

# Conviviality



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ITP  
Tisch School of the Arts  
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Wednesday, June 23, 2010

This is the second in a series of talks I did for RWTH Aachen, on physicality, conviviality, and openness.

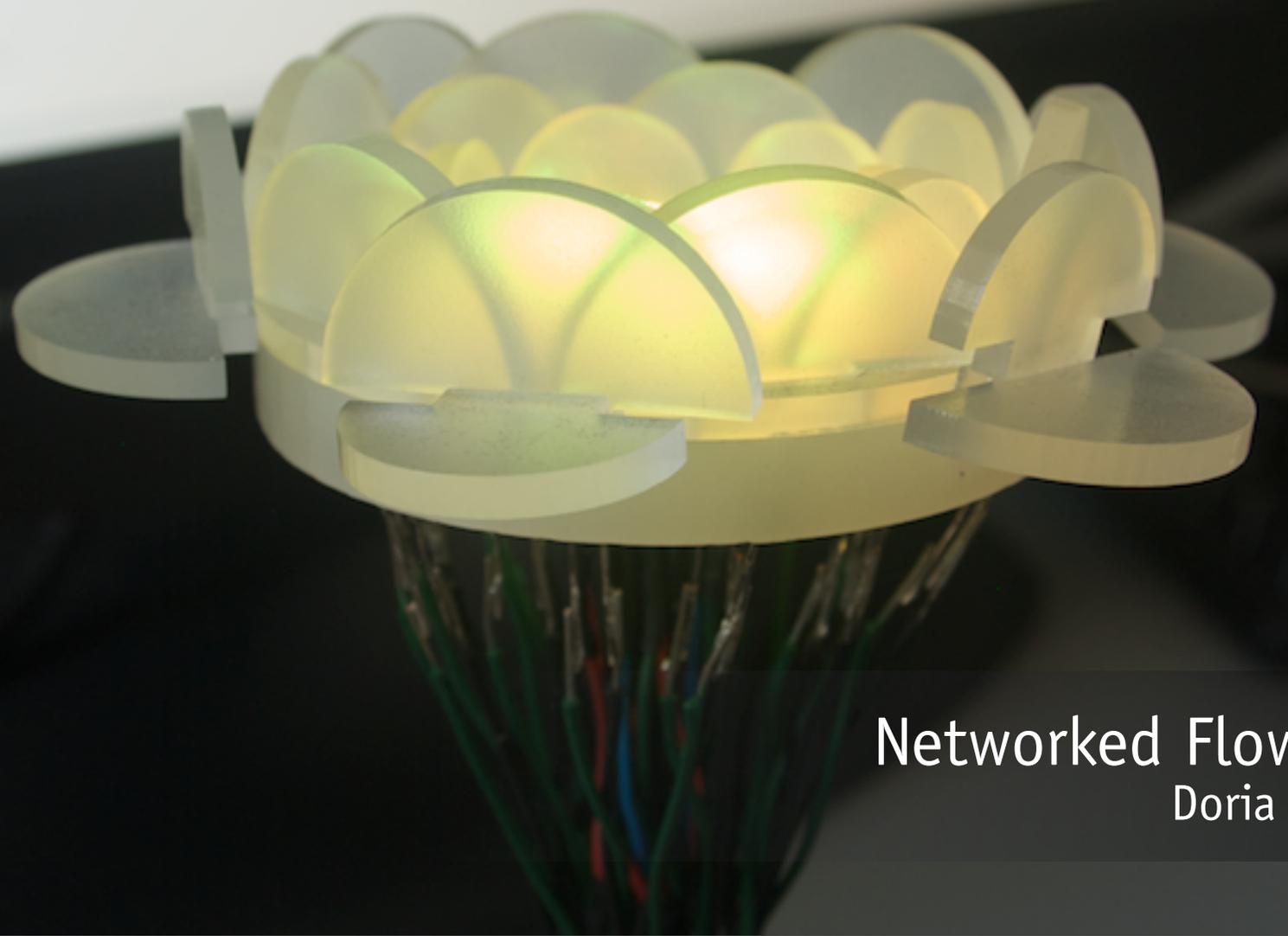


## Networked Objects

Wednesday, June 23, 2010

Since 2002, I've been teaching a class at ITP called Networked Objects. Basically, it's about how to build physical interfaces for the internet.

This is a typical project from it, this remote hug project. When you send the heart a text message, it starts beating. This way your loved ones know you're coming home. It's an example of what I call the remote hug



Networked Flower  
Doria Fan

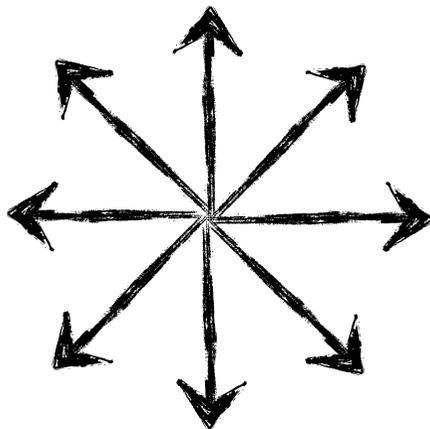
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It's a popular theme, here's another example. Doria Fan, who made it, pointed out how she didn't care about it as a product, but did care because it was about her relationship to her father, who was ill at the time. It was about the production of it and about their relationship, not about the thing itself.

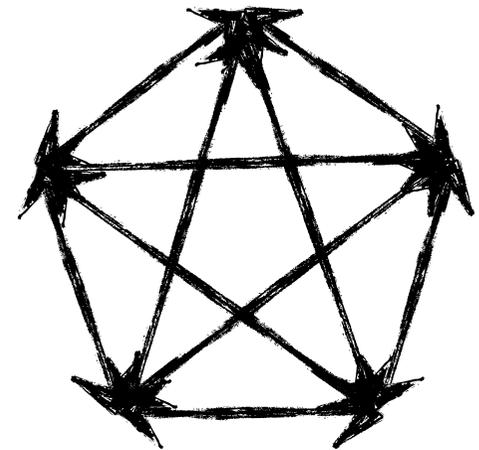
one-to-one



one-to-one



many-to-many



## Network Relationships

Wednesday, June 23, 2010

In the class we talk about dynamics of networks, in terms of participation. We talk about broadcast vs one-to-one vs many-to-many, and so forth. Other topics:

- \* Promiscuity vs. pairing
- \* You never know what the other side is thinking, only what they say
- \* Listen more than you speak
- \* Start by saying something simple, to establish contact.

We also talk about different tools for networking, like Ethernet, Wifi, Bluetooth, and so forth.



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The class got interesting when I introduced Networked Pong



Pulley  
Mooshir Vahanavati  
Photo: Estee Wah

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Seesaw

Eric Beug & Lesley Flanagan

Photo: Estee Wah

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The reason, I think, that the class got interesting, is that it got personal. People were relating to each other, but through networked technology.

Which led me back to two questions, why do I care about the net, and why do I care about objects?

