TA2 Newsletter
April 2010

**SEVENTH FRAMEWORK PROGRAMME**

Content

TA2 - making communications and engagement easier among groups of people separated in space and time

Bringing families and friends closer together is the main goal of the European research project TA2 (Together Anywhere, Together Anytime). Since our last Newsletter in July 2009 the project has made significant progress towards this goal.

More information is available on the TA2 website: http://www.ta2-project.eu

Public TA2 deliverables are available on: http://www.ta2-project.eu/deliverables/deliverables.html
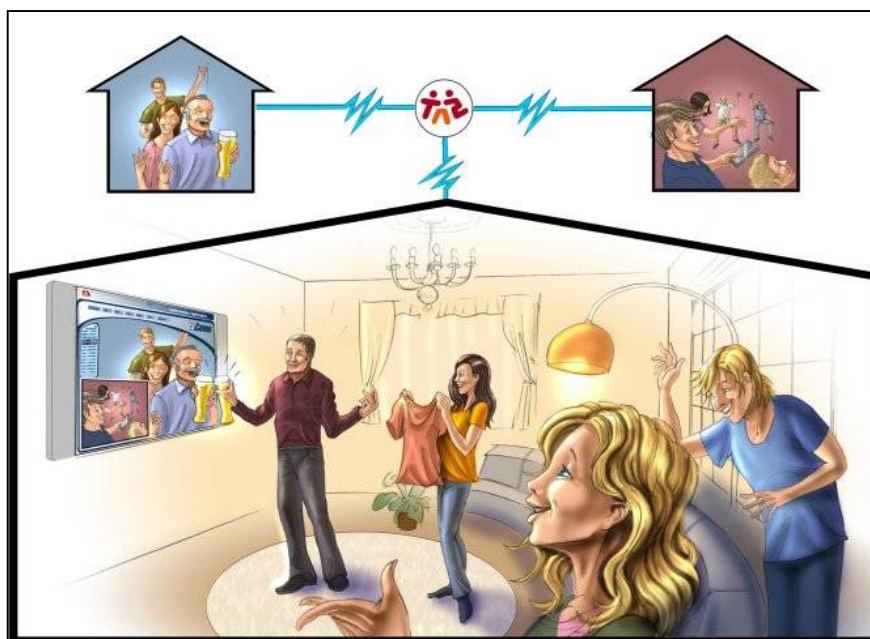

"Since our family is soon moving to Denmark but the grandparents continue to live in Berlin, this is exactly what the family would bring closer together again; and be accepted also by non-technical persons."

(Visitor at CeBIT 2009 demo)

SEVENTH FRAMEWORK
PROGRAMME

The TA2 objectives

The overall objective of TA2 is to enable new media experiences that are attractive and profitable, and through which people who know each other well can nurture and develop their relationships. TA2 develops a number of application "pathfinders", which will be enabled by developments in standards, technology and human and business understanding as represented in the figure below.
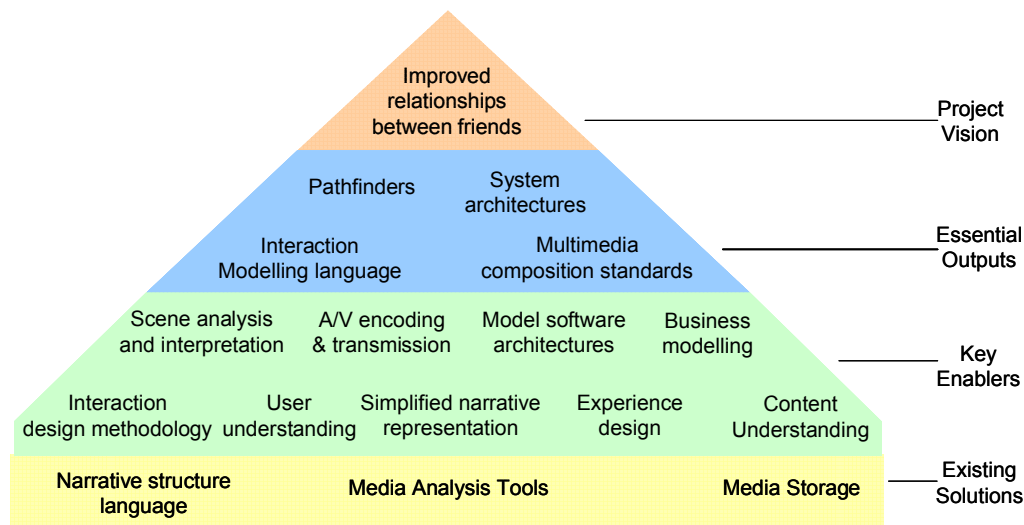
Overview of TA2 goals and enablers

