



Workshop on the collaboration of EU H2020 projects on Cultural Heritage: Outcomes

On Monday the 14th May at the premises of the University of West Attica the meeting/workshop of the EU projects working on cultural heritage took place. The workshop was co-organized by CrossCult and EMOTIVE H2020 projects. 12 projects physically participated and others followed the live streaming and twitter updates. In addition, 2 university labs physically also attended the event. There were 3 sessions during which participants discussed on issues previously raised by the projects, since all projects had sent before the workshop their open challenges. The figures below summarize the open issues reported by the projects. The tables per session also summarize the discussion topics and the main suggestions.

Participants

| Name | Surname | Affiliation | Project Name |
|----------|-----------------|---|---|
| George | Caridakis | University of the Aegean | Intelligent Interaction research group, Department of Cultural Technology and Communication, University of the Aegean |
| Nikos | Frangakis | ICCS | PLUGGY |
| Gabriele | Gattiglia | University of Pisa | ArchAIDE |
| Javier | Gutiérrez Meana | Treelogic | ARCHES |
| Symeon | Papavassiliou | National Technical University of Athens | Network management & Optimal Design Laboratoty, National Technical University of Athens |
| Angela | Antoniou | University of Peloponnese | CrossCult |
| Athina | Thanou | National Technical University of Athens | Network management & Optimal Design Laboratoty, National |

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| | | | Technical University of Athens |
| Vivi | Katifori | ATHENA Research Center | EMOTIVE |
| Maria | Boile | ATHENA Research Center | |
| Katerina | El Raheb | ATHENA Research Center | WhoLoDance |
| Maria | Roussou | ATHENA Research Center / U. of Athens | EMOTIVE |
| Vassilis | Kourtis | ATHENA Research Center | EMOTIVE |
| Ektor | Vrettakis | ATHENA Research Center | EMOTIVE |
| Evgenia | Vasilakaki | University of West Attica | CrossCult |
| Dimitrios | Karadimas | Vision Business Consultants | INCEPTION |
| Dimitrios | Bakalbasis | Vision Business Consultants | INCEPTION |
| Alexandros | Prassas | Vision Business Consultants | INCEPTION |
| Mariana | Ziku | University of Ioannina | BoWB |
| Costas | Vassilakis | University of Peloponnese | CrossCult |
| Hara | Stefanou | EXUS Ltd. | EMOTIVE |
| Davy | Hanegreefs | Belgian Film Archive | I-Media-Cities |
| Panagiotis | Agrafiotis | Researcher C, Cyprus University of Technology | iMARECULTURE |
| Kalliopi | Kontiza | CrossCult Fellow at the National Gallery | CrossCult |
| Bogdan | Spanjevic | General Manager, NextGame | GIFT |
| Daphne | Kyriaki-Manessi | University of West Attica | CrossCult |
| George | Giannakopoulos | University of West Attica | CrossCult |
| Markos | Dendrinos | University of West Attica | CrossCult |
| Ioannis | Triantafyllou | University of West Attica | CrossCult |
| Alexandros | Koulouris | University of West Attica | CrossCult |
| Dimitrios | Kouis | University of West Attica | CrossCult |
| Joanna | Karaś | Warsaw School of Economics | - |
| Georgios | Lepouras | University of Peloponnese | CrossCult |
| Olga | Venetsianou | University of West Attica | |

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| Metaxia | Adami | University of Glasgow | EMOTIVE |
| Eleni | Toli | ATHENA Research Center | |
| Areti | Damala | University Paris 8 and University of Strathclyde | meSch project |
| Patryk | Kot | Liverpool John Moores University | DigiArt |
| Dimitrios | Kanakidis | | |
| Aphroditi | Kamara | Time Heritage (SME) | |
| Markos | Konstantakis | | |

