

Between research traditions: negotiating an interdisciplinary research space for urban screens

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SCHOOL OF INTERACTIVE
ARTS + TECHNOLOGY

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EUPHORIA & DYSTOPIA | JAN 31, 2013



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To Design the world with people in mind

Art

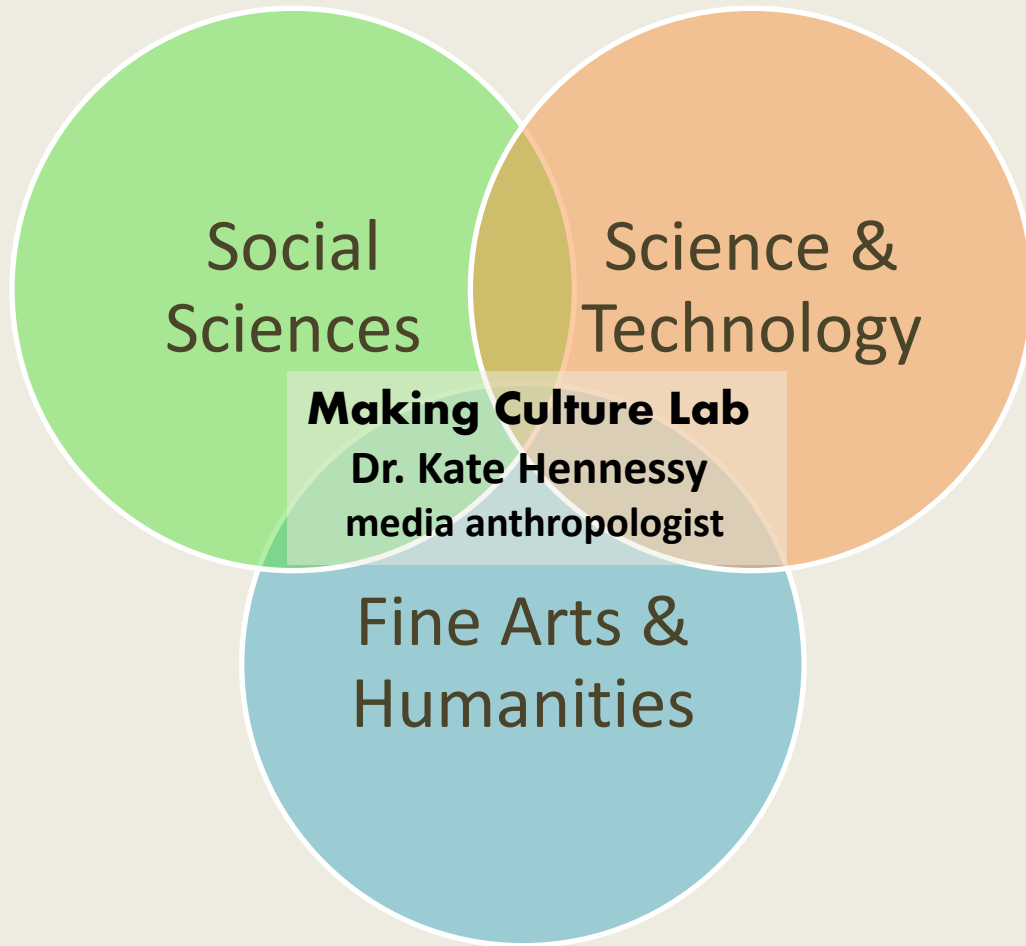
Science

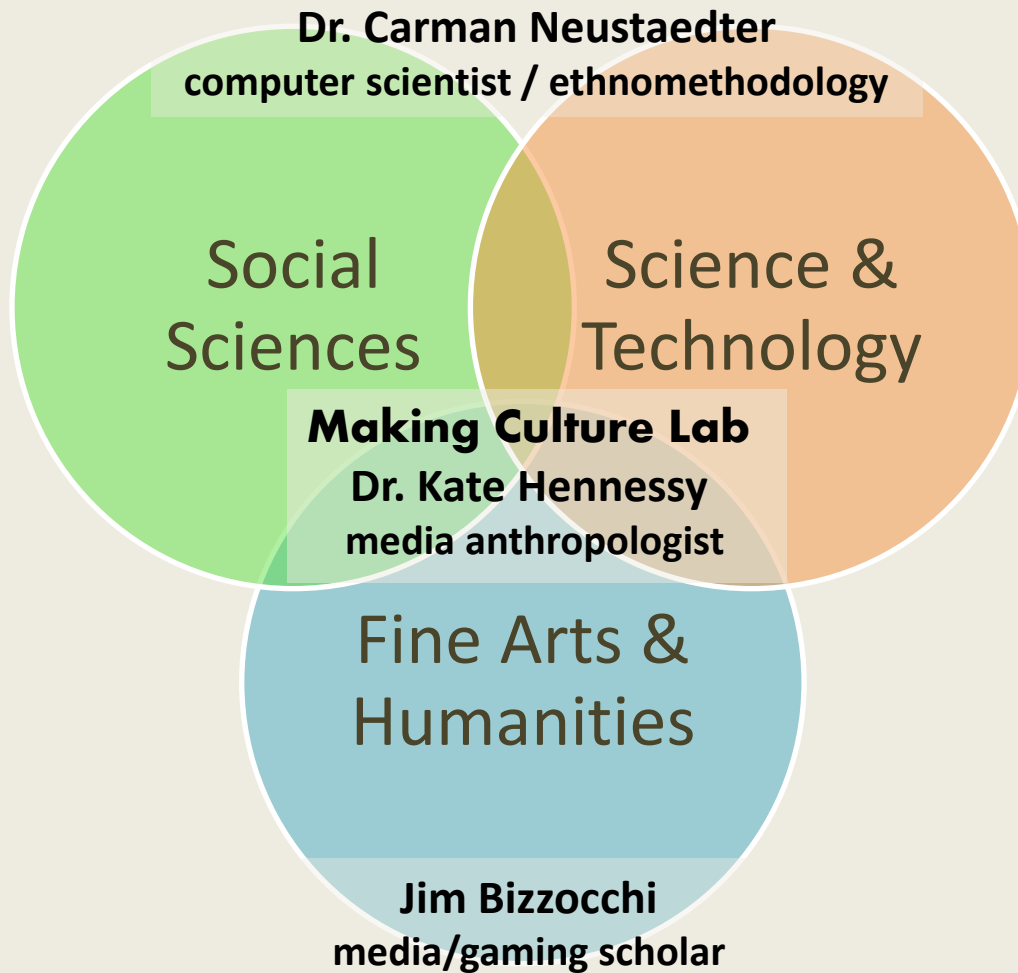
Technology

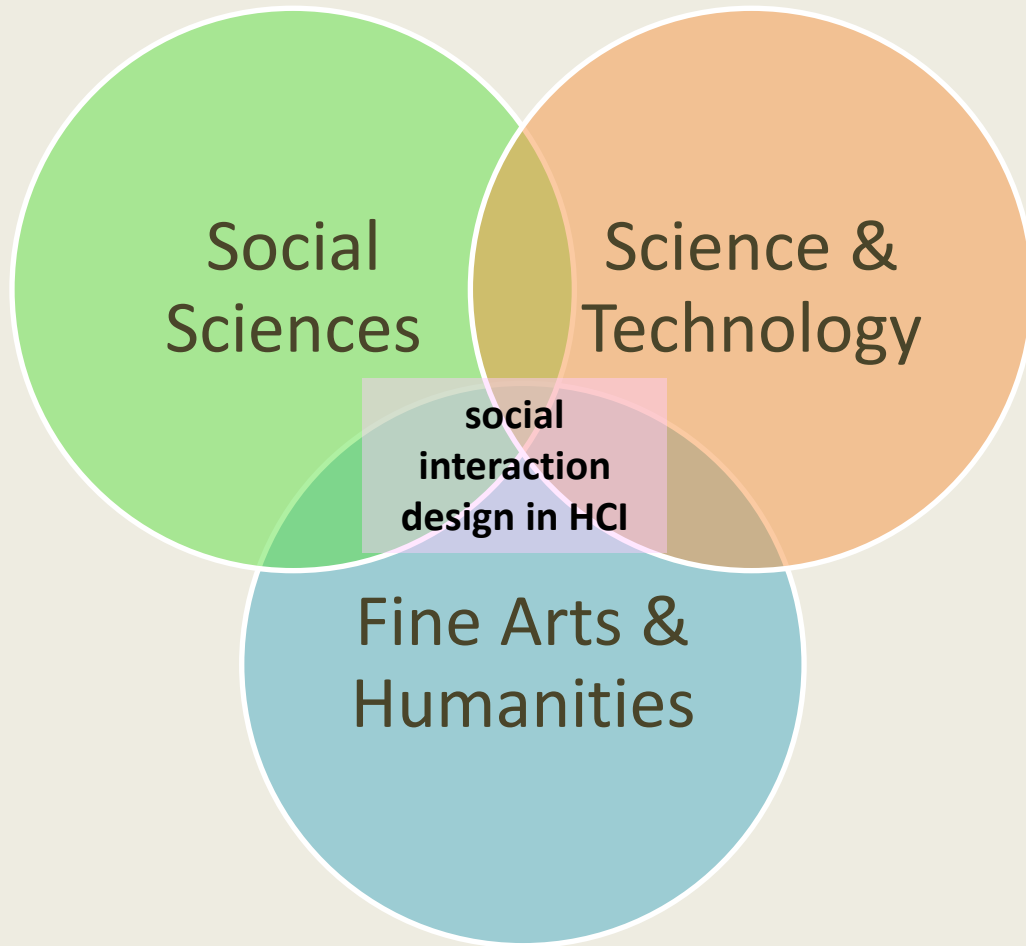
SIAT is an interdisciplinary research oriented school that marries art and science, using technology as the foundational medium, and with the motivation of designing with people in mind.

