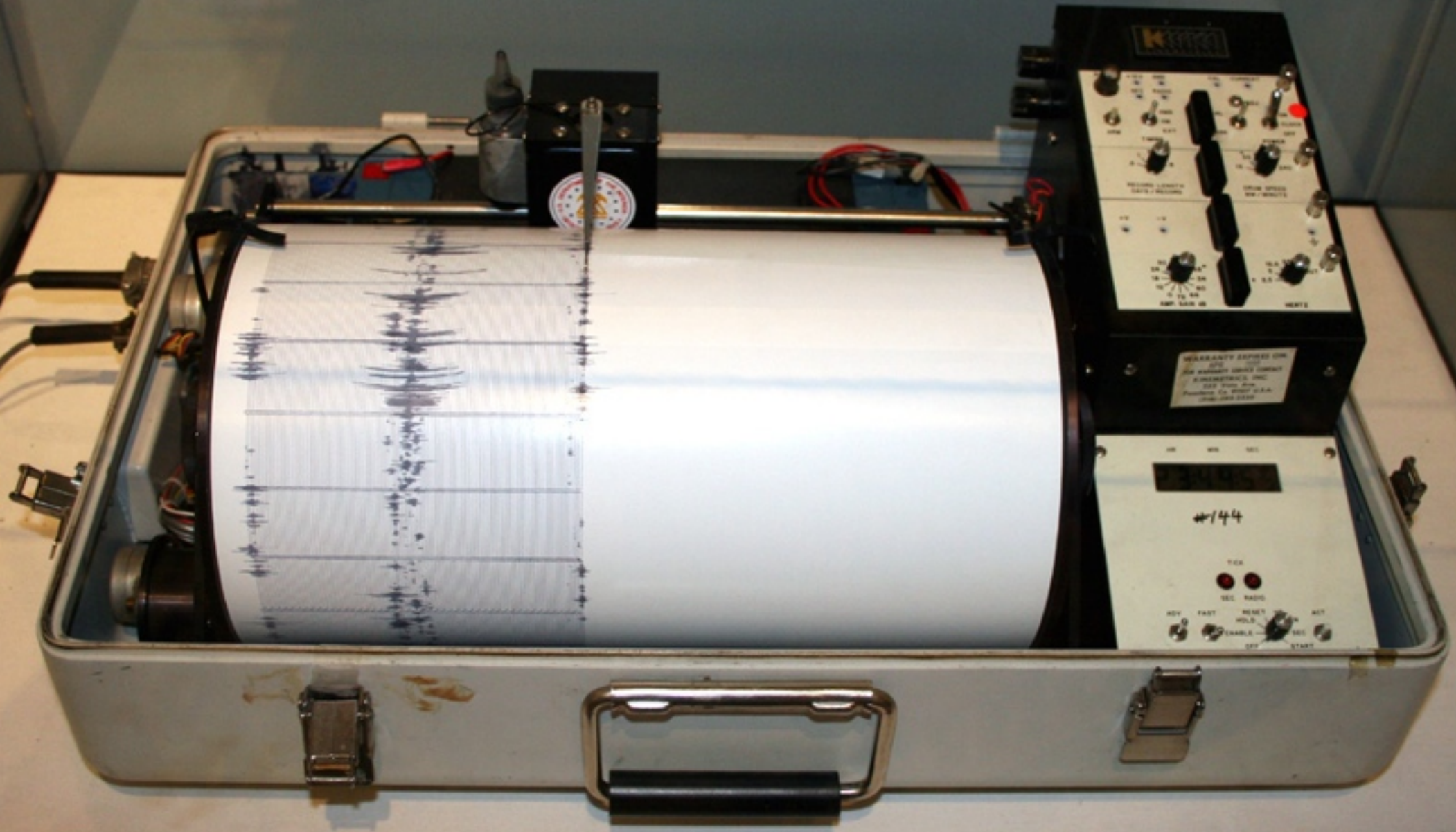
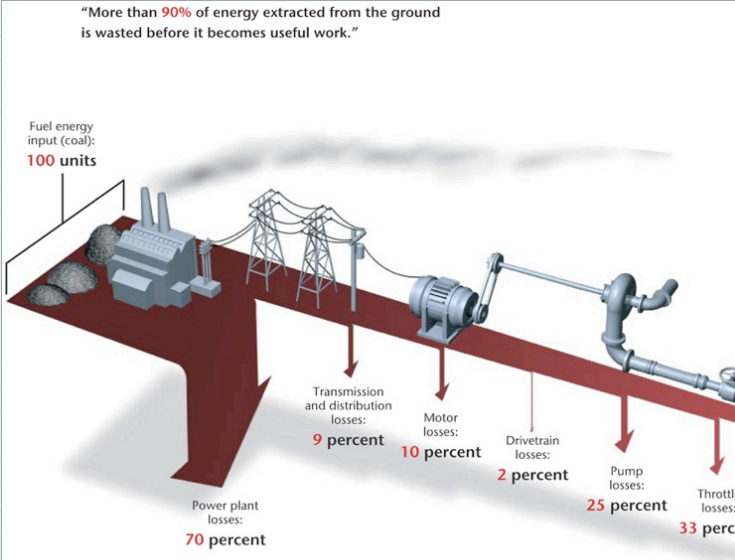
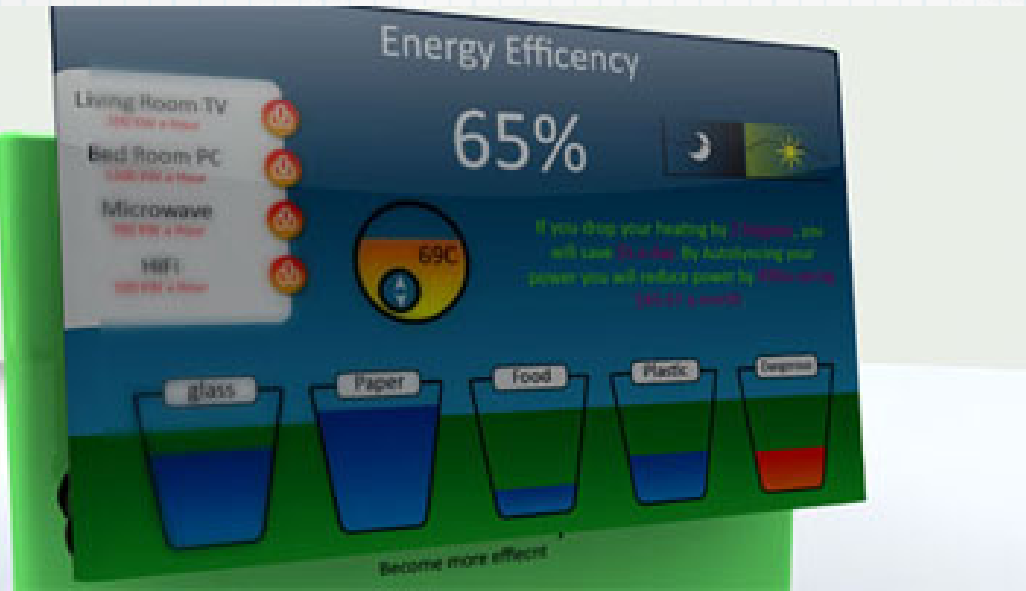


