Milestone Report

Share 3D

M9 - USER REQUIREMENTS SPECIFICATION

Indicated completion date: 03/01/2019

Table of Contents

Disclaimer

This document contains a description of the Share3D project findings, work and products. Certain parts of it might be under partner Intellectual Property Right (IPR) rules so, prior to using its content please contact the consortium head for approval.

In case you believe that this document harms in any way IPR held by you as a person or as a representative of an entity, please notify us immediately.

The authors of this document have taken any available measure in order for its content to be accurate, consistent and lawful. However, neither the project consortium as a whole nor the individual partners that implicitly or explicitly participated in the creation and publication of this document hold any sort of responsibility that might occur as a result of using its content.

This publication has been produced with the assistance of the European Union. The content of this publication is the sole responsibility of the Share3D consortium and can in no way be taken to reflect the views of the European Union.

Share3D is a project funded by the European Union (Grant Agreement INEA/CEF/ICT/A2017/1568597).

European Commission

Acronyms

UR	User Requirement
CHI	Cultural Heritage Institutions

1   INTRODUCTION

This document focuses on the users at the center of the Share3D tools as they will have a prominent role in helping define their needs and demands based on their profile, background, interests and experience. A session that provides information about the Share3D tools and the scope of this deliverable, follows.

1.1 Background

This document forms a part of the Share 3D Activity 5 that aims to inform the development of the Dashboard and Storytelling Tool, contribute to their evaluation and establish action plans for the future.

Share3D project will develop two applications, a Dashboard and a Storytelling Tool, which will integrate APIs available from Europeana and Sketchfab to provide services for users to publish and re-use 3D and other digital materials. The aim is to use interest in 3D as a driver to encourage end-users to engage with content and make it accessible through Europeana in a creative and interactive way. The Dashboard will allow for adding necessary metadata to Sketchfab objects which then can be added to Europeana collections. End-users of the Storytelling Tool will be able to browse cultural content, make links between related items, add descriptions and knowledge, and share the results with friends, colleagues, classmates, students, visitors and others. Lastly, Share3D will showcase the potential of allowing users to both produce and consume cultural heritage content, and of giving users the opportunity to share their stories and share their discoveries.

1.2 Scope and task

The scope of this document is to define target audiences and identify the methodology for gathering user needs and requirements.

This milestone aims to define user groups within the main target audiences of education, tourism, creative industries and research, and to gather information about their needs and requirements, to inform the development of the Dashboard and Storytelling Tool. This task will contribute to the development of the case studies and the identification of user needs, and particular functionalities (e.g. discovery of content, embedding, templates with vary according to user needs). In this way user needs and requirements will help inform the development and improve the tools' functionality and workflows, and the targeted documentation, thus improving user experience.

This document acts as a starting point for the overall development of the Dashboard and Storytelling Tool, and the development of the case studies.

2   USER GROUPS

The initial selection of target audiences was dictated by the scope of the Share 3D project and the use of the Dashboard and Storytelling Tool by potential end-users. Therefore, a presentation of the identified user groups follows.

2.1 Cultural Heritage Institutions

Cultural Heritage Institutions (CHIs) include galleries, libraries, archives and museums of all sizes (national, regional, local, independent, site museums and special collections) who are commissioning, creating and using 3D models. The 3D content is used in CHI's online applications, exhibitions, guides, and applications, and for dissemination, communication and promotion purposes. Cultural institutions are uploading 3D models on Sketchfab and making these, along with other media from their collections, accessible to the users of Europeana. Cultural institutions work with researchers and creative industry organisations on the creation of 3D models.

The Share3D Dashboard and Storytelling Tool user requirements within the CHIs include:

- **Upload.** This activity relates to the process of uploading 3D content. Users want to be able to upload their 3D content to Sketchfab and capture the metadata needed for submission to Europeana in a streamlined process.

- **Create.** This activity relates to the process of creating a story, guide or an interactive material. Users want to be able to collect 3D content and other media, and use it to convey a story or inform about a subject.

