Media Accessibility
Current Solutions and Future Challenges

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Bergen Media Future, 4th October 2022

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Legal background

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Accessibility by default

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The solutions

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The Challenges

LEGAL BACKGROUND

THREE EU DIRECTIVES

Audiovisual Media AVMSD

Web accessibility

European Accessibility Act

- **28 June 2022:** Deadline for Member States to adopt and publish national laws, regulations and administrative provisions to comply with the Act. They shall immediately communicate the text of those provisions to the Commission.
- **28 June 2025:** Deadline for Member States to apply those measures.
- **28 June 2027:** Deadline for Member States to ensure accessibility of the answering of emergency communications to the single European emergency number ‘112’.
- **28 June 2030:** Deadline for services to stop using inaccessible products which were already in use before 28 June 2025.
- **28 June 2030:** Deadline for submission of the first report by the European Commission on the application of the Act. This reporting must be done every five years thereafter.

SIX EU STANDARDS

Three new standards

1. Harmonised standard(s) setting up requirements on the accessibility of non ICT information related to products
2. Harmonised standard for the accessibility of support services related to products and services (help desks, call centres, technical support, relay services and training services)
3. Harmonised standard for the accessibility of emergency communications and for the answering of emergency communications by the PSAPs (including to the single European Emergency number 112)

And to revise three existing standards

EN 301 549 Accessibility requirements for ICT products and services

EN 17161:2019 Design for All - Accessibility following a Design for All approach in products, goods and services - Extending the range of users

EN 17210:2021 Accessibility and usability of the built environment - Functional requirements

EU funding networks on Media Accessibility

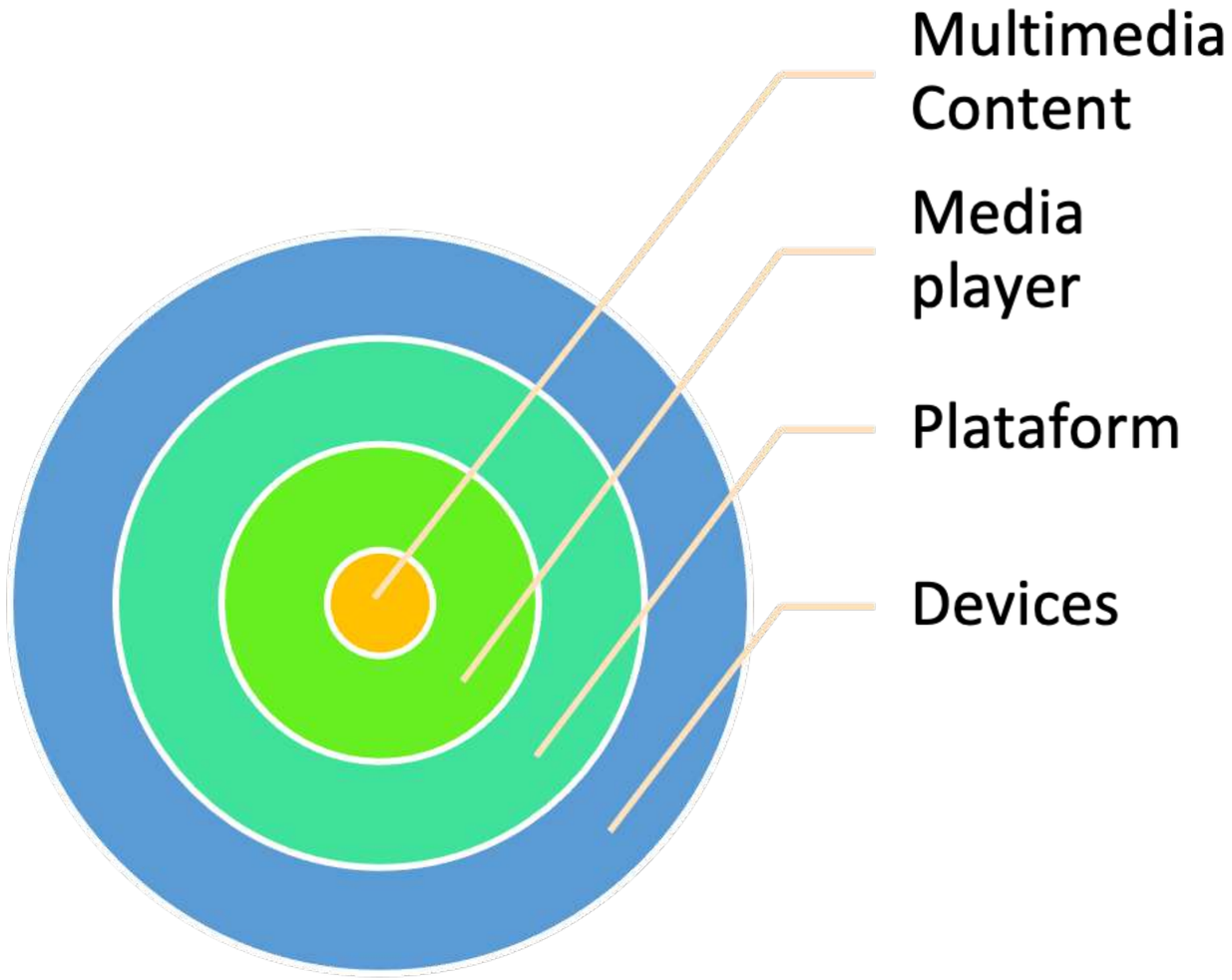
- LEAD-ME Cost Action CA19142 (https://lead-me-cost.eu/)

