

University of Surrey, CTS
Convergence Lecture Series 2/03/2022

Researching audio description: user needs, technologies and new approaches

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Pillars of TMC research

1. Users (user-centric methodologies in research).
2. Technology.
3. Innovation.

Users

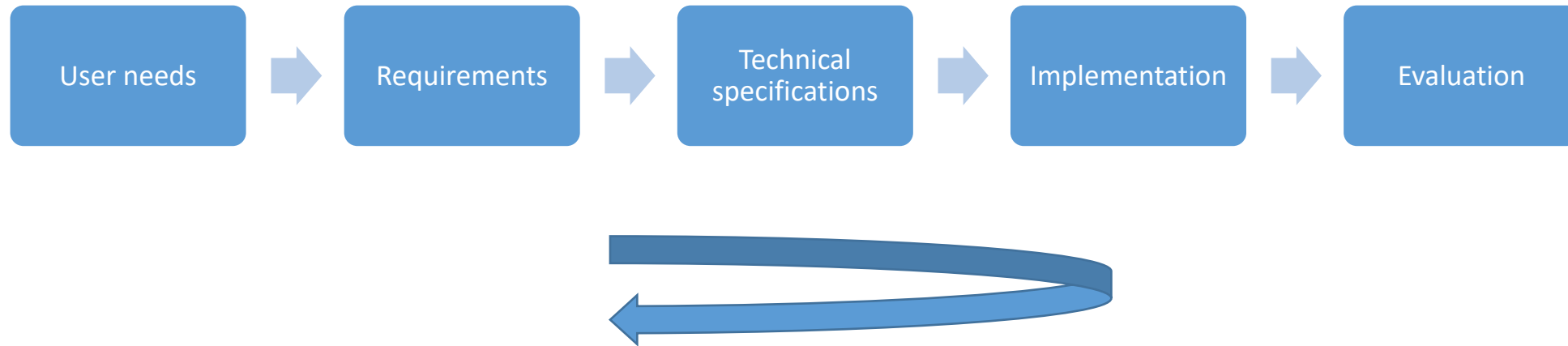
User-centric methodologies

Harte et al (2017):

- An explicit understanding of users, tasks, and environments
- A permanent involvement of users throughout the design and development
- A design driven and refined by user-centric evaluations
- An iterative approach
- A multidisciplinary team with different skills and perspectives
- A clear but at the same time flexible approach to user testing

User-centric methodologies

Iterative process (different cycles)



Who are the users? Medical model

Audiovisual content	Users
Audio description, audio introduction, touch tours	For the blind
Audio subtitling	For the blind and persons with dyslexia
Subtitling for the Deaf and Hard-of-hearing	For the Deaf and Hard-of-hearing
Dubbing, voice-over, subtitling	For persons who do not understand the language.



Persons who...

- Cannot understand the language.
- Cannot access the visuals (images/written text).
- Cannot access the sounds (linguistic/non-linguistic).
- Cannot understand the content (often forgotten).

For various reasons (disability, circumstances, etc.).

- Primary versus secondary audiences?
- Universal design approach?

Other users in our research

- End users
- Users who...
 - Create
 - Distribute
 - Procure
 - Teach
 - Etc.

To be considered...

Others factors affecting results, sometimes more than disability:

- Familiarity/expertise (VR, AD or subtitling software).
- (Reading/watching/access service usage) habit.
- Reading ability (not necessarily correlated with hearing loss).

Changing models

Disability models ([EASIT video](#))

From a medical model to a capability-based model

[Agulló, Matamala and Orero 2018](#) inspired by Sophie Mitra, who uses Martha Nussbaum and Amartya Sen's capability approach.

“Health deprivation is a necessary but not a sufficient ingredient for a disability”.

