

Effects-driven IT implementation

Maren Fich GRANLIEN^{a,1}

^a*Roskilde University, Roskilde, Denmark*

Keywords: effects-driven, implementation, socio technical research

An online questionnaire investigating the use of an electronic medication record(EMR) shows that three years after deployment the adoption of the system has reached an acceptable level but the infusion (depth and sophistication of usages) of the EMR has still not reached the expected and desired level. Thus the anticipated effects of the EMR have not been obtained. Further the questionnaire shows that the adherence to the medication procedures related to the EMR still laves much to be desired. In fact lack of adherence to the procedures leads to possible adverse drug events.

The questionnaire also investigates the barriers hindering full system use and compliance with the procedures. The free text comments on the barriers can be divided into two groups: comments concerned with system factors and comments concerned with human/organizational factors, supporting the need for a socio-technical perspective[1]. The questionnaire was followed up by a number of interviews and observations looking deeper into the barriers, revealing complex interdependencies between the various factors. The respondents pointed, among other things, at an enhanced focus on implementation, training, work practices and system improvement as possible solutions. This in spite of when the EMR was deployed, three years ago, there *was* a vast focus on the implementation; work practices were analyzed in order to adapt the work practices to the new system, the general IT literacy of the personnel were measured for a better composition of the education program, etc.

Accordingly I see a need for an ongoing iterative approach to implementation founded on a socio-technical perspective in order obtained the desired effects of large health care IS implementations – hopefully sooner than three years after deployment. According to Tyre and Orlikowski[2] the idea of continuous improvement has to be moderated since they have found that technological adaptation and change only seems to occur in limited “windows of opportunity” shortly after implementation and rarely later. Thus I purpose a proactive implementation approach using personnel specified effects and effect measures to form and guide the implementation process, with the purpose of creating windows of opportunity for adaptation of the social and organizational factors *as well as* the technical factors, in order to obtain the desired outcome.

References

- [1] Berg, M., *Patient care information systems and health care work: a sociotechnical approach*. International Journal of Medical Informatics, 1999 **55**(2): p. 87-101.
- [2] Tyre, M.J. and W.J. Orlikowski, *Windows of Opportunity: Temporal Patterns of Technological Adaptation in Organizations*. Organization Science, 1994 **5**(1): p. 98-118.

¹ Corresponding Author: Maren Fich Granlien, maren@ruc.dk, Roskilde University, Department of Communication, Business, and Information Technologies, Bld. 42.2, 4000 Roskilde