2023 European Accessibility Centre Sweden FUNKA vs Spain FONCE

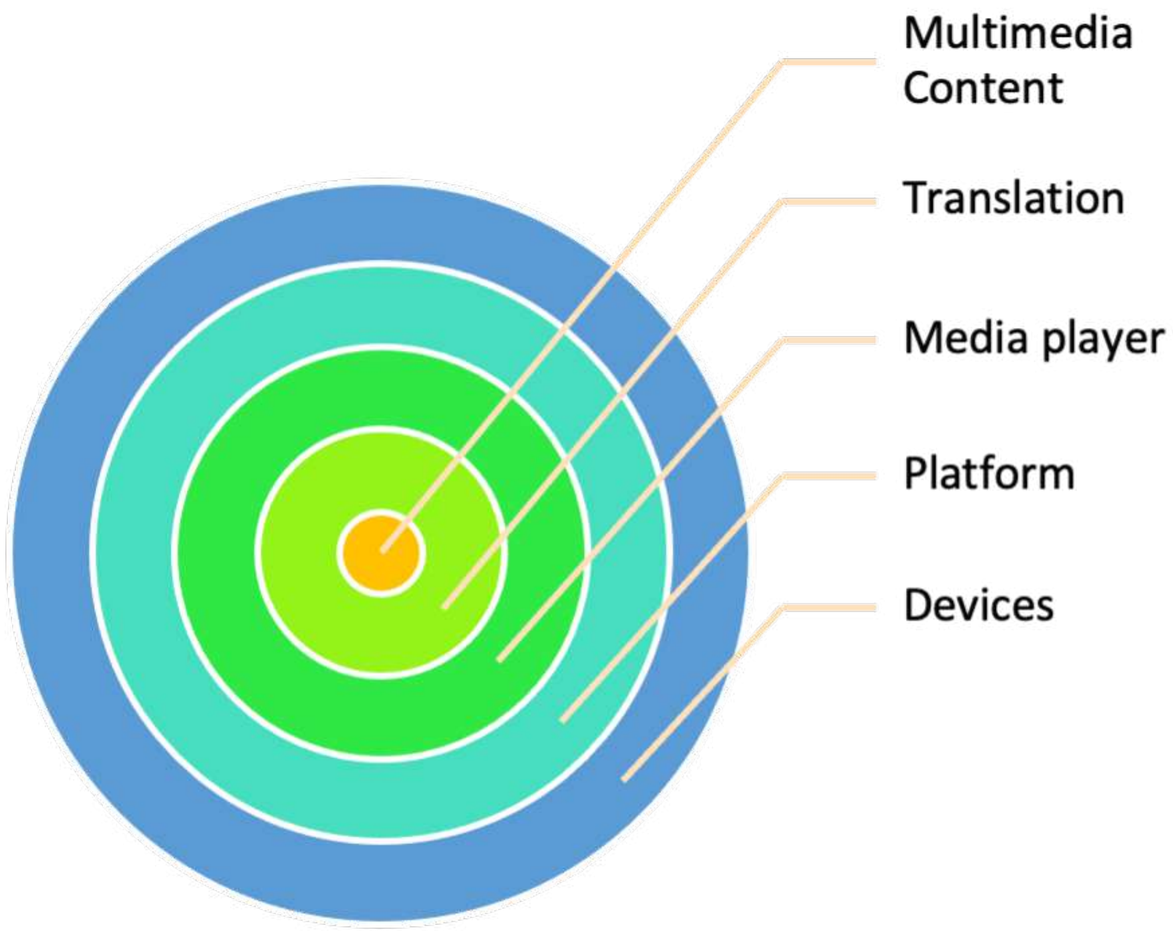
ACCESSIBILITY BY DEFAULT

FIRE
EXTINGUISHER

THE FOUR ACCESSIBILITIES (SAME LANGUAGE)



THE FIVE ACCESSIBILITIES (DIFFERENT LANGUAGES)



IT REALLY IS
CLOSED!!

MAYFLY MAN?
