



Deliverable report for

SceneNet
Mobile Crowd Sourcing Video Scene Reconstruction

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Deliverable D7.3 Report on workshop

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Dissemination Level:		
PU	Public	
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	X
CO	Confidential, only for members of the consortium (including the Commission Services)	

Description of task

We will organise a final symposium at month 36, to promote our results in the scientific community. In addition, there will be one dedicated session for users (event-organisers) and an open discussion of ethical and social aspects. The latter should include interested regulating bodies and NGOs, if possible.

Description of work & main achievements

On October 19th 2015 the second Audio-Visual Gestalt Workshop was held in Lisbon, Portugal.

The workshop dealt with the concept of combining multiple sources of audio-visual information and user generated contents, in the form of images and videos, to create an enhanced description of a scene that can be shared among users.

This workshop was a unique opportunity to present the ongoing work in European Commission FP7 funded projects that tackle various aspects of this concept. Each project handles this multilayered concept from a different viewpoint and aims at different achievements. Amongst others, the workshop was announced on the SceneNet website on the home page and – more detailed – on the conference tab.

In this workshop we aimed at discussing several aspects of this topic such as:

- data acquisition and streaming
- data synchronization
- 3D/4D visual data reconstruction
- compute related issues
- visualization aspects
- ethical and social questions that arise from this concept

Representatives from the following seven EU-funded projects attended the workshop:

- c-Space (<http://www.c-spaceproject.eu/>)
- HANDiCAMS (<http://www.handicams-fet.eu/>)
- Harvest4D (<https://harvest4d.org/>)
- PHENICX (<http://phenicx.upf.edu/>)
- FOKUS K3D (<http://www.focusk3d.eu/>)
- ICoSOLE (<http://icosole.eu/>)
- SceneNet (<http://scenenet.uni-bremen.de/>)

In the first Audio-Visual Gestalt Workshop organized in Bremen on October 2014 the above mentioned projects also participated. It was extremely interesting to meet some of the participants again, and to get introduced to new collaborators. In addition, while in October 2014 most projects were in the initial/mid phase, they were now approaching closure. It was extremely interesting to see the evolution of concept, ideas and technology with time. The event hosted 21 participants from ten countries (Austria,

Belgium, France, Germany, Israel, Italy, Portugal, Spain, Switzerland and The Netherlands) participated in this special event.



Figure 1. Group picture of the second Audio-Visual Gestalt Workshop participants, 19th October 2015, Lisbon, Portugal.#

The workshop was located at the VIP Executive Villa Rica Hotel, Avenida 5 de Outubro, 295 in Lisbon and was scheduled to Monday, October 19th 2015.

Chen Sagiv opened the workshop and guided through the program. The first session started with the key note talk from Professor Pedro Assunção from the Polytechnic Institute of Leiria about the way *From 3D video communication to immersive shared experience*.

Prof. Assunção discussed advances in visual content representation, coding and communications that have been evolving from a technology-based approach to an increasing use of human factors in the design and performance evaluation of digital media systems in the context of 3D media technologies. Prof. Assunção described the gap between the advances in technology and the resultant quality of experience (QoE) and concluded with possible research lines towards better and more useful 3D media technologies



Figure 2 and 3. Impressions from the second Audio-Visual Gestalt Workshop.

The topic of the second key note talk was *Methods for automatic and assisted image and video annotation*, and was presented by Dr. Nuno Correia from the New University of Lisbon. Dr. Correia presented his research to solve the image and video annotation tasks via automatic and semi-automatic methods.

Professor Hans Georg Stark from Aschaffenburg University, member of the SceneNet Advisory Board, was the third key note speaker. He talked about *Complementary Views and the "Whole Thing"*. In his talk Prof. Stark addressed the issue of reconstructing scenes from partial and sometimes mutually exclusive views of the scene. Prof. Stark went through several examples from time frequency analysis and MALDI-Signal Processing to industrial image processing.

The sessions have been completed with presentations from representatives of each of the EU-funded projects mentioned above followed by lively discussions.

Yann Schoenenberger from EPFL talked about point cloud videos developed within SceneNet, Dr. Cynthia Liem from the Delft University of Technology shared the lessons learnt from PHENICX project to generate audio-visually enriched concert experiences.

Dr. Georg Thallinger from the Joanneum Research institute shared insights learnt from live trials in the ICosole Project on combining omnidirectional content and user generated content at music festivals. Prof. Tamy Boubekeur from Telecom ParisTech, CNRS and the Institut Mines-Telecom presented the work done in the Harvest4D project on moving from casual 3D data to high quality 3D worlds. Dr. Jorge Plata-Chaves from KU Leuven addressed how multiple devices cooperate on multiple tasks for data streaming and sharing. Prof. Remco Veltkamp from the Utrecht University presented a unique approach for using games as a tool for crowd sourcing of information and a social experience. Dov Eilat from SagivTech showed a computational paradigm based on parallel computing, multi GPU and cloud computing to tackle the computational challenges in SceneNet. The event concluded with a conceptual talk by Dr. Raffaele de Amicis from GraphiTech who also leads the C-Space project who talked about the relations between technology and creativity.

The Audio-Visual Gestalt Workshop was concluded by an Open Discussion where the challenges ahead and the ways for collaboration were considered and afterwards the gathering was completed by a Farewell cocktail. All workshop participants received a booklet with information such as travel/workshop venue information, participant list, agenda, short bio of the speakers, and abstracts of their talks. The booklet is enclosed to the deliverable.

The workshop was closed with a conference dinner at the Restaurant “Casa do Leão” in Lisbon. Almost all participants could attend this evening and it was a very pleasant get together for everyone with the opportunity for further discussions.

Following the workshop the SceneNet project website was updated: Now the presentations from the participants together with more information about the event are available under the “conference” tab.

In summary, the second Audio-Visual Gestalt workshop was a great success. The fruitful discussions, the gathering of different people with different thoughts and research backgrounds and in addition the overall conclusion to aim for further future collaboration had a positive impact on the SceneNet project and people in the SceneNet consortium.

Deviations from the Work plan

According to work plan the workshop should have been taken place in the last month of the project, i.e. as final symposium in January 2016. However, the SceneNet consortium decided to organize it in October 2015 (month 33) in Lisbon, co-localized with the ICT 2015 event (October 20-22, Lisbon). The motivation was to appeal to possible participants who will be attending the ICT event.

Discussions of legal, ethical and social aspects have been a main part of the first Audio-Visual Gestalt workshop (see Deliverable 7.2), so this time there was no special session concerning this topic. Nevertheless, the discussions of the second workshop also dealt with this subject.

In 2014-2015 SagivTech was involved in mentoring students from the Metro West high school in Raanana on a research project that dealt with image processing. This research project was part of the students' final examinations. During the course of the mentoring, the SceneNet project was presented to the students and there were some discussions on the SceneNet concept, possible uses cases and whether the idea is appealing to young people. For this, there was no dedicated session for users during the workshop.

This deviation had no further effect on the work plan.

Performance of the partners

The WP Leader and the Steering Board deem that all partners have performed their activities as foreseen in the work plan in a satisfactory manner.

Conclusions

The Full Assembly deems this deliverable to be fulfilled satisfactory.