



# If only the World was designed a bit better

## accessibility in the meta-world

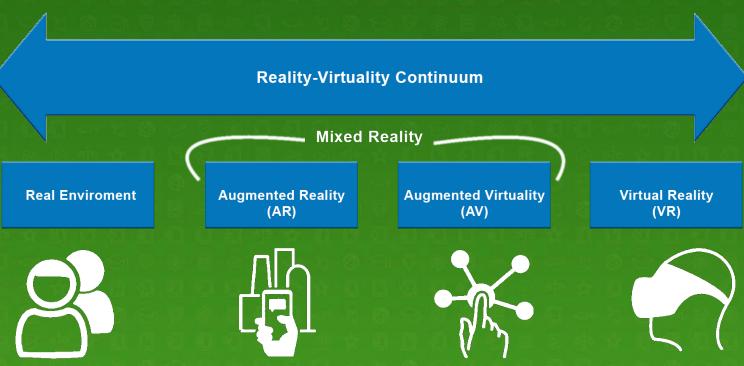
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ITU IRG-AVA co-chair & ITU-R Working Party 6C chair



## Design Design... - Deliver!

#### Design is at the heart of accessible media

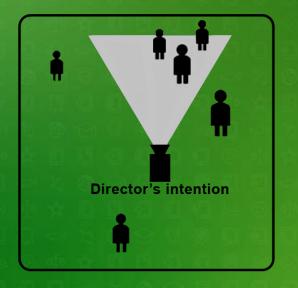
- Comfort & Readability
- Time and Space
- Environment
- Field of View
- Area(s) of interest

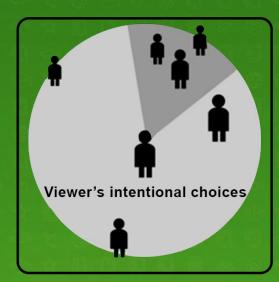


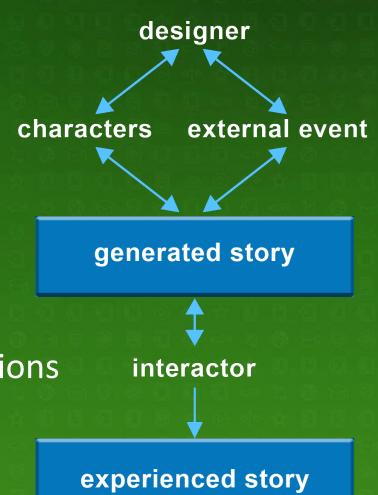
#### XR - What do we talk about?

### New story telling paradigm

- Creates new opportunities in story telling
- Opens-up immersive experiences
- But without design, could exclude many millions









Design for accessible media

## Content Accessibility

- Clear
- Easy
- Universal
- Understood

Text **Subtitles/Captions Subtitles/Captions** 

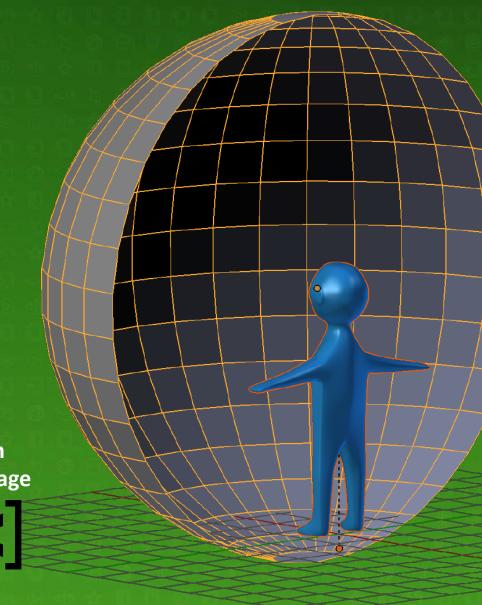
Spoken

Audio **Description** 



Sign Language





### Icons and information



Responsive design



Adapted to VR environments



Voice Interaction



Open menu:

:looking down

:consecutive clicks

:voice control



Enlarge



Preview



Universal Accessibility Icons

### Who's in control?

## Programmers or Users?

- 90% XR Applications use
  - High quality experience
  - For professional users
- Many others are easier to use but...