MAYFLY MAN?
MAYFLY MAN?
MAYFLY MAN?
MAYFLY MAN?
MAYFLY MAN?
MAYFLY MAN?
MAYFLY MAN?
MAYFLY MAN?
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MAYFLY MAN?

TARGET?
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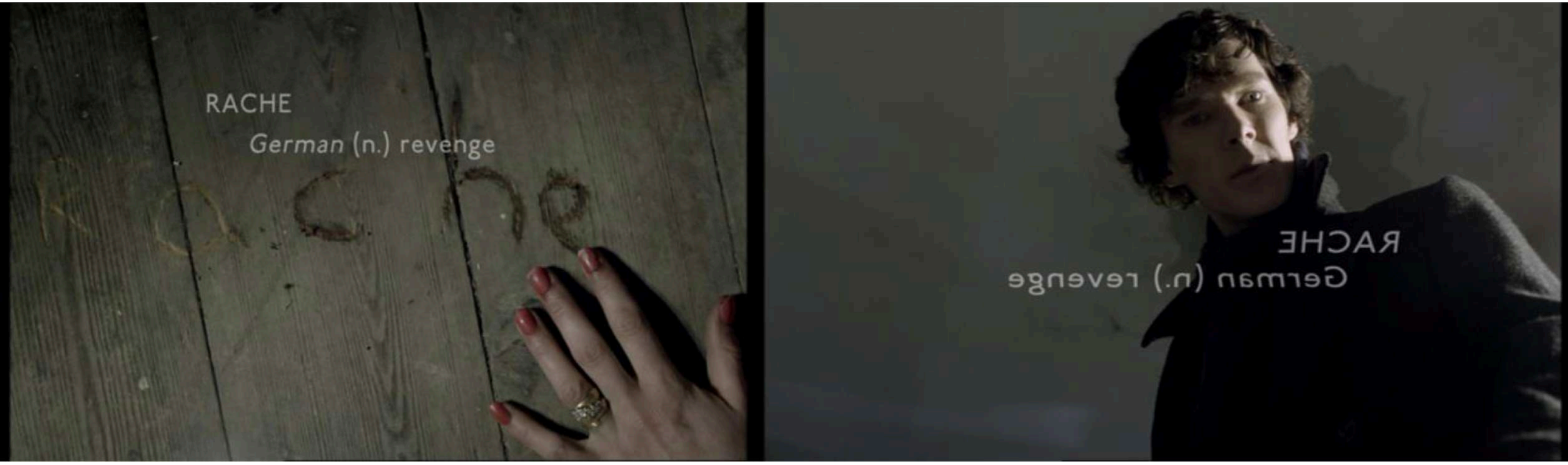
¿VÍCTIMA?


