# 360 FOR ALL
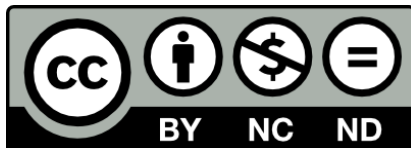
# IMMERSIVE ENVIRONMENTS AND ACCESSIBILITY

Mobile Week 2021

Barcelona

Marta Brescia Zapata – Universistat Autònoma de Barcelona

07/07/2021

**Traction**
Opera co-creation
for a social
transformation

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# TRACTION

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## OBJECTIVE

To embrace new technologies in order to establish an effective participatory production workflow and to explore novel audio-visual art representation formats.

## TRIAL

The Irish National Opera (INO) will test the potential of VR technologies in creation and presentation of opera.

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# Background

### ImAc Project (Immersive Accessibility)

- ✓ How could access services be integrated within immersive environments?

- ✓ Subtitling, audiodescription, audio subtitling and sign languages.

### VR360 subtitles. New creative solutions

- ✓ Traditional subtitles VS creative subtitles

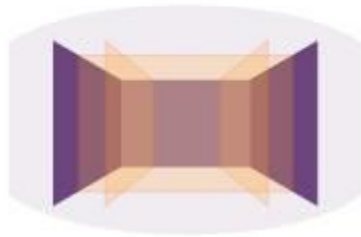- ✓ Using eye-tracking technology for collecting data
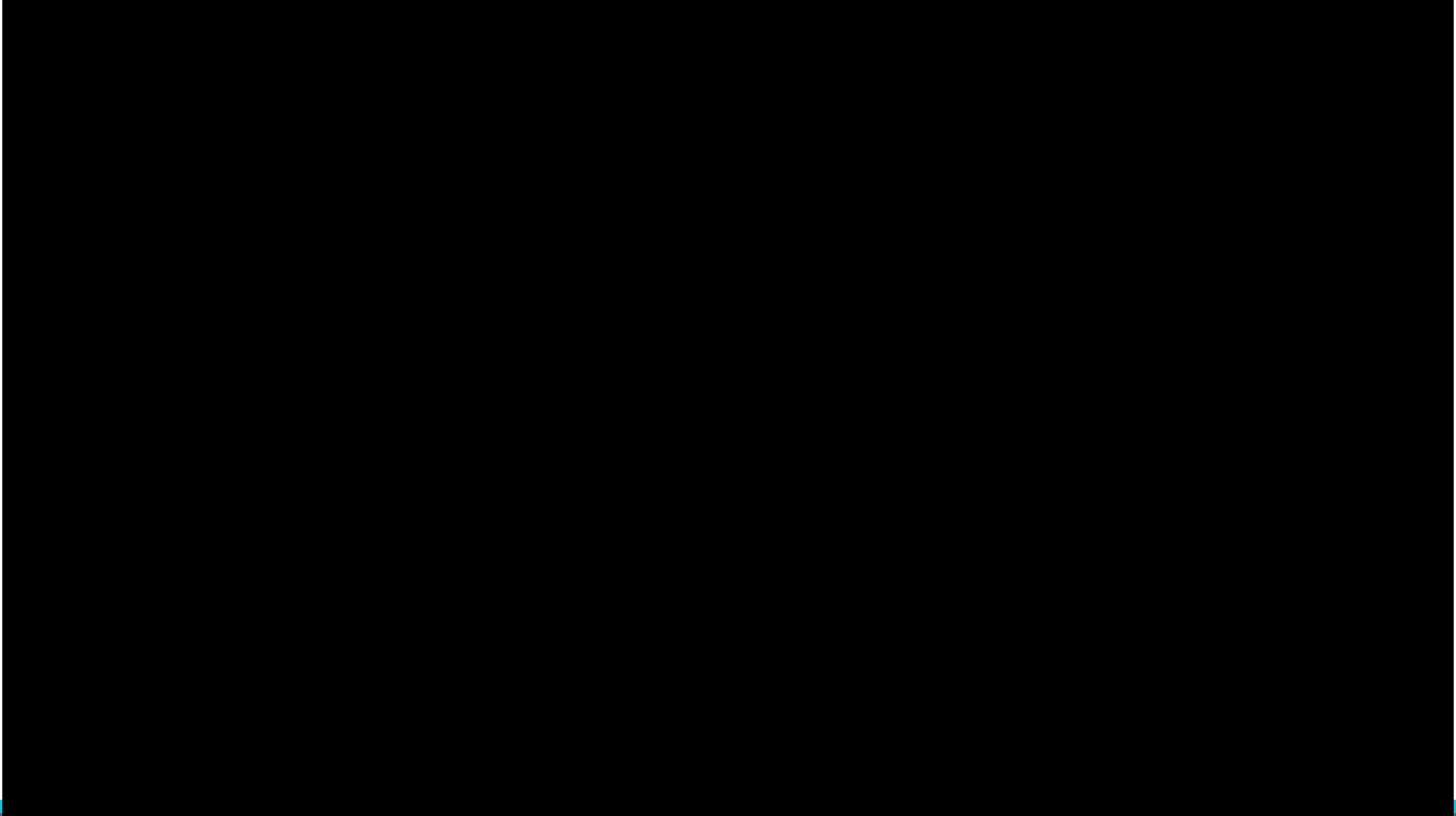
# Background

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# Traditional subtitles vs. Creative subtitles

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# VR360 subtitles and eye tracking technology

**EXPERIMENT DESIGN**

Define the material

Design the questionnaires

Obtain the material (Record 360 video)

Elaborate subtitles (3 different visualisation modes) Chris Hughes web-based editor & player

Test the experiment set-up in Unity

# VR360 subtitles and eye tracking technology

# VR360 subtitles and eye tracking technology

## HYPOTHESES

- ✓ Compared to viewers of conventional subtitles, the viewers of creative subtitles will be able to spend more time exploring the image instead of reading the title.

- ✓ The saccades of the viewers of creative subtitles will be shorter compared to the saccades of viewers of conventional titles.

- ✓ The viewers of creative subtitles will report a better aesthetic experience.

# VR360 subtitles and eye tracking technology

| CONCLUSIONS |
|---|
| Need for guiding mechanisms |
| In general, subtitles fixed next to the mouth of the speaking characters are the preferred option. |
| In general, implementing creative subtitles is a good idea to achieve a better aesthetic experience. |

NEXT STEP: Contrasting the results from the focus group with the eye-tracking data

# VR360 subtitles and eye tracking technology

# Thank you for your attention

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