## Who is working on this?

## H2020 European Projects

I want to design a VR experience, not a game, and I am not a programmer but a teacher/cultural expert!



A universe of media assets and co-creation opportunities

MediaVerse (MV) is a decentralized network for intelligent, automated, and accessible digital asset management systems, where traditional stakeholders and other media owners can share, enrich, verify, and monetize multimedia content.



To promote through empowerment, a transformation of communities at risk of exclusion.

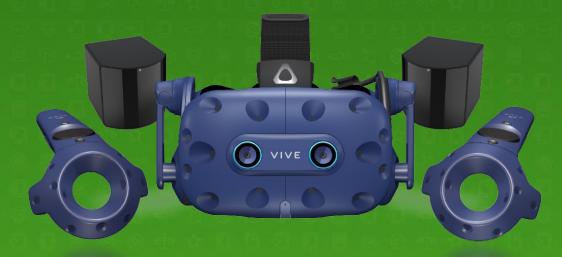
A toolset designed and developed to foster democratisation of opera, using technology as a means to reach new audiences and to connect artists with audiences.

## VR Authoring tool for all

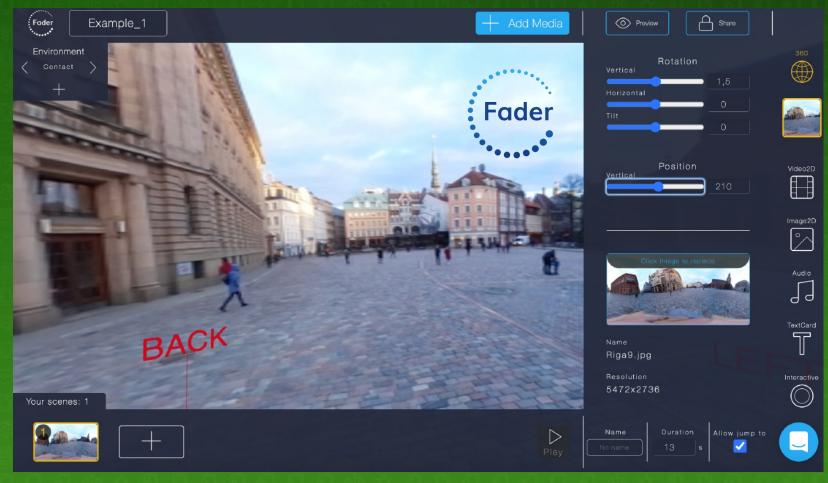


#### Programmers or Users?

The boundaries between professionals, prosumers and small creators are blurring, the speed of communication and publishing is increasing, audiences are seeking more user-driven and accessible multimedia experiences



## Tools!



Programmers or Users?

**Editor Interface** 





Players
Imac player settings



Players

Fully customizable player

## An opportunity

### How to improve the situation?

- Make Web editors that can configure Unity projects
  - Web interface
  - Templates for basic applications: Museum, chemistry lab, wind-energy lab
  - Unity Server
- Make web format more appealing
  - Provide multiplying capabilities
  - Incorporate AI libraries for fast computing on the educator PC

## To sum up

#### Accessible media for all means we -

- Must not to assume current '2D' accessibility is good enough
- Must learn the lessons from the gaming industry
- Must expand access service options to include
  - Sight Sound Motor Understanding
- Use easy-to-understand language tools
- Must ensure users can
  - Perceive, understand, navigate, interact and contribute
- Must promote Universal Design and Born Accessible concepts





## QUESTIONS? COMMENTS? THOUGHTS?