Business & Dissemination meeting notes

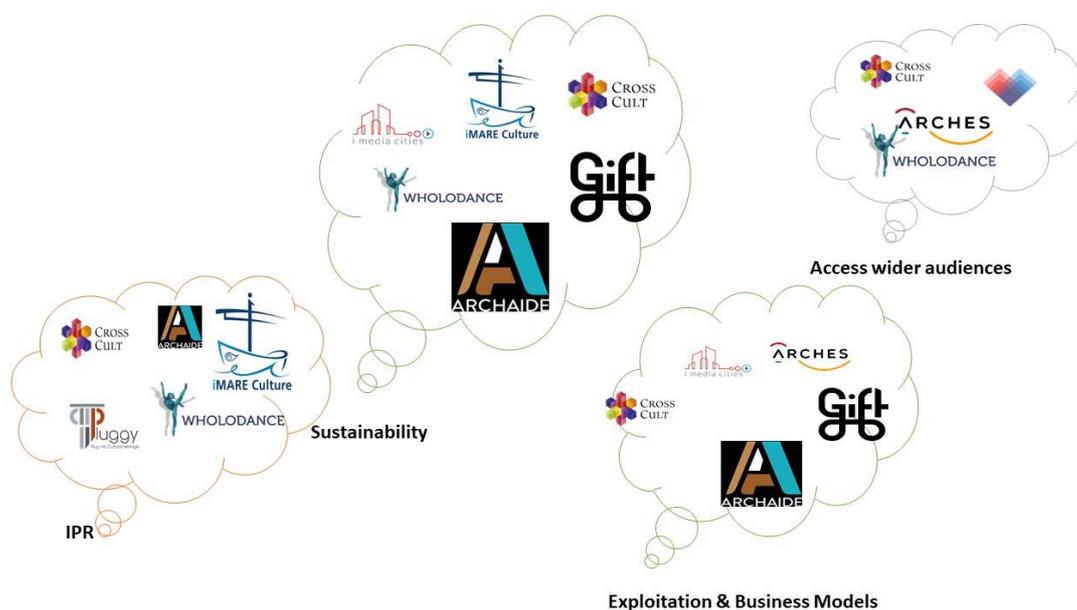
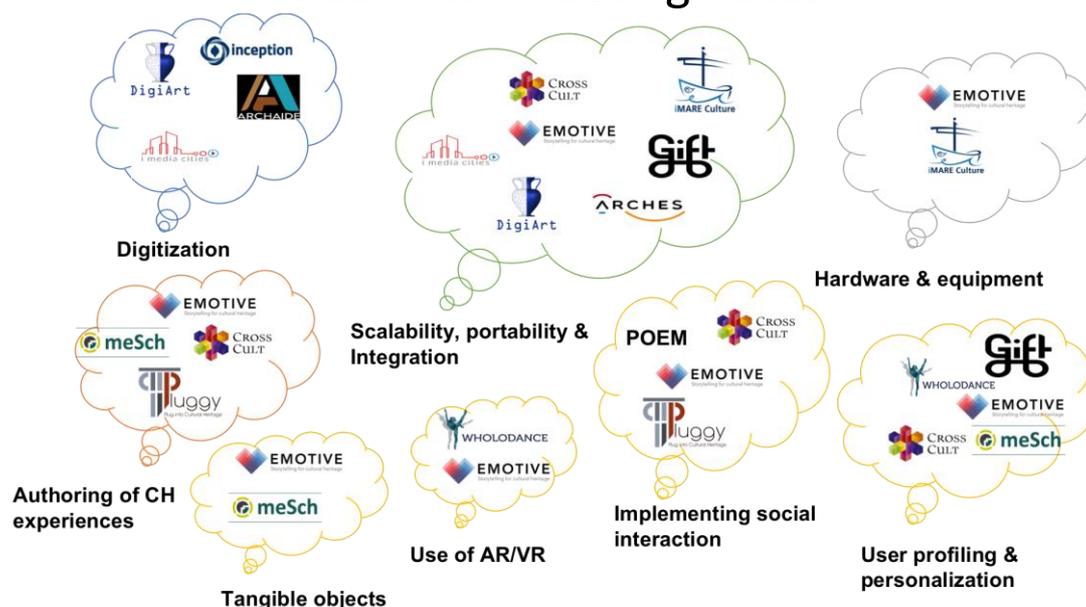


Fig. 1 Mapping of the participating projects to the issues that they had identified as challenges in their presentations

| Discussion Topic | Points raised | Suggestions |
|------------------|--|---|
| IPR | How IPR are handled in the different projects. | <ul style="list-style-type: none"> Some projects provide as open source all technology developed to promote sharing and dissemination Other projects try to identify what is free from IPR and thus can be shared |
| | What about relevant legislation | <ul style="list-style-type: none"> Legislation was another issue raised and how it can be dealt for each type of format (photos, sound) separately |
| Exploitation | What are the barriers faced for exploitation | <ul style="list-style-type: none"> Long talks with university lawyers to come to an agreement |

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| | | <ul style="list-style-type: none"> Strong consortium agreements are needed that bound the different partners and promote exploitation |
| Reusability | How it can be promoted | <ul style="list-style-type: none"> Specific guidelines are needed Provide relevant documentation for how to use the open source technology |
| Funding | How to secure further funding. | <ul style="list-style-type: none"> EU funding Approaching companies with a profit sharing scheme |
| Synergies | What sort of collaborations among projects could be identified | <ul style="list-style-type: none"> Perform common pilots Organise common workshops i.e. EUROMED session October workshop from EC on H2020 projects in cultural heritage |

Technical meeting notes



| Discussion Topic | Points raised | Suggestions |
|----------------------------------|---|--|
| User profiling & personalization | How to capture the visitor profile pre-visit and during the visit | <ul style="list-style-type: none"> Game-based profilers personality trait profiling through pop psychology quiz Tracking the visitor during the visit |
| | User privacy - How to handle GDPR issues | Review existing literature on privacy |
| | How to foster visitor emotional engagement | Various conceptualizations of tools promoting visitor engagement: |

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| | | <ul style="list-style-type: none"> • Gifting • Appropriation • Collaboration |
| Digitization | Cost-effective 3D capture solutions | There are efforts for 3D capture both for sites and objects within some of the projects, including DigiArt and EMOTIVE |
| | Semantic linking of objects and sites | Linked open data is a promising approach |
| Authoring of cultural heritage experiences | Authoring tools are needed for not technical experts | Participating projects have developed a variety of authoring tools for different user groups and purposes: <ul style="list-style-type: none"> • Tools for CH experts • Tools for user generated content |
| Implementing social interaction | Limited willingness of visitors of different sites to interact has been reported | Maybe this unwillingness stems from the fact that visitors do not know each other |

