



Training Young People
on Augmented Reality
Authoring Showcasing
Intangible Cultural
Assets as Use Cases

AR4Youth Facilitator Guide



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The AR4Youth Project



AR4Youth aims at training young people in **conceiving, designing** and **implementing** an Augmented Reality project for digitizing and augmenting books, guides or manuals.

The AR4Youth Project

Based on the Design Thinking Process



Guides users through the application of the **Design Thinking Process** in specifically adapted steps for creating an Augmented Reality project.

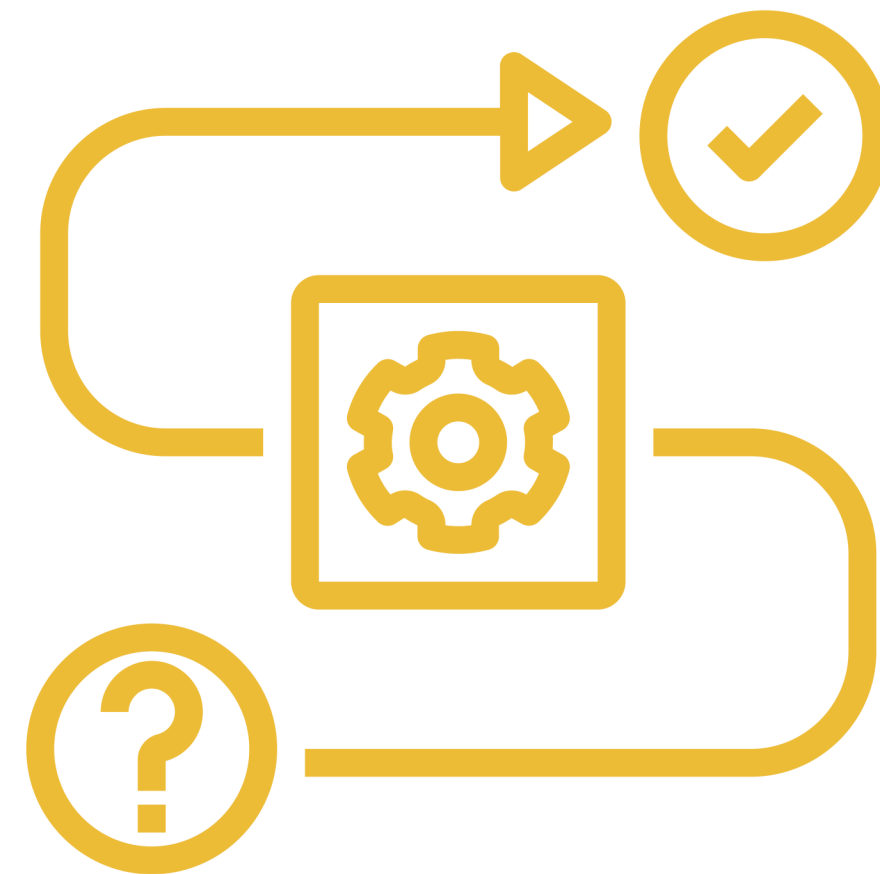


The Design Thinking Process



What is Design Thinking?

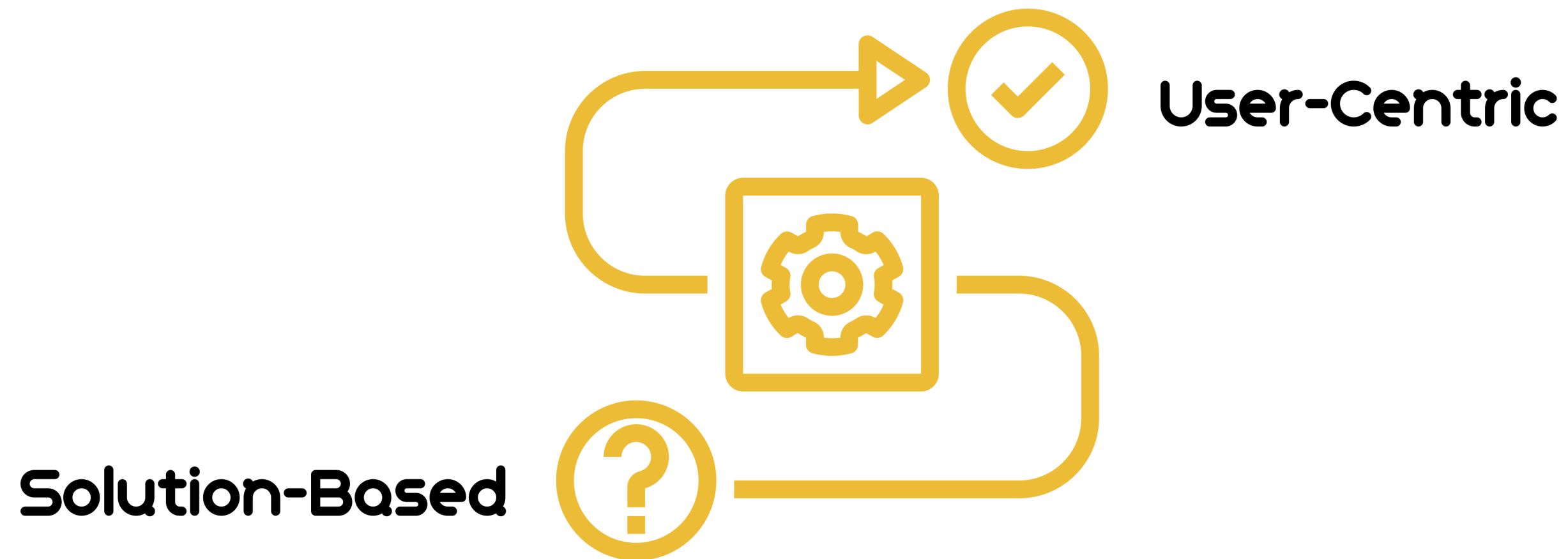
While design thinking is an ideology based on designers' workflows for mapping out stages of design, its purpose is to provide all professionals with a standardized innovation process to develop creative solutions to problems—design-related or not (Han, 2022).