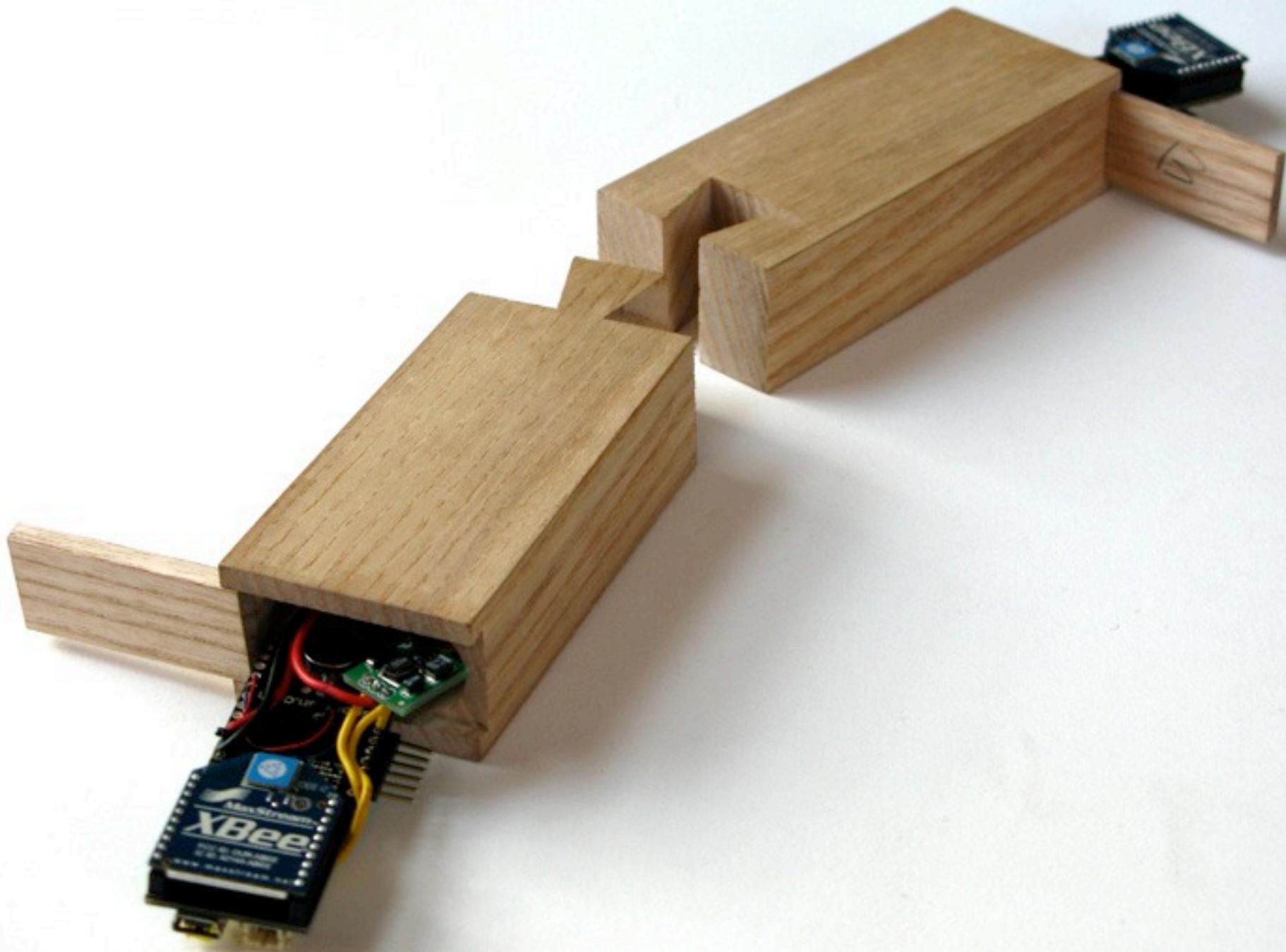


Matt Cottam

photo by Timo Arnall

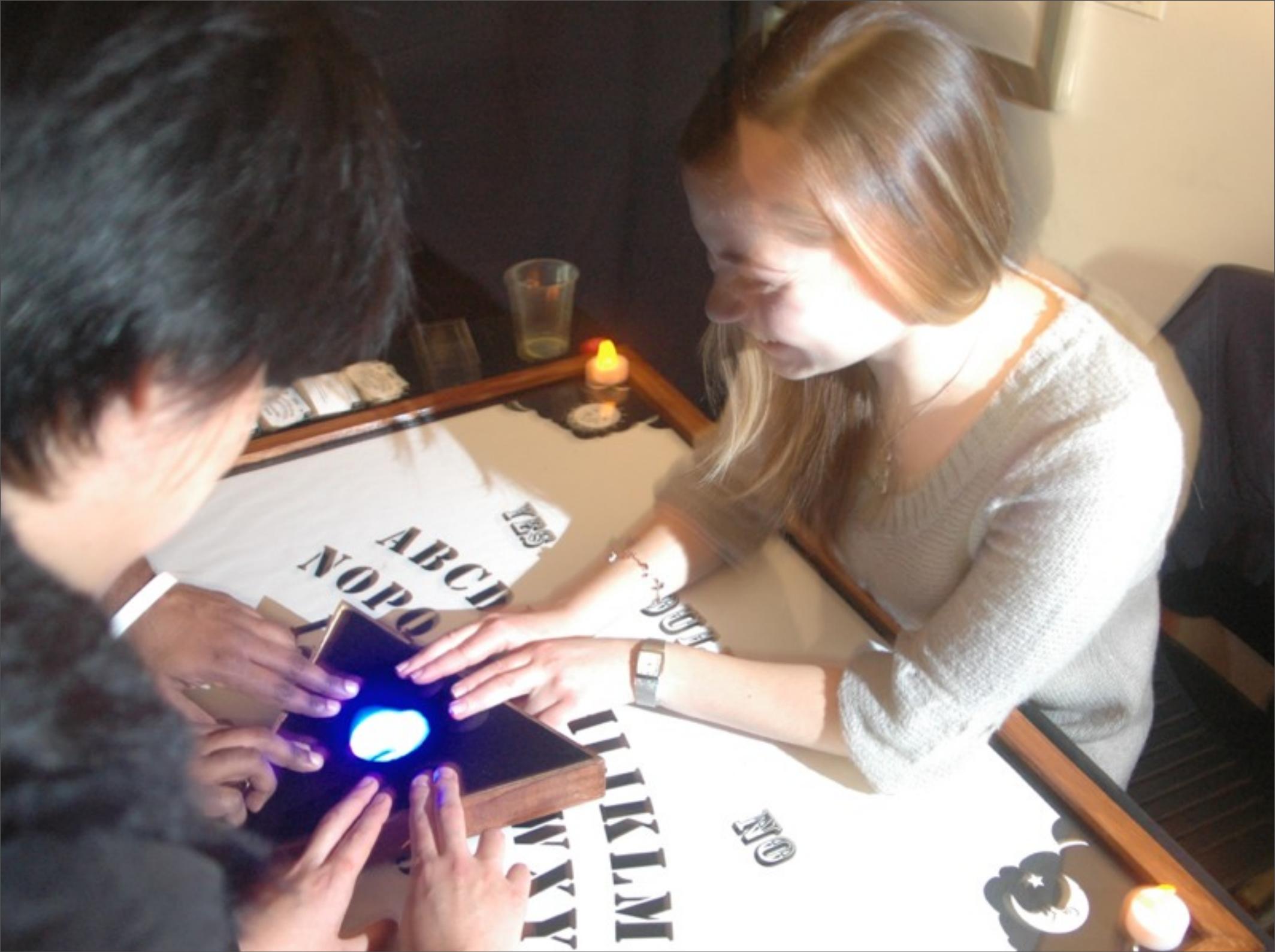
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Matt Cottam, a design instructor at the Copenhagen Institute of Interaction Design, is interested in heirloom electronics. He's obsessed with the patina that wood develops through use and care, and how those objects develop personality and meaning to us.



