Executive Summary
D4.2 – CrossCult Frontend toolset

This deliverable presents the demonstration of the first version of the CrossCult Portal, that will permit expert users to plug and unplug new modules as technology evolves and as their projects will require them. It is structured as follows:

- Overview of the CrossCult Portal, including a brief presentation of its intended users (also called stakeholders or potential customers), the roles they can use to login to the portal, a mapping of stakeholders to the portal roles and a high-level graphical presentation of the portal's services.
- Description of the services that are available on this first version of the CrossCult Portal, per user role.
- Explanation the CrossCult Portal demonstrator, including instructions on how to access to the portal.
- Conclusions and next steps.

Stakeholders are *broad categories of people interested in its outputs of the project* from a technology and cultural heritage point-of-view. CrossCult stakeholders are:

- **Cultural Heritage Professionals**. For example: City representatives (like in pilot 4), museum professionals coming from large museums (like in Pilot 1) or smaller museums (like in Pilot 3), and representatives of other cultural-heritage venues (like for example the Montegrotto site in pilot 2).
- **Visitors.** For example: museum visitors (like in pilots 1 and 3), students and teachers (like in pilot 2) and city tourists or residents (like in pilot 4).
- **Scientists.** For example: data scientists (interested in the analysis of the data produced by the project) and Humanities scientists (interested in answering social science questions related to reflection & digital cultural heritage).
- **Developers.** For example: individual developers, IT teams and SMEs.

The current roles we have envisioned for the CrossCult Portal and the tools developed are the following:

1. **Role 1. Experience Designer.** Can access app development and other User Interface features.
   Services:
   - Apps Generator: to design sections tree, manage application languages, select the template in which to adapt every content, change colours, fonts, and other visual elements, preview the final aspect, as well as prepare the app components to be rendered for the final users' mobile phones or other final user devices.
   - Experience Manager: permits management of experiences and "rooms" for game teams and groups of final users.
   - Associatrion Graphs: A tool to develop graphs of connections and questions for pilot 2 experiences. The first version allows editing graphs for different reflective topics, attaching multiple-choice questions (based on text, timelines or maps), and loading and saving from/to JSON files.

       ✓   Social Chats: allows for basic chat functionality, providing the back-end features required to enable chat-like communication between end-users.

2. **Role 2. Museum Curator & Expert.** Can create and manage content.

    Services :

- CCKB POI service: Lists the POIs present in the Knowledge Base (KB)
- CCKB Region service: Lists the different regions present in the KB
- Situation Identifier: This service gathers the observations of all the users and aggregate them to produce knowledge about the whole venue
- Recommender Item Service: It configures the recommendation service (values, strength, etc.).
- Knowledge Base Web Interface: Web-based interface for administering the triple store, creating and testing SPARQL queries, and performing ad-hoc queries.
- Digital Assets Manager: Gives access to the Knowledge Base and Contents Database of the project. Data Curators can manage the contents of the project, the venue information and manage the semantic information of it. Web-based interface for managing digital assets (media files) of pilot1
- Profiler Question Service: This consists of a simple FE to manage questions and questionnaires.

3. **Role 3. Data Scientist.** Can analyse data and other project metrics, view crunched data and download raw data (e.g. anonymized experiment results).

    Services:

- Social analyser
- App use statistics

4. **Role 4. Administrator.** Can manage settings of the Portal, and configure specific micro-services. Can be customized per institution/organization.

    Services :

- ❖ Recommender Person Service: It provides team recommendations based on the experience requirements and the user´s preferences.
- ❖ Recommender Association Service: It provides word recommendations for question options based on keywords and creates paths by the relationship with the given keywords.
- ❖ Carousel Profiler Service: It enables receiving information about a user's profile by providing pools of images.
- ❖ Crowdsourced Comment Moderation Service: It provides an API to submit comments for moderation.
- ❖ Authentication Mechanism and User Management: It allows for user management, user registration, user authentication, and supports authorization.
- ❖ Event Management Administration: Web-based interface for administering and monitoring the asynchronous event notification system.
- ❖ Microservice Management: It allows administrators to deploy and manage microservices in the CrossCult Platform Back-End.
- ❖ Platform API Management: Web-based interface for defining platform APIs.
- ❖ CC Platform Monitoring Tool: It allows viewing the status of the infrastructure and services, while providing alerts on service failures, warnings and recovery.
- ❖ Microblogging Service: The microblogging service underpins microblogging tasks, message exchanges and group communication.

5. **Role 5. Visitor.** It is the final user of the project.

A **demonstrator** of the CrossCult Portal, consisting of an operating Services Portal as a demo, will be developed. At actual stage no data, content or final user app pilot have been deployed so many areas may appear empty or temporarily presented as a placeholder.

In the first version of the CrossCult Portal home, services and tools are organised around the four types of aforementioned users. Once a particular component is selected, the user can directly access the web front end, an information screen describing the focus of the service and its deployment status, as well as other resources available, such as manuals.

The CrossCult Platform is already in a mature stage to allow web front end for any service integrated in the platform, to be displayed and used by any of the user roles in a stable environment. The next steps regarding the CrossCult Portal will include the following:

1. Completion of component functionality that was deferred for MS2; this mainly addresses a second version for the current services and the integration of other services needed for each specific pilot.
2. Proper integration of project deployment and CrossCult portal instantiation to define and manage in an assisted way the services needed for the specific project.
3. New Look & Feel style and features such as toolset personalisation and a dashboard of services interface. There will be also a stronger but not restrictive stylesheet regulation to make the different services coherent.
4. The CrossCult Consortium will liaise with Living lab stakeholders to gain insight of visionary requirements and functionalities. These requirements and functionalities will then be assessed regarding the feasibility and the cost/benefit ratio of incorporating them into the platform, and appropriate actions will be taken.
5. Comprehensive testing with pilot apps will start as soon as the first pilot prototypes are available.

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