The Design Thinking Process



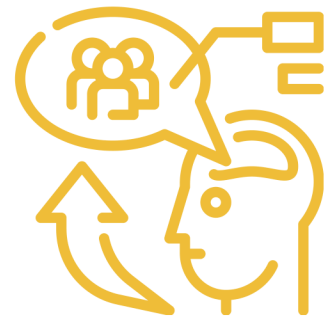
What is Design Thinking?



The Design Thinking Process

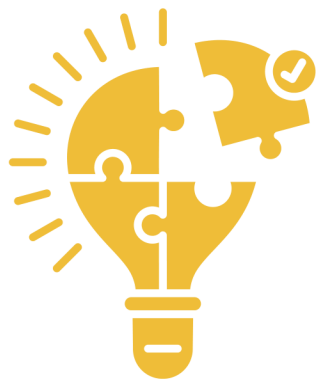


Common Phases of the Design Thinking Process



Empathise

Define



Ideate

Prototype



Test

The Design Thinking Process



Empathise



Understand the needs & feelings of end-users

Can include:

- Active Listening;
- Observation;
- Active engagement with the user's environment.

The Design Thinking Process



Define



Identify the problem clearly

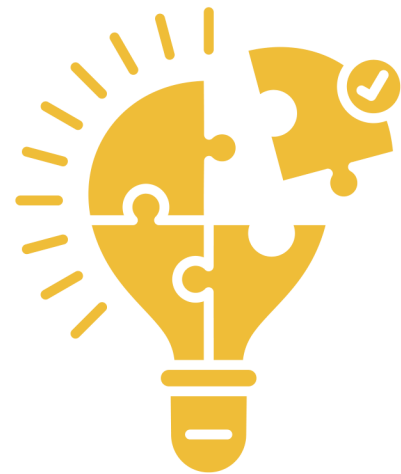
Requires:

- Critical Thinking;
- Analysis;
- Synthesis.

The Design Thinking Process



Ideate



Generate multiple solutions

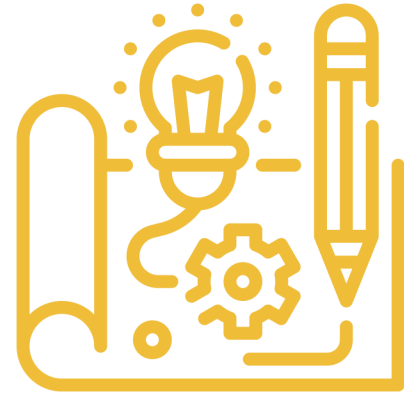
It includes:

- Brainstorming;
- Challenging Assumptions;
- Exploring Angles & Perspectives.

The Design Thinking Process



Prototype



Model the Solutions

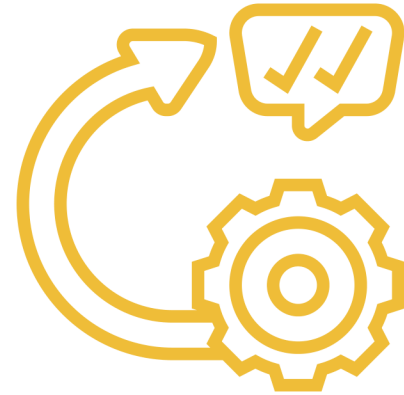
It includes:

- Building Mock-ups or prototypes.

The Design Thinking Process



Test



Evaluate & Refine the Solutions

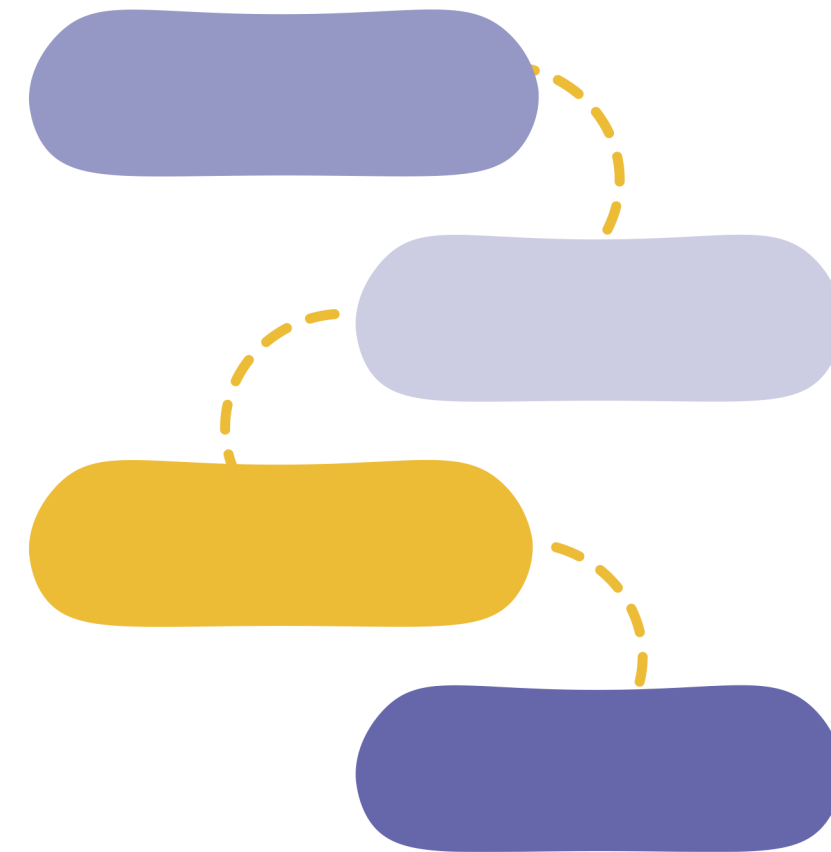
It includes:

- Testing of the prototypes;
- Collecting user's feedback;
- Improving the solutions.

The AR4Youth Facilitator



- Step 1** Visit the website: <http://arfacilitator.ar4youth.eu/>
- Step 2** Create an account
- Step 3** Click on 'New Project'
- Step 4** Click 'Edit Project'
- Step 5** Write the Name of the Fairy Tale
- Step 6** Click 'Submit'



DTM in the AR4Youth Facilitator



Overview



Description of the project

Activities Implmented

Materials Used

This is the last step to be completed!

1. Overview	2. Discover	3. Understand	4. Design	5. Prototype	6. Test	7. Share
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1. Overview

This section provides an overview to the project implemented containing information about it such as a short summary of what the project is, the activities implemented and the materials used to complete it. Please note that it should be completed after all the phases have been accomplished.

Name
Enter the name of the project (e.g., Little Red Riding Hood)

Description
Provide a small summary of what the project is about (e.g., classical fairy tale concerning a little girl etc).

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About text formats

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Activities
Describe the activities carried out in the context of developing the AR project.

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About text formats

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Materials
Upload the materials used in the AR project. [Open File Browser](#)

Submit

Cancel

DTM in the AR4Youth Facilitator



Discover



Desk Research

Desk Research Activities Planning

Resources Identified

1. Overview	2. Discover	3. Understand	4. Design	5. Prototype	6. Test	7. Share	
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2.Discover

Phase 1 focuses on the execution of desk research for collecting information and learning about the topic/thematic of the project

Research the Main Topic

Why did you choose this particular topic/case to create your project? Research some key aspects about this particular topic and present some basic information (e.g. history, social background, famous people, interesting information) and write a short description to present your findings.

B *I* | Format Source

About text formats

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Activities Layout

Please write down the activities you will undertake for completing the Discovery Phase (e.g., create questions / keywords to research, find sources / perform desk research, make a timetable, etc.).

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Resources

Provide the list of resources you have used to research your topic including links to articles, videos or any other material you have found.

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Submit

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Discover



Researching the Main Topic

- Key aspects;
- Historical facts;
- Interesting facts;
- Related people;
- Background information.

1. Overview

2. Discover

3. Understand

4. Design

5. Prototype

6. Test

7. Share

2.Discover

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Discover



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Planning of the Research / Activities Layout

- Create a timetable;
- Create keywords to search;
- Create questions to answer;
- Find relevant sources.

Discover



Resources

Provide the list of resources you have used to research your topic including links to articles, videos or any other material you have found.

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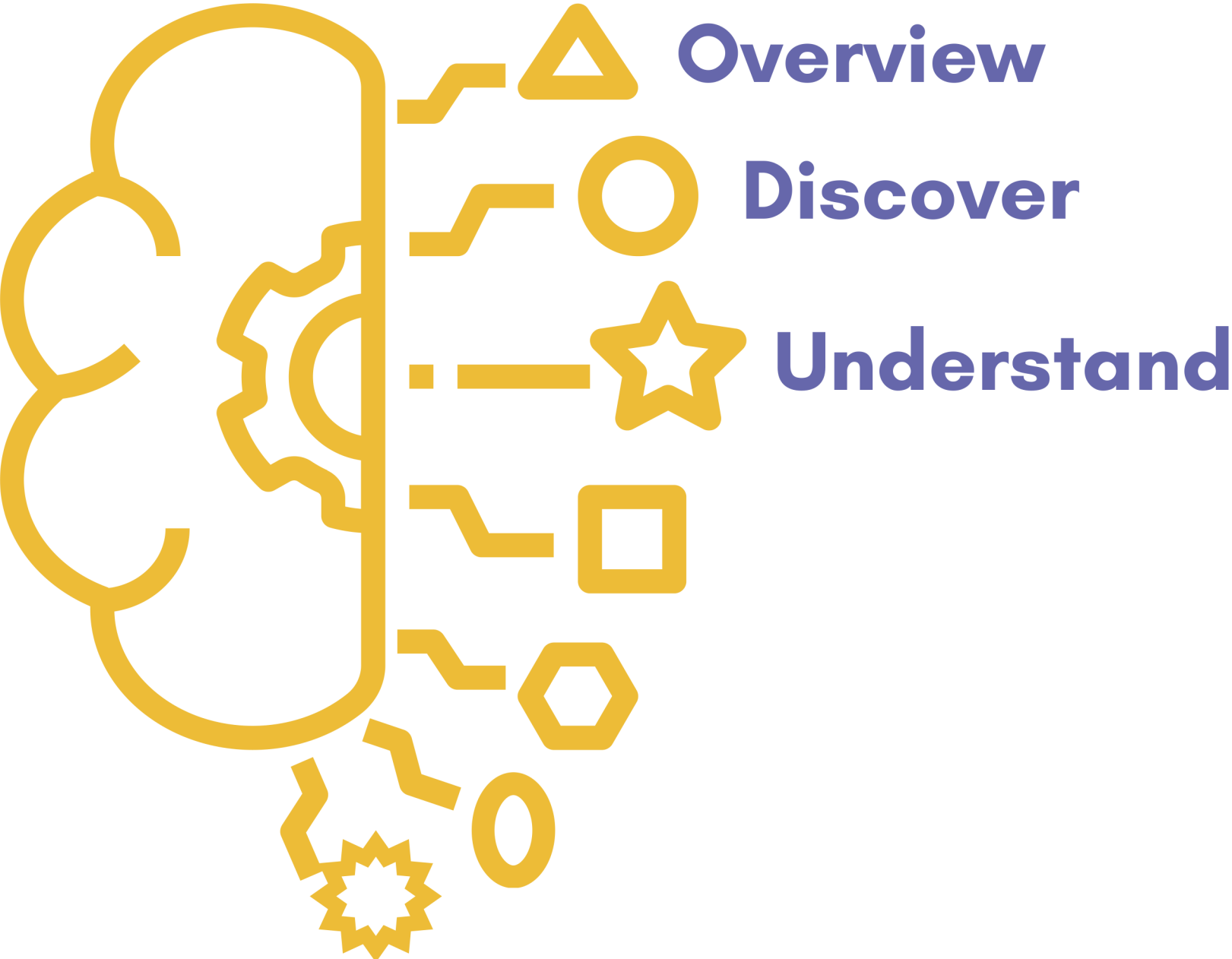
Submit