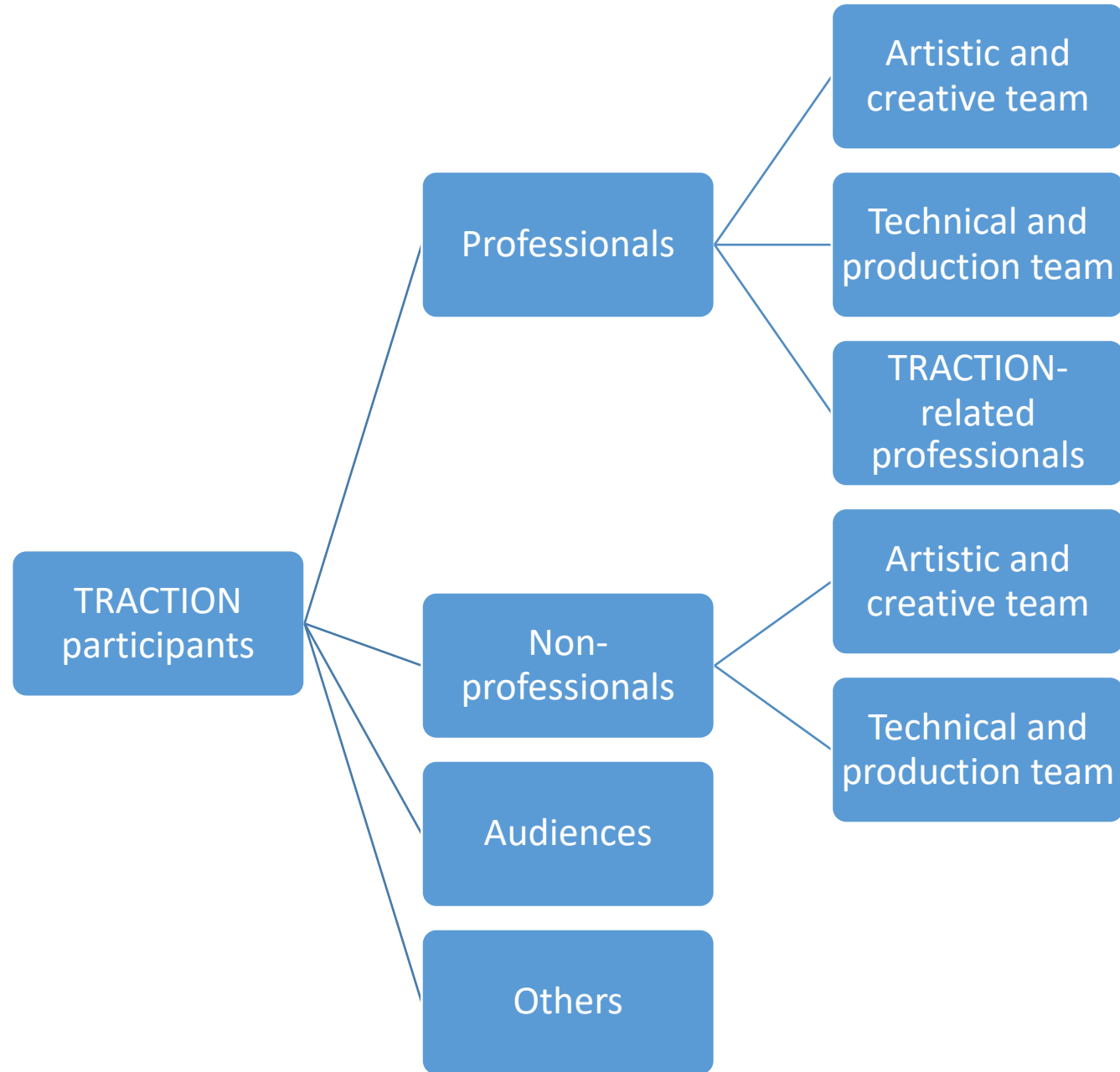
User categorisation and profile

- Create a broad user categorisation for the project, shared among partners, who may come from different background.
- Define specific user profile for each test.