Ambient Information Systems: Evaluation in Two Paradigms

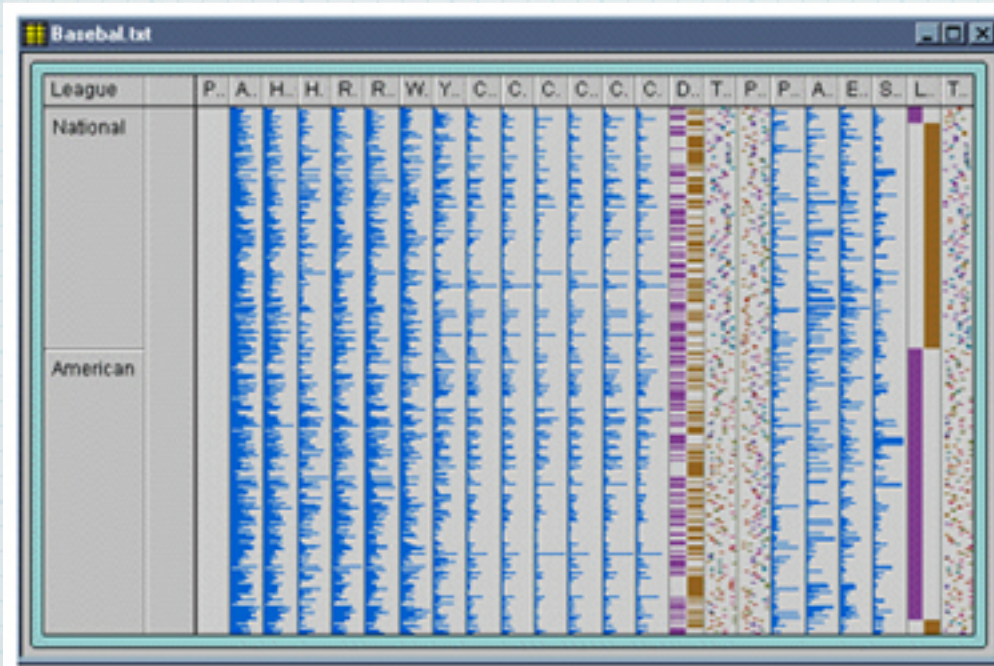
Pervasive 2007 Workshop - Ambient Information Systems
Zach Pousman, John Stasko