Cancel

List the Resources Identified

- Add links to articles;
- Add links to videos;
- Add page links.

DTM in the AR4Youth Facilitator



Understand



Target Audience

Related Artefacts

Protagonists/Heroes

Historical Background

1. Overview2. Discover3. Understand4. Design5. Prototype6. Test7. Share

3. Understand

In the current phase the intention is to understand the Main Topic and any subtopics for an in depth research. The aim is to acquire a deep understanding of the topic, obtain background information, examine the target group and identify their needs and wants.

Audience

Describe in detail who your target group is and their ages.

Format

Source

Target Group Research

Research & document the identified needs of the target users that will benefit and exploit your project. Examine what the target users want see included in the project you are creating (e.g., little children might be interested in interacting with the characters of the fairy tale).

Format

Source

Artefacts

Describe the category on which the artefact you are working on belongs to (e.g., classic fairy tales belong to Art & are related with folklore traditions)

Format

Source

About text formats

Text format

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Stories/Protagonists

Analyse your story and identify the main characters, the messages conveyed and other important features / elements presented.

Format

Source

Historical Background

Examine the historical background of classic fairy tales, who they were addressing originally and how they evolved.

Format

Source

Discussion about topics

Write a description on which elements could be augmented in the story you are working on based on their importance or other factors and list them.

Format

Source

About text formats

Text format

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Submit

Cancel

Understand



1. Overview	2. Discover	3. Understand	4. Design	5. Prototype	6. Test	7. Share
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				Format	Source

About text formats

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				Format	Source

About text formats

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Audience

- Who is your target audience;
- What are their ages?;
- Is there anything special about them?;
- What are their needs?;
- Which are their capabilities?;
- What are their interests?;
- Examine relevant literature;
- Run a user requirements survey.

Understand

Artefacts

- Which category does the artefact belong to?;
- What is that category?;
- Is there anything special about it?.

Stories/Protagonists

- Identify main characters;
- Write down important elements;
- Analyse messages conveyed.

Artefacts

Describe the category on which the artefact you are working on belongs to (e.g., classic fairy tales belong to Art & are related with folklore traditions)