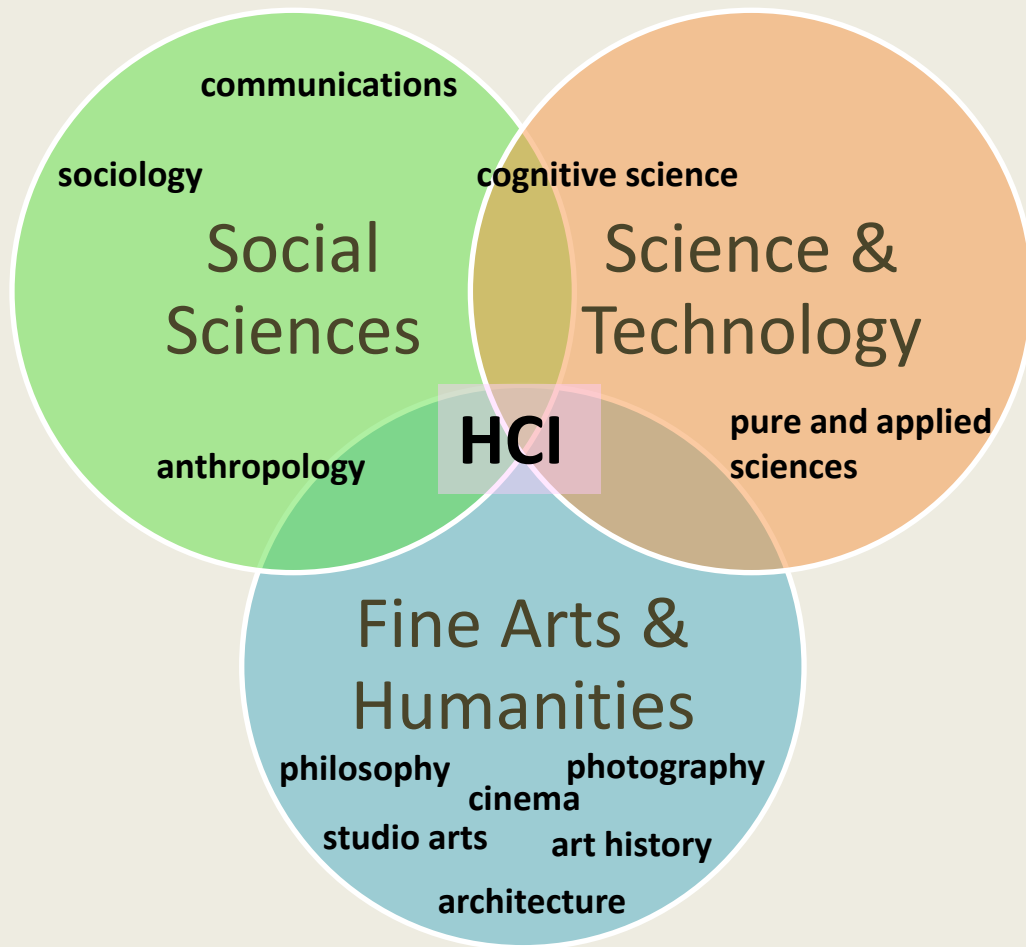


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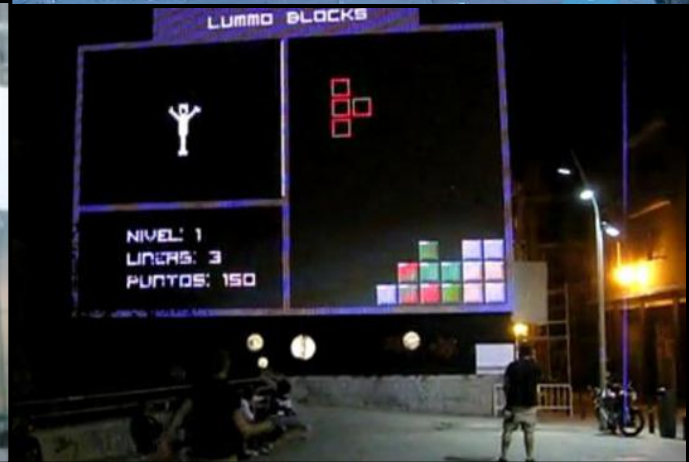