RACHE
German (n.) revenge

THE SOLUTIONS

What has been paid for

Automation
Subtitles —> SUMAT and SAVAS
Machine translation, STT, TTS
Sign Language Translation —> CONTENT4ALL, SIGN UP, SIGN IN
Automatic AD —> MeMAD

Interaction
Human machine —> EasyTV

Immersive accessibility
ImAC

Decentralisation —> HELIOS, MediaVerse

Accessibility + X
Refugees —> REBUILD, SOCLOSE, TRACTION, MILE
Sustainability —> GreenSCENT

THE CHALLENGES

What has not been paid for

VR/AR

AI

CHI

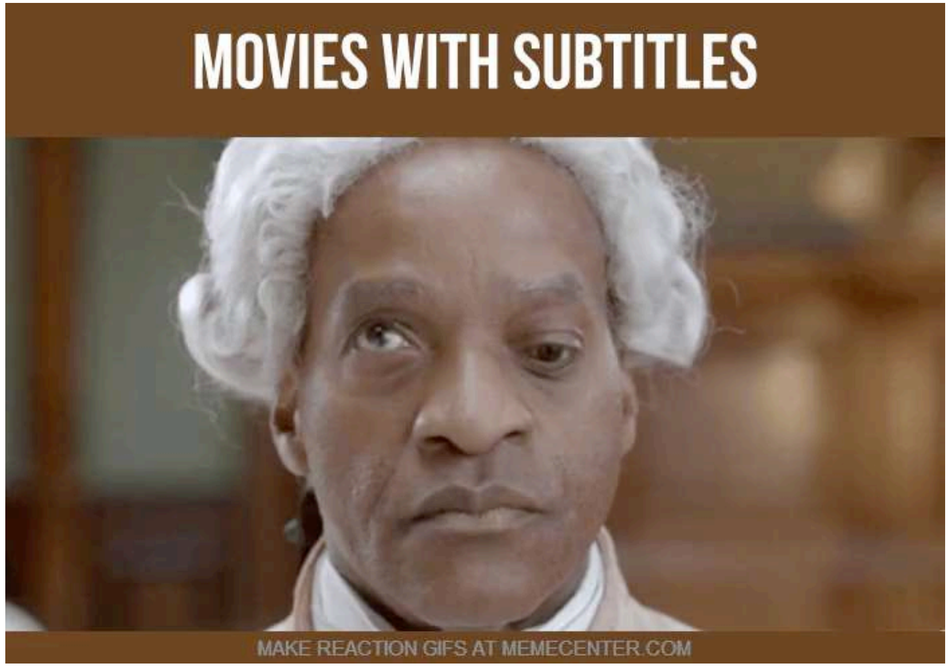
Digital twins

Emergency services

Green Accessibility

Copyright/traceability towards circular economy

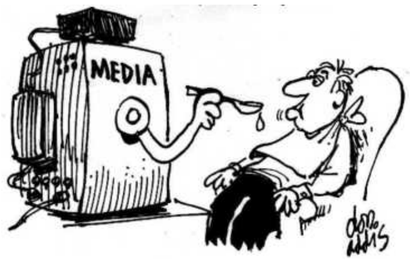
WATCHING MOVIES WITH SUBTITLES BE LIKE:



2D

VR

ROLE OF AUDIENCE



author

constructed story

presented story

spectator

experienced story

Passive audience

designer

characters

external events

generated story

interactor

experienced story

Active audience

SUBTITLING (CAPTIONING)

Comfort & Readability

- Especially for VR glasses
- Where can subtitles be rendered on the screen (safe area)?
- What fonts and text sizes are reasonable?

