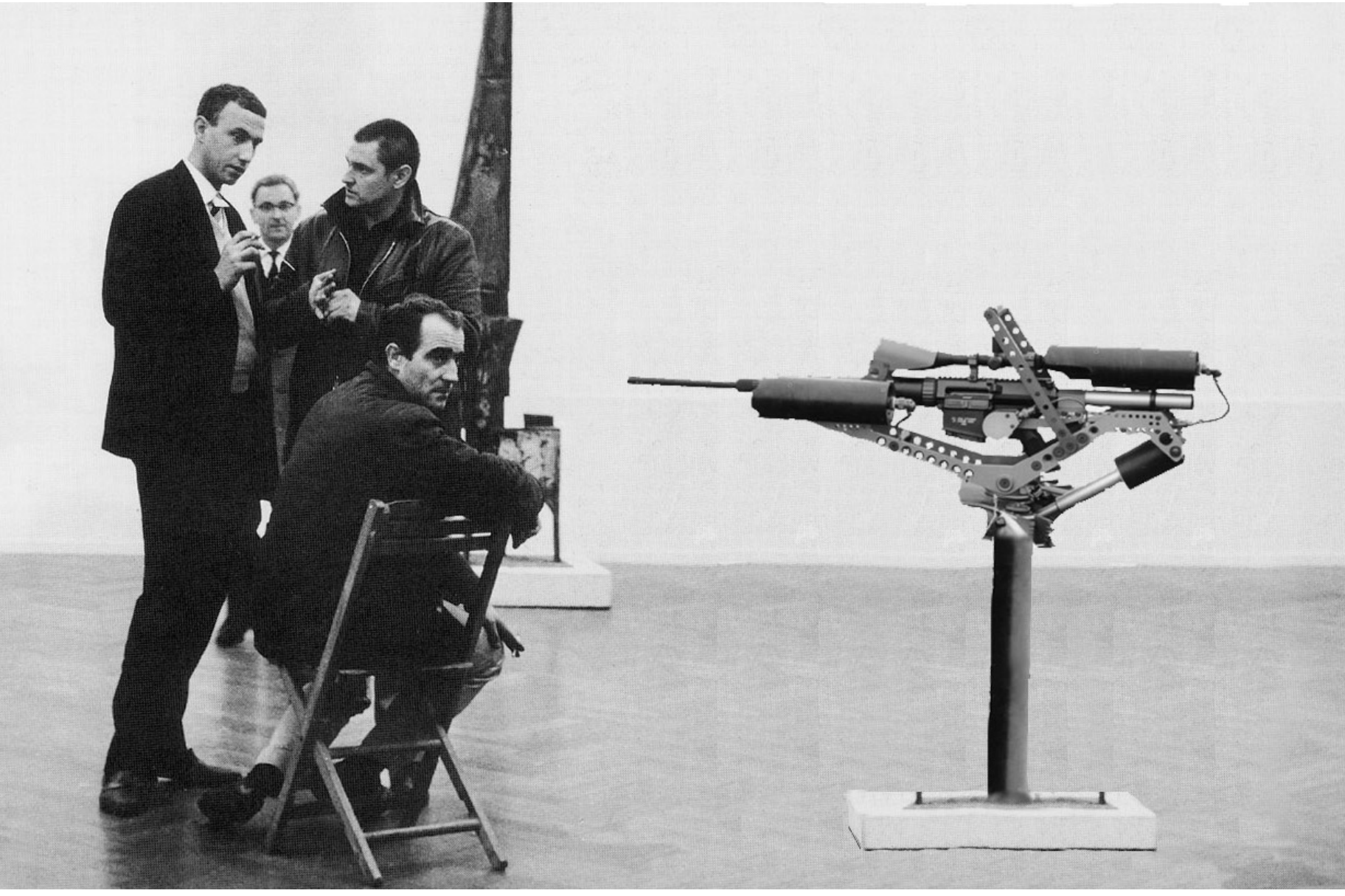
THIRD TELE-ROBOT ON THE WEB



Mechanical Gaze was one of the first few internet based online telerobotic websites (pre-dating even the existence of Netscape). It allowed remote users to access a collection of museum exhibits. Users could control the camera viewpoint to facilitate views that they want of objects. It also allowed for running comments on each exhibit and live video of the robot in motion. This was the first color robotic camera on the web as well as the first allowing for more than 3DOF.