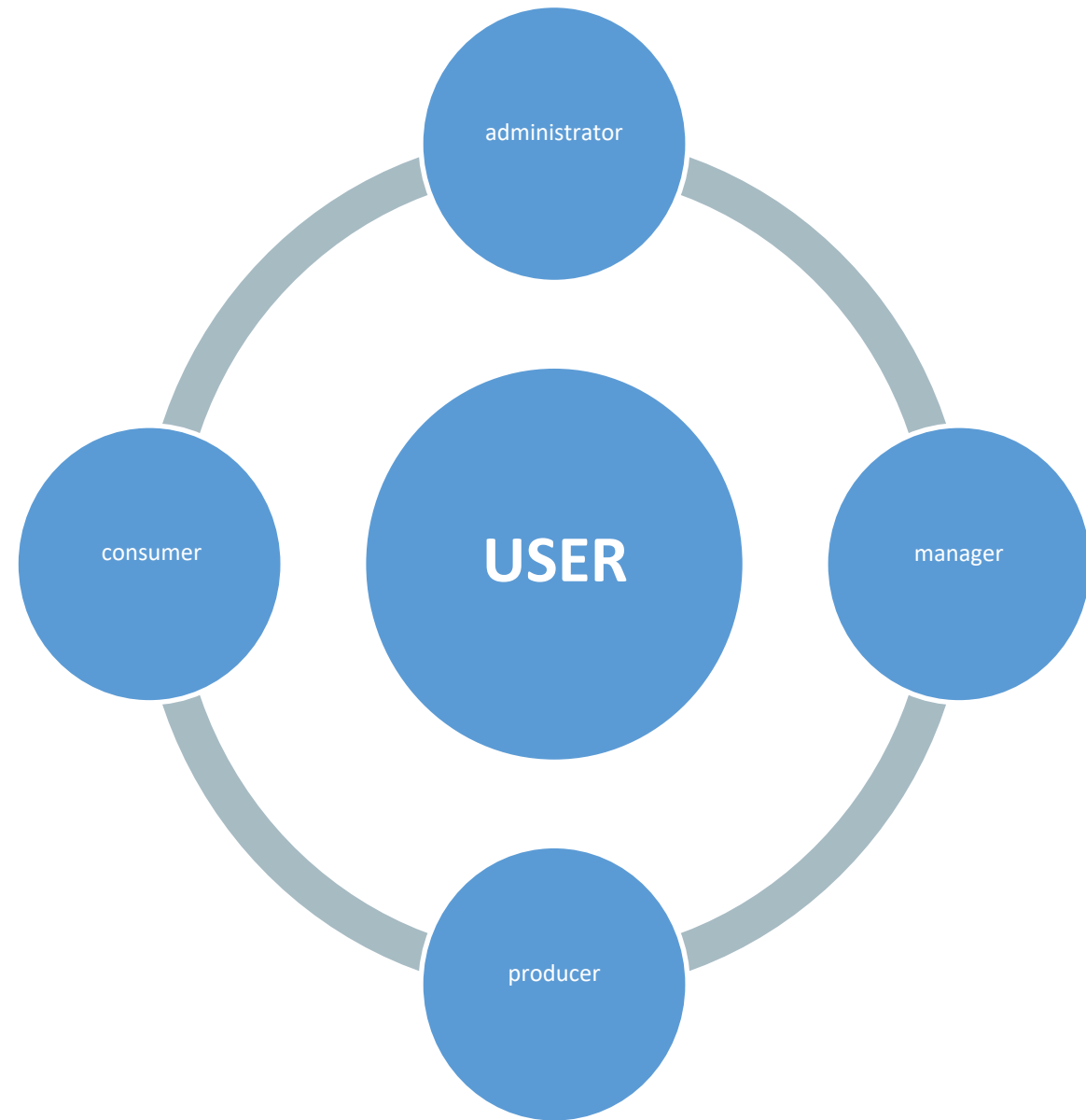
Example: TRACTION



<https://www.traction-project.eu/>



Example: MediaVerse



Some advice

- Follow ethical procedures.
- User associations are fundamental.
- Don't forget the users once the test is finished: lay summaries.

Technology

Impact of the technology on...

- The creation of access services
- The interaction of users with the access services.
- The consumption of access services.

Tech development – TMC research

From analogue...

...to digital (DTV4ALL)

...to hybrid (HBB4ALL)

...to immersive (IMAC)

...to blockchain technologies (Metaverse).

Tech development – TMC research

Born accessible (Orero)

https://ddd.uab.cat/pub/estudis/2020/222130/Policy_Paper_final.pdf

Creation and delivery (ALST, 2013-2015)