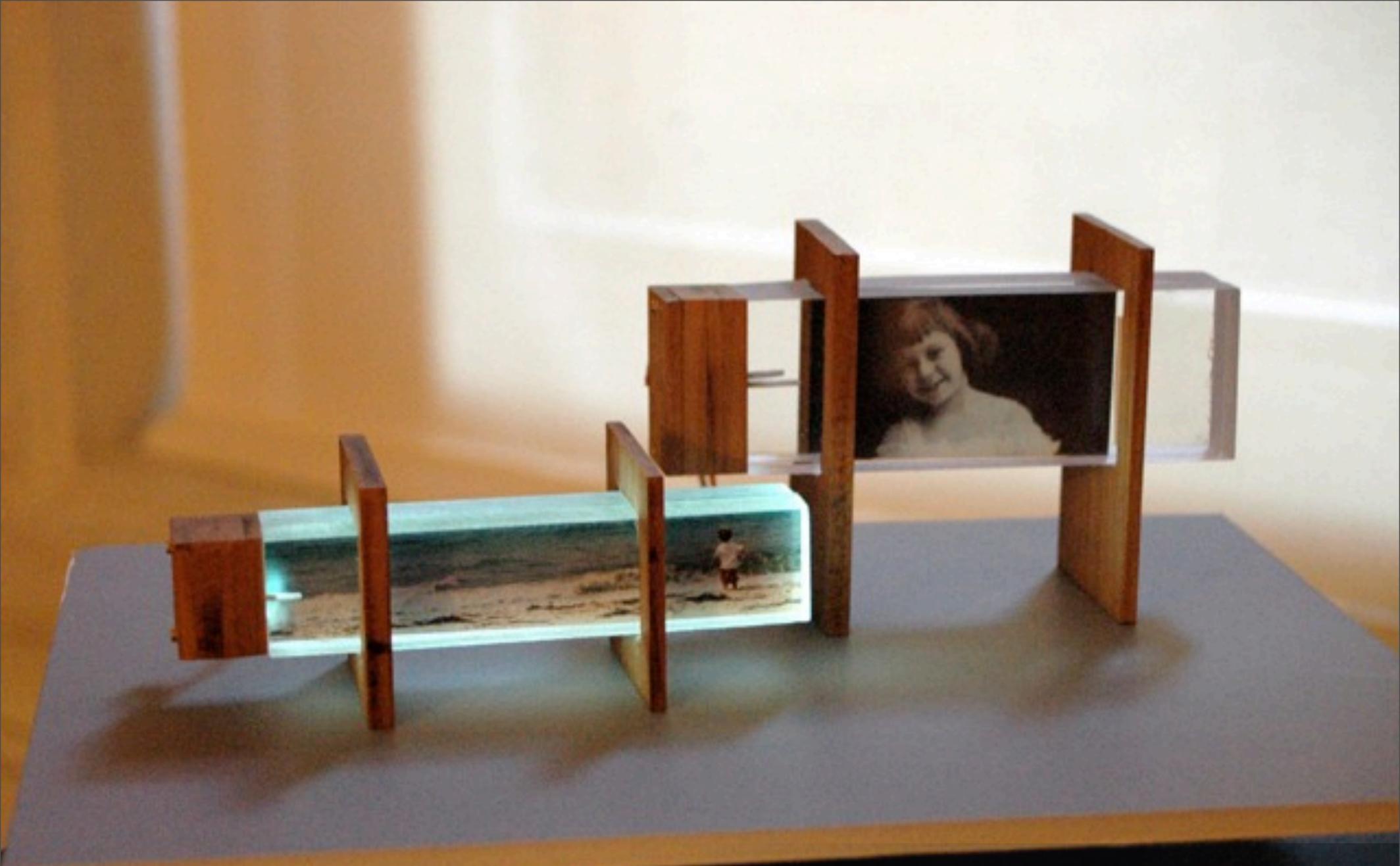
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Matt made these paired objects. As they get closer to each other, they start to vibrate.



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One point about Matt's work: things stand in for relationships. This is common in technology, we often use things as a way to relate to each other. However, there's a difference between remote things and local things. When the things and the people are in the same space, the things are ice breakers, and the range of actions for communication that they inspire can be much greater than the range of actions that the objects themselves can take. To put it simply, people are more expressive than things.



## SlumberLights Michael Jefferson

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When people are not in the same place, the things become conduits for their relationship. And the actions of those things stand in for the actions through which we'd normally relate to each other. So this is why I have a problem with the Internet of Things. The focus needs to be on the relationships that the network connections afford, not on the things.

(in Slumberlight, a grandmother and grandson can connect through paired bedside photo stands. The stands are evocative, but their behavior means little if there's no connection between the two people initiating the action.)



Pacmanhattan  
Frank Lantz, et al  
photo: Dennis Crowley

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Pacmanhattan, an interesting case, because they started out with a lot of net connected gizmos, and ended up with just cell phones.



Kacie Kinzer

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Kacie Kinzer illustrated how things can stand in for relationships, and trigger behavior from people, last year with her Tweenbots.



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Tweenbots have no intelligence, they just have a motor, a smile, and a note:



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They ask for help getting home, and they roll whatever way you ask them to.



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Because they're cute and approachable, people help them.



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Given the general hysteria over abandoned electrical devices these days and the fear of terrorism, the Tweenbots was really remarkable. No one feared them, and everyone helped them. They really drove home how much we respond to cute forms, and to messages of vulnerability. I don't think they created lasting relationships, but they did inspire conviviality.

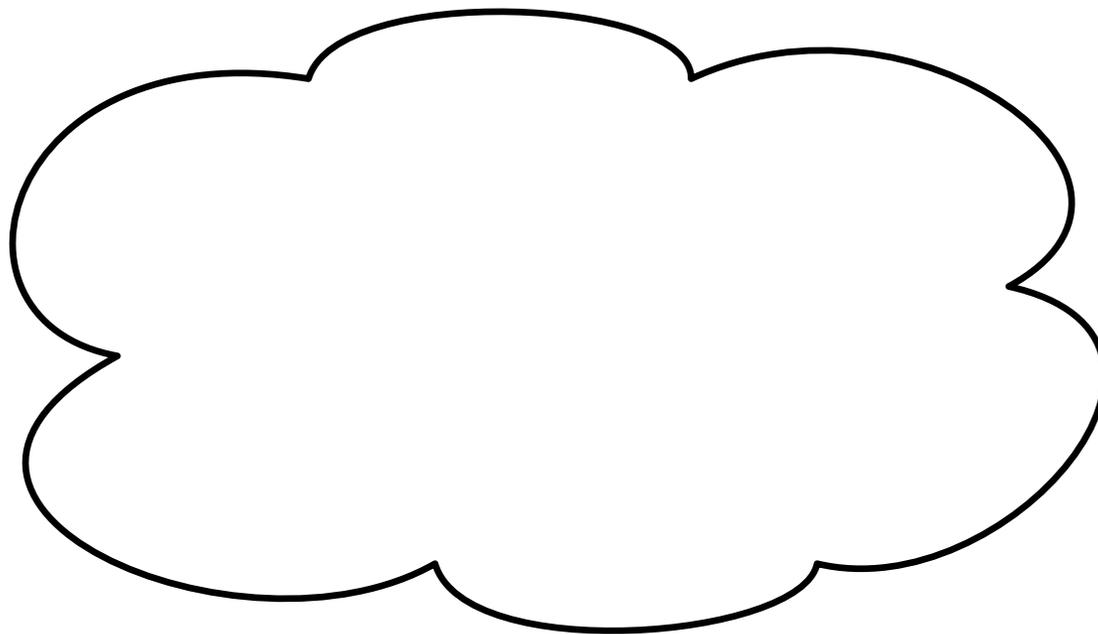
This is why I think conviviality, not just connectivity, is the ideal we want. It's not just that things talk, it's that the conversation can be pleasant. Ask any Twitter addict about the aesthetics of their favorite client, and you'll see what I mean. We don't just tweet, we want the tweeting experience to work with how we do other things. Different clients enable different experiences of the same info.



