HYBRID ECOLOGIES:
Disobedient Objects, Unexpected Landscapes, and Human Wonderment

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The hybrid or the meeting of two media is a moment of truth and revelation from which new form is born.

- Marshall McLuhan
The scientific analysis and study of interactions among organisms and their environment, such as the interactions organisms have with each other and with their abiotic environment.
Xerox PARC
Building Invisible Interfaces
Mark Weiser
Computer Science Lab
Xerox PARC
November 2, 1994
How to Build Invisible Technologies?

start from arts and humanities: Philosophy, Phenomenology, Anthropology, Psychology, Post-Modernism, Sociology of Science, Feminist Criticism, Your own experience...

This is the most important part of the talk. You may not get it on first hearing. Patience.

When I am done you’ll know what is wrong with:

creating an entertaining and dramatic user interface
computers magically meeting our desires
a computer idealized as an assistant
virtual reality as the ultimate user interface
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The best way to make art is to intrigue and to be a bit seductive.

You just say, here's this and this...you figure it out

- John Baldessari
Number 1    Jackson Pollack
1949

Rain, Steam and Speed    Turner
1844

Nude Descending a Staircase, No. 2
Marcel Duchamp
1912

Banksy
The clashing point of two subjects, two disciplines, two cultures, of two galaxies, ought to produce creative chances.

- C.P. Snow *The Two Cultures* (1959)
PERSONALIZATION
A visible construction,
a loaded choice.
It directs attention to itself; it
gives itself to be read

Hebdige, Subculture: The Meaning of Style, 1979
READING STYLE
READING STYLE

juxtaposing “elements” with particular meanings, histories, and potentials
Developing Ebb

Laura Devendorf, Joanne Lo, Noura Howell, Jung Lin Lee, Nan-Wei Gong, Mustafa Karagozler, Shiho Fukuhara, Ivan Poupyrev, Eric Paulos, and Kimiko Ryokai
Developing Ebb

early stage
Google ATAP
Project Jacquard
thread
Ebb: conductive thread coated with thermochromic paint

thermochromic pigments

jacquard thread coated with thermochromic paint
WOVEN SEVEN SEGMENT
SPEED UP: 8X
I’m from the upper Sierra foothills near the Navarro River in Mendocino County, California.

I was logged on a warm June 3rd in 2014.

I was brought to a home in Berkeley, California.

I was cut and drilled over three days in early July 2015.

Part of me was discarded.

Part became a doorstop…

…but most of me became part of a children’s fort.
Who has been nearby?

Lots of room now for a picnic!

This is the best sun and cleanest air quality this week!
WearAir
Sunyoung Kim

Common Sense

Community Sensing
Stacey Kuznetsov

Sensr
Sunyoung Kim

InAir
Sunyoung Kim

Spectacle Computing
Stacey Kuznetsov

Vapor Exhibition

WearAir
Sunyoung Kim

Participatory Sensing

Crowd Sourced Air Sensing

Wildlife monitoring by schoolchildren
Usability study
Pothole reporting in Italy
Wetland monitoring in the Western Australia
MEMENTOS AND HEIRLOOMS
How infinitely superior to our physical senses are those of the mind

- John Muir
WHY DON’T SOME OF OUR OBJECTS HAVE....
Nada Almeddine, Justin Berner, Eldon Schoop, Eugene Song, Janette Tang
needy skateboard
shy fork
absentminded controller

picky batteries
daydreamy watering can
bossy toothbrush
gossipy nail clipper
FASHIONING FASHIONABLES
SKINTILLATES  Joanne Lo
Skintillates
Conformal, Flexible, Wearable Electronics
INTERNET OF EXPRESSIVE ASSEMBLAGES
INTERCONNECTIVITY
How do our phones, smartwatches, clothing, cosmetics, and epidermal electronics communicate?

DISCOVERY
How do these new objects discover each other and us? Do they forget?

PROGRAMMABILITY
How will you program across and with this ecosystem of devices?

APPROPRIATE NARRATIVES AND STORIES
Will our objects understand etiquette and proper behavior when relating stories? Will they betray us?

FACTORY RESET
How do you reset your couch, home, car, or neighborhood sidewalks?

SECURITY
How can I prevent hacking of my clothes, bandages, and medicine?