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Using material properties to understand and shape relationships in public and social services.

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Suggested citation:

materializing systemic relations

a first attempt on using physical material properties to discuss inter-personal or inter-institutional relationships
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working with relations in complex systems

We tend to focus on nodes, or entities, or units, rather than on their connections or relations.

“I hate those yellow labels, they limit our thinking.”
(Birger Sevaldson)
working with relations in complex systems

We tend to focus on nodes, or entities, or units, rather than on their connections or relations.
1. RELATIONS IN SYSTEMS THAT ARE DEPICTED WITH NODES AND CONNECTORS (typically objects connected with lines or arrows)

1.1 STRUCTURAL RELATIONS, HIERARCHICAL SUPRA AND SUB SYSTEMS (GREENS) (STR)

1.1.1 Structural relations (Functional relations)

Very often systems are described as the assembly of parts where the sum is more than its parts. This is not a cause-effect relationship or structural relationship.

Example: there is no causal relationship between the wheels and the frame of a bicycle in the sense that e.g. the frame decreases if the wheels increase. They are assembled in a structure where they generate together a surplus output. The whole is more than the sum of the parts.

Example: The relation in the air traffic system between the planes and the control system. The amount of planes do not automatically decrease if the control system is reduced. It only happens through institutional regulations.

1.1.2. Macro systemic relations (MSR):

Relations that are caused by the entities being subsystems in the same "supra-system" but without necessarily being in direct contact with each other.

Example: Bikes and cars are related because they are sharing the same macro-system: the roads. (They are related in additional ways than this.

Examples: The winter coat and the bikini are both part of the clothing wardrobe of the same person.

1.1.3. Micro systemic relations (MSR):

Systems that are related because they share a relation through a sub-system:

Example: The rubber in the tires of the cars and the tires come from the same producer.

Example: A MiAmaster and a hair dryer can share similar electronic parts from the same manufacturer.

1.2 ASSOCIATIVE SEMANTIC AND THEMATIC RELATIONS (BLUE) (ATR)

1.2.1. Thematic relations (TR):

Thematic relations are entities being part of the same thematic field or category. Themes and sub-themes are necessary to be e.g. cause-effect relations between members of a theme.

Example: the relation between Universal Design and Ergonomics

Example: Genres of music. There are many possible relations between genres of music but if we think of the relation between the music of the Australian aborigines and a symphony by Bach we can only think of very few (like biological) (music being programmed in our genes) and thematic relations (both being music).

1.2.2. Associative relations (AR):

Metaphors and analogies: These are the types of relations that pop up in brain storms by associations.

Example: if two people are very similar to each other in their look there is an associative relation.

Example: if I say bind, you say fish...

1.2.3. Social relations (SR):


1.3. SOCIAL RELATIONS (Yellow) (SR)

1.3.1. Structural social relations (SSR)

Example: Family, friends etc

1.3.2. Institutional social relations (ISR)

Example: Work, municipality, nation, culture, language etc.

1.3.3. Actions (ASR)

Social relations through action

Example: Sharing political interests.

1.3. HARD RELATIONS, CAUSAL RELATIONS, FLOWS ETC. (RED) (CR)

1.3.1 Causal relations (CR)

Cause and effect models: The nodes depict what entities cause an effects and what entities are being affected while the relations (normally arrows) depict the effect.

Example: if the heat is turned on the kettle starts to boil

Example: if the tolls for entering the city by car increases the passengers on public transportation go up.

1.3.2. Qualitative Causal Relation (QCR)

The amount or intensity will not be influenced but the quality will be changed

Example: The relation between architectural space and micro climate

1.3.3. Tools (CRT): Tools are typically modifying and influencing involved objects

Example: AR used to increase cultural understanding

1.3.4. Flows in human systems (FHS):

These are the emergent flows of energy in our society. They are driven by nodes.

Example: A safe evening lunch at lunch hours.

http://www.systemorienteddesign.net/index.php/gigamapping/types-of-systemic-relations
why did this all start?
sharing experiences when design meets health
Inspired on “Building the Service Design Research UK Landscape, Lancaster University, 2013”
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Healthcare is becoming trendy.
There are some tools missing, specially around implementation. But what does implementation mean in the context of designing for complex social and public services, like health?
From Delivery State to Relational State

- GOV stands over people
- GOV becomes a provider
- GOV acts with people

Sources: Muir & Parker 2014; Cooke & Muir 2012
FROM EFFICIENT TRANSACTIONS

TO MEANINGFUL RELATIONSHIPS

Sources: Muir & Parker 2014; Cooke & Muir 2012
WHAT IS THE RELATIONAL STATE?

Sources: Muir & Parker 2014; Cooke & Muir 2012
relational public services

We need to see public services as interconnected systems.
The role of the government changes from a manager to an enabler.
Actors and institutions take the lead.
A bigger role for communities, service providers and individuals.
At all these levels, we need to foster deeper relationships.

source: Muir & Parker. 2014. Many to Many: How the relational state will transform public services
lets rewind 24 hours
setting up the workspace
supporting people as they age

mental health challenges in young people

formally strengthening caregivers
systems & service levels
systems & service levels
introducing the day
warm up: segmenting

Design-Systems & Academic - Practical (same as Birgers)
Copper - Metal & String - Yarn
invisible forces that shape social interactions, like:

1. Taboos
2. Hierarchy
3. Cultural norms
4. History of discrimination
5. Lack of confidence
6. Social standards
7. Political agendas
8. Conflict of interests
9. Ability to express fear

or… “people just not liking each other”
introducing the materials
exploring the material

what qualities do they have?
paper/pen relation
exploring their relations (& forming groups)
evaluating this approach

Key findings: narrow start - limited vocabulary - skill based
time to create!
| Owninig the materials through discussion and testing |

<table>
<thead>
<tr>
<th>Within the context you are working in, what type of relation could these materials represent?</th>
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<tbody>
<tr>
<td>* Relational shift.</td>
</tr>
<tr>
<td><strong>Natural Hemp</strong></td>
</tr>
<tr>
<td><strong>Stainless Steel</strong></td>
</tr>
<tr>
<td><strong>White Cotton Elastic</strong></td>
</tr>
<tr>
<td><strong>White Elastic Lace</strong></td>
</tr>
<tr>
<td><strong>Translucent Nylon</strong></td>
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<tr>
<td><strong>Black Cotton Elastic</strong></td>
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<tr>
<td><strong>Rubber Elastic</strong></td>
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<tr>
<td><strong>Yarn</strong></td>
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</tbody>
</table>
meeting the case & the kit
making it their own
meeting the case & the kit

group dynamics
timeout sharing session
sharing challenges & smart fixes
presentation session
“collective vocabulary re: relationships”
supporting people as they age

mental health challenges in young people

formally strengthening caregivers

nylon:
transparent, strong & invisible

nylon:
clear, honest, difficult to hold, but moves easily

nylon:
use it to represent a supporting, but non invasive service line
“bringing people together, like an elastic”

“it's interesting that when we don't have tools like this, our instincts are to create solutions that are not about relationships, but about things.

And here, we don't even need a product. It's all about transforming these relationships.”
Any participants in the room?
thanks to all the enthusiasm and creativity of the participants!

adrian & manuela
get in touch!

@Adrian_Paulsen
@ManuelaAguirreU
write your questions/thoughts/pictures here
how to design a feedback platform?

1) Maybe there’s a google function? / online questionnaire?
2) All the printable materials are done on our platform, that way we will see what types of challenges they use the tool for?
3) We also want to know what material library they create, and what relational vocabulary they design.