Elective Course Information Architecture

Information as Raw Material

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iA

Chair for Information Architecture

Overview

– Perception and your Mind's Eye
– From Information to Knowledge
– organize.optimize.simplify.
New Methods in the Architectural Design Process

Overview

Experiment 1

How many „F"s can you find in this text?

Experiment 1

FINISHED FILES ARE
THE RESULT OF YEARS
OF SCIENTIFIC STUDY
COMBINED WITH THE
EXPERIENCE OF YEARS

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Solution: 6

Experiment 2

Monitor the white team of players by counting the number of passes they made.

Experiment 2

Monitor the white team of players by counting the number of passes they made.

Solution: 16

Did you see anything out of the ordinary?
- Watch the video again!

Summary

Have you figured out the essence of the experiments?

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We do not see the world as IT IS,
we see the world as WE DESIGN IT

Overview

Situation – Information Overload

Did you know…?

Situation – Information Overload

Students forget 90% of what they learn in class within 30 days.

Situation - Information Overload

Students forget 90% of what they learn in class within 30 days.

Most of this „forgetting" occurs
within the first few hours after class.

Situation - Information Overload

Did you know...?

Situation – Information Overload

People will remember 10%

of information presented orally

tested 72 hours after exposure...

Situation – Information Overload

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of information presented orally

tested 72 hours after exposure...

...add an image – and it goes up to 65%

Situation - Information Overload

more and more information

needs to be communicated

faster and faster

to more and more stakeholders

Visualization Fields - Static

- Art
- Advertising
- Graphic Design
- Visual Communication
- Information Design
- Film

Visualization Fields - Interactive

- – Interaction/Game Design
- – Geographic Information System (GIS)
- – Medical Visualization
- – Scientific Visualization
- – Computer Graphics
- – Information Visualization
- – Human Computer Interaction
- – Virtual Reality
- – Augmented Reality
- – Knowledge Visualization

Discussion

Why is this relevant to you?

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One of the archtitect's key resource in the future is the comprehensive knowledge about different visualization methods and the understanding of relations, patterns, and principles.

It is the capacity to create high level design by the combination of Architecture and Information.
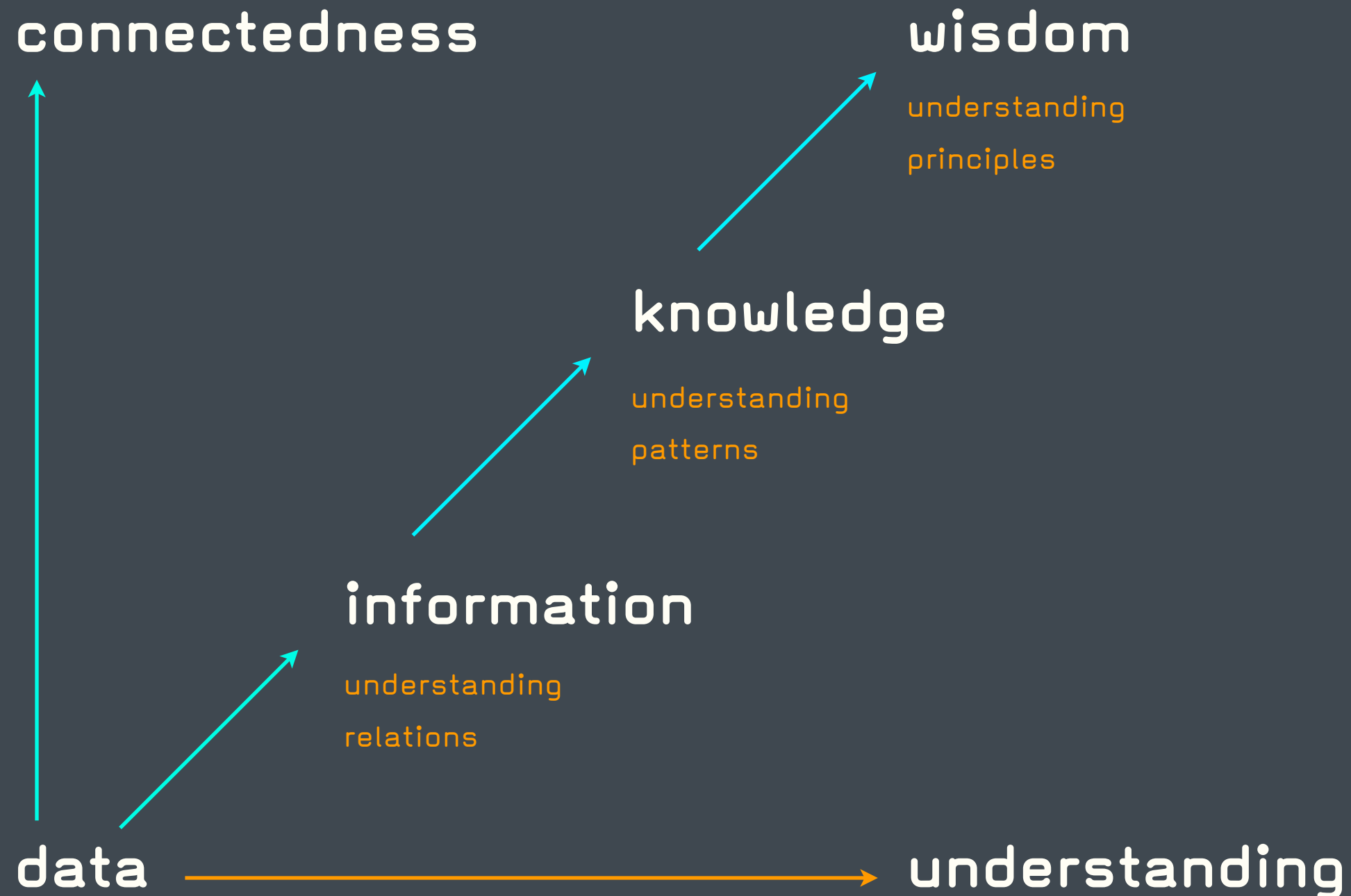
Why is this relevant to you?