Speaker identification

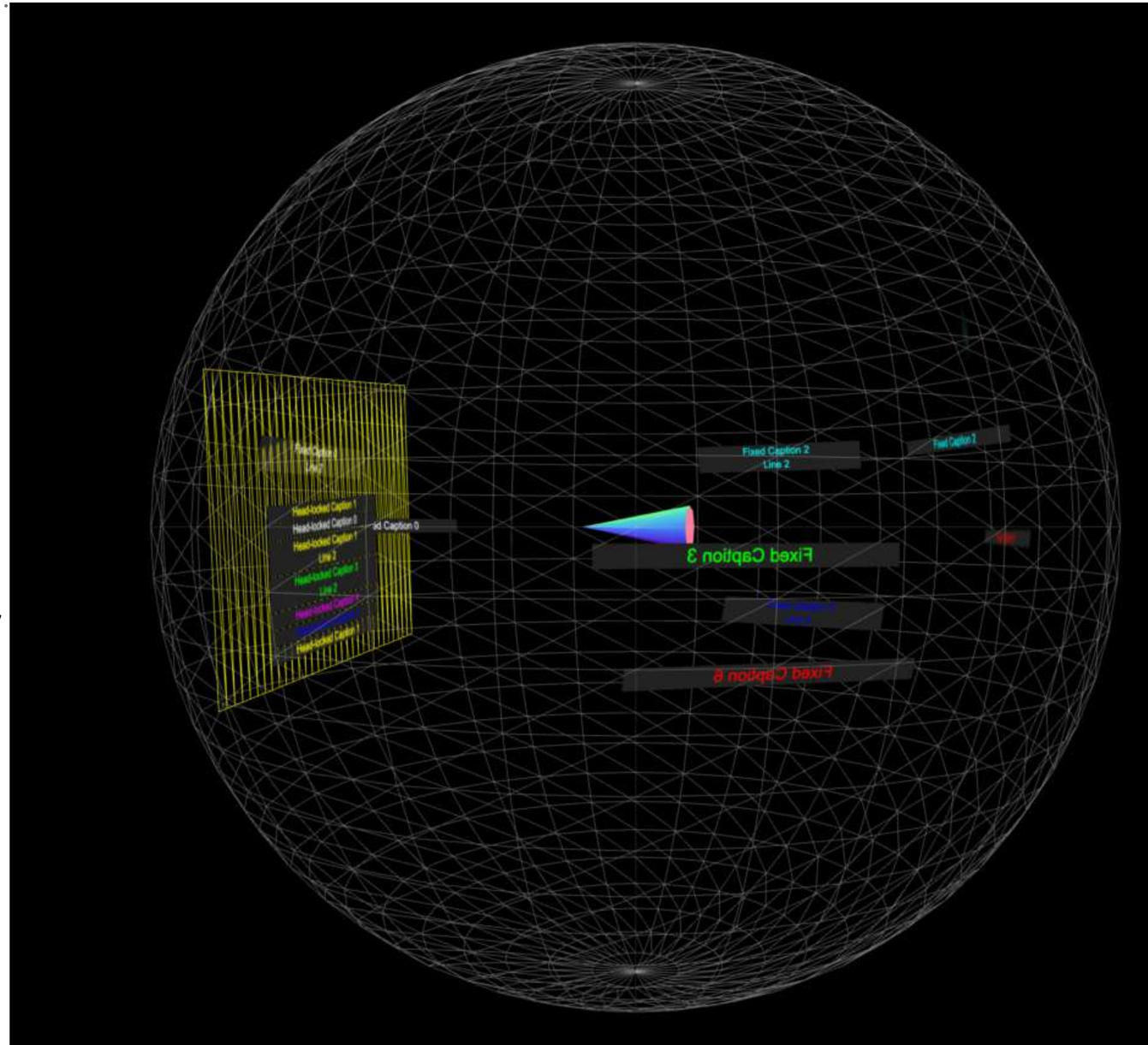
- How does the viewer know who is speaking?
- How can the user keep orientation in the scene?

