di.me

INTEGRATED DIGITAL.ME USERWARE

FOR THE INTELLIGENT, INTUITIVE, AND TRUST-ENHANCING MANAGEMENT OF THE USER'S PERSONAL INFORMATION SPHERE IN DIGITAL AND SOCIAL ENVIRONMENTS

01010010010010010010

01010010101010101100100010010010010101011001010010101
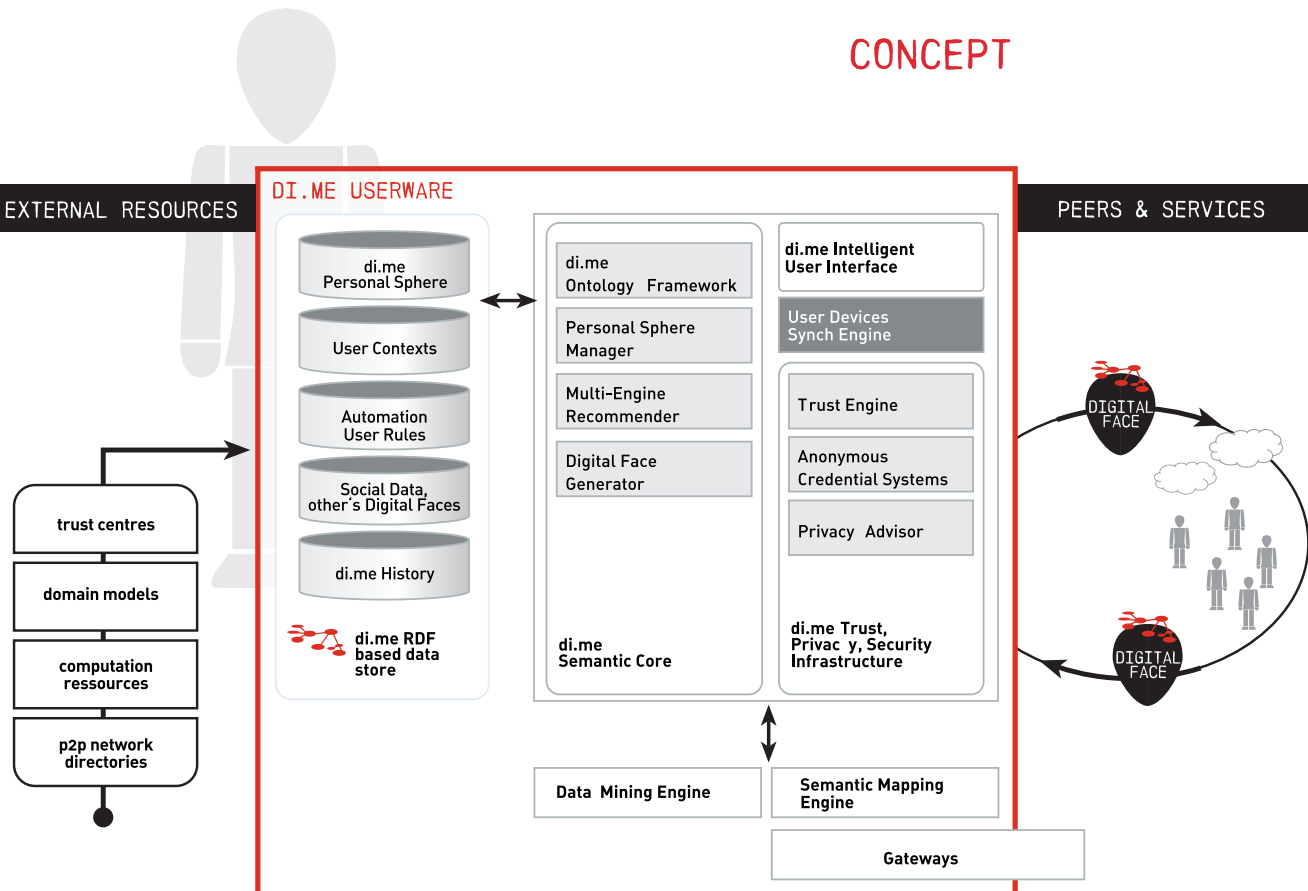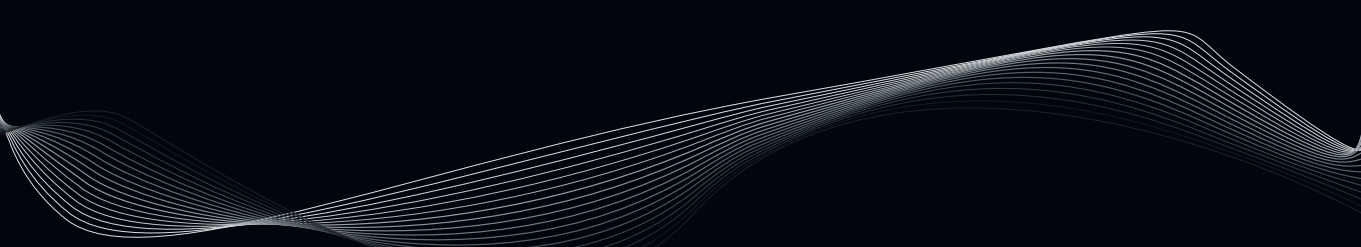
di.me

BACKGROUND

The use and disclosure of personal information for private and business life is a major trend in information society. Advantages like enhancing social contacts, personalising services and products compromise with notable privacy risks arising from the **user's loss of control over their personal data and digital footprints**. Large amounts of scattered personal data lead to information overload, disorientation and loss of efficiency.

