

The People's Smart Sculpture PS2

Abstract

The People's Smart Sculpture (PS2) panel discusses future oriented approaches in smart media-art, developed, designed and exploited for artistic and public participation in the change and re-design of our living environment. The actual debate about a smart future is not taking into account any idea of media art as an instrument for to realize the social sculpture, mentioned by Beuys[1] or as social sculpture itself.

The People's Smart Sculpture is the only large scale Creative Europe media-art project (2014-2018) in this context. It fosters participative-art and collaborative media-art-processes. The artistic results and the open approaches of the project will be discussed by 5 panelists from 5 countries. The project itself is constituted by 12 project-partners in 8 European countries with more than 350 artists and creatives from 29 countries worldwide. The approach works on two levels: the implementation of cultural participation-projects by media-artists and the ongoing optimization of the art and participation aspects. PS2 integrates diverse groups of people to participate in the non-institutional set up of structures for the people's re-design of their urban, societal and living environment. Artists, citizens, creatives with a new user's perception and new skills are able to „medialize“ the Cultural R>evolution of art, culture, society and science: into spaces of a new public.

The New Social Sculpture

The People's Smart Sculpture with the people's participation in several sub-projects and its individual interpretation of it are inextricably related to one another. The collaboration between artists and citizens is pioneer of the future integrative media art culture of social art, social collaboration, digital art, collaborative design, e-decision-making, liquid democracy, social inclusion, urban play - sometimes analogous, sometime with new tools on computers, mobile devices, interactive screens or projections.

Participation will become a part of the general culture techniques. To encounter today's societal and cultural complexity means to integrate diverse forms of cultural practice and diverse groups of people. Here we learn about how to create places for our own interaction. Social spaces that grow immensely popular: spaces for art, spaces for knowledge, and spaces for communication. As soon as we enter these spaces through our and other people's activities, we unavoidably regenerate the. It's a carousel of influence, participation and anticipation. It expresses the cooperation between everyone involved – participatory art work in an utopian aesthetic, bringing with it the

promise of partaking therein also through production, comments, selection, evaluations and critique.

The common activities in our project are inspired by the idea of connecting more purposefully artistic works from local, European and international artists and creatives with local social dynamics. It is intended to be directly linked to the development of our collective living circumstances, a cultural charrette, play, test-field and art place. In the People's Smart Sculpture, a project cooperation of artists, creatives, cultural media activists, citizens and digital media researchers work towards the realizing of this vision: hybrid open environments where everybody can follow – even change – the ideas concerning collaborative re-design and development of media art. Right now actual software systems, methods and tools target more or less only on the relevant experts, policy-makers, lobbyists and other professionals. While professionals, for example, are used to work with highly abstract data and visualizations for planning, decision-making, etc. participating artists, creatives and citizens require a much more direct access and feedback methodology. It's to provide different options for a high diversity of social groups that want to partake in public urban art and space development and cultural city evolution. This remains in the context of the need of a highly sustainable culture development strategy for the future by integrating liquid democracy, opinion sharing games, cross-cultural social inclusion processes, distinct communication of ideas, performative communication acts, new cultural expressions and informal learning capacities and will give the best practice examples to others - world-wide.

The project is also the base for a new deal between artists, experts, citizens, learners, creators and the social activists. It is a performative sort of integrated art to combine social and cultural sustainability in the Cultural R>evolution. PS2 supports small groups and areas, but will also work on more complex problems like the digital transformation of historical areas and cultural heritage. On the other hand the proof and evaluation of all participation activities of PS2 becomes sustainable through an experimental exchange within this ISEA2016 panel.

The common goal is a “Smart Sculpture” as a new version of the “Social Sculpture” [1] designed by media artists, creatives and citizens which profits from the interplay of a high diversity of culturally different approaches, combined through participative media art.