Infovis is not quite right for ambient systems...

- ☀ Expert users
- ☀ Deep “episodic” usage
- ☀ Focused on analytic insight (Saraiya and North, 2005)
(van Wijk, 2004)



Product	Units	Revenue	Profits
ForeWord Pro			
ForeMost Server			
ForeMost Lite			
ForeMost Access			
ForeFinancial			
ForeCode Pro	1803	770783	300606
	1803	770783	300606
	1801	769928	300272
	2228	751950	338378
	1733	740858	288935
	2164	730350	328658
	1683	719483	280599

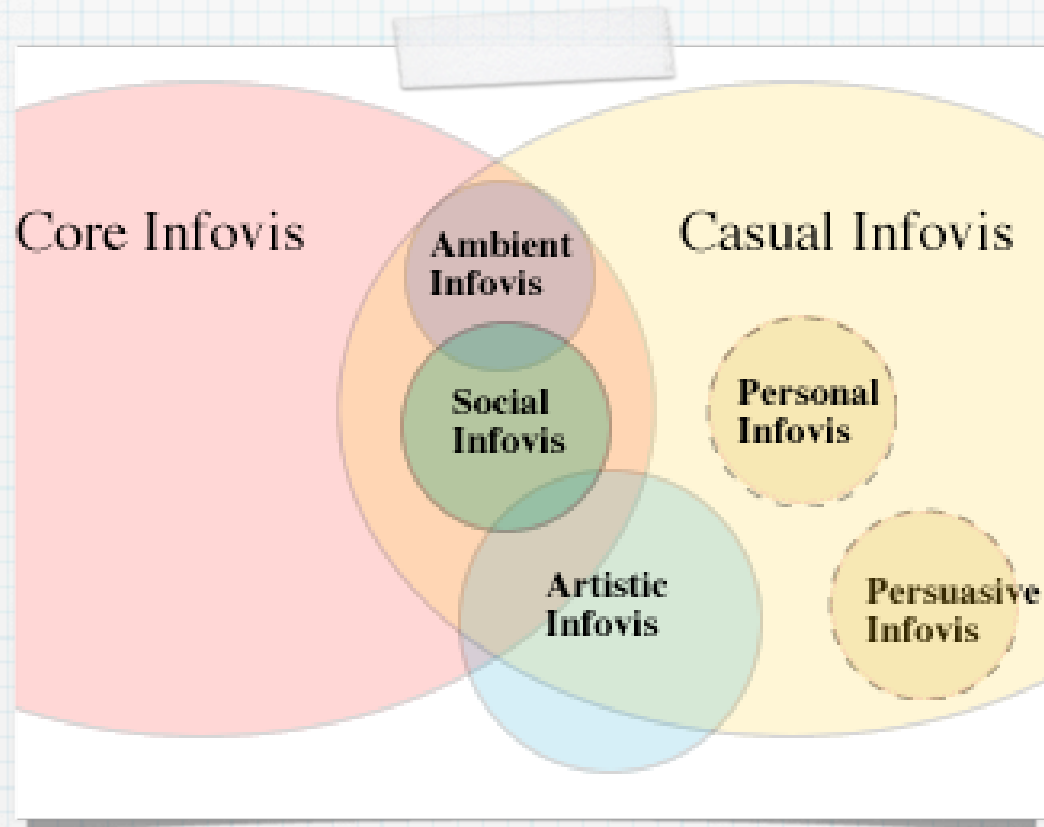
Infovis is not quite right...

