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some of these versions are seen as valuable to the project's goal of innovating a new organization of work at the hospital others are discarded as standing in the way of such innovation. The focus is on the project's different ways of enacting and handling the everyday lives of the users involved. It is argued that this handling of the users' everyday is an important aspect in understanding how innovation happens – or not – in contemporary innovation projects.

Taking user representations seriously: past, present and future. *Sampsa Hyysalo, Aalto University; Mikael Johnson, Aalto University*

"User representation" (Vedel, 1987; Akrich, 1995) is one of the most cited STS concepts related to design-use relationships. It links the multiple modalities that the design of usages takes on prior to actual use: visions, claims, assumptions, ideas, pictures of user-practices, sketches, prototypes, the artifact wrapped for sales, and the technology entering hands of users (Hyysalo, 2004). The early studies highlighted how the referent of "the user" was not necessarily any person out there, but often derived from developers own practices, which notions such as "I-design" and "configuring the user" highlight (Woolgar, 1991; Akrich, 1995; Oudshoorn et al 2004). Since then several lines of enquiry have rendered the original concept more fruitful within and outside STS. We trace four such lines of enquiry, exemplify the key findings with in-depth case studies and pose some future questions: 1) Sources of user representations are not just explicit or implicit, but can be traced to eight different major source areas with 40 subcategories 2) The trajectories and operationalizations of user representations provide an important topic of enquiry. Accumulation, erosion, shadowing over, conflict, inter-animation and piggy backing are some of the salient interrelations (Hyysalo, 2010). 3) The creation of user representations can continue throughout multiple generations of product development, and is strategic and cumulative rather than 'accountable' in nature (Pollock & Williams, 2008; Johnson forthcoming). 4) User representations' material basis and their ties to different professions in R&D deserve further attention (Williams et al. 2005; Kotro, 2006; Hyysalo, 2010).

Technological versus use regimes. *Roel Nahuis, Saxion University of Applied Sciences Deventer; Ellen Moors, Innovation Studies, Copernicus Institute, Utrecht University, NL*

A growing body of STS literature addresses the merits of user involvement, but there are many barriers to effectively organise it. Elucidating this user-producer paradox, Hyysalo (2009) reviews three frameworks: (i) "learning by doing/using/interacting", (ii) "social learning in technological innovation", and (iii) a micro level framework studying new health technology. This paper contributes to this literature by discussing a fourth framework, focusing on rules and routines that orient and coordinate the activities of actors with regard to innovations. When rules are shared in communities of practice, they constitute a regime. We distinguish between technological and use regimes and show how this distinction helps interpreting a case study of a patient organisation that is only marginally involved in a R&D consortium on celiac disease. We claim that this lack of interaction is a manifestation of the lack of alignment between the technological and use regimes. The technological regime provides R&D actors with rules to routinely acquire relevant information about users and markets. If this information suffices, there is no perceived need to involve patient representatives in deliberations about the proper course of action. The technological regime coordinates the development of a pill for celiac disease patients regardless of reservations of the patient organisation. The reserved reception of the pill is understood against the background of an incumbent diet-based use regime that guides the way the target group is currently dealing with celiac disease.

310. Social dynamics and structures around nuclear technology: Pre- and post-Fukushima stories

4:00 to 5:30 pm

Solbjerg Plads: SP207

The Fukushima nuclear power station (NPS) accident on March 11th, 2011 was one of the most serious nuclear accidents in history. The causes of this terrible accident are now being investigated by numerous accident survey committees, journalists, and scholars, including STS researchers. Their investigations will enable us to know what happened at the station during and after the accident. However, this accident is also an opportunity to go beyond approaches treating nuclear technology merely as an object of investigation-survey-style work, and instead examine the social dynamics and structures around this technology. Nuclear programs are typically embedded in a highly structured social system. During periods of stability and absence of large accidents, we tend to illustrate these social systems as static and robust, yet highly complex structures. However, this accident inspires us to examine the more dynamic and subtle reality of interactions between nuclear technology and society. In this session, such interactions in the pre- and post-Fukushima nuclear scene will be examined from various points of view: co-existence of societal failure and policy success, impact of this nuclear accident on knowledge production, changes in the nature of "nuclear debates" in other nuclear utilizing countries than Japan, and delicate inter-governmental relationships between the national government and local governments in the areas hosting nuclear installations. Insights from the papers presented in this session will provide complex, yet deep and precise understandings on the social dynamics related to the nuclear technology in contemporary societies.

Chair:

Miwao Matsumoto, University of Tokyo

Participants:

Failure of the Japanese "Successful" Nuclear Program:

Structural Problems Revealed by the Fukushima Nuclear Accident. *Kohta Juraku, Tokyo Denki University*

The Fukushima Dai-ichi Nuclear Power Station (NPS) accident on March 11th, 2011 must be counted as one of the most serious nuclear accidents in the history of nuclear utilization by human beings. The cause of this accident is now being investigated by the set of accident survey committees, journalists, and scholars including STS field researchers. Those efforts will show us a great deal of problems one after the other. However, from the point of view of sociological STS research, many structural, institutional and path-dependent background factors can be pointed out which triggered the accident and made it worse. These factors are not found in the process after the accident happened, but have been historically shaped since long before this tremendous earthquake and tsunami hit Japan. In this presentation, I will identify historically shaped factors which "made Fukushima worse." Those factors made the accident worse independent of the root cause of the accident or any other details of this accident. Those were hidden risks behind the Japanese nuclear program's "great success." The risks have never become matters of concern until the huge tsunami hit the Fukushima Dai-ichi NPS. I would like to explain why those were problems for this nuclear emergency and how those were constructed in Japanese nuclear history from the point of view of sociology of science and technology.

The Fukushima Insight: How Disaster Changes Knowledge Production in Global Nuclear Energy. *Sulfikar Amir, Nanyang Technological University (NTU)*

The hype of a "Nuclear Renaissance" that marked a global enthusiasm for nuclear energy abruptly went down after the Fukushima nuclear power plants were struck by earthquake and tsunami. However, although the expansion of global nuclear energy production is greatly affected by this catastrophic event in Japan, it is very likely that nuclear energy will remain steady. This paper situates nuclear power as an epistemic network that is sufficiently agile and robust, resulting from decades of