Sociable Objects  
Rob Faludi  
photo: Gilad Lotan

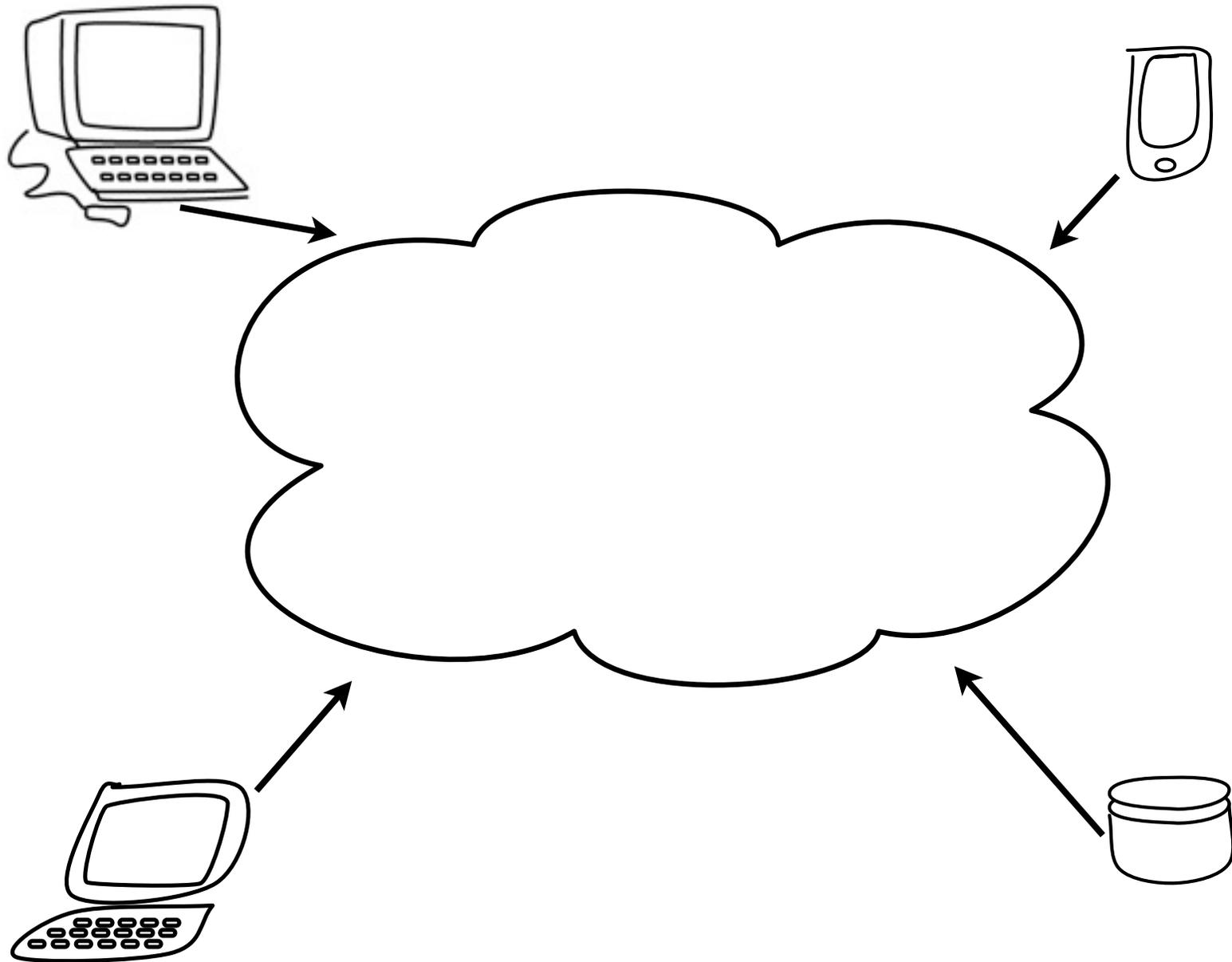
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Rob Faludi has done some good thinking on conviviality and the relationships between things. After taking Net Objects, and later teaching it while I was on sabbatical, he coined the term Sociable Objects.