**using interdisciplinarity
to define a research domain**



Mirjam Struppek and the *Urban Screen* movement in Europe

Source: Mirjam Struppek, Urban Media Research, Berlin/Turin



Digital display inviting passersby to post their comments

Courtesy: Quartier des spectacles, Downtown Montréal, Québec



Non-digital and digital media displays, Toronto Eaton Centre

Source: flickr © 2010 Andrew Lovett-Barron



**Rotating displays
of frontpages of
newspapers from
around the world
San Francisco**

Source: flickr © 2008
Alper Çuğun



Displays in fg and bg in shopping mall , San Francisco

Source: flickr © 2011 Paul Mison



Displays in fg and bg in shopping mall , Helsinki, Finland

Source: flickr © 2011 Sami Niemelä



**Public interaction
w/ digital displays:
Brussels, Belgium**

Source: flickr © 2010
Alper Çuğun



Hand from above public art project, Big Screen Liverpool, UK

Source: flickr © 2009 Chris O'Shea



**Outdoor digital display broadcasting hockey game at
Air Canada Centre in Toronto, Ontario** Source: Internet



**The YeTi
interactive
displays support a
shared lab
environment
between Fuji
Xerox in Japan
and FXPAL in
Palo Alto, CA**

Source: FxPal



Dynamic media façade on university campus building

Courtesy: Quartier des spectacles, Downtown Montréal, Québec



LED ambient digital display behind glass pane on main street

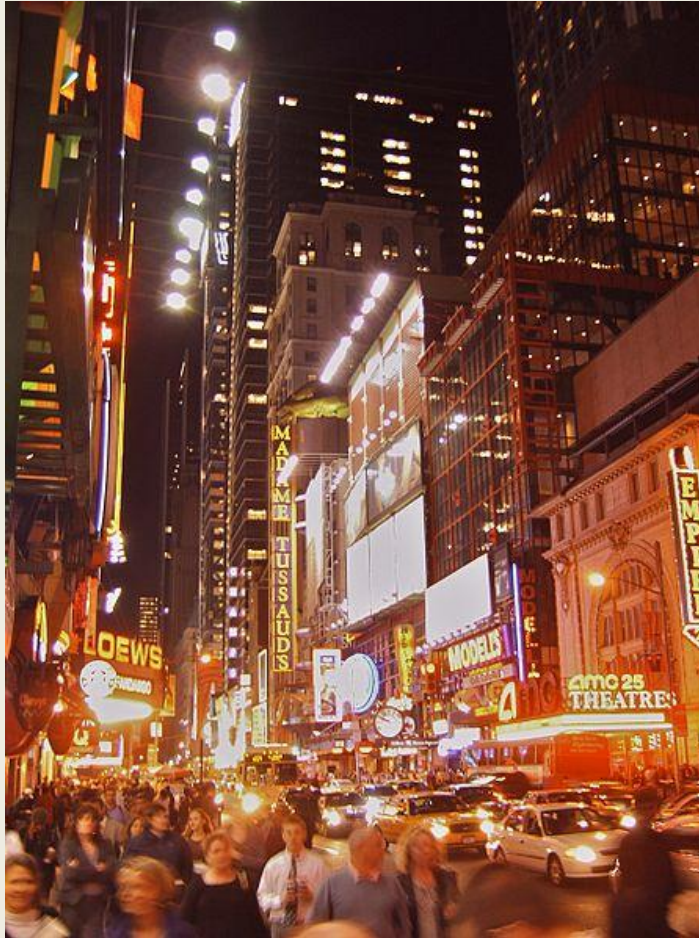
Courtesy: Quartier des spectacles, Downtown Montréal, Québec



**Street sign and mural painting on House of Cn. Audius Bassus (left) and frontal façade of Thermopolium of Asellina (right).
Street view of Via dell'Abbondanza's excavated ruins, Pompeii, Italy. Ancient Roman Empire, c. 79 CE. Source: (ARTstor)**



Electoral inscriptions, election propaganda and graffiti painted on façade of the excavated ruin of the Thermopolium of Asellina (*Asellina's Tavern*) in Pompeii, Italy. Ancient Roman Empire, circa 79 CE. Source: (ARTstor)



**Times Square, NY, 2006:
the digital billboard
aesthetic Paul Virilio
called “The Electronic
Gothic”** Source: Internet



**Times Square,
NY, circa 1930.**

Source: (Neumann, 13)

Ecological approach to urban screens:

- digital displays in a real world environment
- architectural setting
- public space