- Interaction modelling language, to describe, model and author control systems that will orchestrate the capture and transmission of audio and video signals between groups involved in a dynamic interaction.

- Multimedia composition and transmission standards required to meet the needs for incremental augmentation and enhancement of content while at the same time protecting the integrity of underlying media objects.

- Scene analysis and interpretation of interacting groups of people, in order to identify, for the purpose of real time shot framing and audio segmentation, the region of interest within an interaction scenario and so help in the better audio visual representation of the interaction

- Audio capturing, encoding, processing and transmission particularly in end-to-end multi-speaker, multi-microphone environments with a particular focus on delay, subjective quality, echo and spatial representation.

- Model software architectures within which the technology components can efficiently operate.

- Simplified narrative representation in order to automatically generate simple pre-authored narrative structures that generate narrative based media from amateur video footage.

- Experience design, the ability to design enjoyable social experiences based on the new constraints and opportunities afforded by open audio visual communication including disciplines such as gameplay.
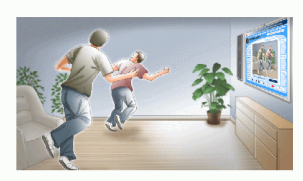
Pathfinders to demonstrate and assess TA2

The technology developed for the TA2 project is being used to support a number of pathfinder "framing activities". Those pathfinders offer significant insights into the requirements for new media experiences among users. The pathfinders are being developed using user-led design principles. They are used to verify the societal and market related TA2 design principles, to get feedback from real users, and to prove the technologies being used. The pathfinders are being powered by a suite of componentised capabilities including technology related to audio, video, image processing, and to speaker identification in informal settings.

Improving social com-munication		The concepts of shared communication and 'remote-togetherness' in a trusted environment of family and friends provides a useful framework for studying social communication between families. By working with groups that known each other well, we will build an application that can make communication easier, more frequent, appropriate and effective. This application basically builds the "entrance" to the TA2 experience, as for example a lobby does.
Interactively Sharing and Enriching My Videos		Recognising the importance of looking at media together as a cornerstone for the sharing of family experiences, this TA2 application will provide tools and an infrastructure to help people develop and share short home movies with simple but meaningful interactive narratives automatically generated by the TA2 system.
Remote Playing of a Family Game		One common form of inter-personal social interaction in a home setting is the playing of a multi-person game. These games include familiar "parlour games" such as Monopoly, Labyrinth or Pictionary, but also "traditional" player-centric interaction games such as charades. The TA2 project is developing a game environment that supports game play between two or more teams of players who are situated in different physical locations.
Child's Play		In this application we focus our attention on more unstructured forms of creative, communicative and cooperative play for young people, families and friends. This includes providing young children the opportunity to be creative and to communicate safely, easily and effectively with their friends and family.
Sixth Age		In order to respond to demographic developments, new support and communication paradigms will be studied with a focus on those in the "sixth age". There is some evidence supporting the idea that games can stimulate the brain and improve older people's cognitive abilities. Here again, ease of communication and interaction form key components of a successful application that is geared to keeping all members of the family engaged.