- **Communicate.** This activity relates to the process of sharing a story, guide or interactive about the object(s) with visitors to the CHI online and onsite.

2.2 Education

The education sector includes schools, colleges, educators and students who are creating and using 3D models and other digital cultural heritage content. Educators are using Europeana to find materials to enrich their teaching resources and to inspire learners. 3D content, as evidenced in Sketchfab, is being used to inspire and encourage students to create portfolios, etc.

The Share3D Dashboard and Storytelling Tool user requirements within the Education sector include:

- **Upload.** This activity relates to the ability for educators and students to upload 3D content to Sketchfab (and potentially to capture the metadata needed for submission to Europeana).

- **Create.** This activity relates to using the Storytelling Tool to create stories and narratives based on and around the content from both Sketchfab and Europeana.

- **Communicate.** This activity relates to sharing the stories with classmates, friends and potentially wider public online.

2.3 Tourism

The tourism sector includes tourist attractions and experience providers, such as guides and site managers. This sector looks to Sketchfab and Europeana for content that is licensed for re-use and can be incorporated in the creation of interactive guides or virtual tours of an archaeological site or historic building using the Storytelling Tool.

The Share3D Dashboard and Storytelling Tool user requirements within the Tourism sector include:

- **Upload.** This activity relates to the process of uploading 3D content to Sketchfab (and potentially to capture the metadata needed for submission to Europeana).

- **Create.** This activity relates to collecting together 3D content and other digital media to inform, engage and inspire about a place, experience, etc.

- **Communicate.** This activity relates to communicating the story, and making it accessible to end-users online via different devices, e.g. mobile, tablet.

2.4 Creative Industries

The creative industries include small and large commercial organisations who, in this context, are using digital technologies to create 3D content and other media. The creative industries are using Sketchfab to share their own content, provide content for others and to find content that is available for re-use. They use Europeana to discover content for inspiration or re-use in their projects.

The Share3D Dashboard and Storytelling Tool user requirements within the Creative Industries include:

- **Upload.** This activity relates to the process of uploading 3D content. Users want to be able to upload their 3D content to Sketchfab (and capture the metadata needed for submission to Europeana).

- **Create.** This activity relates to the process of re-using 3D content and digital media from Sketchfab and Europeana in creative ways using the Storytelling Tool, e.g. to create guides and interactive resources (eg. serious-game applications).

- **Communicate.** This activity relates to sharing the stories with their audiences and clients.

2.5 Research

The research community includes individual academic researchers and university educators. Researchers are using 3D technologies to capture cultural heritage monuments, buildings and objects and are uploading their content to Sketchfab for dissemination. Some research outputs (theses, research reports, publications and datasets) are being shared with Europeana users via research repositories. Researchers are using Europeana to discover archives, original sources and other content to inform their research and teaching.

The Share3D Dashboard and Storytelling Tool user requirements within the Research community include:

- **Upload.** This activity relates to the ability for researchers and educators to upload 3D content to Sketchfab (and potentially to Europeana).

- **Create.** This activity relates to using the Storytelling Tool to create stories supporting research dissemination and produce new materials such as ebooks, virtual essays, teaching resources.

- **Communicate.** This activity relates to sharing the stories with peers, students and stakeholders (and potentially wider audiences).

3 METHODOLOGY

Our methodology of collecting user needs and requirements is trifold and include the following:

A. Desktop research
B. Online questionnaire and interviews

3.1 Desktop Research

This method will produce an overview of user needs and requirements covered by Sketchfab and Europeana in the context of Share3D Dashboard and Storytelling Tool. It will also collect and analyse information about existing and relevant storytelling platforms and services online to help identify the core functionalities of such applications and inform the Share3D developments.

3.2 Interviews

This approach will help to obtain a more complete overview of the potential Share3D users and their needs and requirements through a number of one-to-one interviews with specific stakeholders that fall into the identified user groups based on their relevance to use cases. The information collected via interviews will feature the characteristics of interest to the Share3D project among the users and address the main questions and concerns around the user needs.