→ **interfaciality** occurs in a complex way w/ many elements

**using interdisciplinarity
to tailor research methodologies**

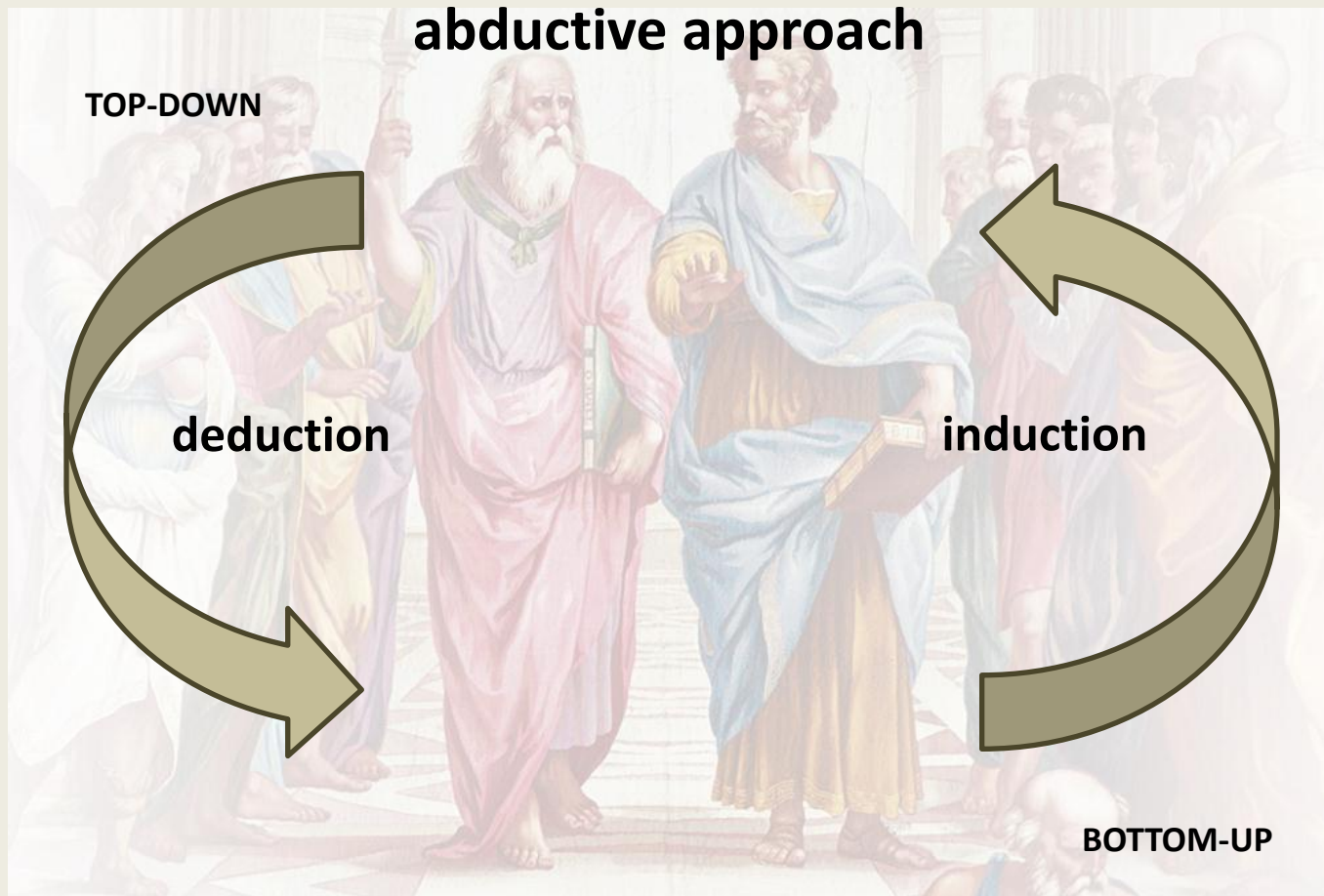
ACM Creativity & Cognition 2013 submission:

“Medium-specific properties of urban screens : Towards an ontological framework for digital public displays”

medium specificity = fine arts approach foreign to HCI

Medium-specificity

- medium-specific properties \neq HCI def. of affordances
 - first emerged as a critical method in the humanities
 - has since been used by studio artists in praxis
- what are the phenomenological properties of a medium?



Painting: Detail of Plato and Aristotle from Raphael's
***The School of Athens*. C. 1510.** Source: (ARTstor)