				Format	Source

About text formats

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Basic HTML

Stories/Protagonists

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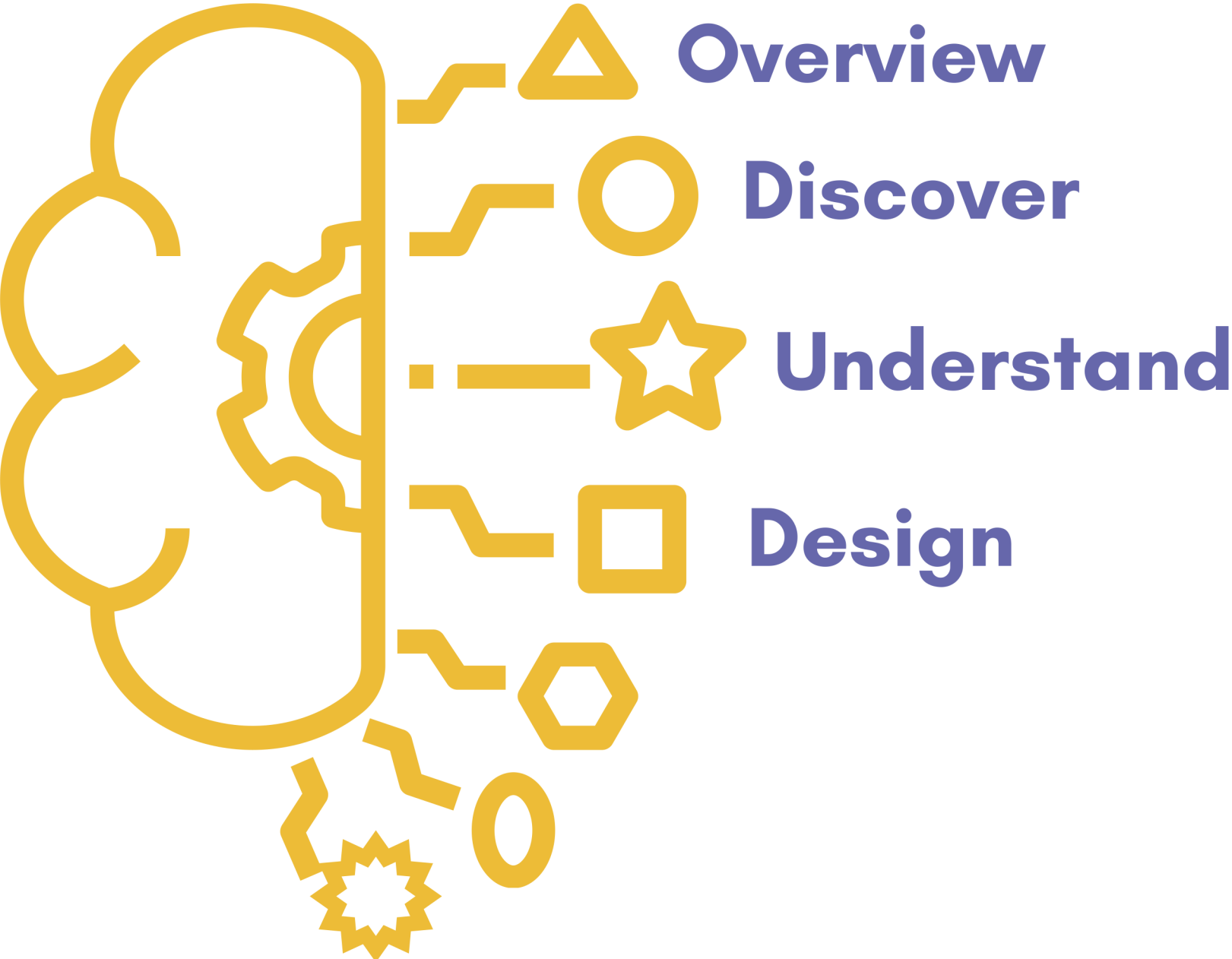
Historical Background

- Research the origins of your fairy tale;
- Note different variations;
- Mark important points.

Augmentations

- Identify elements that can be augmented;
- Write down why they are important to be augmented;
- List those that will be augmented.

DTM in the AR4Youth Facilitator



Design



Design the Book

Verify Criteria

Upload Files

1. Overview2. Discover3. Understand4. Design5. Prototype6. Test7. Share

4. Design

After the indepth research, phase 4 focuses on designing the Augmented project. At this phase, you identify and/or create the augmentations, you sketch where they should be placed in the pdf and upload your augmentation files.

Description of Design

Describe your design in terms of where they should be placed, which elements of the story are to be augmented and why, and if you can, provide a sketch of the story indicating where there should be augmentations.

B*I*

Format

Source

About text formats

Text format

Basic HTML

Criteria

Tick whichever applies

☐ Set up of quality criteria

☐ Elaboration of a story for the target group

☐ Selection of material

☐ Sketching of stories

Upload Files

Upload the sound, video, url and/or GLB files that will be used as Augmentations. Please note, that the tools used to create the augmentations (e.g., ARTutor) in the book/guide you are preparing (see Phase 5) support images (.jpg, .png, .pdf, .jpeg), audio (.mp3), videos (.mp4), URL links, HTML and 3D Models (.glb). GLB is the file format representing 3D models and data. Apart from websites that provide stock 3D Models/ Objects that can be used in an Augmented project, Paint3D, which is available in all Windows computers, offers a selection of various 3D models in their 3D library

On Paint3D you are able to edit the object you would like to use and once you are ready you can save the file as GLB.

Open File Browser

Submit

Cancel

Design



Design

- List where the augmentations should be placed in the book. Provide a page number, exact place and type of augmentation;
- If possible, sketch the augmentations.

1. Overview

2. Discover

3. Understand

4. Design

5. Prototype

6. Test

7. Share

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B *I* | | | | Format | Source

About text formats

Text format

Basic HTML

Design



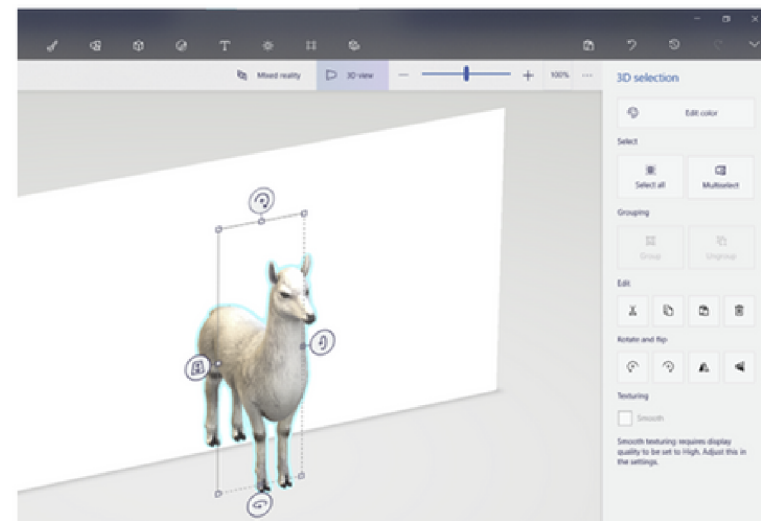
Criteria

Tick whichever applies

- ☐ Set up of quality criteria
- ☐ Elaboration of a story for the target group
- ☐ Selection of material
- ☐ Sketching of stories