Interviews with potential stakeholders are conducted in any of the following means:

- face to face

- through Skype
- through a phone call

A minimum of fifteen (15) interviews are expected to provide sufficient feedback for the purposes of this task.

3.3 Action plan

The proposed methodology consists of the following steps:

1. **Desktop Research**
   a. Identification of the Sketchfab and Europeana user needs and requirements that are relevant to Share3D Dashboard
   b. Identification of the needs and requirements covered by 3-5 storytelling applications (as found in startup event) that are relevant to Share3D Storytelling Tool use them as a reference
2. **Interviews**
   a. Scheduling Interviews (face to face, through Skype or phone call)
   b. Translate user needs and requirements into actions for the Share3D tools

3. **Validation of the collected requirements**

Transform validated information and user requirements into requirements that will allow technical partners of the project to work on the Share3D outcomes/functionalities to serve the corresponding user communities

4 USER REQUIREMENTS

4.1 Dashboard

The following User Requirements (URs) are based on the initial wireframe and proposed flow of the dashboard and take into consideration selected functionalities offered by Sketchfab and Europeana that are most relevant for the Dashboard end-users. The URs will be revised and subsequently tested in practise.

The requirements are prioritized as follows:

- **Must have - these are essential requirements** that must be included in the dashboard design
- **Should have - these are desirable requirements,** but they are not essential to support the core functionality of the Dashboard
- **Could have - these are non-critical requirements**, which may add to the user experience, but do not affect the core functionality of the Dashboard

TABLE 1: USER REQUIREMENTS: DASHBOARD

#	Category	Description	Priority	Notes
1	Access	Users need to be able to access the Dashboard on desktop (online)	Must have	
2	Access	Users need to be able to access the Dashboard on tablet and mobile (online)	Should have	
3	Access	Users need to be able to register/create an account in Dashboard that will A) link to their Sketchfab account and B) be authorised by Europeana	Must have	
4	Profile	Users need to be able to access and edit their profile information and settings (including closing the account)	Must have	
5	Info	Users need to be able to find more information about the Dashboard and Share 3D	Should have	
6	Contact	Users need to be able to contact Share 3D if they have any questions about the Dashboard	Should have	
7	Objects	Users need to be able to view their Sketchfab objects and their status in terms of the metadata submission to the Europeana (none, uploaded, submitted, validated)	Must have	
8	Objects	Users need to be able to organise their objects into collections (not reflected in Sketchfab)	Could have	
9	Objects	Users need to be able to edit their objects directly in Sketchfab (link > opening in a new window)	Should have	
10	Objects	Users need to be able to add tags to their objects	Could have	
11	Objects	Users need to be able to search their object by keyword / tag	Should have	
12	Metadata	Users need to be able to add metadata (EDM) to their Sketchfab objects	Must have	
13	Metadata	Users need to be able to edit/delete metadata (EDM) of their Sketchfab objects (before submitting to Europeana)	Must have	
14	Metadata	Users need to be able to edit metadata (EDM) of their Sketchfab objects (before submitting to Europeana)	Must have	
15	Metadata	Users need to be able to submit their Sketchfab objects with completed metadata (EDM) to Europeana for validation	Must have	
16	Metadata	Users need to be able to submit a bulk of Sketchfab objects with completed metadata (EDM) to Europeana for validation	Should have	
17	Metadata	Users need to be able to get notifications when their objects and metadata are validated by Europeana	Must have	
18	Metadata	Users need to be able to sync / refresh the Dashboard so the metadata gets updated in Sketchfab	Should have	
19	Metadata	Users need to be able to fill in the EDM metadata with a support of vocabularies (e.g. AAT, Geonames)	Should have	
20	Metadata	Users need to be able to download the EDM metadata of an object	Should have	

| 21 | Metadata | Users need to be able to download the EDM metadata of multiple objects (batch) | Could have | |

4.2 Storytelling Tool

The following User Requirements are based on the initial competitor analysis. This approach provides an overview of similar tools from a user's perspective. The goal of the analysis was to evaluate the features, technology, content, usability and overall effectiveness of services available to users within a domain. The requirements take into consideration the content offered by Sketchfab and Europeana for re-use. The Storytelling Tool will be revised and updated according to the use cases and according to the activities described in the Methodology section above.