Design ethnography

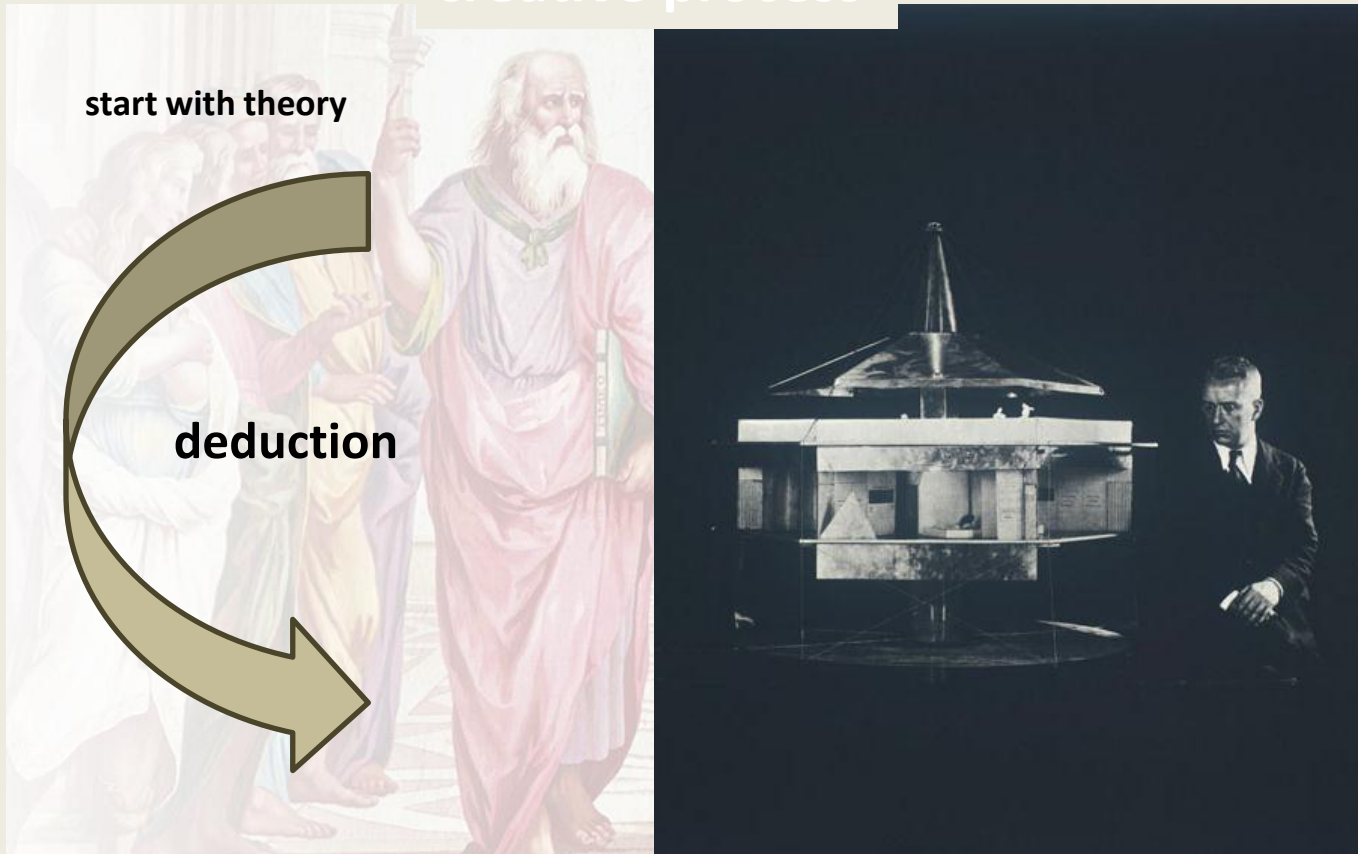
“its tradition is in analysing practice, rather than inventing the future” (Button and Dourish, 1996)

Scientific method

testing hypotheses is not exactly a creative process

How do we invent the future in HCI design?