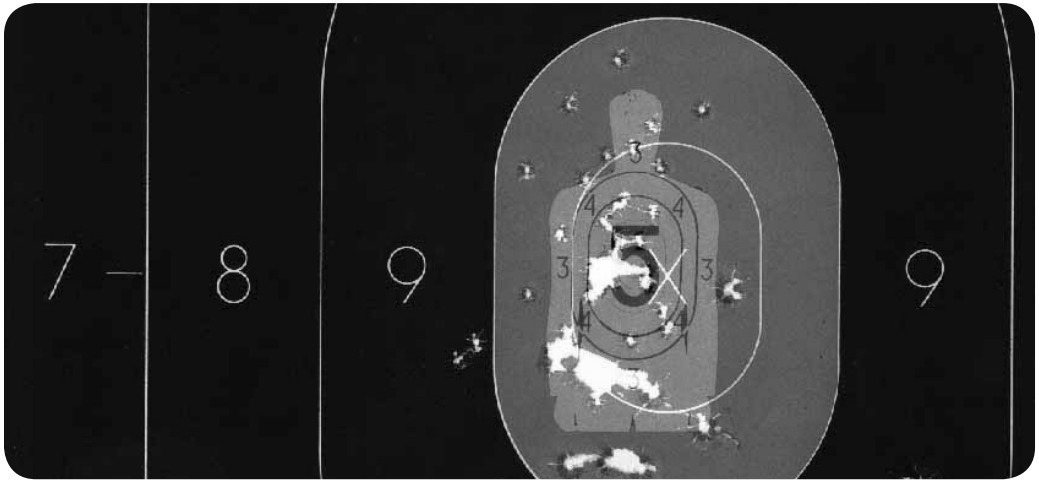
CREDITS • eric paulos

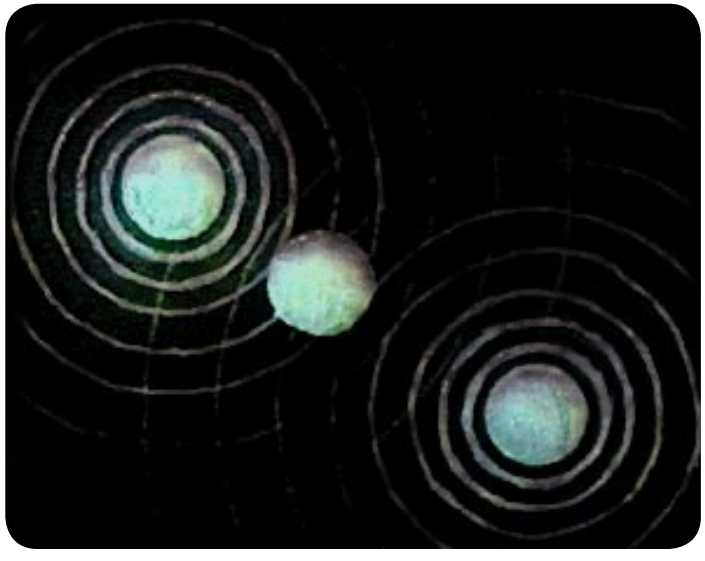
1995



GALLERY SHOOTING GALLERY

TAKING AIM AT THE TARGET AUDIENCE

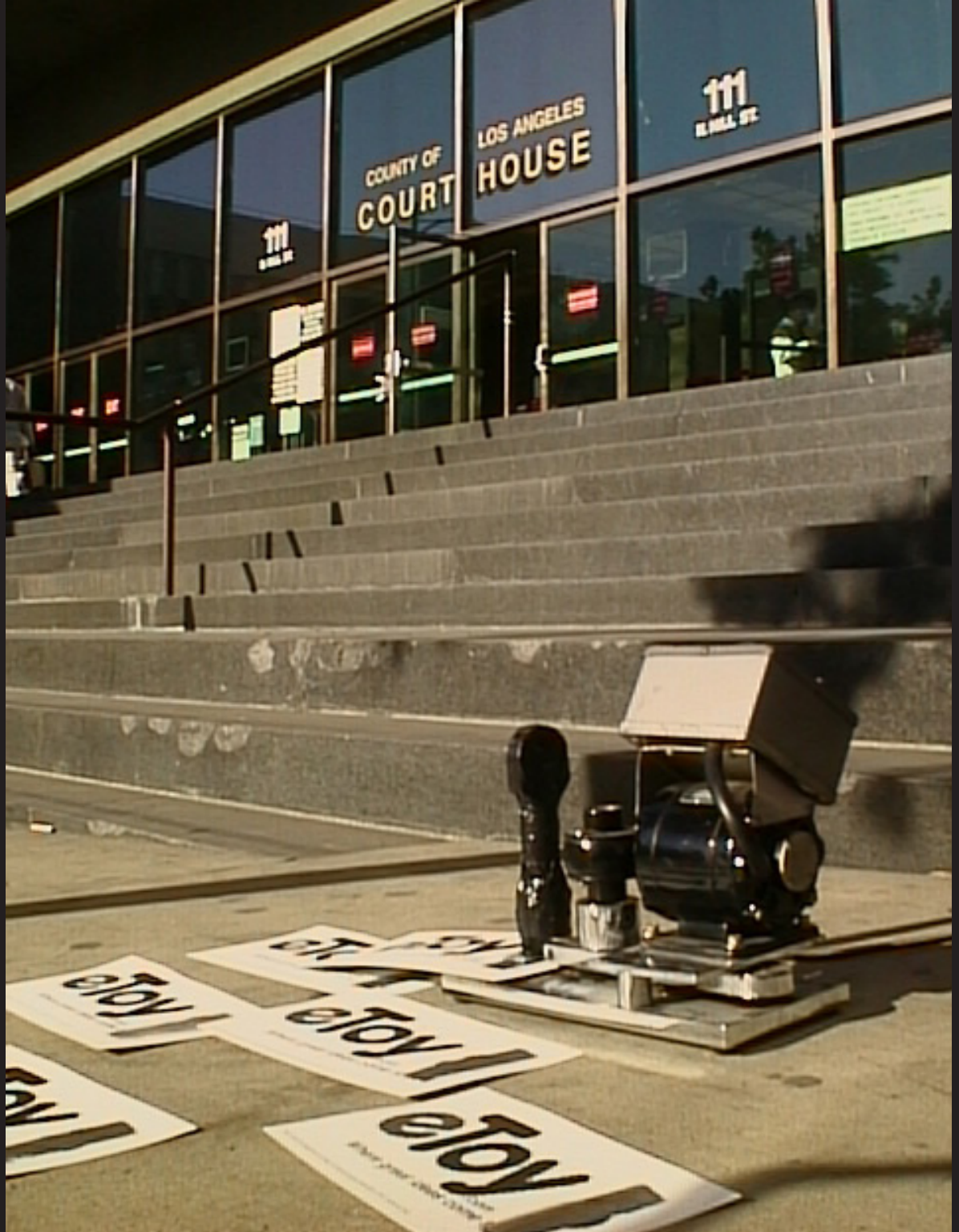




An unrealized project designed to explore the boundaries of telepresence by extending the range of the online experience to enabling the expression of the ultimate form of the human-human interaction - the targeting and firing a live weapon at another human being. The system used a pulse shockwave cannon which fires an air vortex rather than a projectile.

CREDITS • eric paulos • eiu

2001


COUNTY OF LOS ANGELES
COURT HOUSE
111
N. HILL ST.
eToy
eToy
eToy

ETOYS IMPROVEMENT SYSTEM

ETOY.EIU_RETALIATE

A tactical media device setup outside the Los Angeles courthouse for the 1999 trial between then dot. com giant etoys.com and art group etoy.com. A mechanical abrasion device methodically scraped the "S" and other errors off eToys flyers, producing improved etoy.com flyers.