Upload Files

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Submit

Cancel

Criteria

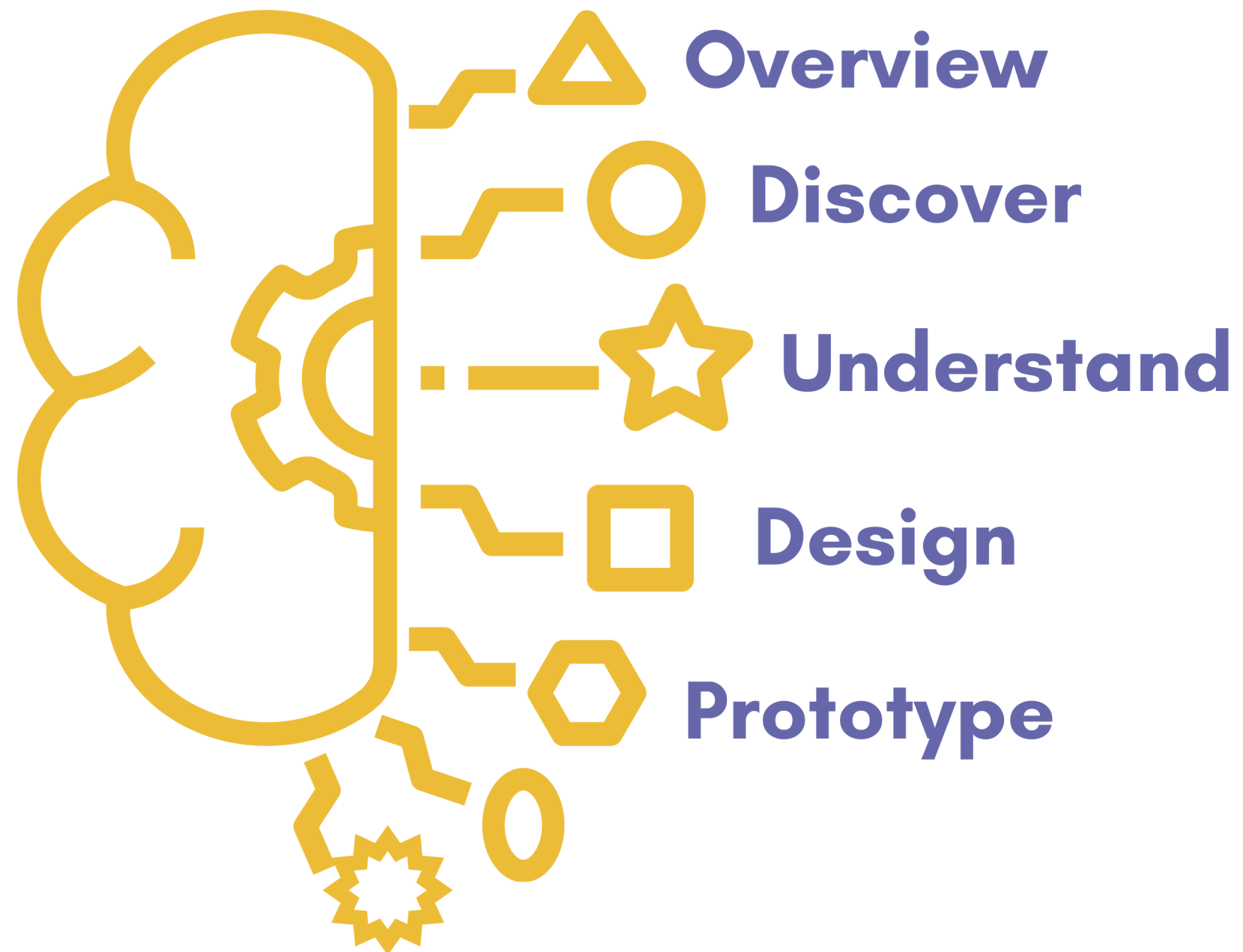
- Check which of the quality criteria you applied in your design.

File Upload

- Upload the files you will be using for the augmentations:
 - Images (.jpg, .png, .pdf, .jpeg)
 - Audio (.mp3)
 - Videos (.mp4),
 - URL links, HTML
 - 3D Models (.glb)

Guide to 3D Models

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Prototype



Prototype

AR Guide

Communication Channels

1. Overview	2. Discover	3. Understand	4. Design	5. Prototype	6. Test	7. Share	
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5. Prototype

At this phase, it is time to implement a first draft of your Augmented project utilising the material collected and the sketch/layout created in the previous phase.

Augmented Reality Prototype

How do we present our CH topic using AR, content, look & feel? Describe the prototype created and note whether you identified anything that was missing.

B *I* | | | | | Format | Source

About text formats

AR Guide

Please write here how to work with the AR software you have chosen for your project

B *I* | | | | | Format | Source

About text formats

Communication Channels

Explain how your Audience/target groups will be able to access your Augmented Project (e.g., posts on social media, mouth to mouth etc).

B *I* | | | | | Format | Source

About text formats

Text format

Basic HTML

Submit

Cancel

Prototype



Prototype Description

- Describe the prototype created in the AR application (e.g., ARTutor);
- Note if anything is missing or not working properly;
- Check what might need to be changed.