Visualization Methods

- Envisioning (Mental Images, Stories)
- Sketching (Sketch)
- Expressing, Narrating (Images)
- Diagramming (Diagramms, Charts)
- Mapping (Maps)
- Materializing (Objects, Models)
- Exploring (Interactive Visualizations)

Data - Information - Knowledge - Wisdom

connectedness

wisdom

understanding

principles

knowledge

understanding

patterns

information

understanding

relations

data

understanding

Data – Information – Knowledge – Wisdom

Data

Represents a fact or a statement of an event without relation to other things

Example: 42
Example: It rains

Data – Information – Knowledge – Wisdom

Information

Embodies the understanding of a relationship of some sort, possibly cause and effect

Example: The temperature dropped 15 degrees and then it started raining.

Data – Information – Knowledge – Wisdom

Knowledge

Represents a pattern that connects and generally provides a high level of predictability as to what is described or what will happen next

Ex: If the humidity is very high and the temperature drops substantially the atmosphere is often unlikely to be able to hold the moisture so it rains.
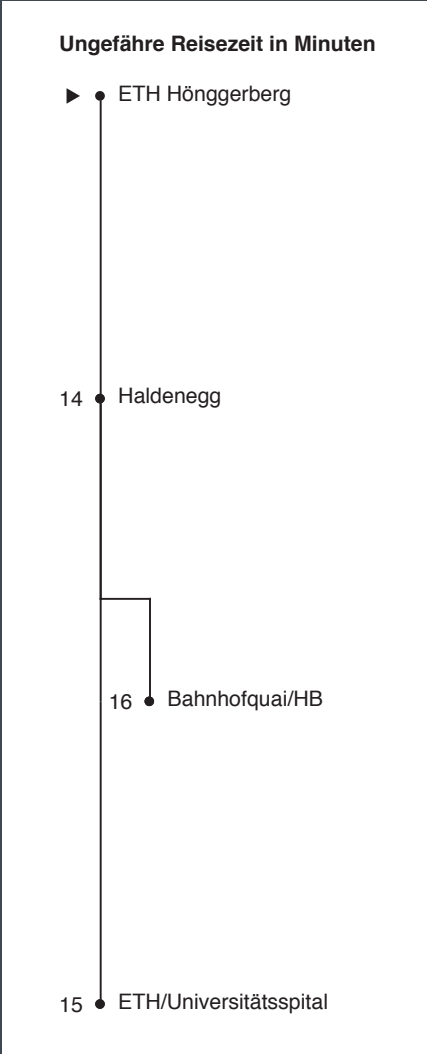
Data - Information - Knowledge - Wisdom

Wisdom

Embodies more of an understanding of fundamental principles embodied within the knowledge that are essentially the basis for the knowledge being what it is. Wisdom is essentially systemic.

Example: It rains because it rains. And this encompasses an understanding of all the interactions that happen between raining, evaporation, air currents, temperature gradients, changes, and raining.

Example

h	Montag-Freitag	Samstag	Sonn- und Feiertag	h
5				5
6				6
7	54			7
8	14 34 54			8
9	14 34 54			9
10	14 34 54			10
11	14 34 54			11
12	14 34 54			12
13	14 34 54			13
14	14 34 54			14
15	14 34 54			15
16	14 34$_a$ 54$_a$			16
17				17
18				18
19				19
20				20
21				21
22				22
23				23

Ungefähre Reisezeit in Minuten

▶ ● ETH Hönggerberg

14 ● Haldenegg

16 ● Bahnhofquai/HB

15 ● ETH/Universitätsspital

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Memetic Engineering and Transparency

Dissertation Urs L. Hirschberg, 2008

Potential and Design of Environments for Large Scale Creative Collaboration Via Networks in Architectural Education

Memetic Engineering and Transparency

Memetics is an approach to evolutionary models of cultural information transfer based on the concept of the meme.

