MEMORIES and Experiences (MEMEX) for inclusive digital storytelling

NEMO

April 27, 2022

@memexproject
General introduction

Alessio Del Bue – Italian Institute of Technology

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 870743
### Social Goal
Design guidelines and recommendations to promote actions for social inclusion with strategies for audience engagement and development

### Technology Goal
Advanced and easy-to-use ICT tool on smartphones for non-expert users to create their own stories and engage geolocalised storytelling with AR

### MEMEX Objectives

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<tr>
<th>Tools to benchmark social inclusion</th>
<th>Social analysis for communities needs</th>
<th>Design of new audience development strategies</th>
<th>Co-design of compelling storytelling with AR on smartphones</th>
<th>New KG infrastructure for assisted storytelling</th>
<th>Geolocated annotation of CH asset</th>
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Social Inclusion of targeted communities

Socially fragile targets that are systematically blocked from various cultural opportunities and resources: Refugees, Migrant women, population in a situation of risk of exclusion due to poverty.

Social inclusion through storytelling and a prototype App for digital creation and visualisation of the stories.
MEMEX: a map of memories, experiences, emotions and relationships with cultural heritage
The technological embodiment of MEMEX

MEMEX ICT tool is a **prototype App** on a smartphone that enables digital stories creation and their visualisation in our physical spaces using Augmented Reality (AR)
Digital storytelling methodology and policy recommendations

Cristina Da Milano - ECCOM

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MEMEX: an innovative cross-sectoral approach

Co-creation process between technological and social partners

A methodology based on storytelling & technological innovation
Digital storytelling

- Digital Storytelling is a creative practice and process combining the art of telling stories and technology to develop short personal stories in a digital format.

- Strong autobiographical perspective.

- Connection to cultural heritage (acts as a trigger).
Policy recommendations

1. Capacity building actions targeting cultural and social professionals involved in community engagement as key tool for inclusion (July 2021).

MEMEX pilot activities: Barcelona, Paris, Lisbon

Interarts (Spain) - Fran Gracia
Michael Culture Association (France) - Corinne Szteinsznaider
Mapa das Ideias (Portugal) - Ivo Oosterbeek

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With the active collaboration of:
Some Data: +80 participants, 100 stories

Barcelona
- 35 participants
- Workshops
- 29 stories + 7 podcasts
- 17 usability & user experience tests so far
- 1 capacity building event

Paris
- 15 participants
- Workshops
- 21 stories
- 15 usability & user experience tests so far
- 1 capacity building event

Lisboa
- 33+ participants
- Workshops
- 35 stories
- 10 usability & user experience tests so far
- 1 capacity building event
Local partnerships

Partnerships help reduce the stress of EU-project burnout: migrant communities often participate in projects and feel “abandoned” when funding ends.

Cultural organizations that develop work with migrant communities/people at risk of socio/cultural exclusion

- Preference to those with interest /already working in social inclusion/gender

Migrant associations/social organizations working in social inclusion processes and co-creation projects

- Aim: give support to existing community culture-based projects.
- Listen to the communities needs
Common Challenges

• COVID-19 restrictions — smaller groups, outdoor filming sessions, sick people, exclusion of some people who did not have technologies

• Managing drop-outs

• Working in a short time process: mobilisation, story creation and evaluation

• Engage participant in a long-term process

• Ensure mobilisation of participants
Pilots-Specific Challenges

Barcelona
• Support to less tech-savvy participants
• Manage expectations / frustrations

Paris
• Gathering together a diversity of participants – heterogeneous
• Support to less tech-savvy participants
• Lack of cultural institution & of access to culture and heritage

Lisbon
• Due to migrant's status of precarious situation in the country, their main goal is centered on primary needs such as work and housing
• Weaknesses for the integration of at-risk migrants: lack of associations/organizations in the field of culture
Common Achievements

• Strong emotional involvement of the participants during story creation session

• Growing group of stakeholders: local social and cultural organizations

• Creation of safe spaces where participant felt accepted and integrated in a group that values their opinions and visions

• Opportunity for individual and collective expression.
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<th>Barcelona</th>
<th>Paris</th>
<th>Lisbon</th>
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<tbody>
<tr>
<td>• Participants felt heard and were able to dialogue with and on the CH of the city.</td>
<td>• Increase of digital skills and discovery of digital cultural heritage</td>
<td>• Increase of communication skills and eagerness to understand and learn a new language</td>
</tr>
<tr>
<td>• Successful participatory and co-creation processes.</td>
<td>• A pride in participating in the valorisation of the neighbourhood that appears to have a &quot;bad reputation&quot;</td>
<td>• Increase in cultural awareness by participants who start to feel like they &quot;own&quot; a little of the city by being able to show heritage and talk about it with others</td>
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<td>• The group of women became even tight after sharing personal stories (community development)</td>
<td>• Re discovery of the History and urban transformation of the area</td>
<td>• Pharmacy Museum highly encouraged to become a space where migrants feel welcomed in</td>
</tr>
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<td>• The DS workshops (process and methodology) have attracted broader interest from other collectives and stakeholders in the city.</td>
<td>• Synergies between participants and also between the stakeholders</td>
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**Pilots-Specific Achievements**
Digital Storytelling at the Reggia di Caserta

• ECCOM carried out a cycle of digital storytelling workshops at the Royal Palace of Caserta (Italy) between November and December 2021.