1. Overview	2. Discover	3. Understand	4. Design	5. Prototype	6. Test	7. Share
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Augmented Reality Prototype

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B *I* | | | | Format | Source

About text formats

Prototype



AR Guide

- Mention the AR application you used (e.g., ARTutor);
- Describe how it works;
- Explain the supported augmentations.

Communication Channels

- Describe your dissemination strategy;
- Mention how will your reach your target group;
- Explain how the AR project can be accessed.

AR Guide

Please write here how to work with the AR software you have chosen for your project

B I | | | | Format | Source

About text formats

Text format

Basic HTML

Communication Channels

Explain how your Audience/target groups will be able to access your Augmented Project (e.g., posts on social media, mouth to mouth etc).

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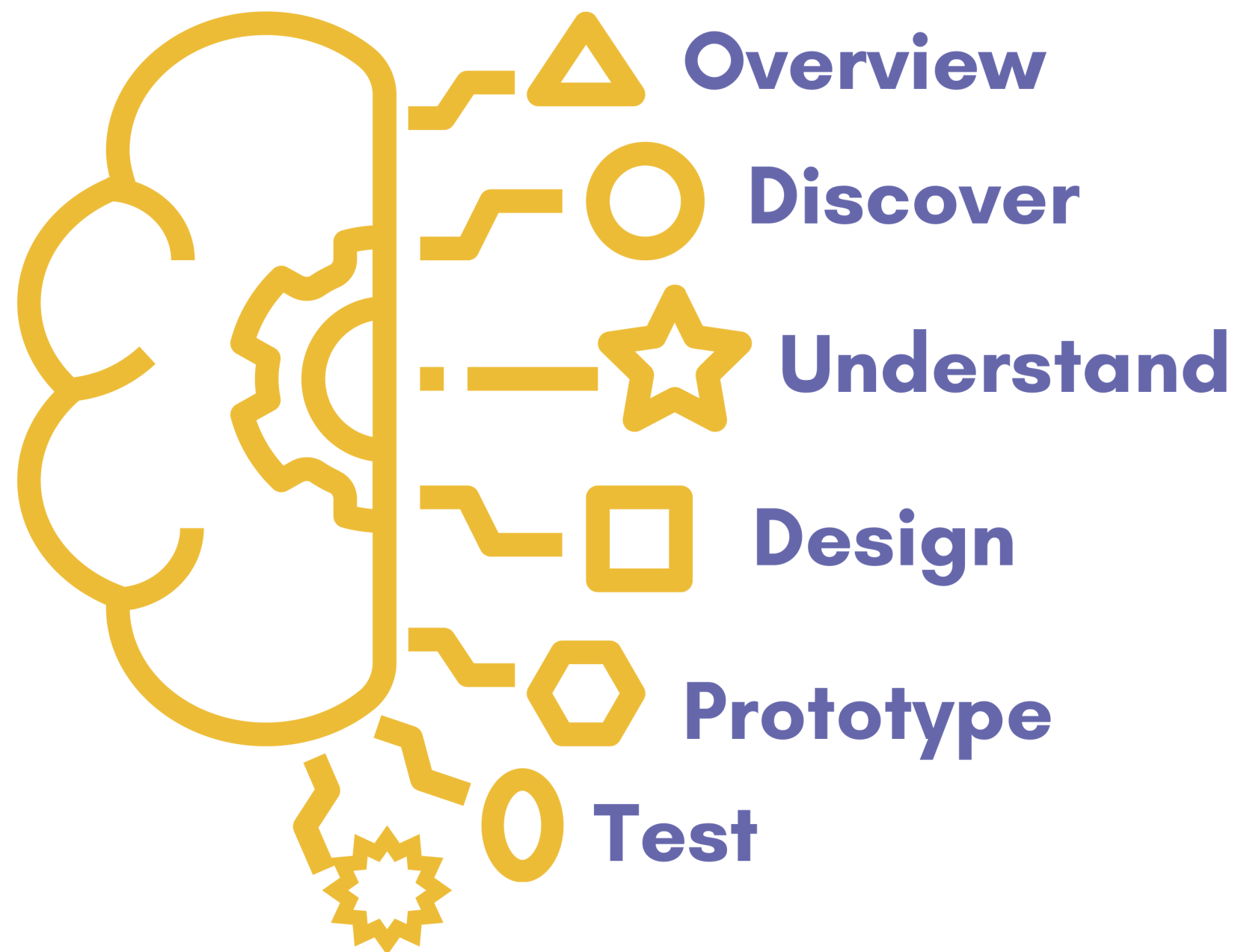
Cancel



How to use the AR Tutor

1. Visit <https://artutor.ihu.gr>
2. Create an account
3. Create book & Upload the PDF file of your project
4. Create Augmentation
 - a. Add augmentation
 - b. Crop
 - c. Augmentation type
 - d. File

DTM in the AR4Youth Facilitator



Test



1. Overview	2. Discover	3. Understand	4. Design	5. Prototype	6. Test	7. Share	
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6. Test

In the current phase the intention is to involve users from the intended target audience to test the actual product. Then, obtain feedback from the users involved and use it to optimise the prototype.

Questionnaire

Upload the questionnaire to be used for the testing of the AR product [Open File Browser](#)

Review of test results

Document the conclusions of the testing so as to improve the prototype accordingly

B *I* | | | | Format | Source

About text formats

Text format

Basic HTML

Submit

Cancel

Test

Evaluate

Refine

Test

Test

- Recruit a small number of users to test your project;
- Guide on hands-on engagement.