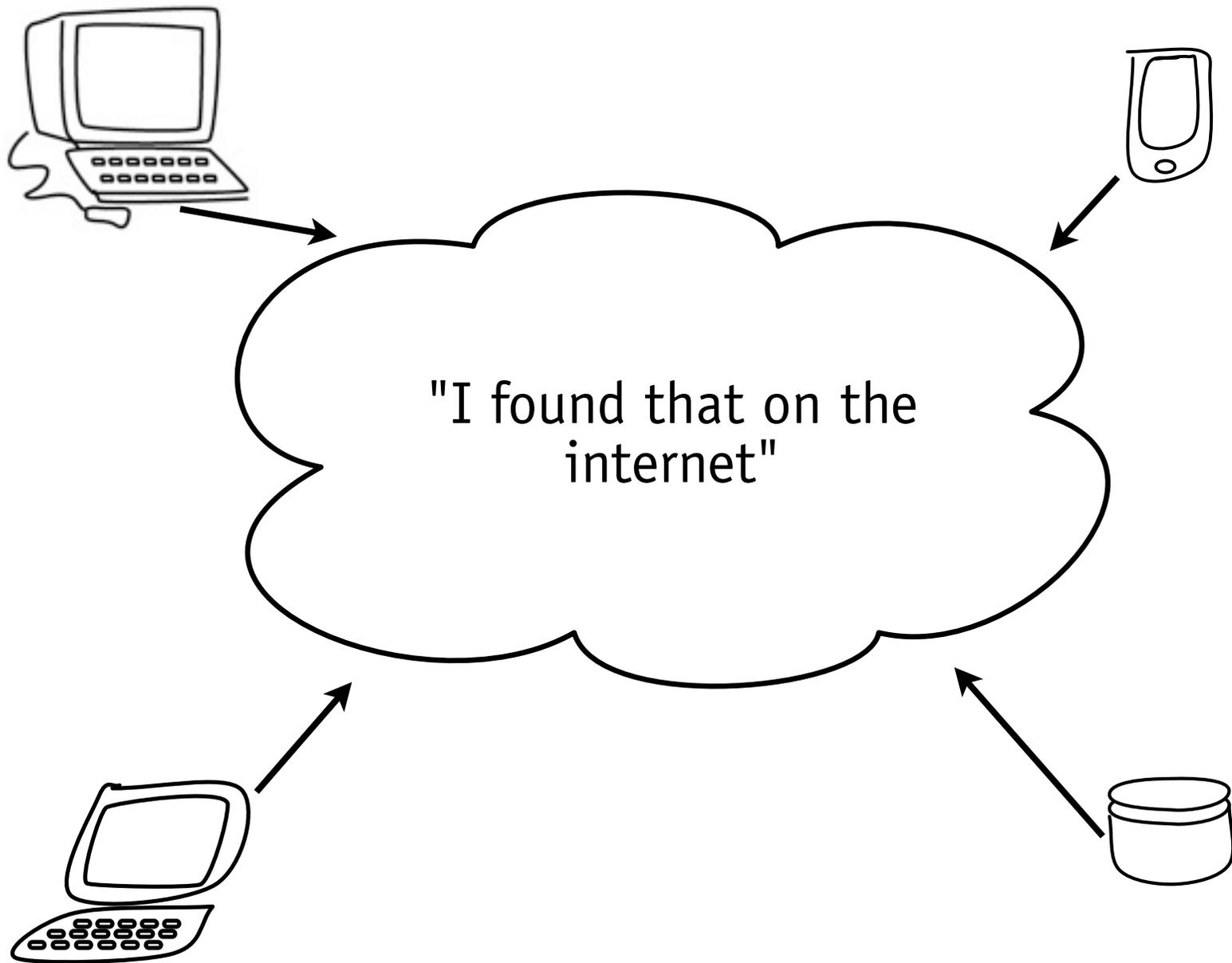
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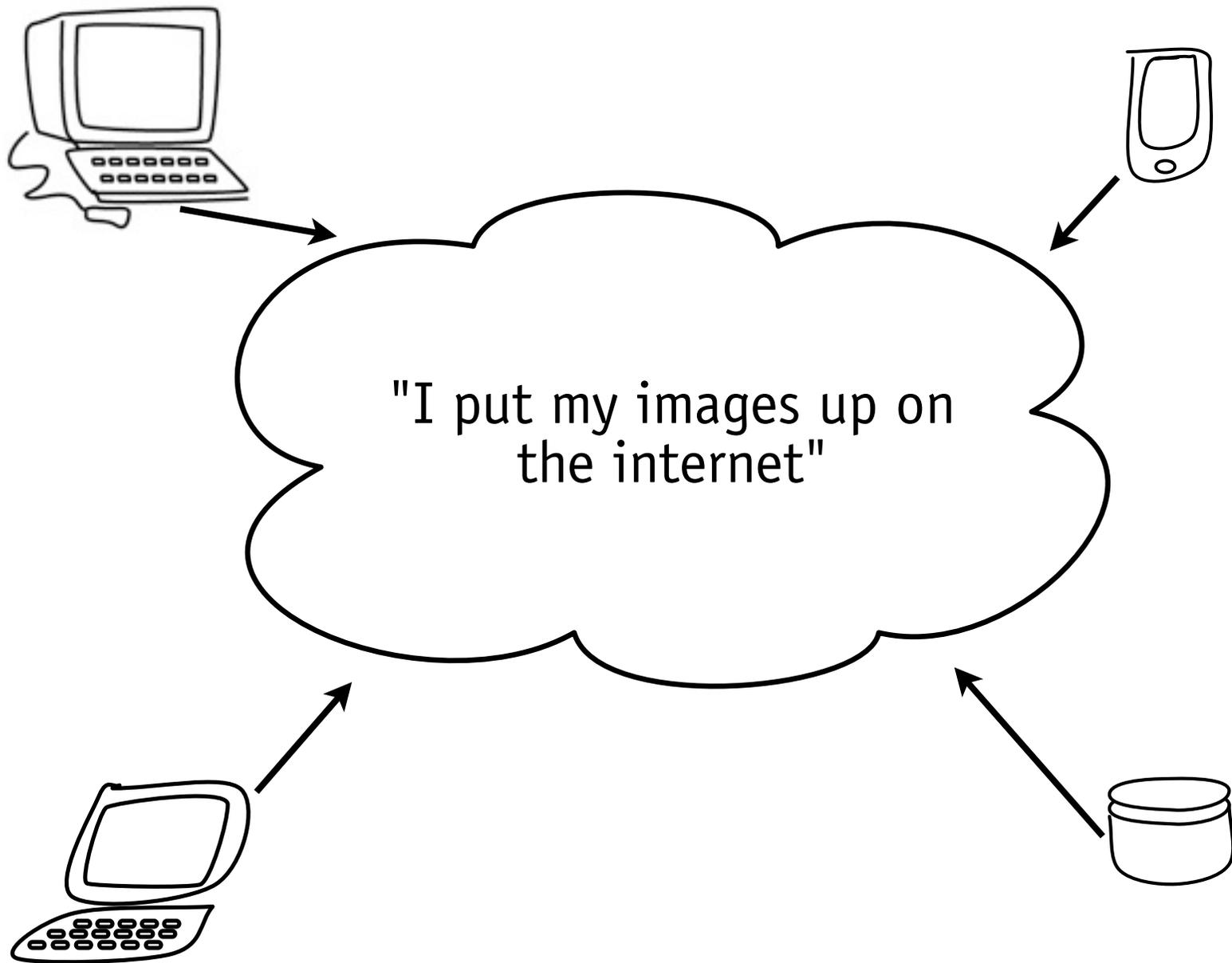
The problem with the Internet in relation to networked objects is that it comes with a lot of metaphorical baggage. We see it as a place:

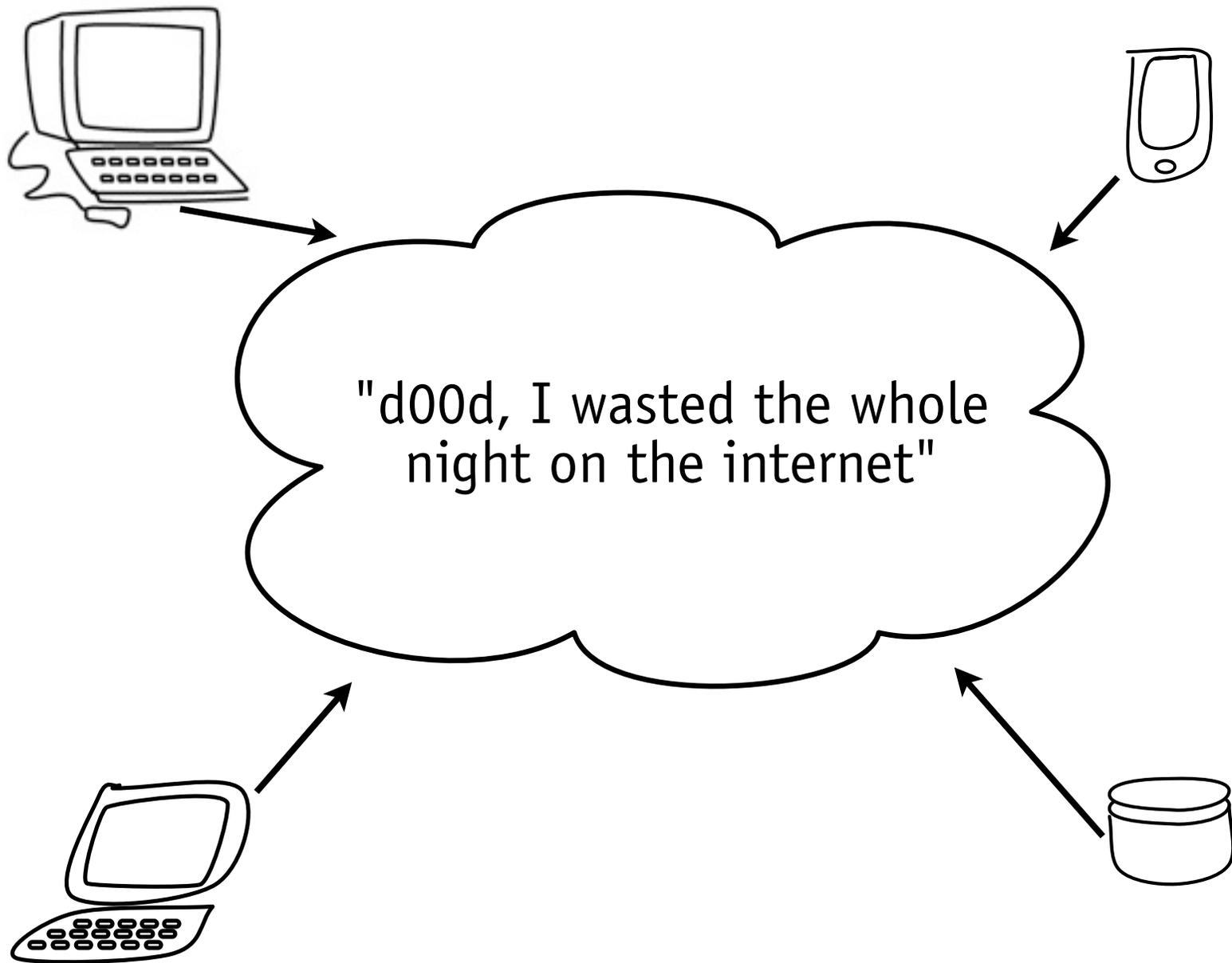


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Devices connect to it, and we talk about it as a place:

