

BUSINESS MODELLING FOR SOFTWARE BASED SERVICES

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Abstract: During the 1970s the business model concept was used for describing IT-related business processes. More recently, the business model concept is used for analysing market structures as well as strategic choices related to positioning of organisations within these market structures. Organisations commercialise new ideas and technologies through their business models. The business model design can be seen as a key decision for new firm entrepreneurs. The research field is still lacking a common and general accepted definition of a business model. Chesbrough and Rosenbloom define a business model as 'a blueprint for how a network of organisations cooperates in creating and capturing value from technological innovation'. Essentially, a business model can be seen as a definition of the manner by which an organisation delivers value to customers, entices them to pay for value and converts those payments to profit. Initially, attention has been paid to empirically defining business model typologies. In recent years, business model research started focusing on exploring business model components and developing descriptive models. Osterwalder and Pigneur use a decomposition consisting of nine components: value proposition, customer segments, client relationships, distribution channels and revenue flows on one hand and key activities, key resources, cost structure, partner network on the other hand. These models can also be used to develop business models for software-based products and services. Software can be part of a tangible product that is being paid for by customers. Due to developments such as Application Service Provisioning (ASP), Software as a Service (SaaS) and more recently Cloud Computing, software is more and more the essential building block of services sold to customers. Due to these developments, a business model design process heading for delivering new experiences to customers is guiding the software development process. The state in which the business modelling field finds itself can be characterized as the pre-scientific chaos (Kuhn): there are several competing schools of thought, and progress is limited because of a lack of cumulative progress. Because of this, there are no clear and unique semantics in the research related to business models. During the last years we have been researching business models and are investigating possibilities to apply well-known engineering principles for this application field. We present a business modelling approach as well as some software business modelling cases.

BRIEF BIOGRAPHY

Bart Nieuwenhuis is part-time professor at the School of Management and Governance at the University of Twente. He is member of the Research Group Information Systems and Change Management (ICMS), holding the chair in QoS of Telematics Systems. He is working as advisor and consultant for his own consultancy firm K4B Innovation. His research focuses on generic service provisioning platforms including Quality of Service mechanisms. Application domains comprise telemedicine as well as billing and payment services. His research interests include service innovation and business modelling. Bart Nieuwenhuis supervises PhD students and publishes scientific articles and conference papers on services provisioning

platforms and middleware technologies for Quality of Service and Context Awareness. Bart Nieuwenhuis is chairman of the innovation-driven research programme Generic Communication, part of R&D programmes funded by the Ministry of Economic Affairs. For K4B Innovation, Bart Nieuwenhuis works as an advisor to The Netherlands ICT Research and Innovation Authority. He is the managing director of Exser, the center of service innovation in The Netherlands, founded in 2008. In this center private companies, academic institutions and governmental organization co-operate in order to realise open innovation initiatives. The centre is sponsored by various large, innovative service companies and governmental organizations in The Netherlands. Before joining the ISCM group, Bart Nieuwenhuis

was part-time full professor at the Architecture and Services of Network Applications (ASNA) group within the Faculty of Electrical Engineering, Mathematics & Computer Science (EEMCS) of the University of Twente. He joined the ASNA group in Twente after a period of five years at the University of Groningen, where he was Tele-Informatics professor at the Computer Science Faculty. Before starting his own company, he worked more than 20 years for KPN Research, the R&D facility of KPN, the telephony and Internet market leader in The Netherlands. He served as manager of R&D departments and Head of Strategy of KPN Research. Bart Nieuwenhuis worked on behalf of KPN for the European Institute for Research and Strategic Studies in Telecommunications (EURESCOM) in Heidelberg and was leader of various international, cooperative projects of European public network operators. Bart Nieuwenhuis holds a PhD in Computer Science and a MSc (cum laude) and BSc in Electrical Engineering, all from the University of Twente.