Speech recognition

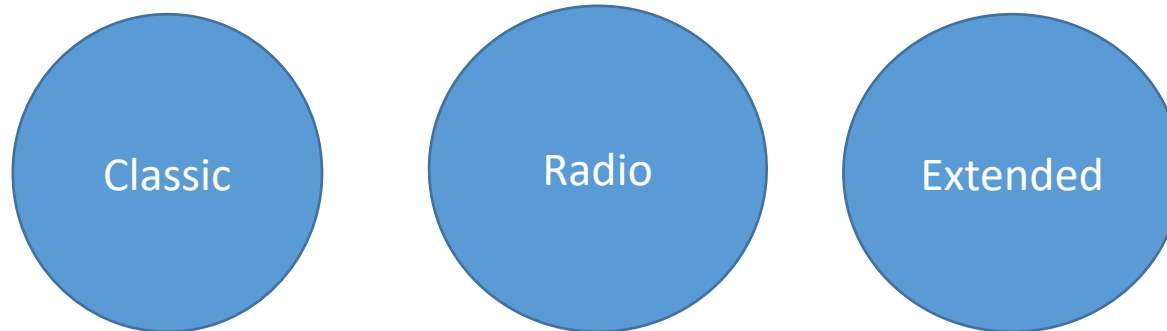
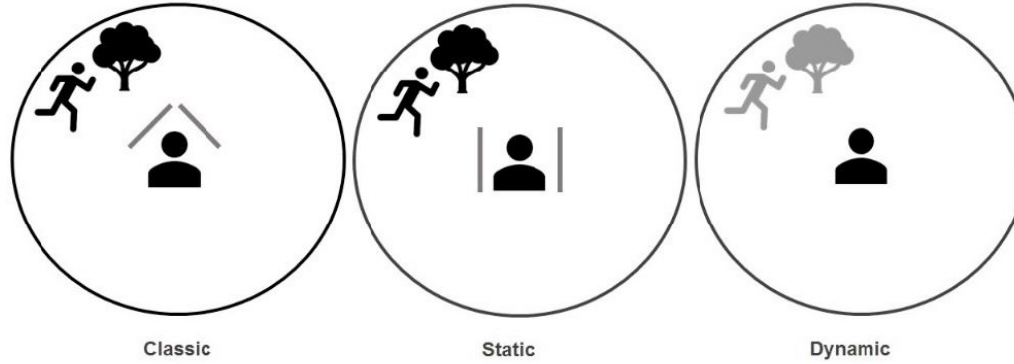
Machine translation

Text-to-speech

...applied to audio description.

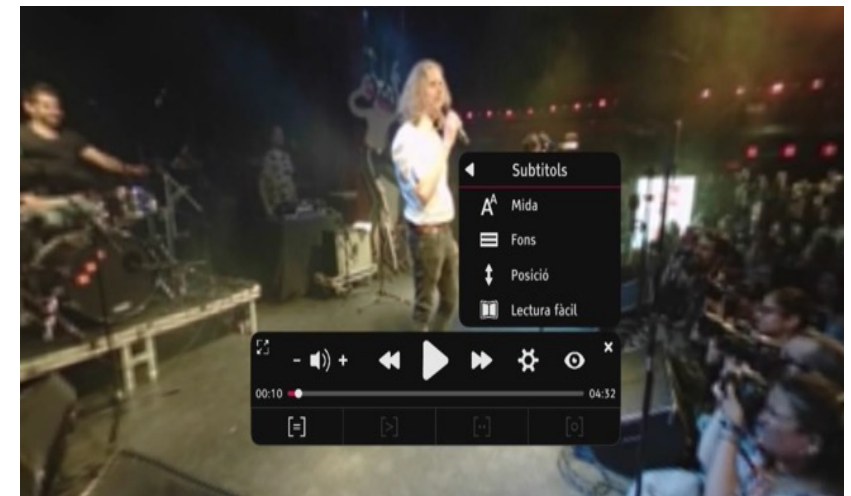
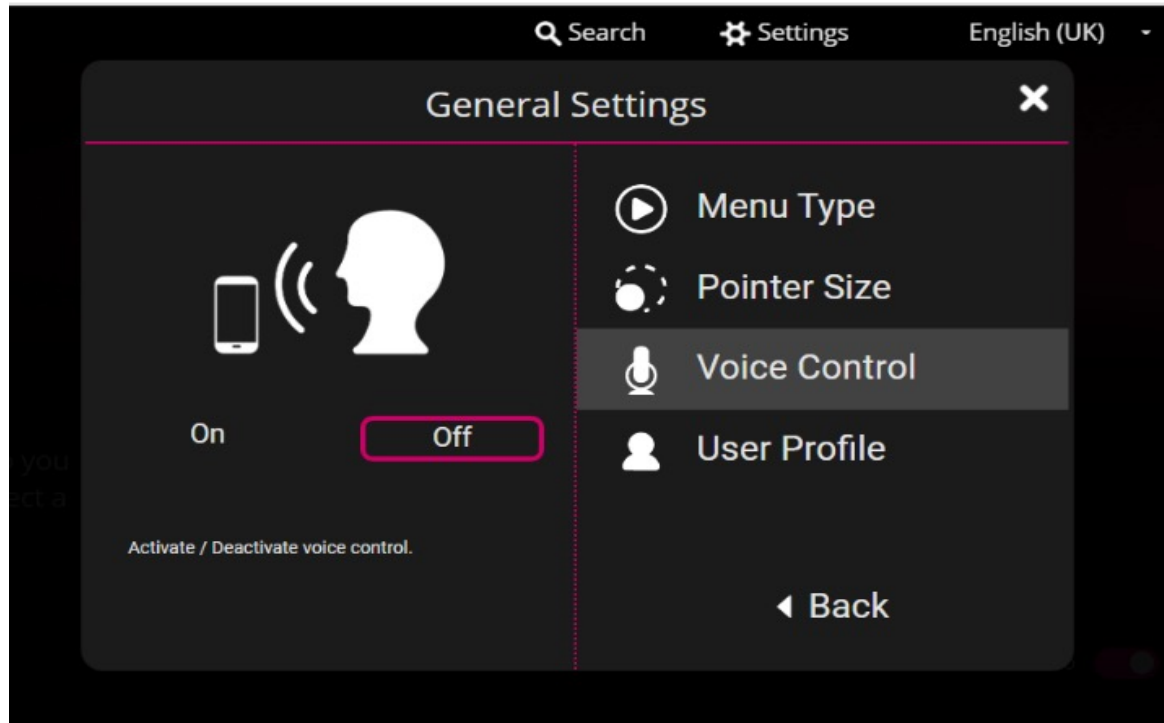
(See Anna Fernández-Torné's PhD & publications)