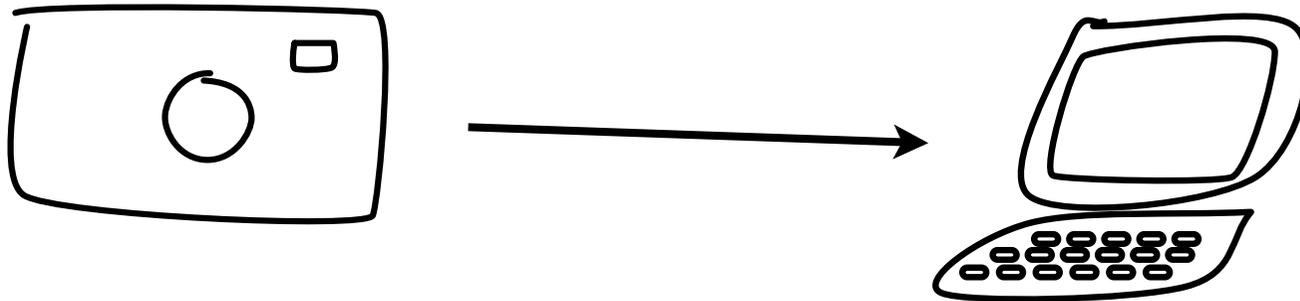
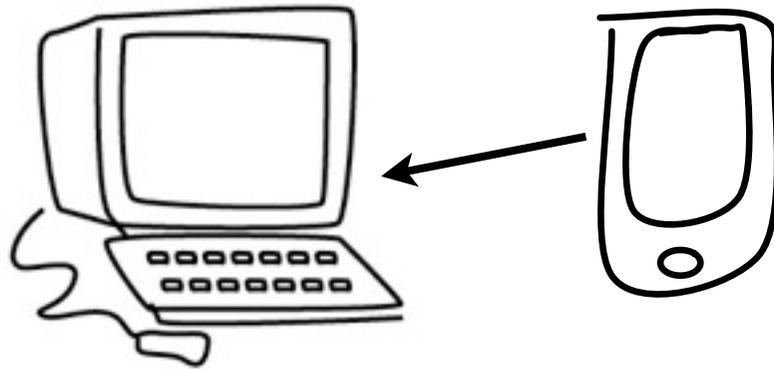






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But we don't think about our devices communicating in quite that way. Sure, I can surf the net on my phone, but when I'm on the phone, I'm talking to you, I don't think of the phone company in between, the same way I do with a chatroom. For that matter, same with txt msgs. Our devices communicate like this:



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Rob coined the term (and has an ITP class on) "sociable objects", which I kind of like, because it describes more accurately how your phone talks to your computer, how your wiimote talks to your game console, how your set top box should talk to your phone, and so forth. This is a good start, because it suggests many more short, local, intimate exchanges.

A couple examples:

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If you think about the everyday devices we all have, almost none of them exist in a vacuum anymore, they all talk to some other device or information service. Devices and objects have relationships to each other now. Not all of them have a direct relationship to the net, nor do they need to.



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Needies  
Brett Schulz, Daniel Perlin,  
Amos Bloomberg

Wednesday, June 23, 2010

Needies are an example of this. They're huggable plush toys that get jealous. They can communicate via radio, and when one gets more attention, the others talk shit about it behind its back.



## 2 Fast 4 Tracks

Chris Hall

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So we have to stop thinking about the internet as a place and start thinking of it like the phone company. It's something that we (and our devices) communicate through, not to. In contrast, we can also think about local networks of things, like Chris' project. The cars talk to the beacons, and the beacons tell the cars what behavior to execute.



Telepistemology  
Ken Goldberg  
Photo:Kathrin Miller

Wednesday, June 23, 2010

Contrast Faludi's idea with Ken Goldberg's remote control ideas, 1995. Ken asks "How do we know what we see on the internet is real?" Much of his work is about remote control.



The Telegarden  
Ken Goldberg  
Photo:Ken Goldberg

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There's no need for telepistemology in Faludi's world, or in Networked Pong, because we're there. We know it's real through our senses, and the network just facilitates local action.

Contrast that with Theresa Senft's notion of tele-ethicality: it matters less whether what we get through the net is real, but whether we believe it enough to care, to behave toward those on the other side of the connection ethically. This, to me, is much more important in everyday life through technology than telepistemology.

## What is The WELL?

Welcome to a gathering that's like none other.

The WELL, launched in 1985 as the *Whole Earth 'Lectronic Link*, provides a watering hole for some articulate and playful thinkers from all walks of life. Why is this conversation treasured? It's all about who's here. [[Learn more about The WELL...](#)]

## Where in The WELL are you?

### Mike Godwin, attorney



I'm a big consumer of media, including both the informative and the entertainment kinds. The [Media](#) conference (which sometimes takes a lot of time, because it's a large, varied conference) is one-stop shopping for someone like me. After that I often go straight to [TV](#), (where television shows get the same degree of thoughtful discussion that you might find in a book-club meeting), or to the [Mac](#) conference (a better source of Mac information than Apple's "Genius Bars," plus lots of industry discussion and speculation). [[See more people, more suggestions...](#)]

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How I got on the internet: the WeLL, genx. It was Facebook for me. It gave me a place to get involved.



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## New Year's 1995/1996

### Cyberfoo: First Night in Cyberspace

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In 1993, a group of people on The WELL decided that they had had enough with the bad publicity that the Internet was receiving in the media. Every story, it seemed, was about crackers, stolen credit cards, and pornography. As members of a vibrant online community, they decided to show the public at large just what "that Internet thing" was like, so people could see for themselves.

On New Year's Eve, Public terminals were set up in Boston, New York, Copenhagen, Rome, and San Francisco, and people also logged in from every continent but Antarctica.

In 1994, we had public access to the chat area on [ECHO](#), the East Coast Hangout; [IRC](#), the Internet Relay Chat; WELLMuse, a text-based virtual reality system on the Whole Earth 'Lectronic Link; Usenet newsgroups; the World Wide Web; and a First Night in Cyberspace conference also on [The WELL](#).

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It introduced me to people who seemed to feel the same as I did: that we could take technology for granted, and let it wash over us, or we could get involved, and have some say over how it shaped our lives.



## Groups & Cognitive Surplus Clay Shirky

Wednesday, June 23, 2010

Clay Shirky, groups, 2007, cognitive surplus, 2009. Clay talks about how people are using the cognitive surplus they used to give over to consumption and are now using it for participation with each other instead.



## Participatory Culture (& devices) Shawn Van Every

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Shawn van Every, participation vs. consumption, internet vs. broadcast. Shawn talks about the iPad as a consumption device vs. a laptop as a production device. I think it's interesting to think about things like game consoles, net connected picture frames, etc. existing in a space in between those. Cultural production may not be as "hardcore" production as programming, but it is arguably more inclusive, allows more people a way to participate through devices. If a device enables production of images, text, etc., but is not programmable, is it still purely a consumption device?



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So where do we go with this? Take BP oil spill image: compelling, but no info. It's broadcast television, even if we see it on the net. We all want a Goldbergian connection to it -- we want to control it. Or a Feltonian connection -- we want to be able to analyze what's going on quantitatively, to look for patterns that we can change.