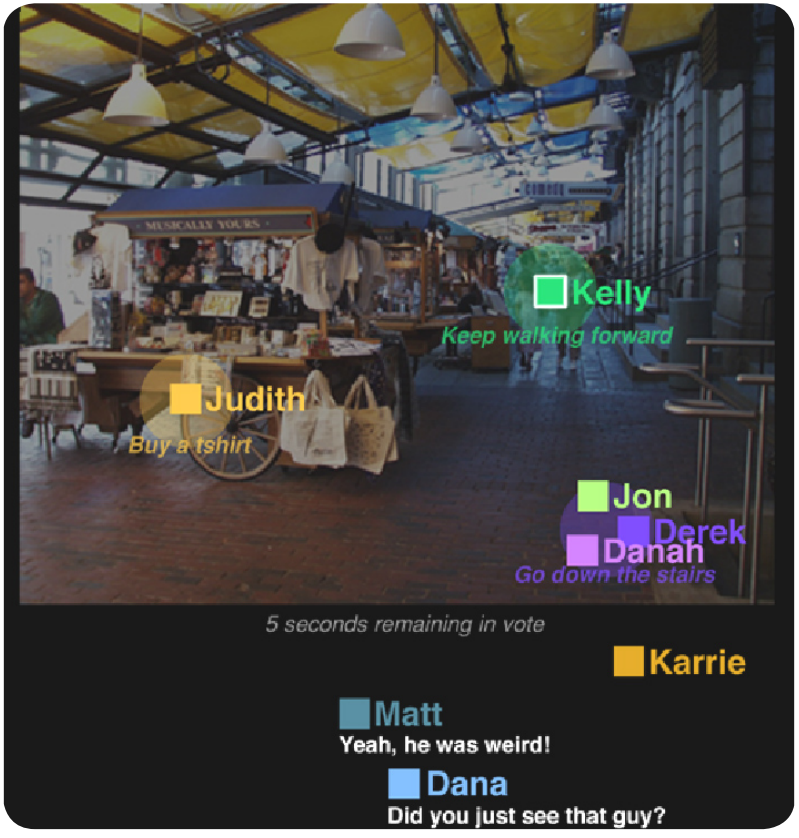
CREDITS • eric paulos • eiu

1999


Tele - Actor

TELE-ACTOR

THE AUDIENCE IS PARTICIPATING



The "Tele-Actor" is a skilled human with cameras and microphones connected to a wireless network. Live video and audio are broadcast to participants via the Internet. Participants not only view, but interact with each other and with the Tele-Actor by voting on what to do next using a "Spatial Dynamic Voting" (SDV) interface that incorporates group dynamics.

CREDITS • ken goldberg • eric paulos • david pescovitz • judith donath

2000

INVESTIGATIONS OF MECHANICAL AMBULATION

This was an early experiment on a new one legged walking machine. It appeared at the Yerba Buena Center for the Arts Near Future event sponsored by the Blasthaus. This was part of the opening event for the New Robotic Sculptures show at Yerba Buena. The walking device had only recently began operation and was run at 1/3 power at this event. The walker interacted with people for over an hour.