creative process

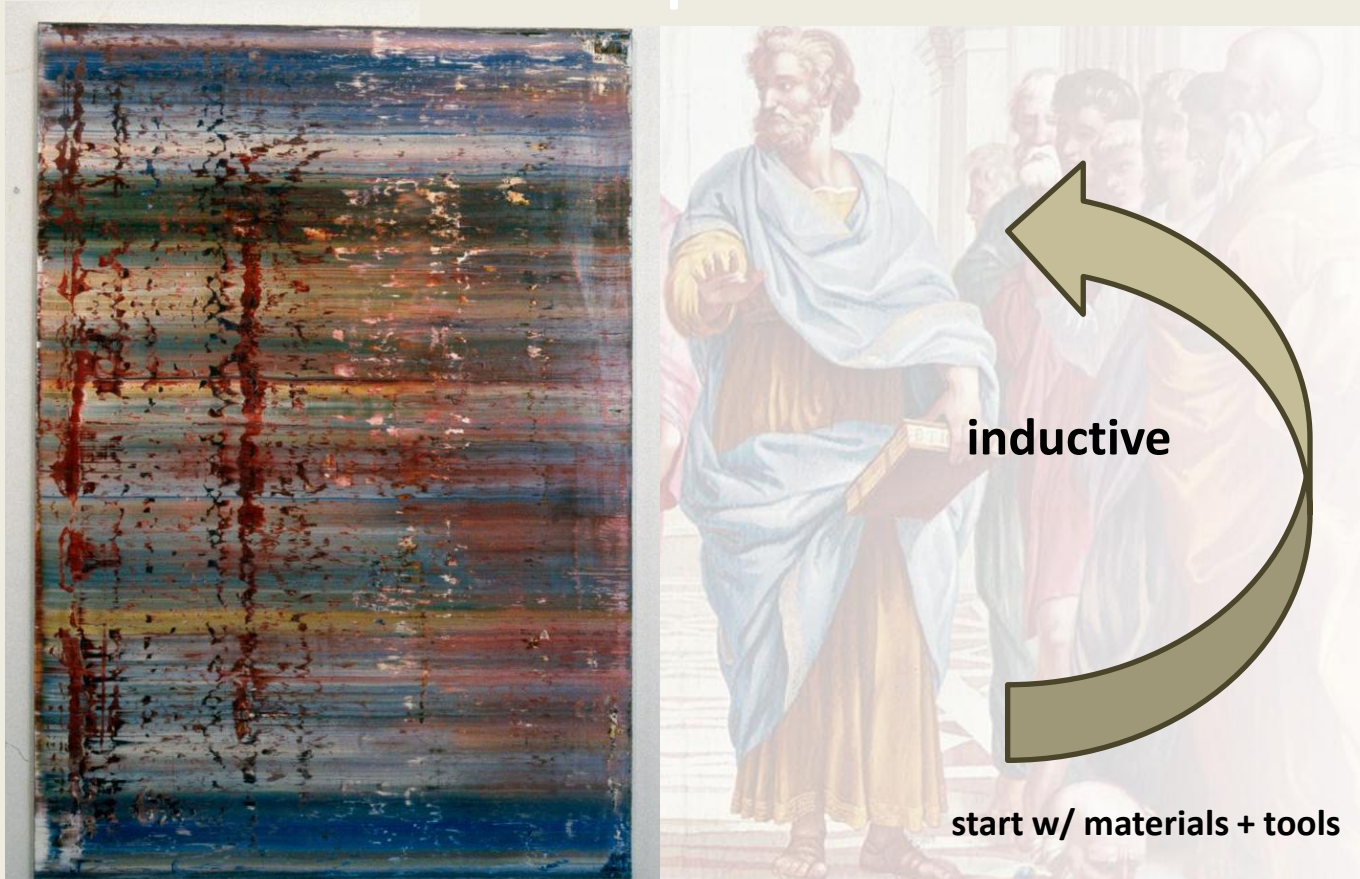


Utopic house design by Buckminster Fuller, *4D House*, from portfolio *Inventions: Twelve Around One*, 1981. Source: SFMOMA.



