

# Progress Report

Date: 18/07/2011

Institution: Exeter

## Points of Progress: (*monitoring, modelling, workshops, papers, etc*)

- Framework for contextual invariances for the business/pricing model continues to be developed. A *contextual invariance* occurs when multiple customers have the same contexts for value co-creation, i.e. a cluster of contexts. Furthermore, such a *contextual invariance* could assist firms in achieving better coordination (value co-creation) capabilities and even reduce energy consumption.
- To appreciate the significance of a *contextual invariance* one must consider their potential for greater value co-creation from when variety can be attenuated. For example, travellers at train stations wish to check train departure times wherever they are in the station, whether it be the main hall, the newsagents or the cafe. So, there are often information boards located in as many places as possible. Therefore, checking train departure times at different locations represents a *contextual invariance*. The advent of customers having smartphones has allowed the creation of applications with the same train departure information, which can be accessed anywhere within the station. This allowed for contextual variety to be attenuated and increased value co-creation, while reducing energy consumption (fewer information boards).
- Our focus is therefore on context and resource integration, and if we consider a built environment, such as office space or the home, we would need to determine the operand and operant resource integration to determine the contexts occurring. Smart metering alone, even to the granularity of individual appliances, would likely be insufficient to determine the integration of operand and operant resources in contextual clusters. So, the best way to determine the resources being integrated would be through interviews, shadowing and interpolation (human behaviour modelling).
- Our context-centric approach will likely reduce privacy concerns, because while individuals will be involved (measured), we do not require the perspective of the individual. While this may be of less concern for pilot studies, it would presumably be for wider data gathering.

## Next Steps:

- Ethnographic study of energy use within the Computing Laboratory at Cambridge, which will focus on individual working spaces and communal areas.
- Combining of the ethnographic study with the energy data for the Computing Laboratory.

## Issues: (*e.g. dependencies*)

-