The requirements are prioritized as follows:

- **Must have - these are essential requirements** that must be included in the Storytelling Tool
- **Should have - these are desirable requirements,** but they are not essential to support the core functionality of the Storytelling Tool
- **Could have - these are non-critical requirements**, which may add to the user experience, but do not affect the core functionality of the Storytelling Tool

TABLE 2: USER REQUIREMENTS: STORYTELLING TOOL

#	Category	Description	Priority	Notes
1	Access	Users need to be able to access the Storytelling Tool on desktop (online)	Must have	
2	Access	Users need to be able to access the Storytelling Tool on tablet and mobile (online)	Should have	
3	Access	Users need to be able to register/create an account or sign in to the Storytelling Tool if already registered	Must have	
4	Profile	Users need to be able to access and edit their profile information and settings (including closing the account)	Must have	
5	Info	Users need to be able to find more information about the Storytelling Tool and Share 3D	Should have	
6	Contact	Users need to be able to contact Share 3D if they have any questions about the Storytelling Tool	Should have	
7	Tutorial	Users need to be able to read/watch a tutorial, e.g. 'Get started', 'I want to create…'	Could have	
8	Story	Users need to be able to create/edit/save/preview/publish/delete a story	Must have	
9	Story	Users need to be able to download a story	Could have	
10	Story	Users need to be able to share a story	Should have	
11	Story	Users need to be able to embed a story	Could have	
12	Story	Users need to be able to view a list of their stories and their statuses (e.g. draft, published)	Must have	
13	Story	Users need to be able to search for, view and 'add to collection' stories created and published by others	Should have	

14	Story	Users need to be able to rate stories created by others	Could have	
15	Story	Users need to be able to comment on stories created by others	Could have	
16	Story	Users need to be able to get a notification when someone rates their story	Could have	
17	Story	Users need to be able to get a notification when someone comments on their story	Could have	
18	Story	Users need to be able to create a title for the story	Must have	
19	Story	Users need to be able to create additional metadata for the story	Should have	
20	Story	Users need to be able to use a template	Should have	
21	Story	Users need to be able to assign a Creative Commons licence to the story	Could have	
22	Objects	Users need to be able to search Europeana and Sketchfab for objects to use in a story	Must have	
23	Objects	Users need to be able to save their searches for Europeana and Sketchfab objects	Could have	
24	Objects	Users need to be able to save/delete objects found on Europeana and Sketchfab	Must have	
25	Objects	Users need to be able to edit the objects (if applicable, e.g. crop an image, resize 3D object)	Should have	
26	Objects	Users need to be able to add their own content: text, images, video	Could have	
27	Objects	System managers need to be able to take down uploaded content (for breaches of privacy, copyright, other legislation, local policies etc.)	Could have	
28	Teamwork	Users need to be able to create a shared workspace and invite / remove users	Should have	
29	Teamwork	Users need to be able to assign roles to team members (e.g. admin, editor, contributor, viewer)	Could have	
30	Teamwork	Users need to be able to identify who created/added an item to the story	Should have	

5 CONCLUSIONS

At the core of the development of the two applications, the Dashboard and Storytelling Tool, is the integration of Europeana and Sketchfab APIs with services that allow users to enrich Europeana and Sketchfab collections by adding new, and re-using, existing content in creative ways. The user requirements therefore will need to be collected using a methodology as described above in order to address a wide spectrum of user needs across targeted audiences.

This document provides a base for the process of developing user requirements for Share 3D Dashboard and Storytelling Tool. As described in the methodology above, this process will be interwoven with the development of the use cases and will proceed as described in the action plan.