- ✱ Expert users
- ✱ Deep “episodic” usage
- ✱ Focused on analytic insight

So, what might be right?

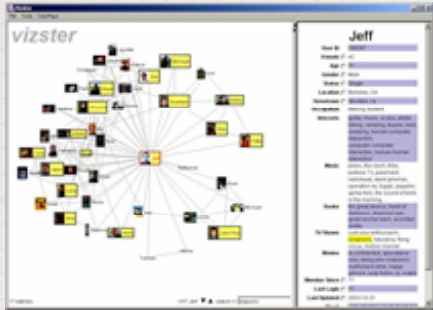
Casual Infovis

- ✱ Broader user population
- ✱ Different usage pattern
- ✱ Modified interactions
- ✱ New data & data “meaning”
- ✱ New types of “insight”

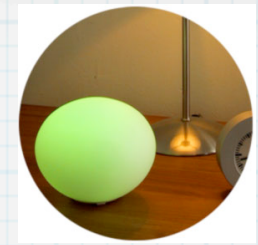


Casual Infovis & Core Infovis

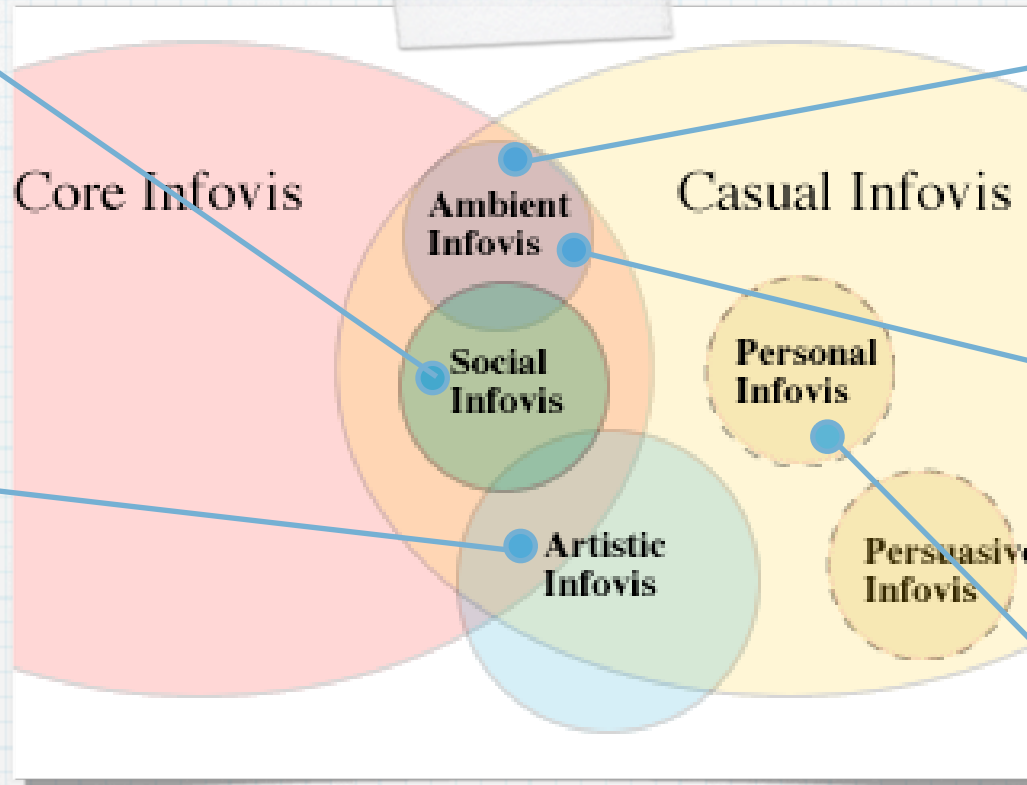
(with other emerging sub-areas)



