



EUROPEAN COMMISSION

Information Society and Media Directorate-General

Converged Networks and Services / Emerging Technologies & Infrastructures

Subject: “Search in the FI: SME and Citizens Perspectives”

Search means making the best use of available (human or machine-generated) knowledge. Query-based search provides internet users with meaningful information, even when his/her request might be poorly formulated and typically unanticipated by the system. The value of a search engine depends on how efficiently available knowledge is managed (automatically acquired, enriched, structured, retrieved, filtered, interpreted) and last but not least on how easily the information is accessed and understood by the end user. Keeping the user in the loop is vital, since a search engine's efficiency is maximised when it is designed to learn from and to accommodate to user preferences (through online and off-line learning) based on user interactions.

Search cuts across the different application domains of Future Internet, since search and retrieval are part of:

- **Future Content Networks:** a) content as the main ingredient of media, and b) networks, in terms of improving the user's experience and satisfaction; and sharing resources that are distributed
- **Internet of Things:** resource and information discovery from a multitude of heterogeneous devices and sensors, including Extended Home Environments, Body Area Networks, Personal Area Networks, etc. etc;
- **Internet of Services:** service discovery approaches range from keyword search over service directories to semantic approaches which delineate service capabilities (what the service does), identify non-functional properties, and give descriptions of how the service behaves.

Within the Future Internet content/context-based search is necessary for query and access that spans different communities/domains/areas each with its own language, formats, notations, requirements, tools and methodologies. Not only does search empower internet users, but Future Internet search can also be considered as a horizontal topic when seen from the viewpoint of accessing media, physical objects or services.

Our main aim in FIA Valencia is to collect and analyse user needs to envisage future internet requirements and identify forward-looking applications where 21st century search technologies are required. Primary vertical sectors associated with the FI include health, energy grids, city management, information and content/media. This session will:

- identify user needs and unsolved challenges that are important and will require search technologies for solutions, and
- identify potential FI related applications that require interactive forms of ICT collaboration among users and providers

TENTATIVE AGENDA

15:00 Introduction to the Session, Petros Daras, CERTH/ITI

15:10 *Search in Content/Media: State-of-the-art and future challenges in multimedia search*, Francois Bourdoncle, Exalead

15:25 *Search in multimedia health records*, Martin Huber, Siemens

15:40 *Search and mine, with hindsight*, Julien Masanes, European Internet Archives

15:55 *Green ICT challenges: use-cases and related search technologies*, Daniel Barthelemy, AMAP (botAnique et bioInforMatique de l'Architecture des Plantes)

16:10 *Smart cities and search applications*, Cedric Ulmer, SAP

16:25 Panel Discussion - Moderators: John Domingue, Open University & Nozha Boujemaa, INRIA

Panellists will be the abovementioned speakers

Topic: Search and user-in-the-loop; what search technologies can help citizens and answer urgent needs? Why is search so important to everyday internet access in the context of citizen's everyday life and what needs fixing within the next 5-10 years?

17:00 Session Close