Dynamic Network Notation:
A Graphical Modeling Language to Support the Management of Network Effects in Service Platforms

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Abstract

Service platforms have moved into the center of interest in both academic research and IT industry, due to novelty and economic impact. Thereby, multitenant platforms provide own or third party software as metered, on-demand services. Those service platforms exhibit network effects. Network effects describe a reciprocal interdependency of platform value, service consumption and third party service provisioning. For example, the attractiveness of a platform to third party service providers depends on the quantity of customers subscribed to the platform. Customers on the other hand are only attracted, if the platform offers a suitable amount of services, corresponding to an expected level of quality. However, once opening the platform to third party service provisioning, the platform operator has to accept a certain degree of self-organization of the providers and costumers. This on the other hand requires giving away degrees of control over service quality. Ulrich Scholten's research aims at finding models and constructs, which support platform operator in their pursuit of harnessing network effects around service platforms. .

In his presentation, Ulrich Scholten introduces a graphical modeling language to support platform design, with focus on the exploitation of network effects. The artifacts developed in Scholten's work utilize, adapt, and structure knowledge on these effects. The knowledge is based on surveys, enhanced with concepts originating from system and dynamic market theory, applied on service platforms. The contributions presented by Scholten are (a) the Dynamic Network Notation and its underlying model and (b) a supporting language for service platform patterns. As exemplary instantiation of the language, Scholten introduces (c) an editor. To evaluate the artifacts' applicability, Scholten shares and discusses results from field studies with various platform operators.

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Ort: Englerstraße 11, 76131 Karlsruhe
            Kollegiengebäude am Ehrenhof (Geb. 11.40), 2. OG, Raum 231
            (Hinweise für Besucher: www.aifb.kit.edu/Allgemeines/Besucher)

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Zu diesem Vortrag lädt das Institut für Angewandte Informatik und Formale Beschreibungsverfahren alle Interessierten herzlich ein.

Andreas Oberweis, Hartmut Schmeck Detlef Seese, Wolffried Stucky, Rudi Studer, Stefan Tai (Org.)