MaaS scenario

Towards a Future Internet Public Private Partnership (Second Usage Areas Workshop)

Content Usage Areas

Position Paper

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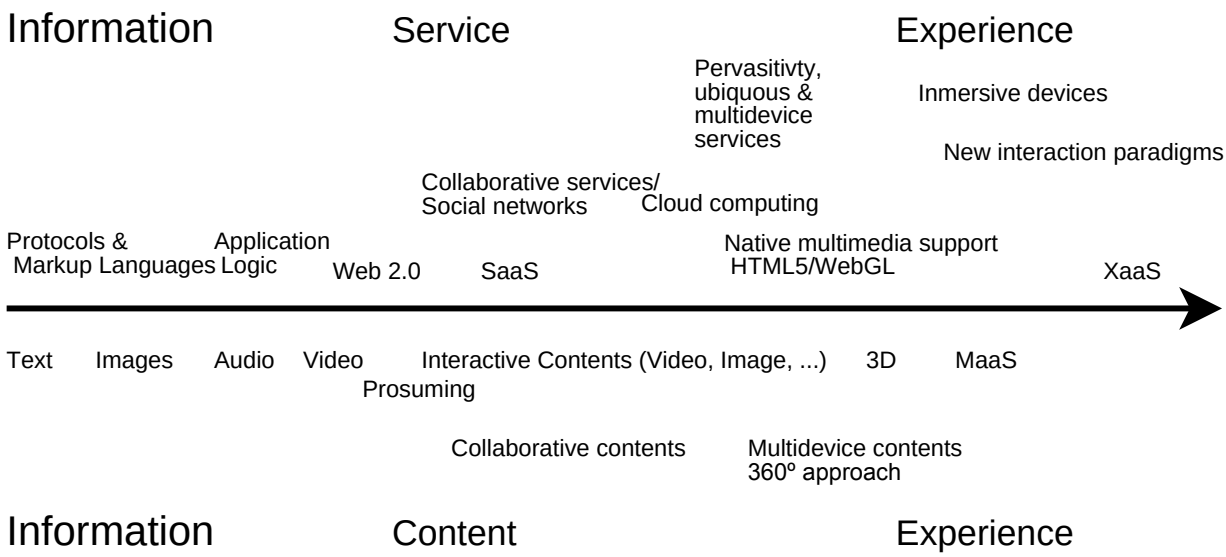
Introduction

Internet has evolved from being a worldwide information repository to a global content and service cosmos where every user can provide or access any kind of content. One of the main trends in this evolution is the extension of services as a form of wrapping not only software and applications (SaaS) but also Multimedia contents (MaaS, Multimedia as a Service) and everything available in the Internet (XaaS, Everything as a Service). This fact allows the universal access (not only by humans but also by other services) and enables the creation and combination of new contents and services. In this context, services become into one of the main actors of the Future Internet by wrapping any digital concept and offering it across different network and end device infrastructures towards XaaS.



From the Market and Industry point of view, even if there is a common agreement about the fact that the Future Internet has to be user centric, content production industry (composed by some big players but also by thousands of very small companies) has to adapt business models and design & production processes to the future market conditions where professional contents will have to coexist with a huge quantity of user generated contents, where contents will be consumed in many different platforms (from cinema to tiny mobile devices).

(1) What use case and scenario in your area would you consider the most appropriate and representative one for large-scale experimentation with the Future Internet platform to be built starting from 2013 ?

In the area of Multimedia content, a large scale experimentation scenario should include the players who nowadays are part of the audiovisual and multimedia value chain and those who will be included in the Future Internet Content value chain. We could identify the following:

- Content producers. Big production companies, majors and small production companies and their representatives (clusters, associations, etc.)
- Broadcasters
- Network Operators. Cable & satellite operators, terrestrial broadcast operators, internet service providers, mobile phone companies, etc.
- Content providers, distributors.
- Consumer electronics manufacturers.
- Technology providers. Audiovisual technology, web technologies, technologies for interactivity, multimedia search engines, recommendation systems, advanced network solutions, etc.
- R & D centers, universities
- Advertising companies. Many business models are completely supported by the advertising.

A scenario involving all these players would be the MaaS scenario. This scenario includes all above mentioned aspects. Every content will be wrapped as a service and could be generated, managed, combined and consumed according to this philosophy. Search engines will allow the retrieval of specific elements and structured, unstructured and automatically extracted metadata will be managed for this issue. A use case of this scenario would be the Personalized Hybrid Multimedia Content. This content would be created as a combination of audiovisual assets, some of the automatically generated and combined with previously stored contents. Each user will have some broadcast (common) part and some specific elements within the content. Moreover, this content will include 3D elements which will make the experience immersive if they are watched with adequate devices. Interactivity will also be a feature that some of the assets will allow.

(2) What innovative Internet functionality and technologies would you consider important for your suggested use case and scenario (e.g. context awareness, sensor networks, advanced real time processing capabilities handling huge volume of data, ad hoc service composition and mash-up, managed broadband connectivity and services, embedded media support for interfaces easing the interpretation of processed contextual data, etc.)?

- High bandwidth and low latency networks for massive content distributions over IP networks
- New service oriented technologies, protocols, transmission methods
- Novel content definition and modeling languages and specifications to enable the MaaS paradigm
- Novel content encoding and encapsulation formats to include all multimedia type of contents, as well as interactivity
- Content indexing, search & retrieval technologies

(3) Which of the identified functionalities would you expect the Future Internet core technology platform to deliver to support your and other usage area scenarios?

- A common framework to combine differnt types of multimedia assets (text, pictures, diagrams/charts, audio, video, 3D scenarios, 3D elements,...)
- New paradigms and tools to enable interaction with content
- Standard metadata structures for generic content. Tools for indexing and retrieval
- Open solutions for DRM
- Device independent specifications regarding to the content
- Context aware specifications regarding to the reproduction

(4) What kind of experimentation environment would you consider necessary for broad large scale testing of the platform to be developed in your use area? What would be needed to experiment new services and applications cutting across use areas (services and application mash-up) and building a new services and application ecosystem around the prototype implementations of the platform?

A basic open and standard platform is needed to set up such as scenario. This platform has to be built on specific HW allowing virtualization of infrastructures and offering methods for functionality addition following SaaS criteria. The facilities should be geographically distributed along Europe in order to demonstrate de potential of the architecture and the availability for any company interested in joining the inititative.

(5) How do you see the potential role of your organisation in the FI-PPP, in the context of Usage areas taking a prominent role in the Initiative, to ensure an appropriate application driven approach?

Vicomtech is fully involved within the Future Internet initiative and the S&T activity carried out by the researches of the company is totally aligned with some of the key aspects of the proposed scenario. Therefore, we consider that Vicomtech can play a very active and helpful role contributing to define the vision and guidelines of the Future Internet initiative as well as providing concrete scientific results and technological developments within the abovementioned use case.