CAPTIONS OBJECT BASED

Particle Objects

- Emitter
- Manager

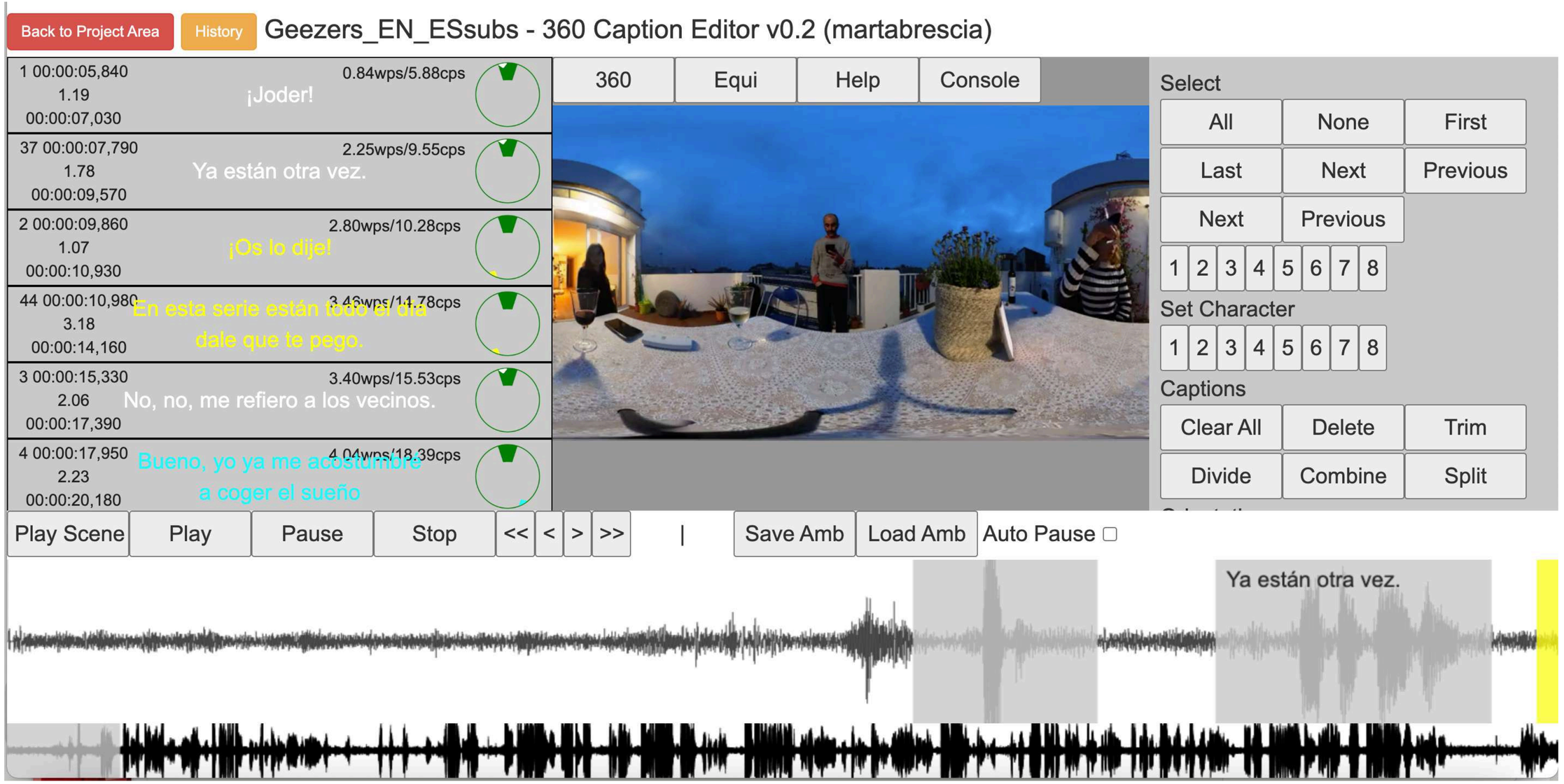
https://www.chxr.org/immersive_subs2_5/



LIVE PLAYER

Rewind
Seek back
Play
Pause
Stop
Seek Forward
Next Caption
Previous Caption
Clear Captions
Save Options
Up
Down
Left
Right
¡Joder!
VR NOT SUPPORTED
Player
Playback Rate
1.00x
Auto Move
Mouse
Animation
1
Render Mode
Wireframe + Video
Caption Mode
Fixed, position in scen
Guide Mode
ImAc Arrow
World Rotation
0
Lock to Horizon
Show Target
Auto Play on VR
Responsive Captions
Enabled
Size
5
Timecode
Enabled
Format
Secs
Position
Mid/Centre
Style
Black/White/30px
Caption Renderer
Caption Render
Fixed Background
captionJustify
Centre
Curve
0
fixedOffsetX
0
fixedOffsetY
0.25
Close Controls