Journey to Abadyl

“Where there is architecture there is nothing else. And this “Nothing else” is spreading. The built buildings, the laid out streets and marked out parking spaces are not just taking place, they take over the place.” (From an user story from one of the early test events)

To encounter today’s European urban complexity means to integrate diverse forms of cultural practice and diverse groups of people into processes for common cultural intangible and tangible results. We see the media art project “The city of Abadyl” conducted both in Copenhagen in Denmark and in the cities of Malmö, Lund and Kristianstad in Sweden, as a way of knowing the world - a methodology for exploring, understanding, and building human realities. “The city of Abadyl” has since 2003 become a large database of material that is interlinked through the architecture of a city, regardless of its incompatibilities. That space has proven itself as a continuously evolving platform for staging both immediate and long-term projects. By establishing a multidisciplinary common ground for an art practice, design, architecture, interaction design and technology development, through an investigation of philosophy and criticism in a dynamic material has so far been successful. It creates an open-ended way of working with art and design based on scenarios extracted from the framework and rule-set of the city.

“Imagination was tickled by the knowledge of being part of a networked mapping I didn’t know in detail. The scenario got me going, but I felt no repressing obligation towards it and also felt more liberated than in the situations of my own work where I’m the responsible and potential object for critique.” (From an user story from one of the early test events)

In the artistic activities of “Journey to Abadyl” we set out to create an interactive experience based on a framework of play-rules, fiction and role-taking that we call “The Anatomy of Choice”. We ask: What are the qualities at play through history constructing these spaces and who is invited? Our answer is an experience structured as a matrix in which the participants are exposed to distinct choices that include both moral, ethical, and physical dilemmas and challenges - a new format for community building? Public engagement can be explored through the lens of aesthetics - as a question of experience, affect, creativity and self-reflection.

In the project we have chosen the concept of portals to invite residents and visitors participate in the creation of situations, dilemmas and events which can be experienced in a smartphone as well as in staged portal events in all of the participating cities. The portals try to engage citizens, children, art audiences, tourists, institutions and local businesses in the discussion of how we can develop the cities of the future:

Are we creating the city together or are we mere consumers of an environment designed for us?

The Portals act as generators since they generate new and unforeseen processes, which extend into new and likewise unforeseen contexts. Each Portal involves people actively in a process where they gain insight in what it means to be part of creating a city and raises questions about cultural heritage, community, democracy and engagement. These mixed reality spaces evoke dramatized events through actors and performers, contains digital film footage, sound, physical objects, augmented reality, pervasive games and hidden messages that are all part of a story waiting to be discovered. The Portal format allows us to set up interventions and events during the 12th months of the project with different constellations (partners) and on the different locations. “The Journey to Abadyl” should be seen as a synergy of the expressions of media art, the theatre, the exhibition, the roleplay and the amusement park, using dynamic new media, a non-linear dramaturgy and theories from computer games, working with notions as “story world” rather than “script” and “game play” rather than “drama”. The task is to establish a contract of fiction with the audience, based on a variety of representations, illusions and meta levels, and to create an environment, which is believable. It is an event, which takes place over a day, engaging its public in a structured game, using the new media in all their possibilities of creating illusions and presenting the results of intricate algorithms in a few seconds, and so able to engage the public in an interaction, which inside the structured frame will define the outcome of the game. It takes place in a larger venue for an audience of 100-200 persons, adults, youths and children above 10, together with their parents.

Here participants are invited to a series of thematic Portals; each bridging from one world to another, from the factual to the fictional, from virtual and the real. Guided and aided by performers in a mixed reality space, participants experience a kind of computer game in a spatial format, linking what we already know and spotting the new. The Portals will be designed as thematic artistic elements - Ideal Space, The trick of the tale, Wanderlost, “The Residence Table”, People’s Choice, “Try walking in my shoes” - and function as an invitation to participate in the creation of events which can be experienced in the virtual city as well as in the staged events. In this way people are given the opportunity to reflect on consequences of the growing social media reality seen in relation to the actual physical environment around us. We hope participants will go away feeling enchanted and empowered, challenged, moved, and inspired.