Immersive: 360° videos (IMAC)

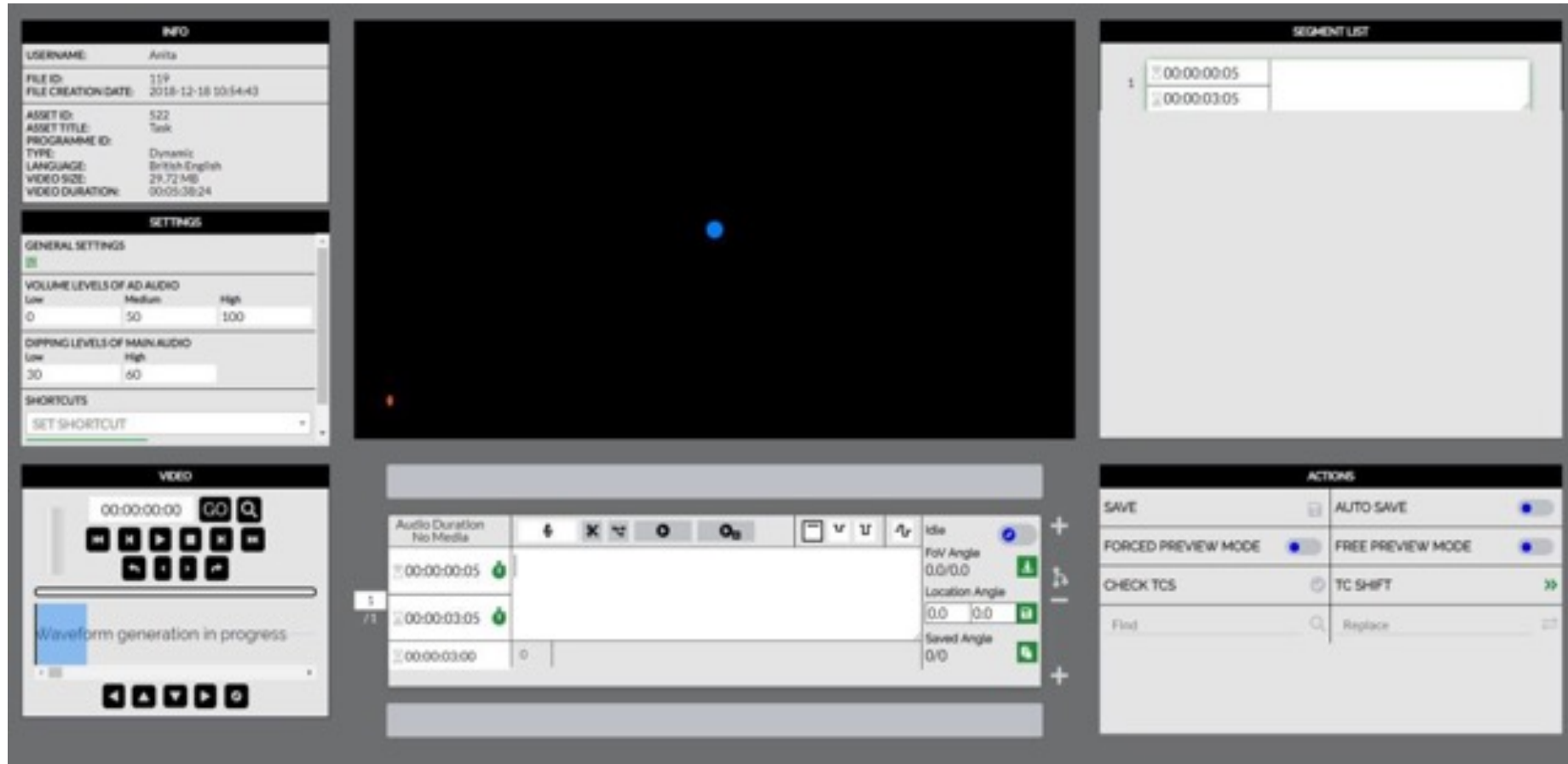


Sources: PhD by Anita Fidyka, Fidyka & Matamala (2018), Matamala (2021)

Interaction: voice/accessible menu



Creation software



Source: Fidyka & Matamala (2019)

Blockchain technologies



Access services in blockchain

Metaverse platform (with related tools).

Users can create and share their content (for examples, videos). They can monetize and assign copyright to their content through “Smart Legal Contracts”.

How to include accessibility in the chain?

Ongoing discussion groups led by UAB (use case 1.2)

Awareness: the CROMA experience

Co-creation of a 360° video with children aged 12 using the MV platform and an associated tool (FADER).

1. Recording a video
2. You are my eyes
3. You are my ears
4. Talking with our hands
5. A video for all

(8 hours, reaching different schools)



**Fundació
Autònoma Solidària**

UAB CAMPUS

Innovation: new access services



Erasmus + Strategic Partnerships in
Higher Education.

2018-1-ES01-KA203-05275

2018-2021

Work by Bernabé-Caro & Orero

Bernabé-Caro's PhD
(supervisor: Orero): "Easy
audiovisual content for all:
Easy-to-Read as an enabler of
easy, multimode access
services"

Easy-to-understand language

From Easy Language... to Plain Language

Top tips to feel better during the coronavirus pandemic

Easy read information



During this coronavirus pandemic, you may be feeling a lot of different emotions.

This is okay.



We all have different ways of coping.



These tips may work for different people at different times.

PLAIN LANGUAGE

Rule 4: Use Plain Sentences write on

✗ Before	✓ After
<p>If you take less than your entitled share of production for any month, but you pay royalties on the full volume of your entitled share in accordance with the provisions of this section, you will owe no additional royalty for that lease for prior periods when you later take more than your entitled share to balance your account. This also applies when the other participants pay you money to balance your account.</p>	<p>Suppose that one month you pay royalties on your full share of production but take less than your entitled share. In this case, you may balance your account in one of the following ways without having to pay more royalty. You may either:</p> <ul style="list-style-type: none">a. Take more than your entitled share in the future; orb. Accept payment from other participants.