Evaluate

- Distribute a questionnaire and ask your sample to evaluate their experience.

Refine

- Present the questionnaires outcomes;
- Refine the project.

1. Overview2. Discover3. Understand4. Design5. Prototype6. Test7. Share

6. Test

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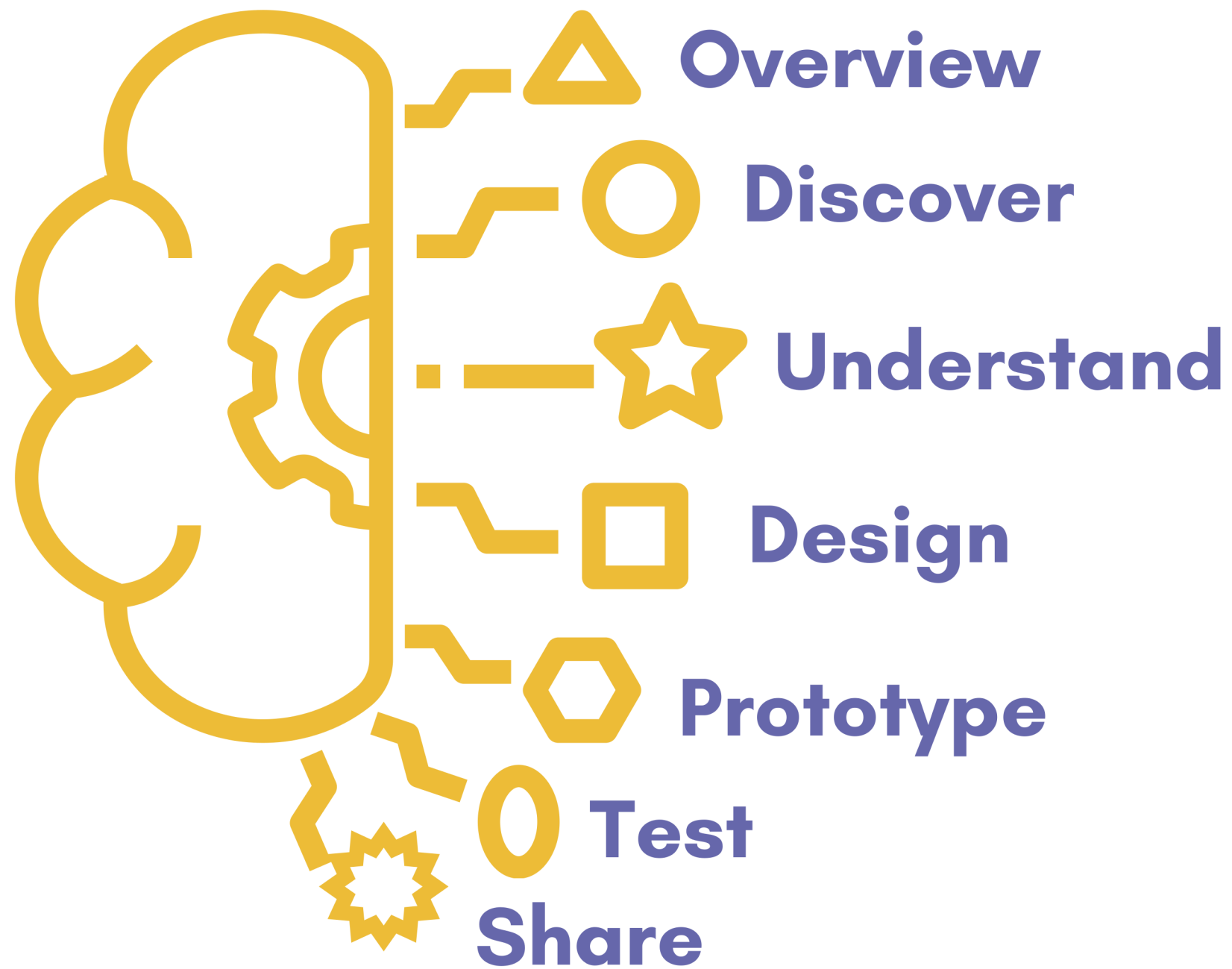
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DTM in the AR4Youth Facilitator



Share



Project Info

Offline Sharing

Online Sharing

1. Overview

2. Discover

3. Understand

4. Design

5. Prototype

6. Test

7. Share

7. Share

The final phase focuses on creating information about the sharing of the AR project to your target audience.

App Description

Provide details about the ARTutor or other AR tool used such as where to download, where to find your AR project and how to use it to view it.

B *I* | | | | Format | Source

About text formats

Text format

Basic HTML

Offline sharing

Upload offline sharing content.

Open File Browser

Online sharing

Add the URL(s) where the AR project has been shared.

Submit

Share



1. Overview 2. Discover 3. Understand 4. Design 5. Prototype 6. Test 7. Share

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B *I* | | | | Format - | Source

About text formats

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Offline sharing

Upload offline sharing content.

Open File Browser

Online sharing

Add the URL(s) where the AR project has been shared.

Submit

Project Info

- Add information for the users on where and how they can access your project.

Offline Sharing

- Upload any dissemination material prepared (flyer, brochure) for promoting your project.

Online Sharing

- Add the links to where the AR project has been disseminated (e.g., websites, social media accounts etc).



www.ar4youth.eu



Co-funded by the Erasmus+ Programme of the European Union