CREDITS • eric paulos

1998


i hate
PORTLAND
i love
PORTLAND

LOVE HATE PORTLAND

MATCHBOOKS AS INTERFACE

i love the blinky green thing
I love all of the hot liberals
I love that there are starbucks on every corner
I love that the tram is east and free
I hate this art project
I hate the earnestness
I hate the fact that they have not outlawed smoking like the rest of civilizalized America
I love skating the river path
I love the movie theatres with pizza and beer and couches...
I love the prozac in the drinking water
I love chatting up buzzed cute chicks
I think i am in love with you
I hate the teases
I love the free public transit
I hate the irregular placement of crosswalks
I love how courteous drivers are to pedestrians
I love watching dumb drunks trying to chat up cute buzzed chicks
I love the Max!
I love the eco-awareness
I hate the lack of strip clubs
I hate the pan handlers
Oh, I love that the streets down town run alphabetically
I enjoy the rich colors and smells of the farmers market
I love neighborhood bars in Portland
Hate- panhandelers love-freaks
I love the aura!
I hate the hawthorne bohemia
love free downtown transit
I love that portland lets you smell trees, even in sw
I love the confidence of its youth.

Ephemeral anonymous interactions about feelings of urban love and hate. Using a low-tech urban object that sits on the edge of ownership and trash, we deployed 1200 matchbooks across the city of Portland, Oregon. These matchbooks invited a form of anonymous SMS gaming about feelings of love and hate across the city.

