TEXO – Business Webs in the Internet of Services

Daniel Porta
Intelligent User Interfaces Lab
German Research Center for Artificial Intelligence (DFKI GmbH)
Campus D3_2, 66123 Saarbrücken, Germany
daniel.porta@dfki.de

I. Project Overview

TEXO is a research project within the THESEUS research program initiated by the Federal Ministry of Economy and Technology. THESEUS aims at developing a new Internet-based infrastructure in order to improve both the usability and practicability of knowledge available on the Internet. Within the THESEUS program, TEXO contributes to service economy by creating infrastructure components for Business Webs in the Internet of Services.

II. Project Goal and Vision

Services provided through the Internet serve a dual purpose: they are utilized by consumers, as well as by technical systems to access business functionality which is provided remotely by business partners. The goal of TEXO is to provide a platform which makes services tradable on the internet, composable into value-added services, and allows the integration of customized services into the environment of service consumers.

III. Service Lifecycle

In TEXO, the focus lies on web-based Business Services and their automation using Technical Services. TEXO addresses the full lifecycle of these services from innovation to consumption via intuitive interfaces and technical systems. The process of inventing services embraces Service Providers, Hosters and entrepreneurs, offering new services to consumers (individual users as well as organizations) – while stakeholders gain the opportunity to design, compose and provide new services, for example, by using the collaborative power of communities on the Net. Meeting all demands requires an interdisciplinary approach to create an integrated platform which supports all stakeholders and phases of the lifecycle.

IV. Expertise from various sciences

Altogether, TEXO leverages expertise from the legal, economic and computer science domains. The research project investigates legal considerations when trading composed services and business models, as well as incentive systems for all stakeholders. Researchers fathom out definitions of functional and non-functional aspects of business and technical services as well as their composition into value-added services. They consider consumption of services by individual users, systems and organizations along with the feedback between service providers and consumers. Semantic technologies are used to describe the content of services in order to enable automatic processing of service descriptions. Various aspects of Web 2.0 are employed to integrate and involve the users and providers into the Business Web Community.

V. Texo Scenarios

The TEXO Use Case will help retrieve, coordinate, compose and access services. An implementation scenario could be the innovation, provision, trading, consumption and billing of services to support product engineers to enable faster innovation by taking new requirements into account. An example for such a service could be the certified calculation of a product eco value to be required by a new law. The engineer finds such services by dragging-and-dropping of new requirements to the TEXO platform among which he selects the most appropriate one. He then integrates the service on-the-fly into his own working environment and consumes the service (i.e. calculating the eco value of the product). Finally, he is billed by the service provider.

The TEXO platform will help all market operators and enterprises – especially small and midsized enterprises (SME) – to become more agile in today's economy by focusing on their core competencies and by using externally provided services for non-core activities. Moreover, TEXO will allow SMEs to offer and publish their own services, to extend their product offering or to represent their business know-how to a larger community of potential service users.

VI. Texo partners

The TEXO project is led by SAP Research and is carried out in collaboration with partners from the industry and the academia: Empolis GmbH, intelligent views gmbh, ontoprise GmbH, Siemens AG, Fraunhofer Gesellschaft, FZI Forschungszentrum Informatik Karlsruhe, the German Research Center for Artificial Intelligence (DFKI GmbH), Technische Universität Darmstadt, Technische Universität Dresden, Technische Universität München and Universität Karlsruhe (TH).

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