End-to-End Workflow

Access service production tools

Professional production tools enabling professional users to create and edit scripts, timings and presentations modes for subtitles, sign language and audio description.

The tools enable producers to produce and place access services within the immersive environment.

Technologies and formats

Standards-compliant extensions to current technologies and formats to efficiently integrate accessibility services in immersive media and broadcast workflows.

Accessible immersive player

Multi-platform player software (web, tablet and head mounted display) capable of rendering subtitles, signing and audio description to the user. The player supports a range of immersive formats and is accessible by design.

User Testing

Subtitling placement and interface

How do you place subtitles in VR and 360 degree content without breaking immersion? How do you indicate who is speaking and direct the user to that character when they may not be in view?

Audio description

How do you audio describe content when it literally surrounds the user? How do you adequately translate the multi-path experience of immersive content into a linear audio stream? When you can place the audio description in the environment where should it go?

Sign language

Where should a sign language interpreter be placed in the field of view? How do you indicate the position of the speaker?

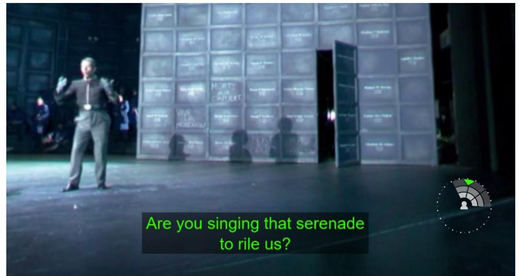
Accessible user interfaces

How do you design accessible user interfaces and integrate interaction modalities tailored to the particular users' needs and/or preferences?

Applications & Use Cases

Virtual reality, 360 degree content and next generation audio are emerging trends in broadcasting with content producers and broadcasters looking at how these paradigms can be added to their offerings to consumers.

With an increased focus on accessibility and access services across Europe it's essential that media producers have the tools and knowledge to make these new forms of content accessible. That's what ImAc aims to achieve.



Main Features

The main characteristics of the ImAc project are:

Production tools to add subtitles, audio description and sign language to immersive content.

An accessible immersive content player.

User testing on:

- Positioning and display of subtitles
- Intuitive display of the location of sounds for people with hearing loss
- Placement of audio description in an immersive soundscape
- Positioning and display of sign language interpreters

Expected Impact

To prepare content providers for making immersive content accessible through the creation of production tools and best practice knowledge around generating access services.

Objectives

1. **Explore how traditional Access Services can be adapted** for 360 degree and virtual reality environments.
2. **Design new production tools** for the creation of access features for 360 degree content.
3. **Design a fully accessible prototype player** that can deliver 360 degree content with access services.
4. **Establish user preferences** in relation to consuming 360 degree content with access features.
5. **Promote awareness of the ImAc player** among mainstream providers of 360 degree content.
6. **Specify standards-compliant extensions** to current technologies.

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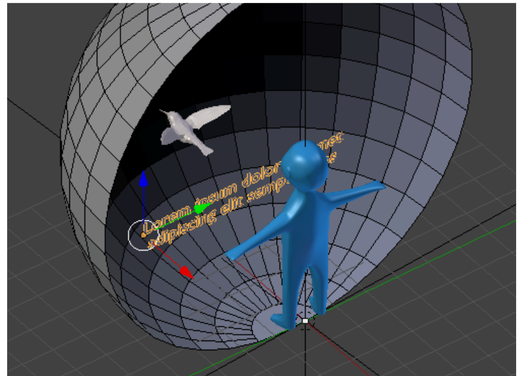
imac@i2cat.net

ImAc



ImAc – Immersive Accessibility

The ImAc project aims to ensure the future accessibility of immersive content. This will be achieved by creating tools for the production and consumption of access services on immersive content while generating informed advice on best practice in access service creation.

ImAc's consortium has been strategically set up to consist of experts and stakeholders from all stages of the production, provision and consumption of access services to ensure a fully joined up approach.

A combination of leading broadcasters RBB and CCMA, technology specialists i2CAT, IRT, Motion Spell and Anglatècnic, the University of Salford and stakeholder experts Universitat Autònoma de Barcelona and RNIB spread over four countries.