“The real voyage of discovery consists not in seeking new landscapes, but in having new eyes.” Marcel Proust [2]

Change of Heart: an intimate reconstruction of Zagreb's historical center

"We go to foreign cities in search of sensuality and possibly love. And vice versa: we get in love in search of making the city in which we reside unfamiliar. All love affairs happen in foreign cities." Jalal Toufik [3]

Almost 10 years ago I was one of the culprits who conceived an art installation entitled *The Museum of Broken Relationships*. At the time, we defined it (pretentiously, I can admit today) as a conceptual artistic project, which proceeded from the assumption that objects in the broadest sense, i.e., matter as a whole possesses integrated fields - 'holograms' of memories and emotions. We intended with its layout to create a space of 'secure memory' in order to preserve the material and nonmaterial heritage of broken relationships. Misguiding terms of "fields and holograms" did not refer, as one might suspect, to the digital or technological output. Quite the contrary, what a viewer actually experiences in the Museum of Broken Relationships are everyday objects of no apparent value, ranging from banal to bizarre, submitted by anonymous individuals around the world, displayed with their subjective unedited stories donors as the only text. The underlying key for deciphering stories varying in style, length and content is their imminent and simple reference to the universal theme of love and loss. In 30 world cities where the itinerary exhibition took place the audience have assumed the multiple roles of museum's creators, visitors, curators and interpreters of its varied and symbolic collection. They («we») created a unique collaborative-participatory project of hybrid authorship and blurred borders, somewhere between the simple documentation of every day life and its artistic sublimation, confessional prose and profane catharsis, prying voyeurism and cultural anthropology. We created a space whose universal power to disturb and affect enabled it to eventually develop into a permanent physical museum in the Zagreb's historical center: a DIY archive of every man that documents the activity of life while at the same time creates a public interface to connect visitors through the process of sharing, exchange, identification and empathy. In the Museum of Broken Relationships we witness every day how an emotionally charged content, which fuses "presence and absence" (artifact which is there and the story depicting the bygone love) stimulates the observer to adopt an immersive, analytical approach of a 'museum professional'. Audience are no longer objective, impartial observers. They get involved and become the point of interest of their own research, as individuals who are part of a global community of people that have known the heartache all too well.

Our subproject in the framework of the People's Smart sculpture, entitled *Change of Heart*, is, at its core, the translation of museum's activities and mission into the cityscapes and open air of Zagreb's historical center

which is, at first sight, just another scenic, administrative, tourist heart of a Central European town. The places and objects paradoxically seem devoid of both "real life" and storytelling capacity all too often. The layers of social memory remain invisible. Through the participation and collaboration of different target groups (residents, students, artists) we aim to re-sculpt the intimate identity of this part of town through the engagement of subjective memory of its citizens. We have instigated activities that encourage the same "performative behaviors" that are at work inside our museum's walls. Workshops and research activities (interviews, archives, collecting of personal objects and memories) are conceived in the way to emotionally engage participants. They put an emphasis on processes that empower audiences in the role of architects of identity and memory. On the basis of "emotional maps" of data gathered through workshops and research, we have commissioned visual and sound artists to produce works and installations questioning history and social meaning of places and objects we take for granted. The art forms to be produced vary from site-specific interactive installations, soundscapes and exhibits to broader actions as 24h guerrilla community radio program or curated multidisciplinary social events in the neighborhoods. The project *Change of Heart* strives to awaken responsibility and interest for preserving plurality of individual people's experiences of general societal processes, acknowledging that remembering and forgetting are both selective actions akin more to literarily methods than the scholarly ones.

4D – Virtual Urban Art

People today use new media, for creating identity, communication, social effects, fun or learning. Participation in cultural heritage learning not only means to integrate the "active visitor" into the museum, it means to generate an environment in which one can take part and can realize his- or herself in complex processes more easily – emotionally as well as cognitively – and in social exchange with others in-situ at place of origin.