Grade Level: 15.4	Grade Level: 7.5

Easy-to-understand audio descriptions

Focus groups (Arias-Badia and Matamala 2020, EASIT)

- AD & Easy-to-understand language: short simple sentences, one word = one referent. Is that so? (next slide)
- How to integrate it in complex films?
- Audio introductions / extended audio descriptions: different track.

Easy-to-understand audio descriptions

9 AD films in Catalan (Arias-Badia and Matamala 2021)

- Simple clauses, neuter syntactic order, general lexicon, clarity in the identification of characters and objects.
- No literary tropes or figurative language.
- No foreign words, no neology.
- Low complexity.

What about other languages? Ongoing work (ELAV).

“Audiodescripción para intelectuales”

Audiovisual Communication Services Act (2009):

- “Audiodescripción para intelectuales” (Analía Gutiérrez, personal communication): audio track whose content is transferred into simplified language (language with a basic grammar structure, not long and without technical terms).
- Institutional and public service information content.
- Different approaches: [example](#).

Easy audios

Javier Jiménez Dorado (APTENT): “audio fáciles”

- Cognitive accessibility service
- Based on EL
- Many similarities with AD: Spanish AD standard used as a reference: silent gaps.
- Validated by users with cognitive disabilities.
- New possibilities: born accessible / video editing.

Easy audios

A new access service for those who struggle to understand audiovisual content?

Many open questions (ongoing research):

- Relationship between ADI, easy audios, easy interpreting (simultaneous simplification).
- Specific characteristics.
- User needs.

Conclusions



Final thoughts

Network and share...



<https://pagines.uab.cat/alma/>



<https://lead-me-cost.eu/>

Disclaimer

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