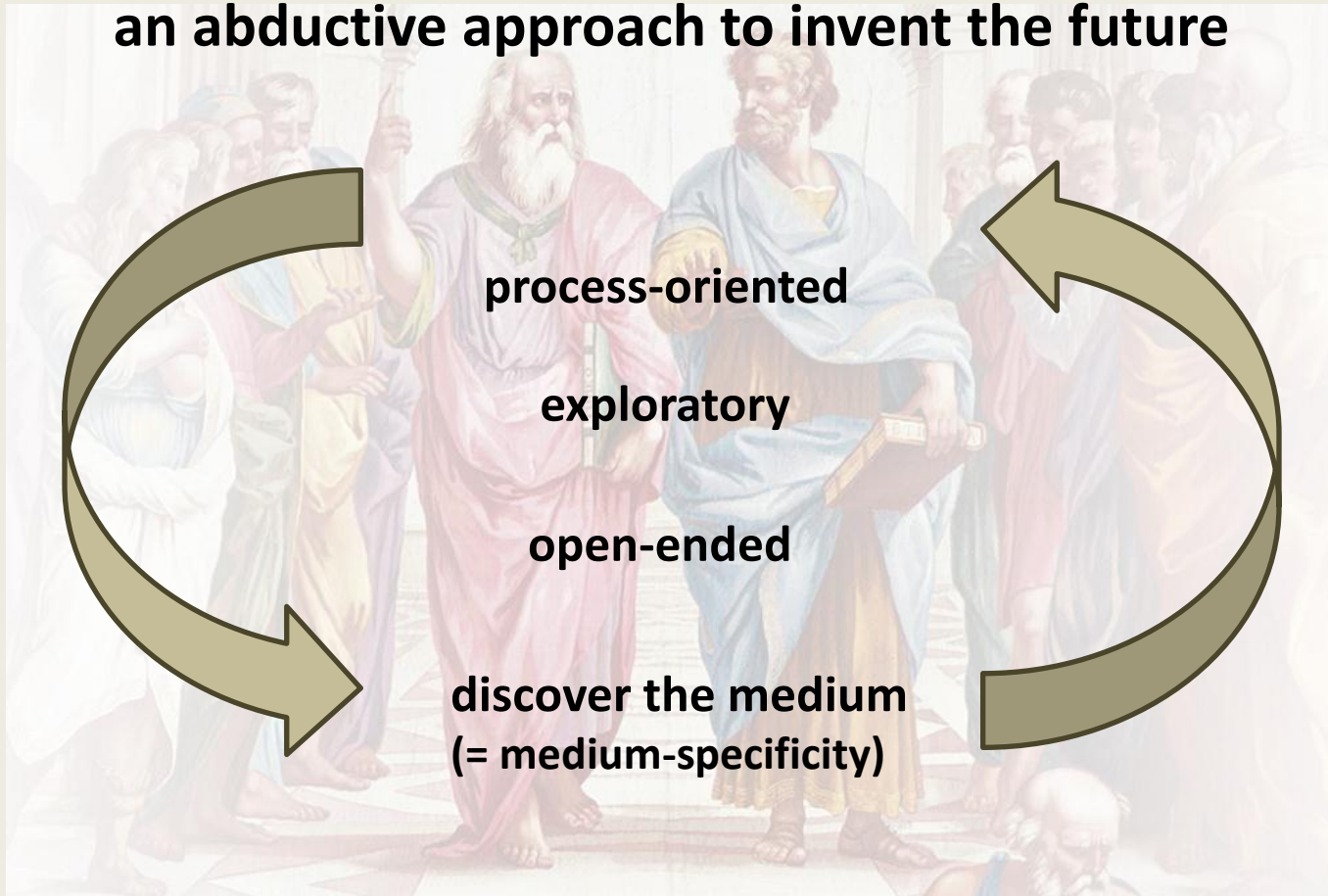
**Béhar, Yves. *One Laptop Per Child XO Laptop*.
2007. Plastic. 3.8 x 22.9 x 24.1 cm. Source: SFMoma**

creative process



Richter, Gerhard. *830-1 Abstract Bild, Mohn*. 1995. Oil on linen. 140 cm x 200 cm. Source: (ARTstor)

an abductive approach to invent the future



**using interdisciplinarity
to put research ethics in practice**

Humanities

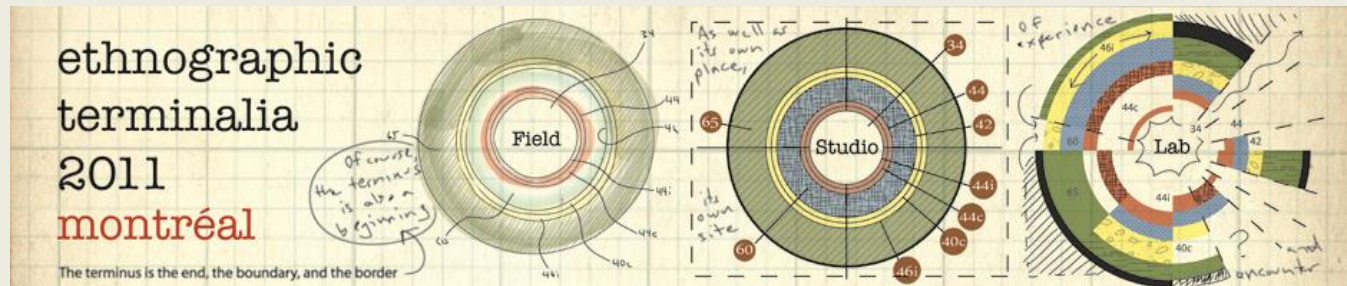
what does the past tell us about technologies?

Social Sciences

what does the present tell us about technologies?

Assumptions of the **MAKING CULTURE LAB**:

Knowledge is produced in 3 sites of inquiry



the field — the studio — the lab

Courtesy: Dr. Kate Hennessy



**Bird's eye view of 8 architectural scale
permanent media façade infrastructure in 1 km².**

Courtesy: Quartier des spectacles, Downtown Montréal, Québec

**collaborative methodologies
is research ethics-in-practice
in the production of
knowledge and artifacts**

**interdisciplinarity
and research challenges**

Interdisciplinarity : challenges

finding research collaborators
and academic mentors

Interdisciplinarity : challenges

where do we present and publish?

Interdisciplinarity : challenges

funding is usually allocated by discipline,
not by project

Interdisciplinarity

Pros:

- access to a wider body of knowledge and corpuses
- access to more research methods and tools
- possibility of defining new research spaces
- easier to practice ethical research in the real world

Cons:

- academic disciplinarity can be an administrative barrier
- lack of expertise in a research domain
- difficult to find collaborators and mentors in research