A meme comprises a unit or element of cultural ideas, symbols or practices; such units or elements transmit from one mind to another through speech, gestures, rituals, or other imitable phenomena.
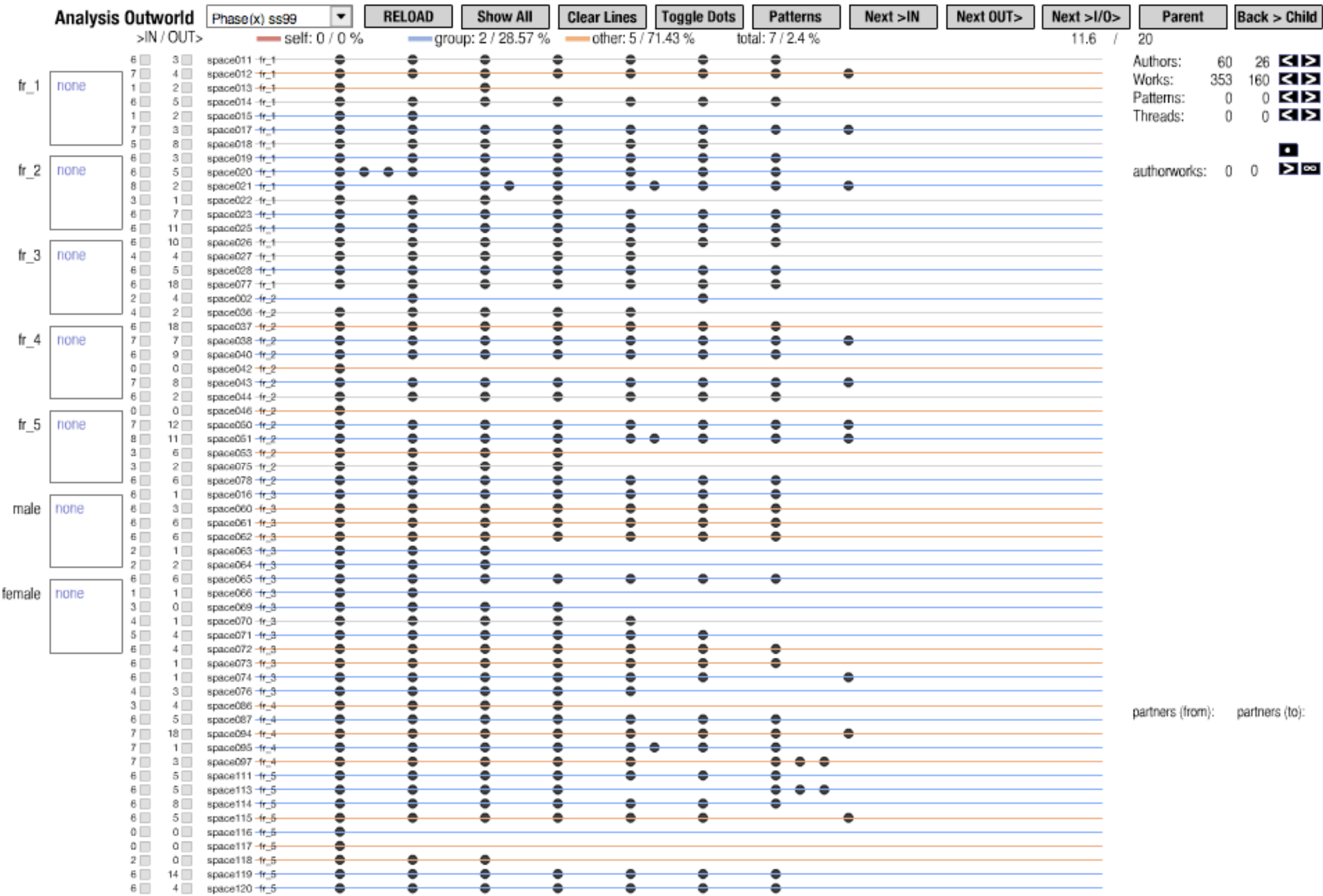
Memetic Engineering and Transparency

1996 - 1999 (Student Work at ETHZ)

– Phase(x) http://space.arch.ethz.ch/ws96/

– Fake.space

– Virtual Design Studio

– EventSpaces

2000 - 2008

– EventSpaces @ GSD (http://space.gsd.harvard.edu)

– Other classes at Harvard and at TU Graz

organize.optimize.simplify. – New Methods in the Architectural Design Process

Analysis Outworld Tool

Podcast Information Architecture

http://www.ia.arch.ethz.ch/teaching-fs2009/

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Chair for Information Architecture

Workshop: Visualizing Urban Complexity

Note:

Deadline Preliminary Exercise 2a: March 16, 2009

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Sources

08: VisCog Productions, DVD, Surprising Studies of Visual Awareness
19-21: http://www.shutterstock.com
30: http://www.vbz.ch
35: http://iam.tugraz.at/tmp_download/meat/CD/analysis_outworld.swf

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