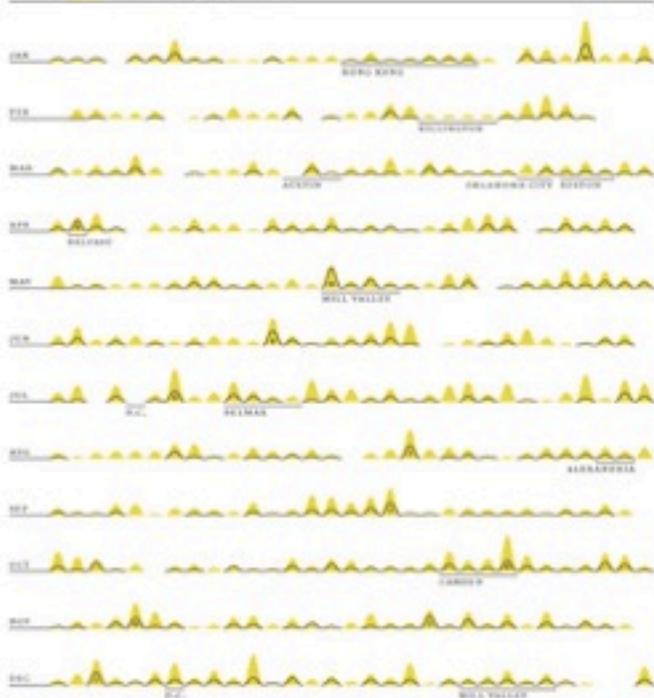
# 2009 Annual Report

PREVIOUS / NEXT IMAGE

## Distribution

Date and location of encounters.

FIGURE 1. ENCOUNTERS / RESPONSES



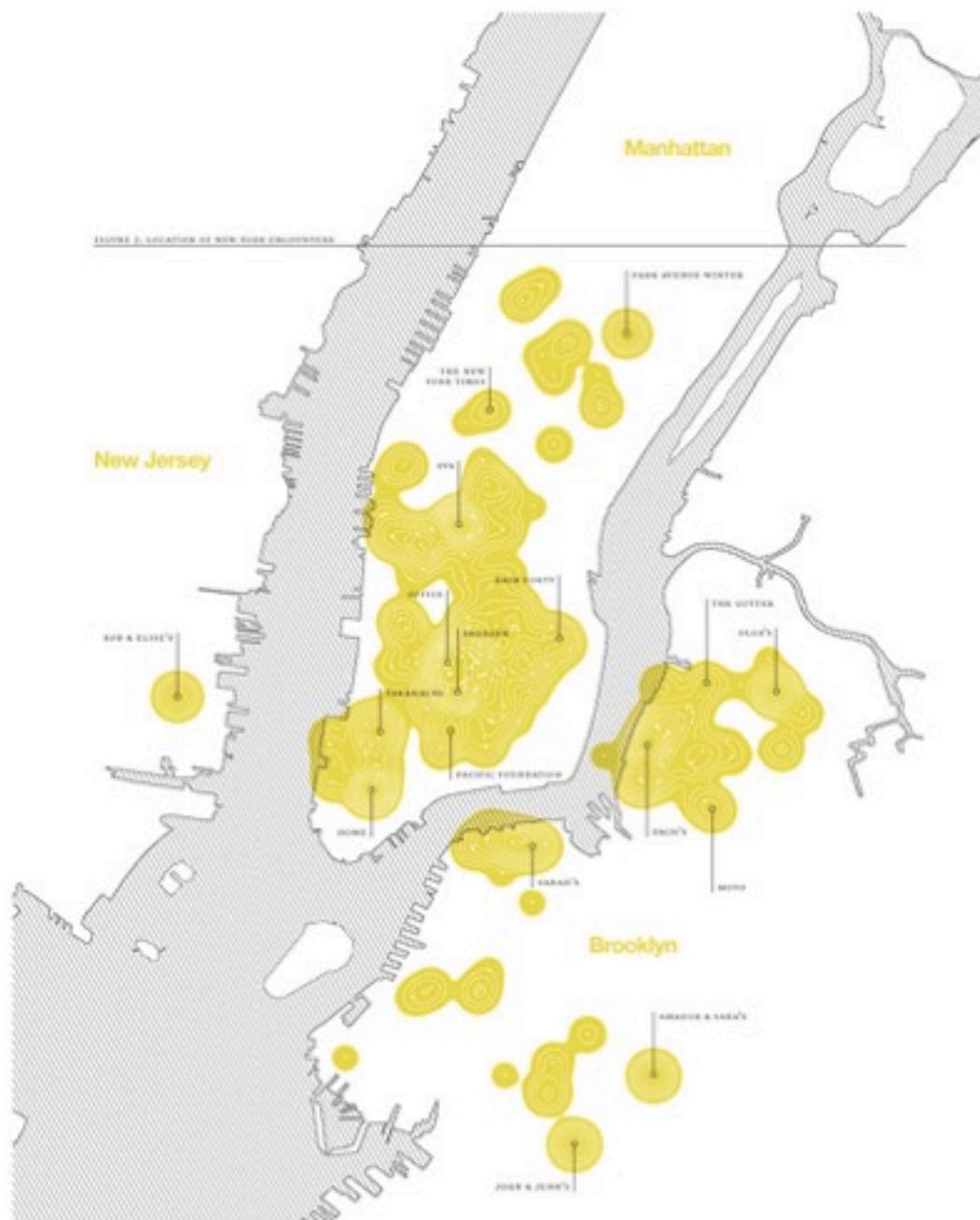
TOTAL ENCOUNTERS	AVERAGE ENCOUNTERS PER DAY	REPORTS COMPLETED	CORRELATIVE RESPONSE RATE
<b>1,761</b>	<b>4.8</b>	<b>560</b>	<b>32%</b>
COUNTRIES INCLUDED	STATES INCLUDED	DAYS WITH REPORTS	COUNTY REPORTS
<b>Three</b>	<b>Nine</b>	<b>254</b>	<b>210</b>
<small>U.S.A., SOUTH KOREA AND NETHERLANDS</small>	<small>CALIFORNIA, MAINE, MASSACHUSETTS, NEW JERSEY, NEW YORK, OREGON, TEXAS, VIRGINIA, WISCONSIN, WYOMING</small>	<small>50% OF THE YEAR</small>	<small>AVERAGE 2.6% REPORTS PER REPORT</small>

METHODOLOGY

Throughout 2009, friends, family, co-workers and acquaintances of Nicholas Felton were asked to report on his activities wherever they met.

All data on the following pages was compiled from the responses of these participants to a variety of questions concerning their encounter.

FIGURE 2. LOCATION OF NEW HIGH ENCOUNTERS



Use visit the [shop](#) to order print editions of the 2009 report.

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Felton, annual reports. Great visualization, reveals patterns of behavior. Participation through networks can produce data which can lead to such visualization. See also: self-quantifiers.

Store, share & discover realtime sensor, energy and environment data from objects, devices & buildings around the world. Pachube is a convenient, secure & scalable platform that helps you connect to & build the 'internet of things'.

OUTPUT • Use a Feed

### National Grid Realtime Carbon Intensity

<http://www.pachube.com/api/feeds/5591.xml>  
<http://www.pachube.com/api/feeds/5591.csv>  
<http://www.pachube.com/api/feeds/5591.json>

Data updated: Wed Jun 16 06:47:02 UTC 2010, currently: **live**.  
 Published by [riotgibbon](#).

Realtime and rolling mean carbon intensity values, scraped from [realtimcarbon.org](http://realtimcarbon.org), based upon the current mix of fossil fuel, nuclear and renewable energy sources ...

Website: <http://realtimcarbon.org/>

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This feed has no specified location.