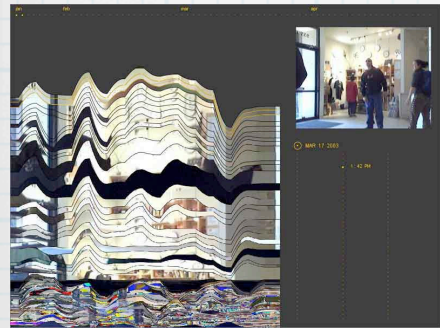
Vizster



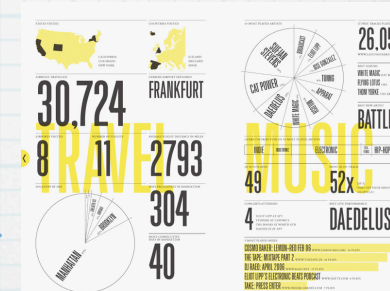
Ambient Orb



Digital Family Portrait



Artifacts of the Presence Era



Annual Report

Casual Infovis Examples

Not the first to notice

- ✻ Burrell & Morgan (1979)
- ✻ Hirshheim & Klein (1989)
- ✻ Kaye & Sengers (2007 alt.CHI)

Ontological Beliefs

Subjective

← Relativity

← Interpretive

← Voluntarism

← Ideographic

Objective

Ontology →

Reality

Epistemology →

Positivism

Human Nature →

Determinism

Method →

Nomothetic

4 Paradigms

Sociology of Control

Interpretivist Sociology
Phenomenology

Functionalism

Subjective

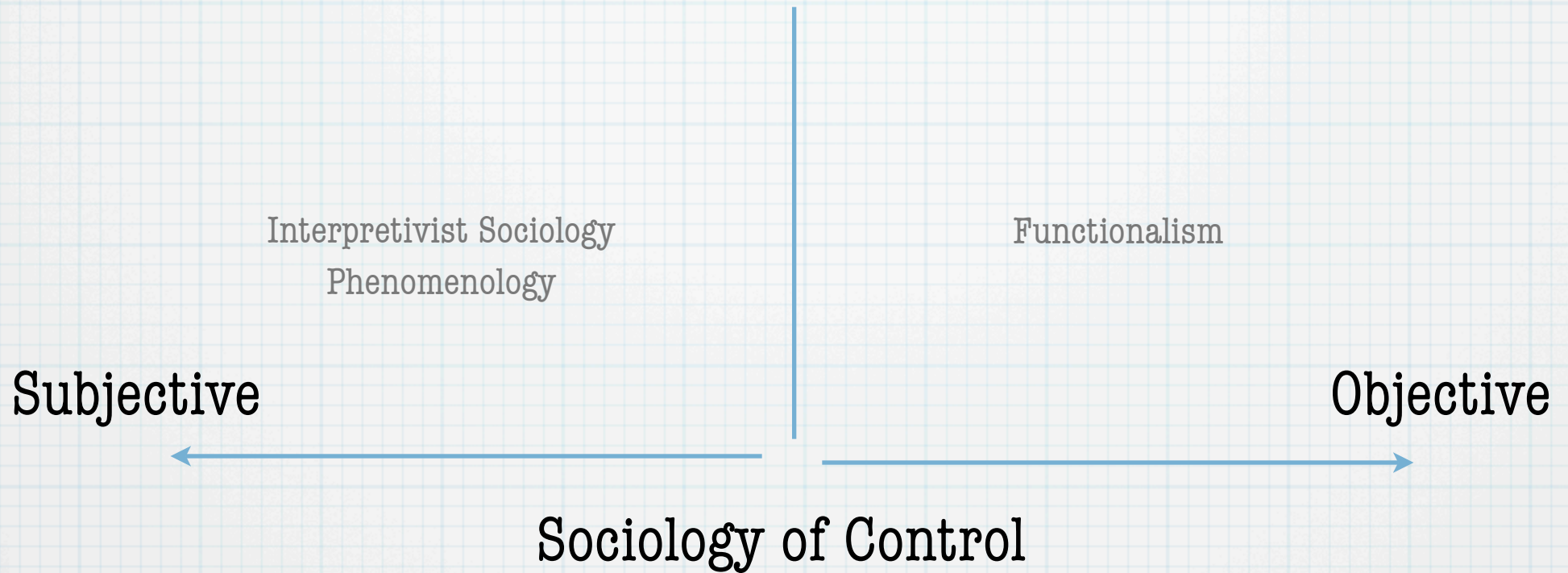
Objective

Radical Humanism

Radical Structuralism

Sociology of Radical Change

2 Paradigms



Functionalist Evaluation

- ✻ Increase Awareness
- ✻ Time Savings (Decrease time to find)
- ✻ Decrease Anxiety / Stress
- ✻ Decrease Distraction
- ✻ Increase Learnability of Representations
- ✻ Behavior Change (Persuasion)

InfoCanvas (Miller, Stasko, and others)



