Conference Abstract

Designing telehealth into work: the role of business models

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Abstract

The view that business models create a type of system infrastructure is not new; Bouwman, de Vos, & Haaker (2008) state that a business model is a blueprint which describes and defines a service both by its intended value and sources of revenue, providing an architecture for the delivery of that service. The unique contribution of this project is to explore the impact this architecture has on the design and operation of telehealth services. The overall aim of the project is to understand current telehealth business models and to prototype alternative business model scenarios that help overcome barriers to the mainstreaming of telehealth technology.

We see examples of how business models impact on the design of services in other areas of industry. For example, current practice in aero engineering suggests that changes from manufacturing business models (where aero engines are sold, and under separate contract maintained) to service models (where the output of the engine is sold, such as Power by the Hour® operated by Rolls-Royce) have led to changes in the way the aero design community operates. The aero engineering design community now need new tools that enable them to predict the lifecycle costs of engines; new roles are needed that include the consideration of life cycle costs and new relationships are required with service engineers, that allow them to understand, analyse and reduce life cycle costs.

The project is conducting research at four NHS sites in the Yorkshire region where telehealth is currently being used. A socio-technical approach is being taken to understanding the telehealth services at each site; a key principle of this approach is that all aspects of the system must be jointly understood and designed together in order to achieve maximal system potential (Clegg, 2000). Through a process of interviews and workshops it has been possible to map current business models and study their impact across the telehealth service at each site, identifying the barriers to the successful adoption of telehealth technology. Although the research is on-going the project has three case studies of telehealth, each an example of a procurement based business model (where the equipment is owned by the NHS provider or commissioning body) with differing service designs. For example, some sites have chosen to commission external providers to resource telehealth processes (such as installation), whilst others sites have chosen to resource work internally in the NHS through the creation of new roles. The three case studies this paper

presents will illustrate the implications different business models have on the organisation of work within telehealth services and the impact this has upon the successful use and uptake of telehealth amongst the NHS staff within those systems. Further the paper aims to explore what we can learn from these case studies regarding the design of new telehealth business models that assist the mainstreaming of telehealth within the NHS.

Keywords:

telehealth, business models, service design

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