

Understanding Designers' Approaches to Design

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Ver.3.0, -three3-0.abs, Accepted at ACM SIGCPR: Reinventing IS, January 1994.

The behavior of designers developing computer-based systems for managerial tasks in their interaction with use experts is known to influence their work. There is, however, few models that allow us to predict types of problems during the design process and lets organizations plan for certain types of behavior rather than others in their planning of the output and output quality. We are in the search of such models. Our point of departure in this paper is a model by Hirscheim and Klein which suggests that information systems design practice may fall into four different paradigms. This model is found to be weak in its power to explain existing behavior (which also is not its main intention). With reference to two models of information systems research escribed by Bansler and Kling, we suggest another model of design practice. The main - and ideal - categories of designer approaches to design in this model are caracterized as the Systems Theoretical Approach, the Socio-technical Approach and the Social Web Approach. The suggested central indicators of these approaches are the design experts' conception of workers' knowledge, of work organization, of workers' roles and of the designers' own roles and tasks. The model is tested by using it to explain behavior in three designer teams. The result of this is that there is a convincing covariation in the suggested variables. The three cases turn out to distribute themselves throughout the three categories.

The model is tested on qualitative data from two organizations gathered over a four year period by two researchers. Organizations were randomly picked out to fit in categories of size and branch. Five organizations remained in the project through the four year case study. In the organizations computer-based systems were picked out for analysis. They were of strategic importance to the organization, at the beginning of the project period, they were implemented and in use. The design prosess was recapitulated through study of historical data and by semistructured and in depth interviews. There is no quantitave analysis and testing of this material, due to chosen research method and the small numbers involved. In this analysis we used data from the dp personel only. The three designer groups from two organizations were chosen to give maximum spread in assumed type of work organization. The next step in this analysis is to test the model on several more designer groups.

Two of the designer groups ar involved in a company for casual insurance, here called T-ins (The Total Insuance Company). The first group is an in-house group, starting off the design project on policy production for most insurance branches, and running it for three years. After a budget and time crisis in the project, an US vendor of insurance systems was brought in, here called IPSystems (The Insurance Production Systems Corporation), with a second designer group. The last organization, PetCo (The Petrol Prospecting Company), had an in-house designer group working with a requisition part of one of its material administration systems.

The analysis of these three designer groups indicates support for fruitfulness of the model. The variables used, which were chosen on the basis of the ISR-models, show a remarkable coveriance. The 9 American IPSystems designers had a conception of worker or employer knowledge, of the work organization, og the workers' roles of their own roles and tasks which support the team being characterized as having a Systems Theoretical Approach. In the group of 14 Norwegian T-Ins designers, we found eleven for whom all variables consistantly inticated a Socio-technical Approach. Two designers did not fit this category well, but seemed to fall between their colleagues' approach and a Social Web Approach. The 3 PetCo design engineers showed variable values consistantly indicating a Social Web Approach. This was surprising, since a Social Web Approach often, specifically in Scandinavia, is indetified with groups with a social agenda. Among the PetCo engineers, it does not seem to be the case, in this type of organization, there is traditionally little room for this. This one case seem to support the need for a model that does not couple a web og web-like approach with a social agenda or neohumanism. A wider testing is of course necessary to support this indication and to state the model's value in