# Questioning Gender through Transformative Critical Rooms

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## INTRODUCTION

Using the discourse of Gender Studies (Harding, 1986), proves to be a fruitful strategy to question methods, theories and practices of the Informatics discipline (Suchman, 1994a, 1994b). It shows the problematic notion of the binary opposition of usedesign and it uncovers the objectification of both users and designers in ICT-representations in the designing process (Crutzen, 1997, 2000a, 2000b).

To further this analysis of the informatics discipline the concept of the transformative critical room is a very important one. A transformative critical room creates space where the interpretation of ICT-representations can be negotiated and where doubt can occur as a constructive strategy. Creating these rooms require actors who already have a habit of causing doubt and who accept that truths are always situated. Within gender studies these concepts of situated knowledge's and the critical assessment of subject-object relations are at the core of many feminist theories (Crutzen, 2003; Crutzen & Kotkamp, 2006).

A transformative critical room where a feminist analysis is of great importance is the room where interactions take place between human actors and ICT-representations. In this interaction, the meaning of "use" needs to be reconstructed. Using ICT representations imply the (re)design of a flexible environment where the connection between human and non-human actors can always be disconnected. When introducing this possible disruption in these ICT-representations it shows that the activities of use and design occur simultaneously with a process of learning. This means that designing is always an ongoing process where change takes place and where actability becomes an important condition.

### MAIN THRUST

### **Disclosing ICT-Representations**

Open ICT-representations are "mutual actable" for an actor. Actability is not a condition of the ICT-presentation. Mutual actability is the process in which the intertwining process of use and design can be based on doubting the obvious way of interacting and the ready-to-hand routines of the ICT-representation. Mutual actability is a process between an actor and a representation and depends on the presence of an ICT-representation for an actor. The process of intertwining design and use is always individual and situated in the interaction. It depends on the affective disposition and the state of mind of the actor.

Therefore, the intertwining of use and design needs the presence-at-hand of the ICT representations. Their readiness-to-hand should not be fixed. ICT-representations are present in a world of actors if they cause doubts and if the representation is at the

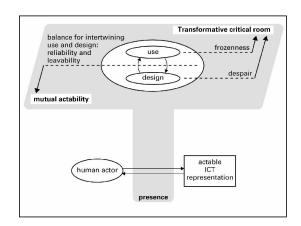


Figure 1. The intertwining of use and design

same time "leavable" and reliable. The doubt in acting should be possible but should not lead to desperation or to a forced routine acting. Despair caused by the ready-made acting of the ICT-representations, which allows only acting in a pre-given closed way or by their breakdowns, which leads to doubting your own acting and not the ready-made acting of the ICT-product. ICT-representations have a presence of leavability if representations allow the user to use the ICT-representations as a routine but also give the users the opportunity of learning in which situations the ICT-representations are adequate and in which situations they should be abandoned.<sup>1</sup>

The acting and interacting of people will be influenced by the acting of the ICT-representations that are made ready. Processes of negotiation and construction are necessary not only with the contents of the representations but also with the behavior and memory of ICT-representations to make the range between desperation and obvious acting leavable, useful, and reliable. Translations and replacements of ICT-representations must not fit smoothly without conflict into the world they are made ready for. A closed readiness is an ideal, which is not feasible because in the interaction situation the acting itself is ad-hoc and, therefore unpredictable. The ready-made behavior and the content of ICT-representations should be differentiated and changeable to enable users to make ICTrepresentations ready and reliable for their own situated use.

### **FUTURE TRENDS**

# The Method OO as a Transformative Critical Room

The object-oriented approach (OO)<sup>2</sup> is used in the Informatics discipline as a method for interpretation and representation, for analyzing worlds of interaction, representing design models, and producing hardware and software systems. OO as it is used for the representation of the dynamics of interaction worlds leads us beyond the data-oriented approach and makes room for the opportunity to discuss the character of human behavior. Knowing that the essence

of human behavior is not predictable and is situated in the interaction itself we can discover that OO will only disclose planned action. With abstraction tools in OO such as classification, separation, and inheritance, they colonized real world analysis processes.

This colonization from ICT-system realization into world analysis is dictated by the analyzing subjects' focus of avoiding complexity and ambiguity by selecting the most formalized documents, texts, tables, schemes in the domain which are close to the syntactical level of object oriented programming languages and by transforming natural language into a set of elementary propositions. This results in hierarchical structures and planned behavior to be enlightened, and in ad hoc actions and interactions to be darkened.

This use of OO in Informatics is exemplary for the ontological and epistemological assumptions in the discipline: not only is it possible to "handle the facts" but also to handle and therefore control real behavior itself. The expert users of the object-oriented approach suggest very heavily that OO can objectively represent the total dynamics of reality with its method to create OBJECTs: artificial representations.

Feminist theories can give arguments for doubting the assumptions within the OO approach because these approaches are always based on the same illusions of objectivity and neutrality of representation, the negation of power and dominance by its translation into something "natural and obvious." Leaving OO means to use it only for the purpose it was originally meant for: the production of software. OO-based software, which consists in predictable and planned interaction, cannot be the fundament for the representation of humans.

However, a total rejection of OO cannot be the answer to the doubts. The presence of OO-based products enforces the disclosure of some unwanted consequences of OO. In OO, ambiguity and doubt are hidden, but they are not absent. As a starting point for the use OO-based systems, a comparison with the theatre metaphor is useful for changing the position of the user (see Figure 2).

The OBJECT<sup>3</sup> is the basic unit in an OBJECT world description: the SCRIPT for an "interaction play" of cooperating OBJECTs. In the position of Audience or ACTOR (the intended roles of the user)

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