The general idea behind this project is, that the more and more upcoming cultural use of new media in the knowledge society, like e-learning, technology-enhanced learning (TEL), e-culture, infotainment, gaming, Web2.0, interactive media and mobile technology shows, that a new desideratum of action-learning is emerging. Whenever people learn, create or explore something, it will be discussed, exchanged, and reflected from different perspectives. People learn by doing something at the point of immersion and rediscover to learn playfully in augmented reality environments.



Fig. 1. Site exploring with augmented reality platform

The 4D Virtual Urban Art is a solution based on a precise 3D model of an urban environment, in which the users can explore past and suggest changes of the areas they live in and upload their ideas to the online database. The decision making process of urban art, urban development and planning is closely connected to the history of the selected areas and their cultural heritage value. Thus we create augmented reality platform with the historical information and the cultural value of match of the diverse interpretations and cultural expressions. Adding the dimension of time ($3D+time=4D$), the users can explore their habitat and receive time related information on certain objects or areas. For example, the user can “travel in time”, and see historical data about the area of interest, which can be inspiration plus for the suggested future solution.

In this way, the users can easily visualize the suggested solution with a broader view of the area concerned. To support the decision making process, the software platform is in complete conformance with Web 2.0 technologies, augmented with the use of the social networks and the developed interactive website.

Neighborhood Living Room

Today museums are looking for new ways to attract and engage audience. These include virtual museums, augmented reality and 3D modelling based applications and interactive digital storytelling. The target of all these activities is to provide better experiences for audience who is very familiar with digital world. The Neighborhood Living Room project, a part of People’s Smart Sculpture project, studies how a museum could build a more dynamic and participatory audience relationship. The vision is that a museum could be integrated as a part of the community and at the same time offer an emotional and participatory experience for the residents, especially youth.

In augmented reality (AR) systems and interactive digital storytelling (IDS) systems visual presentation has

been dominant. In contrast to this trend, we chose to concentrate to auditory presentation which in the augmented reality context can be built with soundscapes in museum environment. Two key elements when developing AR, IDS and soundscape systems are the user applications and the backend service supporting these applications.

The following figure describes the overall system including also audio digital asset management system supporting mobile applications.

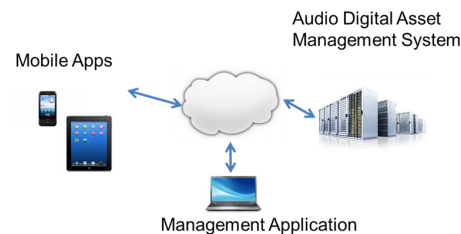


Fig. 1. Overall software architecture

As can be seen from the figure 1 the overall system is a distributed system consisting of audio digital asset management system, management application and mobile applications. Audio digital asset management system provides functionalities to manage assets and offers interfaces for both for management application and mobile applications over internet. Management application is basically administration console to manage assets and users. Mobile applications are for example audio augmented reality, soundscape design, audio story recording and listening, or audio memory sharing applications.

Let’s have a look at the two main areas when designing audio digital asset management system: APIs and metadata. In our case three APIs were required: an authentication, an upload, and a search API. The authentication API is needed specifically by the mobile applications so that they can receive an access key which will in turn be used with the search and upload API. This authentication provides an access key which is required when using search and upload APIs. The search API is a HTTP get request containing `api_key` and predefined search parameters. The response in JSON format contains links to audio files and respective metadata based on search parameters. The upload API lets users who possess a valid authentication key upload their audio files along with metadata.