Social Relativist Evaluation

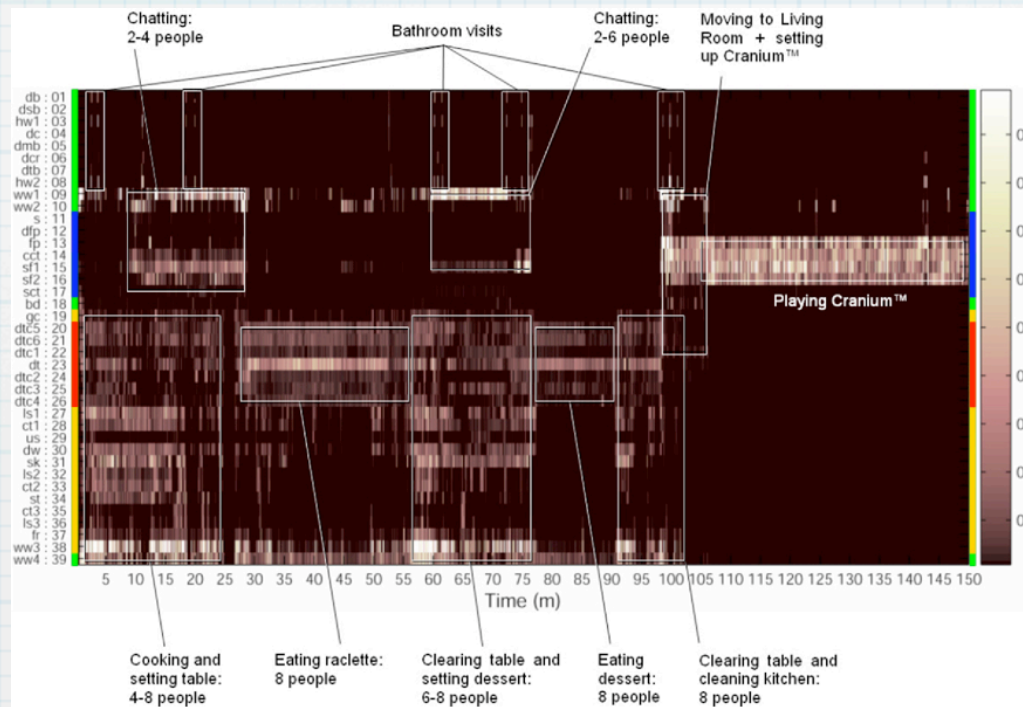
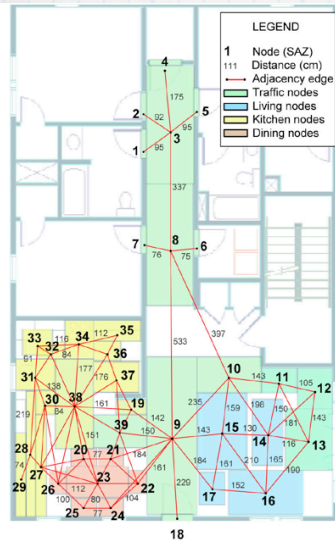
- ✱ Thick Description of Use and Appropriation
- ✱ Getting to the “felt-experience”
- ✱ Increase Engagement
 - ✱ (designer could intend longer interactions instead of shorter)
- ✱ Limited Generalizability



Tableau Machine System

Sensing

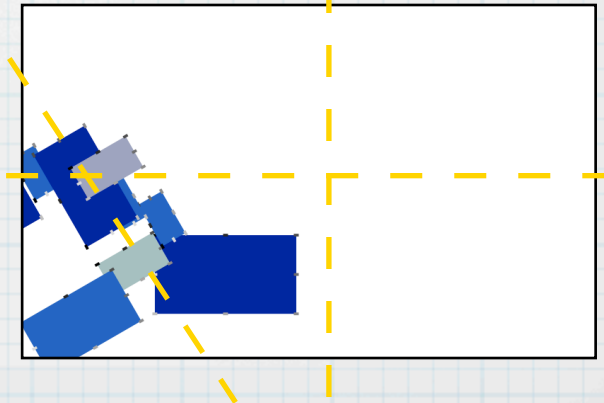
Interpretation



☀ Productions

☀ Mapping:

- Colors
- Balance
- Delicacy (edges)
- Dominance



Synthesis not
possible

Mutual Respect

Thanks! Questions?