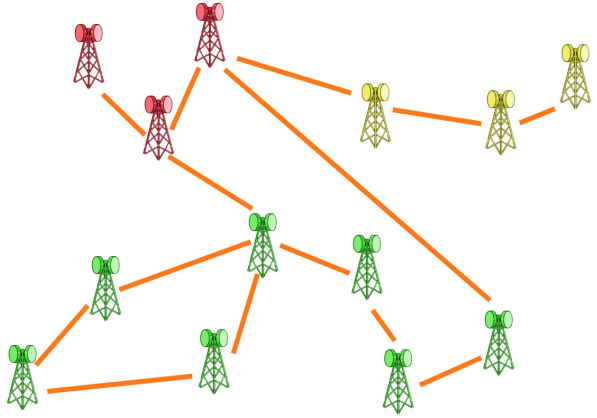
CREDITS • eric paulos •chris beckmann

2005


NOKIA
TIM

SASHAY

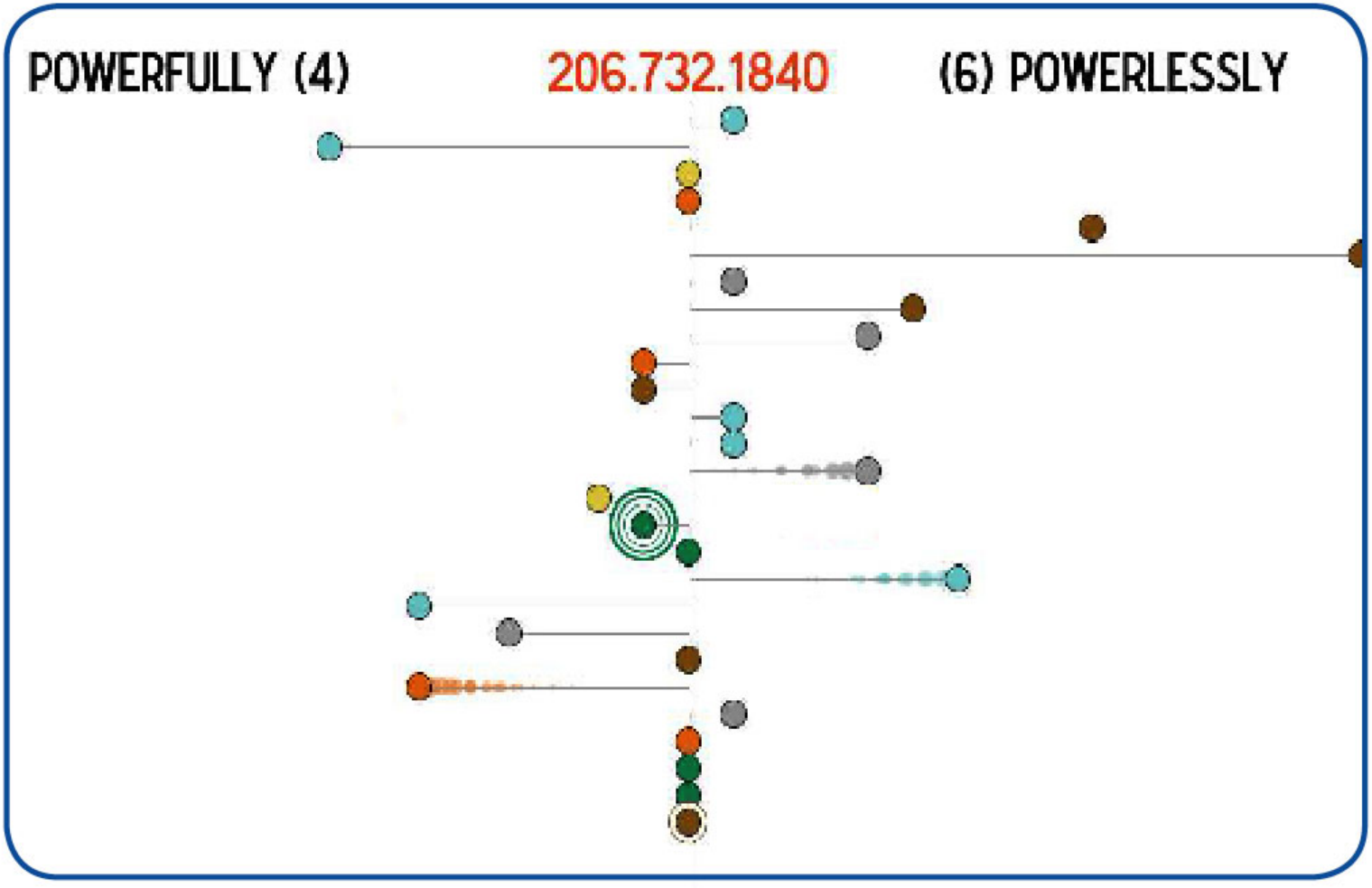
VISUALIZING PERSONAL PATTERNS ACROSS THE INVISIBLE GEOGRAPHY OF CELL-TOWERS



Sashay is a mobile phone application that leverages the fact that every fixed mobile phone cell tower transmits a unique ID that can be read within a phone's software. As a user moves throughout an urban landscape this "cell ID" changes. Sashay keeps track of the temporal patterns, history, and adjacencies of these cell encounters to help it build a visualization of connected "places". It is a critique of the hyper-connected location services and literal mappings of our urban landscape. Sashay invites curiosity and wonderment through a personal reflection of an alternative map view.

