Role of power in shaping participatory design processes: the case of south-south collaboration on public health information systems

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My position paper analyses the role of power in shaping participatory design processes in the case of south-south collaboration effort to design, development and implement a hospital information system in the public health sector of an East African Country. This paper has three parts. First part provides an introduction to the project, second draws upon the framework of Brattateig and Wagner (2012) of five types of decisions to analyse the power-PD relationship; and third part presents some brief conclusions.

I – Case overview

The origins of the project described was initiated in 2010 when a not-for-profit NGO (I call INGO) in India initiated a process of design, development and implementation of an integrated hospital information system based on open-source platform for the context district hospitals in the public health system in an EAC. The successful implementations of the Indian system came to the notice of senior official in MoH in EAC, who visited India to see the system in practice in hospitals, including discussions with the users. Impressed by what he saw, he recommended to his ministry to considering this system in his country. However, the matter went dormant for some time, until a year later when there was a chance meeting by an INGO member and a senior official from EAC, who mentioned they were still struggling to find an appropriate solution. He added that the MoH has been flooded by donors and vendors promising big systems but none delivered. The INGO member suggested that an EAC MoH official has already visited and studied the system, which could be re-visited. Shortly later the INGO provided a short demo of the system to him and a team in the MoH on the skype. Following this, a formal request for proposal (RFP) was advertised by the MoH to introduce an integrated Electronic Health Record System (EHRS) and deploy across multiple hospitals and primary health facilities. The scope of work defined in the RFP was based on a technical specification document prepared by international consultants, hired by MoH, and included – development of an integrated EHR across multiple facility types, and building a health information exchange (HIE) based architecture to allow for the transmission of healthcare-related data among facilities, health information organizations and government agencies according to national standards.

The INGO was also asked to respond to the call. Their proposal was accepted and the scope of work included system design and development as per the RFP and in addition supporting and enabling the development of a 'community of practice' in the country to strengthen the aspects of sustainability and local use. This aspect reflected also the long-standing research interest of the project lead in EAC, and his strong commitment to participatory design.

The suggested INGO approach was grounded in socio-technical and deeply participatory methodology with users defining their needs and the trajectory of the system. This philosophy and approach had been a major reason for the success of the system in India. Arguably, this

approach resonated with the community of practice vision of the EAC. This vision was fundamental in shaping the overall system design and project trajectory.

The project started with a four-member INGO team (including three members from a public health domain and one software developer) visiting the EAC for understanding the system requirements over a two-week period. In the first meeting of INGO and EAC, the stakeholders for participation in the process of system design and community of practice were identified. This included MoH officials, consultants (hired by MoH for project management), and users working in hospitals / facilities where the system was to be deployed. The discussions with MoH officials, based in the country capital, included understanding the broader vision and expectations. After this the INGO team moved to one of the counties and visited one facility of each type (EAC categorised facilities in five types – level 1 to 5, with level 1 being the lowest with community services and level 5 being a specialised hospital). At each facility, the INGO team worked with local users to understand workflows, practices, information flow, patient flows, reports and user needs. In addition, an assessment of hardware and networking needs was also done. In the process of working with facility users, INGO team also identified 'champions' for the members of community of practice, which was envisaged to be the team driving the system eventually.

On the return to India, INGO developed a detailed report which was submitted on two major corner stones of the project – system design and development, and capacity building of local teams on use and customisation. The system requirement included – module-wise requirements, development plan and timelines; and the capacity building plan included a process of building the CoP and supporting methodology. The report was approved by EAC.

Over the next six months, the two parallel processes on system design and capacity building, ensued. The prototype developed was discussed with the EAC team over skype, feedback received and revisions incorporated. Similarly, for capacity building, session plans were made and online sessions on skype were conducted, and later Moodle (an online training management tool) was also introduced to share resource material.

After having provided a summarised overview of the project, I present an analysis of the power-PD relationship.

II – Analysis framework

Bratteteig and Wagner (2012) have developed a framework categorising decisions in a ICT project into five types to analyse the relation between the power and participatory design processes. I now present the five decisions types and for each provide an example from the case and then discuss the role of power in each of these decisions and how it shaped the participatory design of the project.

Decision 1 – Big Decisions

Bratteteig and Wagner define big decision as those concerning values and concepts – the visions – underlying a project. These include the decision to support stakeholder participation and openness in design, and providing the normative basis for participation in the project.

One of the big decisions in my project was to use existing hospital information system being implemented in India as frame of reference for the system to be designed for EAC. This implied that the system from India will be used as the basic system and requirements from EAC will be 'fitted' into this system.