Humanities meeting notes

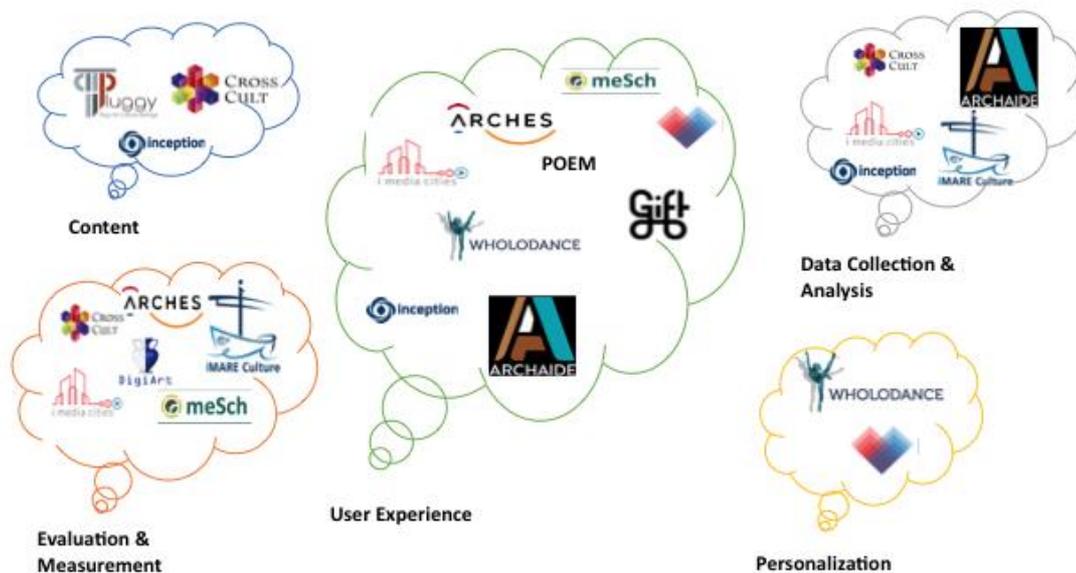


Fig. 2 Mapping of the participating projects to the issues that they had identified as challenges in their presentations for the humanities meeting.

| Discussion Topic | Points raised | Suggestions |
|------------------|---------------------|--|
| User evaluation | How to measure user | <ul style="list-style-type: none"> • Peer to peer (another visitor is asked |

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| | experience. | <p>to evaluate the experience of another visitor).</p> <ul style="list-style-type: none"> • Onsite data collection to resemble the real experience. • Need of a holistic approach that does not only measure technology effects. • Practical problems with longitudinal studies. • Need to analyse data from social media during and after the visits. Need new methods. • Quantitative data like system logs can be used a complementary approaches and to inform the building of new tools. |
| Objective measurements (physiological data) | Biased results due to the equipment used. | <ul style="list-style-type: none"> • Multimodality could be used to collect data from multiple sources. • Still an indirect approach, since you measure something that you can only hypothesise it is emotion without knowing for sure what it is (high reliability and low validity). |
| User Experience | How can one identify evidence for learning? | <ul style="list-style-type: none"> • Do not only focus on the cognitive aspects of learning. Affective elements are also very important. |
| | How can we define learning? | <ul style="list-style-type: none"> • We can use a working definition of learning since there is not a generic and widely accepted one. |
| | Is technology distracting? | <ul style="list-style-type: none"> • Experienced museum visitor, report that technology is distracting. • Technology is not seen as appropriate in all cultural spaces. |
| | Is personalisation cost effective? Or even necessary? | <ul style="list-style-type: none"> • Personalisation works at the beginning when you suggest something new but it might not be meaningful when it comes to adapt content to user profiles. • It is not cost effective or even necessary to adapt content. |
| Content | Authoring tools for non-technical experts | <ul style="list-style-type: none"> • There might be organisational resistance to new tools for curators. • They have to be web-based not to make user install new software. • Need to follow the standards of other tools they use everyday. • They are not enough on their own to |

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| | | create a professional results, since material like good videos and photos is also needed. |
| | New methods to collect user requirements. | <ul style="list-style-type: none"> • Need to use example, because people cannot imagine how a technology will be like, in order to give their requirements. • Careful when you use templates, because venues want unique solutions only for them. • Suggested to use participatory design approaches to involve the user in the design process. |
| Virtual reconstructions | Are reconstructions a virtual museum? | <ul style="list-style-type: none"> • The stories of people are missing to make them a museum. |
| | How to infuse life in 2d and 3d digital objects? | <ul style="list-style-type: none"> • Consider projection techniques like shadows. A combination of different projections techniques could work. |
| | We have no control over the experience when people can download things. | <ul style="list-style-type: none"> • Prefer narrative oriented experiences over data oriented ones, since it is more difficult to control the user experience. |