

Uses of Argumentation Theory and Dialogic Methods in the Design Research Process

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1. Catalyst Information

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2. Context of the Conversation Topic

Designers are becoming involved in working to address complex challenges and this has led some to argue that decision-making in design should be based on evidence and knowledge gained through research (Feast & Blijlevens, 2014; Norman, 2010). However, while natural sciences aim to describe, explain and predict observable phenomena, design research often has the additional aim to be useful and to contribute to improving or interacting with situations (Chakrabarti & Blessing, 2014, p. 6). Consequently the knowledge brought together in design research must often satisfy the condition of generativity as well as generality, meaning that design research should have the additional capacity to generate creative reasoning and innovative design (Aken, 2004, pp. 224-225). We claim that argumentation theory forms a useful frame for teaching and learning design research since it better communicates the generative condition structuring the use evidence and knowledge within the design process.

Arguments and argumentation are often assumed to refer to either, at one extreme, testing the validity of isolated units of sentences, or at the other extreme, a kind of disorganised quarrelling. Contrary to these views, contemporary research characterises argumentation as involving “the practices of using arguments to interact with, explore, understand, and (sometimes) resolve matters that are important to us” (Tindale, 2015,

p. 2). Argumentation is not context-independent, but a form of pragmatic social interaction that we suggest shares common ground with the goals and values of human-centred design research. Consequently, design-as-argument provides a useful conceptual framework through which to understand designerly ways of knowing.

In this conversation we propose a discussion around the role of using argumentation theory in design research and design pedagogy. The conversation is intended to provide an opportunity to share concrete tools and approaches to bridging the gap between theory and practice in design research and design pedagogy.

3. Organizing Research Question

The organising research question that we will take as a point of departure is:

What are different perspectives and tools used to support argumentation in design research and design pedagogy?

Sub questions:

- Is argumentation too word-oriented, where do design examples come into it?
- Should a rational tool like argumentation govern design research?

4. Set-up of the Session

The conversation will be set up as a discussion with the following steps.

1. Prior to the conversation, each Catalyst will prepare an opening statement outlining their position towards the research question.
2. The Catalysts will begin the session by introducing the background to the topic and outlining the procedure for the conversation.
3. The first Catalyst will present their opening statement as a point of departure and then lead a debate with the other catalysts and the audience. Then the process will be repeated using the second and then the third catalysts' opening statements
4. During the conversations we will draw on sense making methods to map out the inter-relationships between the different observations and perspectives of the participants. The visualisation will identify the issues that define the conversation topic.
5. The Catalysts will then lead a concluding discussion for the session.

5. Type of Space and Equipment Required

The session will require a seminar style room with chairs that can be moved and rearranged, also a white board or flip charts will be needed for recording visualisations. The conversation will begin with the chairs placed in circle or horseshoe arrangement, to lessen the influence hierarchy between the catalysts and audience members and

support participation. The arrangement of the chairs will be then adapted as needed as the session changes its main focus from dialogue to visualisation.

6. Dissemination Strategy

A key output of the conversation session will be the visualisation of the inter-relationships and deep drivers of the conversation topic. We will produce a concluding document that contains the visualisation output and accompanying reflections on the conversation by the Catalysts. This concluding document will be featured on the DRS2016 site following the conference.

7. References

- Aken, J. E. v. (2004). Management Research Based on the Paradigm of the Design Sciences: The Quest for Field-Tested and Grounded Technological Rules. *Journal of Management Studies*, 41(2), 219-246. doi:10.1111/j.1467-6486.2004.00430.x
- Chakrabarti, A., & Blessing, L. T. M. (2014). Theories and Models of Design: A Summary of Findings. In A. Chakrabarti & L. T. M. Blessing (Eds.), *An Anthology of Theories and Models of Design: Philosophy, Approaches and Empirical Explorations*. London: Springer-Verlag.
- Feast, L., & Blijlevens, J. (2014). *Mixed method research procedure for design education*. Paper presented at the NordDesign 2014 'Creating Together', Espoo, Finland / Melbourne, Australia.
- Norman, D. (2010). Why design education must change. Retrieved from http://www.core77.com/blog/columns/why_design_education_must_change_17993.asp
- Tindale, C. W. (2015). *The Philosophy of Argument and Audience Reception*: Cambridge University Press.

About the Catalysts:

Stella Boess I'm an industrial designer and assistant professor at the IDE faculty at TU Delft. I research and teach in the areas of user research and design for interaction. I am specialised in qualitative research methods and user research as a generative step in product design.

Luke Feast is Postdoctoral Researcher in Design at the Department of Design, Aalto University in Finland. Luke's research is situated within the research program of design methodology and investigates knowledge creation processes in socially responsible design practices.

Karel van der Waarde designs information about medicines (packaging, labelling, websites), teaches design-research (Basel School of Design), and investigates visual communication (dialogues, testing, prototyping). I try to base all three on a combination of visual logic, visual rhetoric, and visual dialectics.