• The experience was part of the participation process started with the review of the UNESCO Site Management Plan of the Royal Palace.

• The participants created their personal digital stories, inspired by their memories and experiences around the heritage of the royal residence.
Digital Storytelling at the Reggia di Caserta

- Participants: 6 +60 subscribers, one member of the staff and 1 researcher.

- Methodology: shortened version of the MEMEX pilots’ methodology, including all phases.

- The workshop was divided into 5 face-to-face meetings, during which the participants constructed their stories, selected places and soundtrack, registered their voices and the settings of their stories with the help of a technician, who edited them. The results were shared online in March.
Technology & MEMEX App

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MEMEX: under the hood...

We are building a new **AI platform** for geolocalising CH assets, their associated digital information as in a Knowledge Graph, and the creation of Augmented Reality (AR) spaces.

**Localisation**
Computer vision based automatic localisation of users and objects.

**Knowledge Graph**
Creating new infrastructure for geolocalised Cultural Heritage to reason on.

**Storytelling through Augmented Reality**
Assisted story creation and visualisation using advanced AR technologies.
Localised data sources

Databases: Local archives and Museums, +

Mapillary

OpenStreetMap

wikidata
Digital Story Telling

✓ Features of the application have been split by the two potential users: **viewers** and **author**.
✓ A viewer will be able to interact with limited features of the app → map and list views of stories, navigating, and filtering of stories.
✓ An author will be able to create and publish a geolocated story, uploading video, audio and images.
✓ An author will be able to add multimedia content to the story
The App: MVP3 Concept (& Status)

See and create stories

Enable a process to come to the story view and story creation with a friendly User Interface. The app allows to:
• Connection with geolocated content
• Linking with audio and videos
• Easy to use even for low-level devices
• Responsive and mobile

Interconnections with the stories

A new component has been added to the MEMEX App to enrich user experience navigation in the app: the Knowledge Graph (KG). It allows to:
• find and include content from Open Data into stories
• create a story and interconnect it with the stories on the app
• search for similar stories nearby and other interesting additional functionalities

Create a group of story (collection/journey)

The third release will be able to introduce the concept of group of story, distinguishing between:
• Ordered- Journey
• Unordered-Collection
• Augmented Reality
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Augmented Reality

Local placement of object

MEMEX start

MEMEX end
Augmented Reality
Augmented Reality

Automatic object localisation
Augmented Reality

Multiple user & Large scale
Connect **Tangible** and **intangible objects** to Linked Open Data (LOD) either for **education** or **digital story telling**

**Two Perspectives**

**Curator**

**Visitor**

Explore the world around them enriched through information and stories
Leading social and cultural organizations through digital transformation

Based on the current experience, what are the main steps museums and social and cultural organizations should take to strengthen a long-awaited digital transformation?

MEMEX app contribution to overcome the digital divide of social and cultural organizations

**Key Principles**

**NEW RELATION WITH AUDIENCE**

- Digital audience engagement (more interactive and participatory);
- Enabling beneficiaries (users) to interact with cultural assets and heritage through a digital tool at their fingertips;
- Transforming social and cultural organizations into agile responsive members of their audience;

**UNDERSTAND BENEFICIARIES’ NEEDS**

- Increasing digital literacy on the cultural heritage of communities at risk of exclusion;
- Create a stronger and deeper connection with communities at risk of exclusion based on collaboration, co-creation, sharing and opening.

**VALUING BENEFICIARIES’ NEEDS**

- Beneficiaries needs have been and will be valuable for the app development;
- Added value: The feedback collected from the audience will feed the development of the app in terms of sustainability requirements.
Our next steps ...

• New version of the app prototype and user experience tests (June)
• Final restitution in Paris with walking tour – October 2022
• Final exhibition in the 3 pilots area – September/November 2022
• Final event with policy round table in Barcelona – November 2022

• Exploitation phase: Start new pilots with interested stakeholders (e.g. Reggia di Caserta) and secure further funding for the MEMEX platform
Thank you for your attention!

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