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Please visit our TA2 YouTube Channel "ta2project" to see illustrative videos of those concept demonstrators and pathfinders.
www.youtube.com/ta2project

World premiere: demo of orchestrated family game

One of the TA2 pathfinders, the family game "Space Alert" was demonstrated on 16 March 2010 on the Alcatel-Lucent premises in Antwerp. The system included the first ever automatic live edited (or 'orchestrated') video communication between two locations using multiple cameras. Video and audio analysis provided cues to an engine which reacted by automatically selecting the best viewpoint.

This intelligence used to drive the editing decisions was based on live orchestration trials carried out at Goldsmiths over the past 6 months (see photos below).
Please watch the video on the orchestration trials
http://www.youtube.com/ta2project#p/u/2/89agDyGkhlQ

Dr. Marian Ursu from Goldsmiths College, responsible within TA2 for orchestration: "Cue-based automatic orchestration is the way ahead for video-based group-to-group communication."

TA2 report on design and market insights:

Based on a cross case analysis, several conclusions were distilled on the market perspectives for TA2 applications. These conclusions led to a number of recommendations on how to make business informed design decisions. Given the complexity of the business ecosystem and the related multisided markets, the conclusions have been organised as the most likely business models of the different 'candidate' service providers:

• Telecom operators;
• Game console platforms;
• Internet native platforms offering OTT TV

The results are contained in a public TA2 report "Market Perspective – Version 1", which is available on the TA2 website at

http://www.ta2-project.eu/deliverables/deliverables.html

TA2 at conferences

TA2 has been very active at international conferences and trade shows. The list below shows a few highlights; for a full overview please visit
http://www.ta2-project.eu/conferences/conferences.html

Demo at CeBIT 2010
(Photo by Milon Gupta, Eurescom)

14-19 March 2010	"Automatic Temporal Alignment of AV Data with Confidence Estimation", Danil Korchagin, Idiap Research Institute IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Dallas, USA http://www.icassp2010.com/
1-5 March 2010	Stand by TA2 partner Fraunhofer IIS on low delay spatial audio Cebit 2010, Hannover
9-11 December 2009	"From Photos to Memories: A User-Centric Authoring Tool for Telling Stories with your Photos" Fons Kuijk, CWI 1st International ICST Conference on User Centric Media, Venice, Italy http://www.usercentricmedia.org/UCMedia2009/
9-11 December 2009	Workshop: "Experience Design and Evaluation of Social UCM applications (ExpDes)" 1st International ICST Conference on User Centric Media Venice, Italy http://www.usercentricmedia.org/UCMedia2009/
23-24 November 2009	Keynote Speech by Peter Ljungstrand, Interactive Institute Future Internet Assembly - FIA 2009, Stockholm, Sweden http://fi-stockholm.eu/
5-7 October 2009	Keynote Speech by Dick Bulterman, CWI WebMedia 2009, Fortaleza, Brazil http://www.sbc.org.br/webmedia/webmedia2009/index.php.79.html#keynote3
28-30 September 2009	"RTCP based Bit-Rate Adaption for AAC Audio Communication" Jochen Issing, Fraunhofer IIS 2009 NEM Summit, Saint-Malo, France http://www.nem-summit.eu/
4-9 September 2009	Demo on low delay spatial audio applications by Fraunhofer IIS IFA 2009, Berlin

About TA2

TA2 is a large-scale Integrating Project of the ICT (Information and Communications Technologies) Work Programme under the European Community's 7th Framework Programme (FP7). It was submitted to the first call of FP7 and addresses objective 1.5 ("Networked Media") under challenge 1 ("Pervasive and Trusted Network and Service Infrastructures").

The project is partly funded by the European Commission.

TA2 is running from February 2008 to January 2012. Its overall budget is about 18 million euro.

14 partners from 8 European countries are involved in the project.

Further information is available at: http://www.ta2-project.eu

The next TA2 Newsletter is scheduled for January 2011