ADDING SUBTITLES TO 360º VIDEO



COMFORT & READABILITY

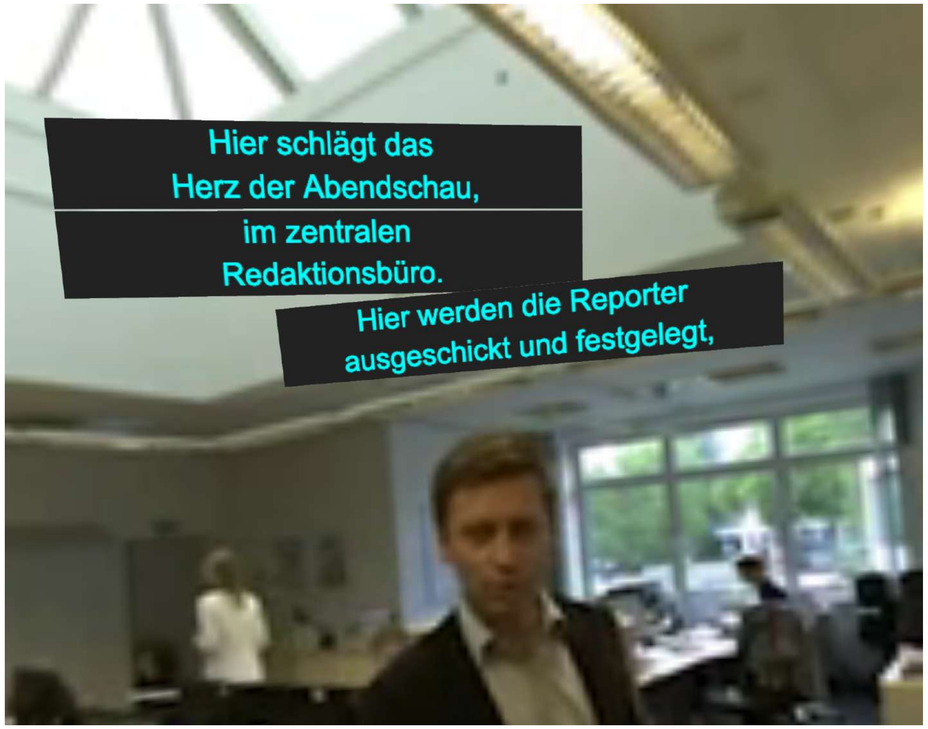
Image quality falls off towards the edges

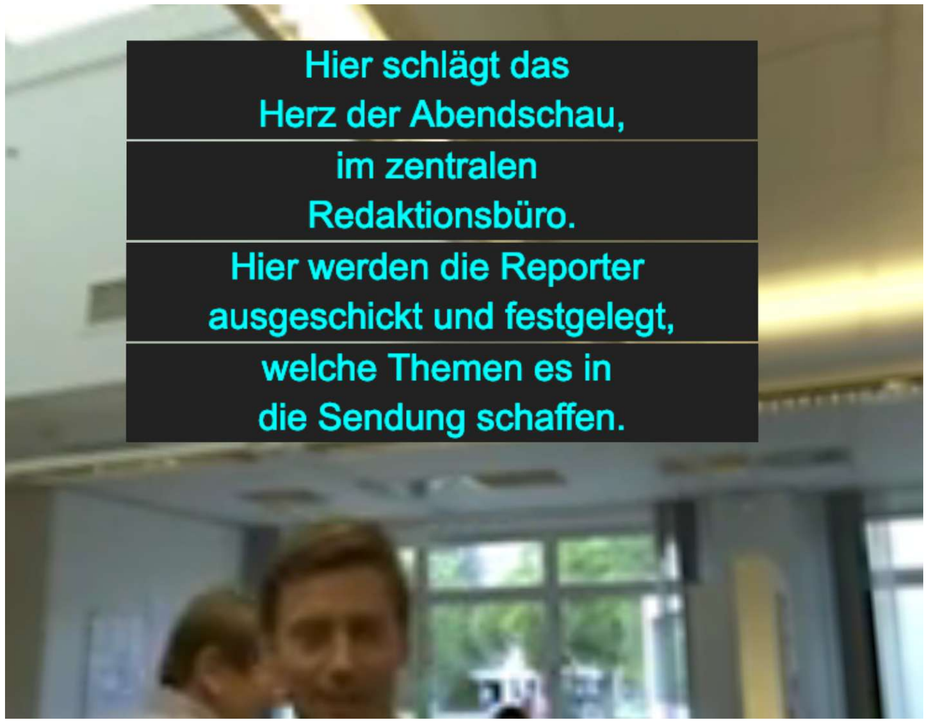
Photo through lens of the Oculus Go

(Only exemplary, does not represent real image quality)

SPEAKER IDENTIFICATION

STACKING (COLLISIONS)