OBJECTIVES

di.me aims at integrating all personal data in a personal sphere by a single, user-controlled point of access: the **di.me userware**. This tool will run on the user's devices, and rely on scalable peer-to-peer communication in order to avoid external storage of personal data as far as possible and to enhance data portability. External services (e.g. web-communities, enterprise systems) will be integrated via gateways. Communication to individuals and services will make use of **digital faces**, i.e. user data selected for a particular purpose and context

CONCEPT

EXTERNAL RESOURCES

DI.ME USERWARE

PEERS & SERVICES

- di.me Personal Sphere
- User Contexts
- Automation User Rules
- Social Data, other's Digital Faces
- di.me History

di.me RDF based data store

di.me Ontology Framework
Personal Sphere Manager
Multi-Engine Recommender
Digital Face Generator

di.me Semantic Core

di.me Intelligent User Interface
User Devices Synch Engine
Trust Engine
Anonymous Credential Systems
Privacy Advisor

di.me Trust, Privacy, Security Infrastructure

- trust centres
- domain models
- computation ressources
- p2p network directories

Data Mining Engine
Semantic Mapping Engine
Gateways

DIGITAL FACE

DIGITAL FACE

A device-centric approach will be addressed by adopting the three building blocks of the technical infrastructure required: a shared vision on software architecture, an efficient and adaptive communication layer due to flexible network modes and a common language and effective shared knowledge due to semantic data portability.

An open trust, privacy, and security infrastructure will enable the user to securely use personal data. Trust metrics will guide the user to avoid risky behaviour. Anonymous data disclosure, data withdrawal and policies will foster privacy and trust.

A semantic core with data mining, semantic mapping and reasoning, will support an intelligent management of personal data and communication history including recommendations how to take advantage of the personal sphere.

Intelligent user interfaces on desktop and mobile devices will promote the intuitive usage of powerful semantic and privacy-technologies and will enable the user to monitor, control, and interpret personal data.

The project implements **a user-driven design process.** Usability and uptake will be monitored and improved by large-scale quantitative evaluations supporting a scalable test concept.

Three scenarios will be implemented where leading industrial partners will involve their customers for validating the project's artefacts with consumers and professional users:

> **1. "di.me for Private Users in all Life Spheres"**
> **2. "di.me on Business Conferences and Smart Events"**
> **3. "di.me for Enterprise Customer Relationship Management"**

EXPECTED IMPACT

di.me will **develop an advanced userware** for faster and more effective knowledge acquisition, coordination, sharing and processing in a dynamic environment through context aware provision of knowledge.

di.me will **boost EU professionals' business networking activities**, providing them automatic and intuitive means to organise, disclose, and retrieve professional information, facilitating them to obtain valuable new contacts and to better manage existing ones, in short, to reach their objectives with reduced time and effort.

di.me will **strengthen EU leadership in the field of advanced digital identity management tools for business users**, which will contribute to the creation of a friendlier environment for smarter, cheaper and more effective networking and information exchanging in business events. This will also foster the adoption of such solutions by professionals from other sectors besides the ICT one.

CONSORTIUM

Coordinator: FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V, GERMANY

Organisations	Country
ASOCIACION MULTISECTORIAL DE EMPRESAS DE TECNOLOGIAS DE LA INFORMACION COMUNICACIONES Y ELECTRONICA	SPAIN
CAS SOFTWARE AG	GERMANY
FUNDACIO PRIVADA BARCELONA DIGITAL CENTRE TECNOLOGIC	SPAIN
NATIONAL UNIVERSITY OF IRELAND, GALWAY	IRELAND
TELECOM ITALIA S.P.A	ITALY
UNIVERSITAET SIEGEN	GERMANY
YELLOWMAP AG	GERMANY

ABOUT DI.ME

Funded under: 7th FWP (Seventh Framework Programme)

Call: FP7-ICT-2009-5

Area: Intelligent Information Management (ICT-2009.4.3) target d) "Personal Sphere"

Project reference: 257787

Total cost: 4.35 million euro

EU contribution: 3.12 million euro

Start date: 2010-11-10

Duration: 36 months

Type of funding scheme: Collaborative Project (CP) - Small of medium-scale focused research project (STREP)

CONTACT INFORMATION

Fabian Hermann
Fraunhofer Institut für Arbeitswirtschaft und Organisation
Competence-Center Human-Computer Interaction
Nobelstr. 12
70569 Stuttgart
Tel: +49 711 970 2326
Fax: +49 711 970 2300
Email: fabian.hermann@iao.fraunhofer.de