An implication of power in this case is that though a participatory process was followed to understand user requirements from a particular context, but the decision or choice of a particular system to 'fit' user requirements was not participatory.

Decision II – Small Decisions

Bratteteig and Wagner define small decisions as those about how to implement the vision.

One of the small decisions from my case was the scheduling of the online capacity building sessions with the EAC team(s). The sessions were scheduled at 10am EAC time twice a week. Though this time much suited the MoH officials and the consultants, but was not a good time for the hospital/ facility users, as 10am is a peak OPD time in the hospitals/health facilities. This led to drop in participation of facility users in capacity building sessions.

An implication of power in this case is that though a participatory process was being shaped to build capacity of the local users, but the decisions to select the 'convenient' time for the MOH officials and the INGO team, led to exclusion (even though unintended) of hospital/ facility users (who needed the sessions the most). As Bratteteig and Wagner discuss, these decisions were open to alternative solutions and turned out to have implications that were not clear at the time they were taken.

Decision III – Internal Decisions

These decisions too define how to implement the vision.

One of the internal decisions taken in the project was about prioritisation of the module development. This prioritisation was done primarily based on the decision of the development team of the INGO.

This implied that a project designed with 'participatory design' at its heart completely overlooked participation an important decision. Though this perceived was an internal INGO decision based on their resources, had an implication on the progress of the project in the EAC as their priorities could have different.

In this case, the power of the INGO to take an internal decision of resource allocation, had a larger effect on project progress.

Decision IV – External Decisions

These decisions are defined as those that require negotiations with the world outside of the project.

In my project, the decision of selection of counties was external decision to the design and development of the system (meaning that system design does not get effected by county

selected for implementation), but had an effect on building the community of practice of users. As decided much earlier by the MOH that the system will be empirically implemented in two counties, including one closer to the capital and second located in absolute interior, in one of the most inaccessible areas in the country. Though the rationale was select two extreme cases, but this led to non-participation of the users from second county. Except the official letters informing them of being selected for a pilot for hospital system implementation, they were not engaged with system design process and the users were completely excluded from capacity building or providing their requirements.

In this case, the power of MoH consultants to take the decision to make the choice of counties, which was perceived to be a decision external to system design, led to the exclusion of second county users from the entire process.

Decision V – Non-Decisions

These decisions are defined as those which are made without explicitly deliberating or communicating about it:

In my project, one of the non-decisions was how members were nominated to be included in community of practice. This can be considered as a non-decision, with the MoH consultants just sending a random name each day, as they perceived this a step in making the process of CoP building 'participatory' by naming member of development partner teams. But this led to drop in participation of the MoH officials too (facility users were anyways lost due to timings), because the discussion started to be driven by perceptions and queries of development partners, who parachuted into discussions without any prior engagement or understanding of requirements. Eventually the capacity building sessions started to turn into briefing sessions for these new members, as there were new members in each session, and this led to a drop in MoH participation.

The power of the consultants to make decisions on the design and members of CoP led to a breakdown of a process which had started to take shape given all the challenges of internet, different locations and timings.

Conclusions

The case discussed in this position paper is a part of my PhD work which focuses on understanding how empowerment is implicated in ICTs being deployed in the public health sector in India. For my theoretical lens I have been focusing on the work of Dorothea Kleine's (2013) on the "choice framework" which has its roots in Amartya Sen's (1999) capability approach where she sees choice itself as a reflection of empowerment and which is shaped by the agency-structure relation. Power is not explicitly discussed in her framework which is seen as a limitation, as empowerment by definition is a relational concept that involves the increase of power for one at the expense of loss of power for another. While the agency-structure relation can be seen to imply power relations, I will like to explore it more explicitly and in my case, am currently exploring how this can be theorized. This I feel can be by contribution to enhancing the choice framework. I felt the Brattateig and Wagner framework

can provide me a lens to understand how power may play out through the concrete analytical lens of decisions, and the dynamics that unfold around them. I want to understand that given the power dynamics what influences in what participants can actually participate. I hope to get an opportunity in this workshop to get feedback on my current thinking and how I may adopt alternative approaches.

Reference:

Bratteteig, T., Wagner, I. (2012) Disentangling power and decision-making in participatory design. *Proceedings of PDC 2012*, 41-50.

Klein, D (2013). Technologies of Choice? ICTs, Development, and the Capability Approach. Massachusetts Institute of Technology, 2013.