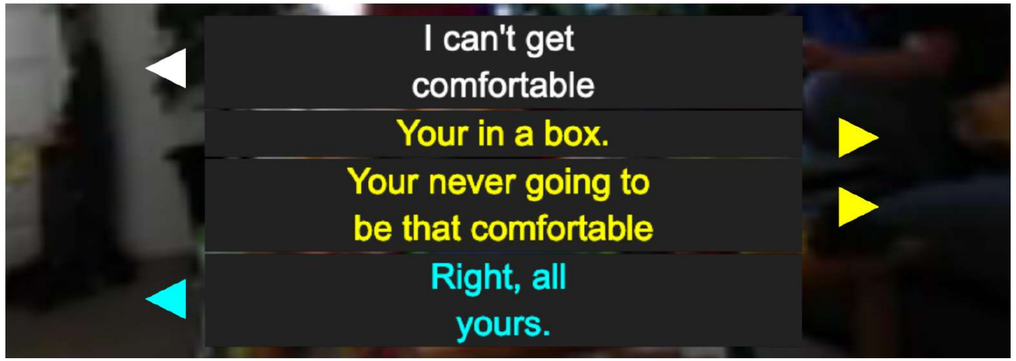


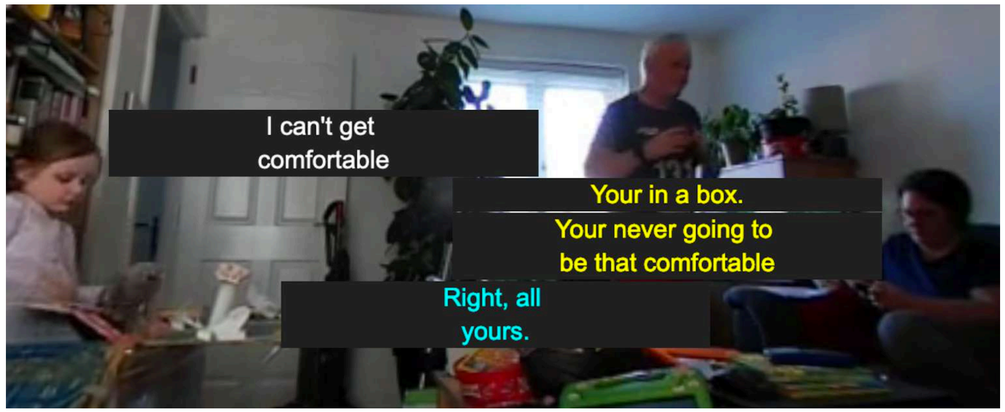
https://www.chxr.org/360/

RESPONSIVE (CUSTOMIZATION)

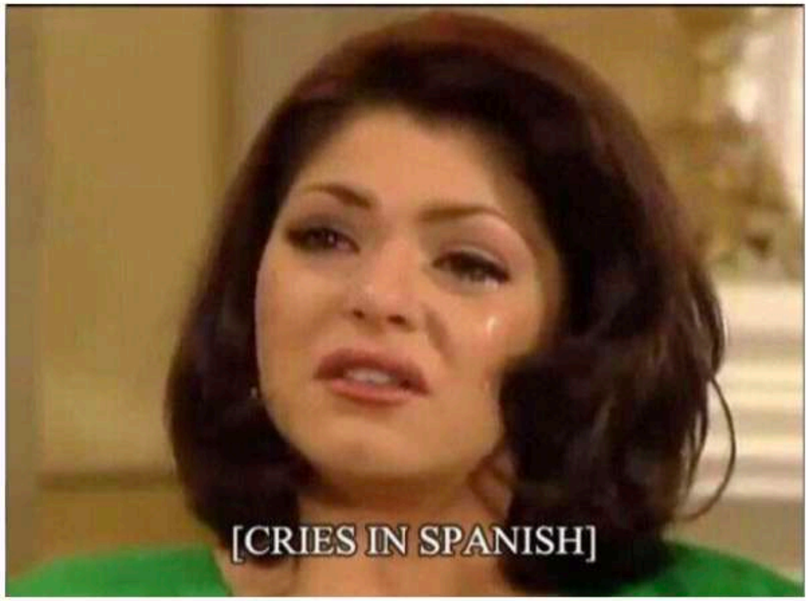
https://www.chxr.org/360/

GUIDING MECHANISMS





Thank you



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- TRACTION (https://www.traction-project.eu),
- MEDIAVERSE (https://mediaverse-project.eu)
- GreenSCENT (https://https://www.green-scent.eu/)
- MILE (https://mile-project.eu/)

QUESTIONS?
COMMENTS?
THOUGHTS?