In order to utilize, search and find relevant media files it essential to utilize metadata. There are several metadata standards available for different purposes, like metadata exchange between systems, general metadata for broad range of domains, and audio specific structural and administrative metadata. We ended up to metadata which enables in the future exchange of assets by supporting Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH). This requires in minimum that we need to be compatible with unqualified Dublin Core. In addition, it was clear that we cannot call

our audio files as assets unless we introduce at least rights metadata field. Most of the metadata will be input manually during the storage of audio file. Only some of the metadata will be extracted automatically from the audio file properties. In order to utilize audio digital asset management system we assigned eight student teams consisting of Android developers (2-3) and usability and interface designers (2-3) to work together in order to produce soundscape mixer. In addition, we also involved four sound design students to plan what kind of audio files would be useful building components when creating soundscapes in museum context keeping in mind the targeted age group. Student teams came up with applications which can be used in several scenarios:

- Create a soundscape which describes the acoustic environment of an artefact or a building or a space, etc. This scenario can be varied a lot: artefact could be real or virtual, soundscape for a different era, predefined adjective describing soundscape, realistic vs. imaginary soundscape, etc.
- Using QR-code pick up audio components from different parts of a museum and create soundscape
- Listen artefacts
- Record and share your memories related to an artefact or a building or a space, etc.

Together with the museum we invited a school class (9th grade) to test our first scenario. During the workshop we used 3 different mobile apps. Feedback from the workshop was very positive both from the pupils and museum staff. We strongly believe that audio information system is viable innovation platform also for smaller museums and other culture sector's actors who have a tight budget and at the same time want to utilize audio as a part of their creative activities.

“Express your-self/city”

Virtual urban art invites all citizens to participate in attending, responding and modifying 3D sculptures, linked to real spaces. These may be art works, fictional buildings, provoking sculptures or informative objects. Participants use their tablet device to create an augmented reality view and do modify 3D objects proposed by others. This fosters a creative process to develop virtualized objects by and for the community of interested citizens, creative industries and artists. The aim is to create an augmented reality view containing an image of action on and beside urban areas and places and in change. Their usage in past and present will be compared, the change of a place in different decades as well as to create fictional views of future use of the space, future architecture for creative processes and art works.

In PS2 we make use of the Betaville System [4]. Beside server capabilities, no more technical installation work is needed – people just their own devices. The project addresses and profits from the fast growing percentage of people already make use of pads, tablets and/or smart

phones, and invites all citizens to participate in attending, responding and modifying these sculptures, at the real spaces in the city of Bremen (like in the inner city development area “Rembertiring” or the “Überseestadt”, the old sea harbor).

Web and social media are used to communicate progress during the duration of the implementation process. Users are able to upload 3D proposals to modify (others') proposals and to vote for them (by one-to-one comparison with existing proposals). The input is curated by local and European artists from the project partners' countries while an overall curator coordinates the creative and technical activities and people's access and collaborative processes between citizens and artists. Currently, we already have integrated cultural projects as collaborators: The Bremen based “ZZZ – ZwischenZeitZentrale” is a public project, mainly driven by young architects, that cares about vacant buildings and fallow areas in order to establish temporary use by artists and creatives as an innovative tool for urban development. In June 2015 they had set up a workshop within PS2 to play with the different Betaville clients and create ideas and designs for a future permanent use of vacant buildings for artists, culture and creativity at the Bremen location of the former Wurstwarenfabrik (Sausage Factory) in Hemelingen. Another example: in the context of the cultural project “Remberti” under the direction of the media artist Jürgen Amthor, an old Pub that was torn down during the 60th to be replaced by a large roundabout was reanimated during an event in Sept. 2015. Beside other, a virtual model of the house that contains the pub could be seen in augmented reality mode at that very spot (see fig. 2: “Sternenklausen” event). During the ongoing project another partner will be involved: the koopstadt – a governmental project (state ministry) for urban development in Bremen, Leipzig and Nürnberg. It will be integrated for to exchange the results of our experimental project with policy and municipal administration in Bremen.



Fig 2. Sternenklausen event in Bremen, Sept. 2015

References

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