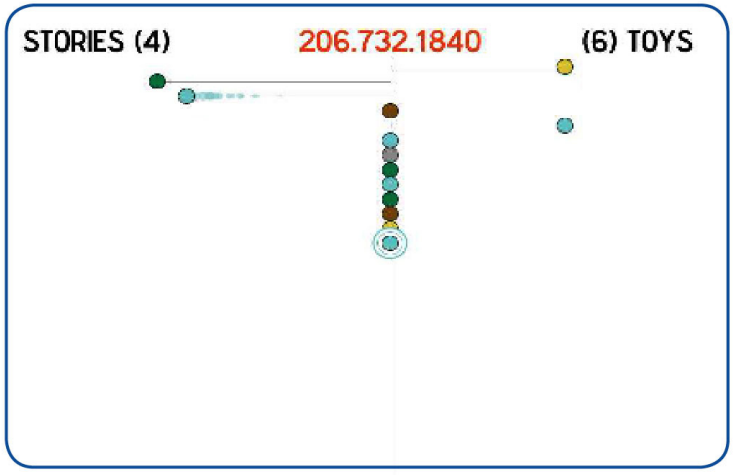
CREDITS • eric paulos • chris beckmann

2005


POWERFULLY (4)
206.732.1840
(6) POWERLESSLY

ANYPHONE

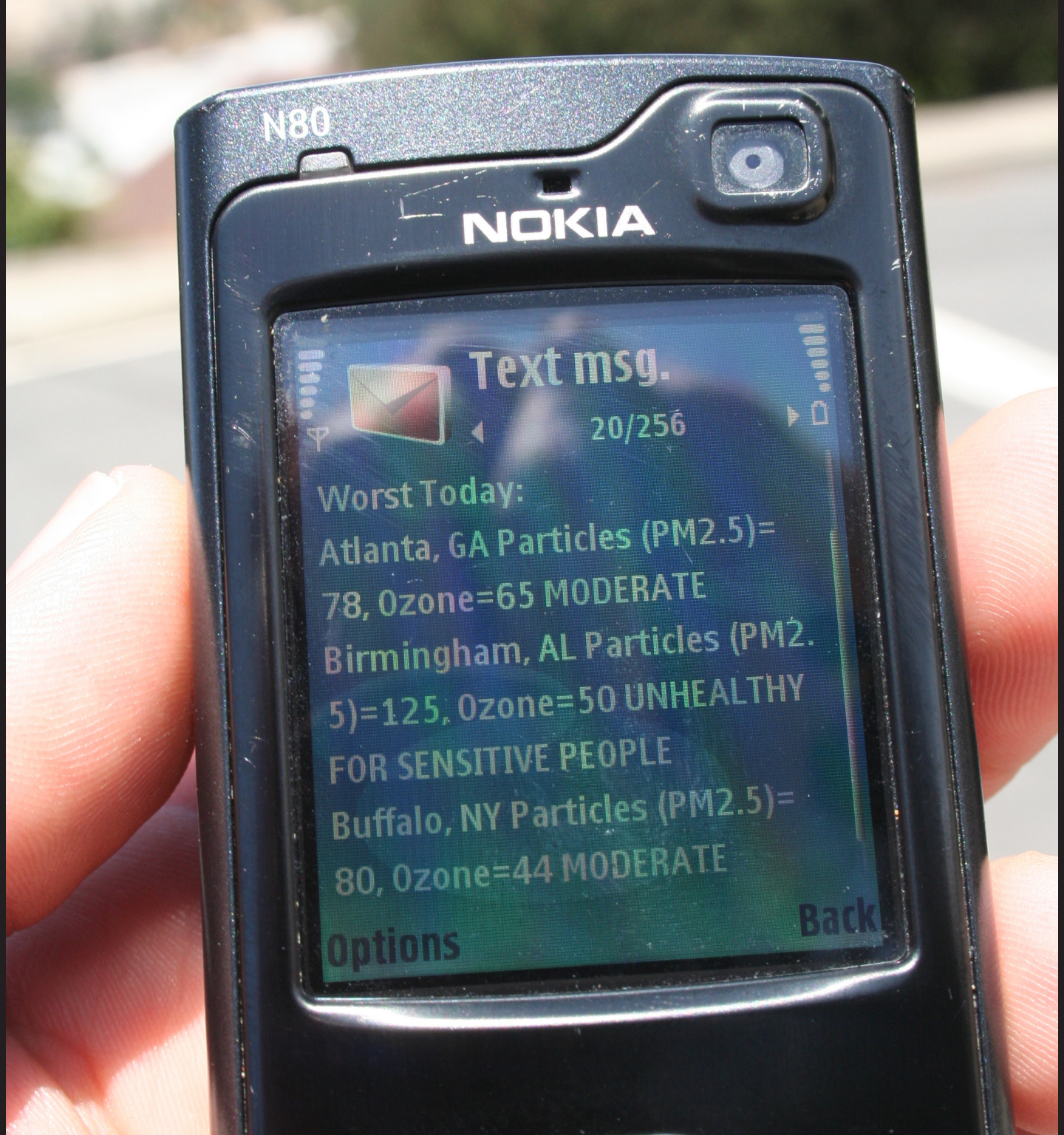
DESIGNING MOBILE PHONE APPLICATIONS FOR ANY PHONE



The value of new hardware features and software advances on mobile phones is undeniable as they enable new capabilities, improve performance, and generate the novel mobile experiences we crave. However, can we illuminate new design territory by attempting to develop mobile phone interactive experiences that will operate on any phone without any downloading, setup, or installation? The challenge seemed extreme, perhaps insurmountable, given the current state of the mobile phone software market. However, the rewards of easy, instantly usable interactive mobile experiences by anyone with any mobile phone were tantalizing back before the explosion of smart phones onto the market. Anyphone is a minimalist interaction design for every mobile phone.

CREDITS • eric paulos • august joki • parul vora • anthony burke

2006


N80
NOKIA
Text msg.
20/256
Worst Today:
Atlanta, GA Particles (PM2.5)=
78, Ozone=65 MODERATE
Birmingham, AL Particles (PM2.
5)=125, Ozone=50 UNHEALTHY
FOR SENSITIVE PEOPLE
Buffalo, NY Particles (PM2.5)=
80, Ozone=44 MODERATE
Options
Back

ERGO

ON-THE-GO AIR QUALITY READINGS

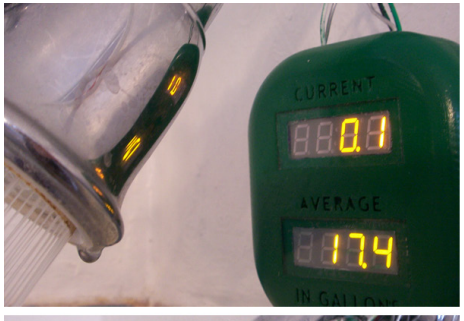
Predating the adoption of smart phones, Ergo was the first system setup to deliver real time air quality data to mobile phones. By gaining access to EPA live data, Ergo was able to explore citizen based awareness of our environment and air quality. Ergo, a simple SMS system that allows anyone with a mobile phone to quickly and easily explore, query, and learn about their air quality on-the-go with their mobile phone. Thousands of individuals used this system which was eventually adopted by AirNOW and other air quality management districts.

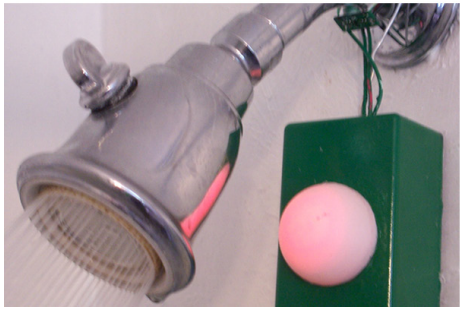
CREDITS • eric paulos

2005

UPSTREAM

WATER QUALITY, CONSERVATION, AND HEALTH





Using a low-cost microphone and micro-controller, we developed a series of water quantity measurement devices capable of providing immediate feedback to users. We deployed these in public restrooms and shared showers to study awareness and behavior change around water usage.