ID	Tags	Value	Units	Embeddable graphs & tools
averageCo2	Average Co2, co2	0.458	(kg p/kWh)	3 months   4 days   <b>24 hours</b>   last hour  embed,history,triggers,etc
co2	co2, live Co2	0.496	(kg p/kWh)	3 months   4 days   <b>24 hours</b>   last hour  embed,history,triggers,etc

Displaying all 2 datastreams

Wednesday, June 23, 2010

Pachube. Nick Bilton, Sensors as reporters. Nick suggests that though there are many sensors on the net, what we need is the context to make sense of their data. It's not enough just to put a sensor on the net (though that's a start), you need to tell the story of what the sensor's data means. You need to frame it.

# realtime carbon

Carbon now

So what?

About us

Blog

The amount of pollution caused by using a single unit of electricity changes throughout the day.



This is because the "generation mix" on the grid changes. Sometimes there are more coal power stations running, for example. Other times there's more wind power. Also, additional pollution can be caused by the extra back-up supply we need at times when our demand is hard to predict.

**Wouldn't it be better if we could use power when it's greenest?**

Join the [forum](#)

Each unit of UK electricity is currently causing this much CO<sub>2</sub>:

**496** grams per unit\*

Grid sampled at 02:20 GMT-0400 \*A unit is 1 kWh

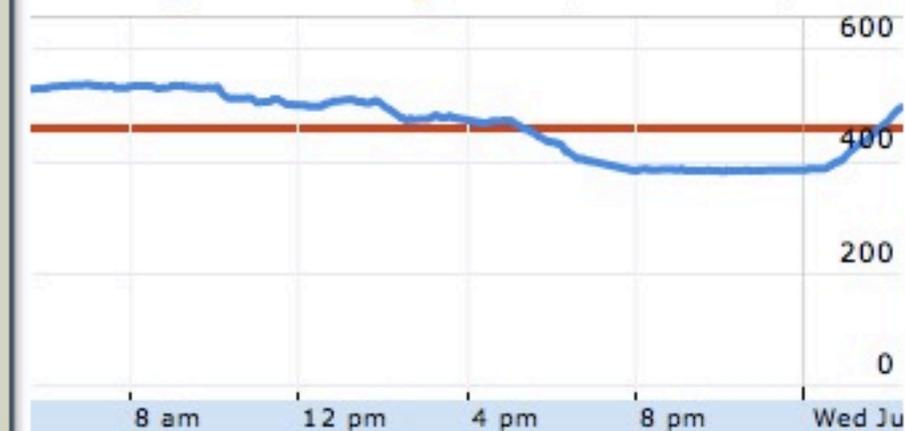
 Above average

 Below average

[So, should we turn off?](#)

This is called the "carbon intensity". At the moment it is **higher** than average. You can see how it has been changing over time...

in intensity 496.39 • Average 458.21 | 02:20 June 16, 2010



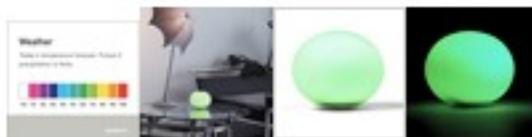
Read the [methodology](#)

Join the debate  
**Forum**

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Realtime carbon. Uses Pachube. "Should we turn off?" starting to answer the question of how we move from data to analysis to action.

High information content,  
low information output



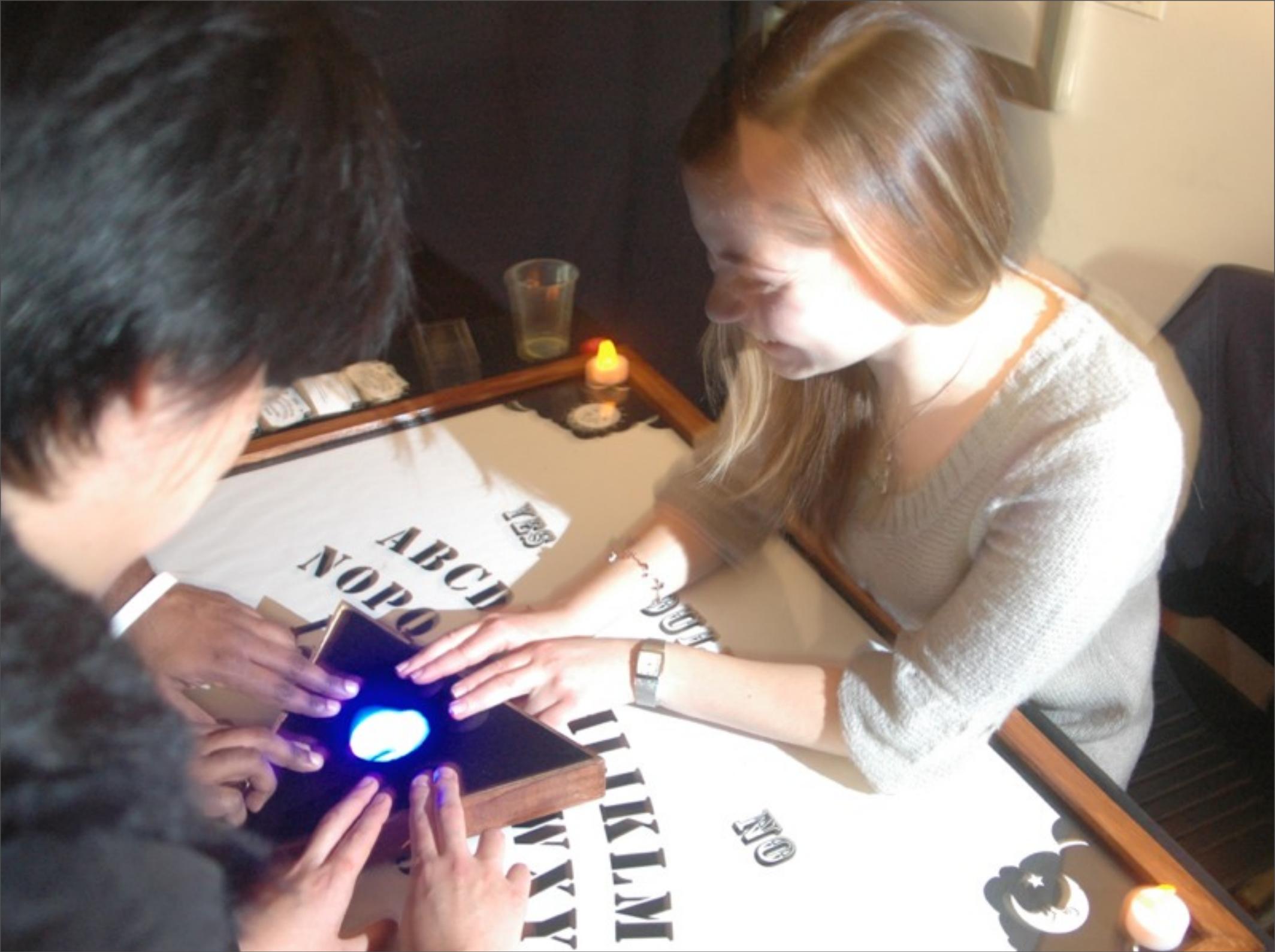
Output is better matched to content



<http://www.ambientdevices.com>

Wednesday, June 23, 2010

So I think the interesting thing about networked objects is that they enable us to play out our relationships. I think the role of these interfaces to the net is instrumental rather than expressive. In other words, perhaps we should think about relationships over things. We don't need a gadget to abstract the data into aesthetic form, we need one to collect the data in a useful way. We have excellent tools for visual analysis: they're called monitors. There is still a call for devices that alert us to change through networks, but we have to be careful not to try to display too much on a given device. Look at the evolution of Ambient Devices' products. The orb didn't tell you enough, their new products look like much more traditional info screens.



Wednesday, June 23, 2010

Again, think about things as conduits for relationships. The question to start Q&A then, is this: what remote relationships require conduits other than the the screen-based devices we've already got, such as phones and laptops and iPads?