

# Uncovering Unexpected Actors in an Educational Service Ecosystem

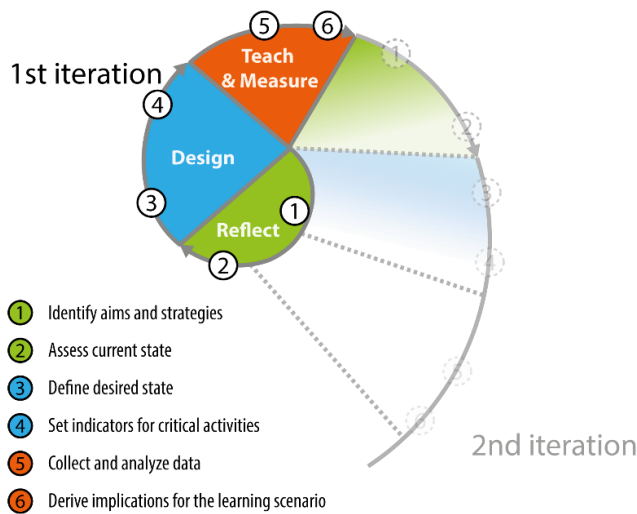
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## Abstract

A crucial factor of improving IT-based services lies within the boundaries of understanding its usage. This is especially true for highly integrated services, like educational service (Shostack 1982), as value co-creation is based upon usage processes (Prahalad and Ramaswamy 2004; Vargo and Lusch 2004). Usage can be assumed as a process of (autonomous) resource integration between several actors. Therefore, Lusch and Vargo (2014) draw on ‘relatively self-contained, and self-adjusting systems’ (p. 161), they call service ecosystems. Self-containment and self-adjustment are a result of inherent self-supporting and loosely-coupled actors, who mainly share two things: (1) a will to co-create value, and (2) institutional logics, like rules and standards, which mediate their actors coupling. As each actor in a service ecosystem chooses on its own, which resources it integrates into value-co-creation, the number and type of actors become may become less pre-determined and less expectable for focal service suppliers. We choose to take a traditional supplier-perspective and ask: *How do resource-integrating users autonomously – and therefore unexpectedly – integrate actors into value co-creation processes?*

Our research is set within the field of higher education, where we expect a high degree of user integration. The following paper builds upon a collection of prior publications that already adapted Service Blueprinting, and other process modeling notations to analyze the interactive process between learners and educational service suppliers (i.e. Gabriel et al. 2008; Gabriel et al. 2010; Wegener et al. 2010; Wegener et al. 2012; Lockyer et al. 2013). Even though Frauendorf (2006) already introduced a usage processes to service blueprinting this perspective has been neglected for long. Service blueprinting nonetheless lacks a thorough degree of syntactical formalization, which becomes a necessary demand for modeling activities performed on information systems within IT-based services. Hence, the enhanced Business Process Blueprinting (BP<sup>2</sup>) – as proposed by Gersch et al. (2011) and Hewing (2013) – is adapted to the field of higher education. To assess the value of this model for exploring resource integrating activities of users’ autonomous actions, we present a comparative case study of two highly self-regulated courses in which the enhanced BP<sup>2</sup> were applied.



**Figure 1. Educational Service Improvement Cycle**

Both cases followed a six-step procedural model, called the Educational Service Improvement Cycle (ESIC) introduced by Rothe (2015) and illustrated in Figure 1. Because of its inherent consideration of a user’s perspective, the (enhanced) BP<sup>2</sup> was applied to steps (2) “assess the current processes” and (3) “plan interventions”.

After performing this educational service development technique, we were able to contrast anticipated usage processes modeled in BP<sup>2</sup> notation with actual usage data. As a result, we found that learners autonomously integrated resources from unexpected actors into the educational services. Performing data analysis on usage data, as proposed by the ESIC, revealed a ‘misuse’ of resources. Learners integrated synchronous communication tools (Google Hangout and MS Skype), to directly interact with each other where usage of asynchronous software was expected. In comparison, some learners misused synchronous content creation software (Google Docs) by inserting the result from asynchronous text editing tools (MS Word).

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