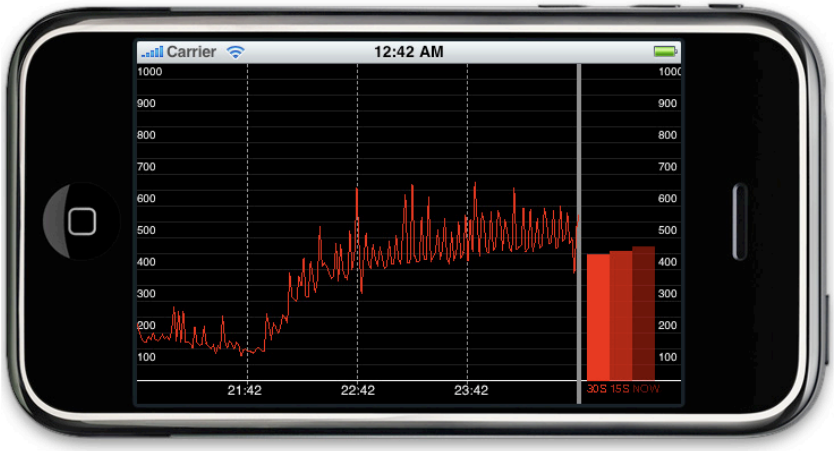
CREDITS • stacey kuznetsov • eric paulos

2008


Carrier
4:17 PM
1000
900
800
700
600
500
400
300
200
100
13:17
14:17
15:17
AM
BR
MR
IO
MI
CH

IN AIR

DOMESTIC HEALTH, WELL-BEING, AND SUSTAINABILITY



People spend approximately 90 percent of their time indoors, which makes indoor air quality a major contributing factor towards their health. For non experts, measuring and understanding air quality is difficult without special tools and expensive equipment. We designed inAir, a tool for measuring, visualizing, and learning about indoor air quality. inAir provides historical and real-time visualizations of indoor air quality by measuring tiny hazardous airborne particles, Particulate Matter, as small as 0.5 microns in size. inAir also allows individuals to share real-time air quality readings.

