Making design respond to society’s complexity

Our connected society demands new design (and business) approaches

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Towards a contemporary Approach

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1. How “we” work now

• We by and large try to solve real life (design) problems by isolating them, i.e. zooming in
• Our responses focus on simplification: reducing number and variety of actors, reducing interconnections, increasing ‘manageability’, predictability and control
• We hope that our solutions are adequate if we simplify the problem descriptions a/o context
• Situations that have a systemic nature are approached linearly even if we do see the interconnections
2. How the world works

• Real life problems are by definition not linear and not predictable
• Therefore, most real life problems cannot be dealt with by linear approaches
• Real life problems have no clear cut solutions
• No single nor multiple discipline can bring these solutions by default
• Real life systems – also without our ‘help’ - have a tendency to evolve towards more desired states which we gratefully interpret as solutions
3. A complex multi-contextual reality

• Complexity refers to complicated systems i.e. where the interaction between actors are used to start an evolution towards a more desired state
• A system evolving towards a more desired state is called to be emergent
• Complexity in itself is unpredictable and uncontrollable
• However approaching complexity through multi contextual observations has proven to be a promising proxy
• Especially when designing new artificial constructs to “solve” current undesired states of a real life system, a multi context approach is expected to increase the usefulness of the design significantly
4. Gap between reality and us

• Trying to **simplify complexity** equals **throwing away** "steps in the evolution"

• **Controlling complexity** is like **blindfolding** the system trying to find a way out

• **Predicting** outcomes is like specifying the number of screws in a car, while you have no idea of the road

• Current management approaches ignore emergence and focus on the **appearance** of being in control, while this is by definition impossible

• Politics and management are about rules and boundary conditions, therefore preventing real life systems from **coming into emergence**
5. So, what next?

- **Illusion:** thinking you can be fully in control while working in a complex system
- **Dare to ask:** how can we accept loss of full control while still being able to act responsible and accountable?
- **Epiphany:** if simplifying complexity means throwing away “solutions and evolutions”, could adding complexity mean: allowing these?
- **Wonder:** Does problem solving benefit from a multi-contextual approach as a proxy for full emergence of a real life system?
- **Imagine:** if the world is my playground, who can I invite to play, and what do I bring along?
## Changing paradigms

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6. Keys for ways forward

- **Acknowledge** complexity, **embrace** emergence
- Accept that focus on strict control and prediction are **inefficient and ineffective** concepts
- Focus energy on how best to **deal with that reality** instead of fighting it
- ... because solving problems with the same approach that created them is most likely not a **good way forward**
- Doing things **differently** than before is at least creating new opportunities
- Being an early adopter of imperative changes distinguishes **innovation leaders**
7. Context Variation by Design

- Use the combination of principles from the right hand side of the table to acknowledge the multiformity of the design challenge
- Collect simultaneous insights from multiple contexts and let these interact, as a desirable complexity, not a difficult complication
- Let go of or rethink concepts like “exact”, “non-negotiable”, “certainty”, “control”, “too much information”
- Build in adaptability as a strength: don’t take the Big Decisions if you have not yet acknowledged the multiformity of the problem
- Ensure that attitude and approach are in line, both on the management and the (solution) design side
- In many cases, time as a limited resource is a part of reality. Accepting this will positively contribute to necessary creative tension.
8. Concrete design considerations (1)

Combining requirements can be done in 3 ways:

1. “Optimising”: choose the best possible solution based on the highest overall score on clear and agreed criteria [this is only possible if criteria and weightings are clear]

2. “Compromising”: probably no one will be really happy, but then try to make everyone equally unhappy

3. “Satisficing”: meet all necessary requirements to create a “good enough” solution and then improve where ever there is opportunity. Work around contradictions (i.e., be creative), allow variations for specific circumstances (contexts)
8. Concrete design considerations (2)

What can happen in a (rich) **Shared Solution Space (3S)**?

- Different decomposition creates new but not coincidental starting angles for analysis resulting in new insights for solutions
- Discussing differences between agents from different contexts can clarify how these are irrelevant or less relevant than assumed
- Discussing differences can result in conclusion that the **actual solutions** will be dissimilar; this still is a better informed conclusion than when this is simply assumed from the start
- Same with similarities! These can also turn out to be less relevant than imagined beforehand
- Key point: organizing **collective intelligence** will lead to much richer, and most likely better information to base decisions on.
- Variations can be obvious or less so and may occur in the form of technical features but also distribution model, marketing message, pricing etc etc.
8. Concrete design considerations (3)

• Vary contexts based on problem characteristics
• **Consciously** capture the insights from each context
• Try to register what happens when stakeholders or their insights (through intermediaries like designers) ‘interact’
• Judge whether the insights that result from this interaction would have been possible/likely otherwise
9. First research results

* no details on contents because of confidentiality limitations

- CVD is especially useful in case multi-context business models are to be expected
- “Religious differences turned out to be crucial for some aspects and irrelevant for other: having a CVD mind-set helps you not to generalise too soon”
- “The process is more complex; that also means you get more information. You can then always decide to NOT use some of it. At least you have the choice”
- “CVD provides more guidance than the general advice to “look broad, get inspired from anywhere”. While we were first afraid that it would make us diverge too much it made us diverge ‘with intent’, being open to surprises”
- “CVD both uses and expands on ‘Design Thinking’”
- “Using CVD would definitely be helped in the early phases of Conceptualisation, if the financier allows this period to be without too many restrictions, and uses it to REALLY get more understanding of the situation and possibilities”.