CREDITS • sunyoung kim • eric paulos

2008

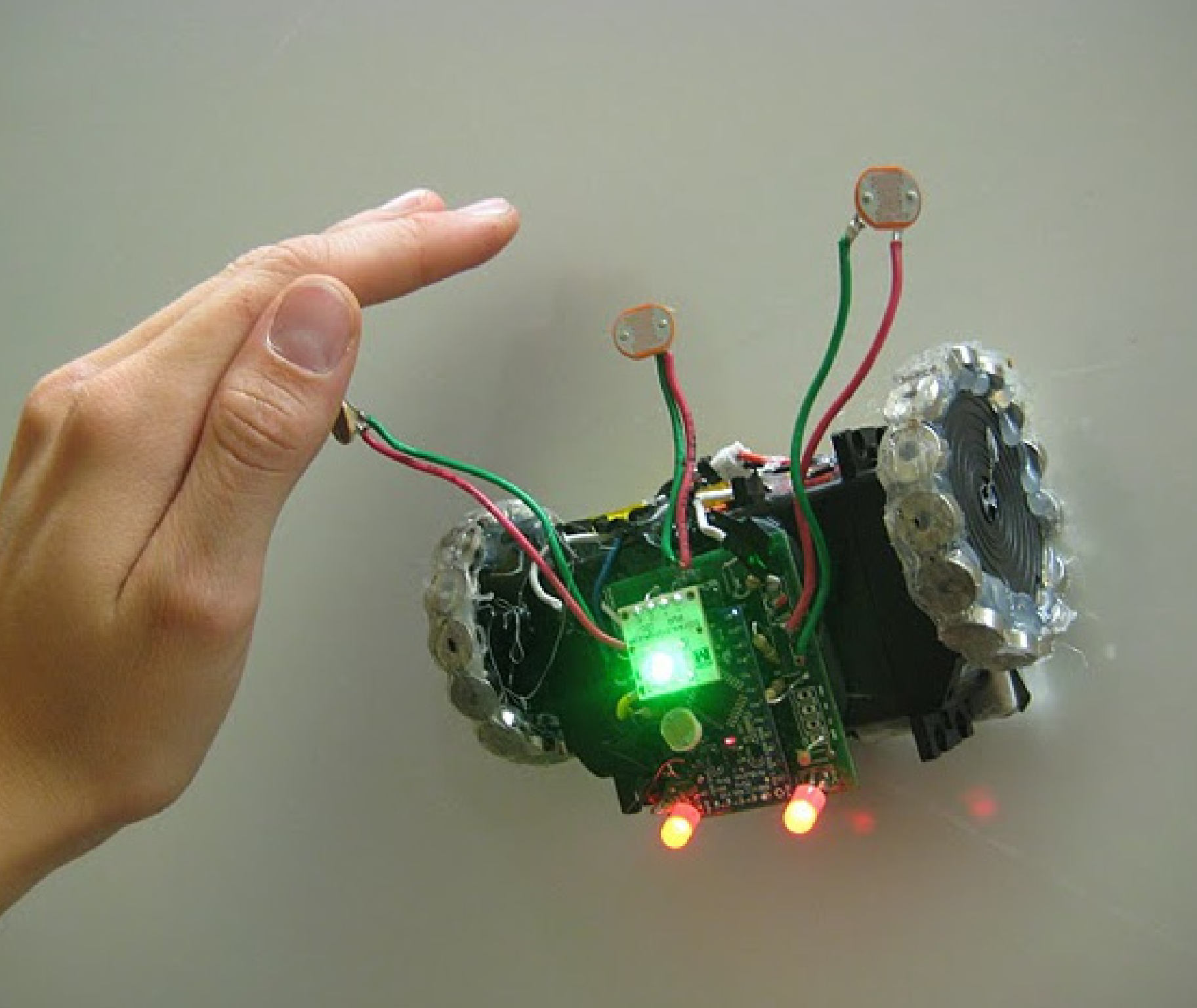
WEAR AIR

PUBLIC EXPRESSIONS OF AIR QUALITY

WearAir is an expressive T-shirt that senses the wearer's surrounding air quality as indicated by the measured volatile organic compounds (VOCs) and publicly express those levels through a series of visually expressive patterns. The T-shirt evokes new public awareness of air quality.

CREDITS • sunyoung kim • eric paulos

2009



WALL BOTS

INTERACTIVE WALL CLIMBING ROBOTS

WallBots are low-cost autonomous, wall-crawling robots designed as DIY authoring tools for public artists and activists. Wallbots enable public expression across a wide range of surfaces and hard-to-reach places, including bus stops, whiteboards, streetpoles, trashcans, moving vehicles, and building walls. They allow dynamic and adaptive positioning of sensors, cameras, speakers, messages, propaganda, etc.

CREDITS • stacey kuznetsov • eric paulos

2009

PHENOLOGICAL SENSING

NURTURING NATURAL SENSORS

Harnessing natural sensing qualities and behaviors of plants and animals that capture and express variations in response to climate and local pollution. This invites a hybrid approach to sensing using both technologies and "new ways of seeing". This project questions the concept of "sensor" and our relationship to it by critiquing our overreliance on technology.

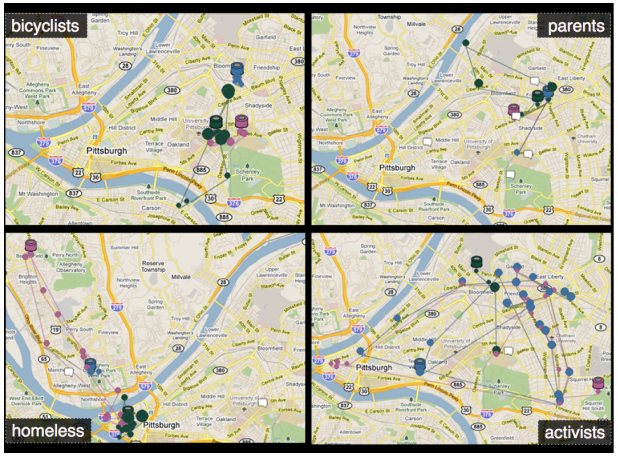
CREDITS • stacey kuznetsov • william odom • james pierce • eric paulos

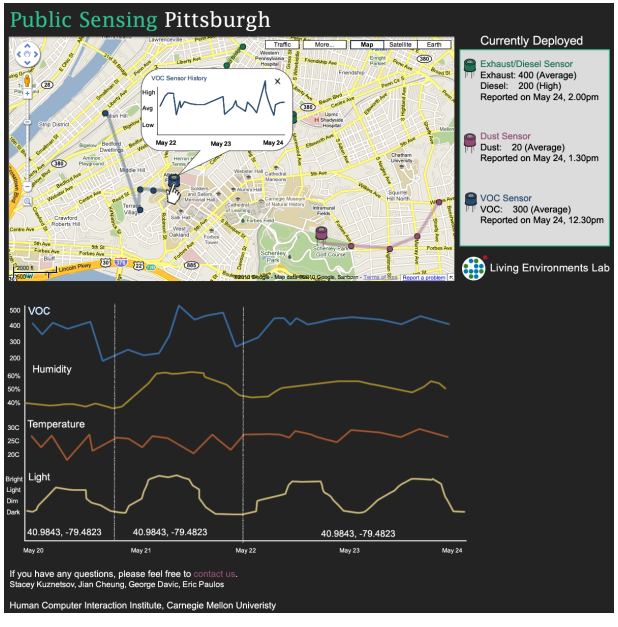
2011


VOC
SENSOR
EXHAUST
SENSOR
DUST
SENSOR

COMMUNITY SENSING

EMPOWERING CIVIC ENGAGEMENT WITH PLACE BASED SENSORS





The recent convergence between low-cost urban technologies and political discourse presents a rich new design space for enabling public participation and expression. This project explores participatory sensing as a resource for activating, authoring, and provoking questions concerning human and urban health and well-being. We envision place-based sensing that invites non-experts to move and leave modular sensors in public spaces, allowing for a range of interactions from personal sensing to more public experiences. We studied sensor appropriation, data sharing, and public authorship across four urban communities of bicyclists, students, parents, and homeless people to reveal design opportunities for merging grassroots data collection with public expression and activism.

CREDITS • stacey kuznetsov • eric paulos

2011