

SDH in immersive environments: can subtitles be immersive at all?

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Universitat Autònoma
de Barcelona

Languages & The Media, 2018

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Virtual Reality is
dangerous.

- Steven Spielberg

Content must
be immersive

cinematic

virtual reality

Real-world images
stitched together with
video editing software
with a duration from 5
to 10 minutes

A new grammar
needs to be created
for cinematic virtual
reality.

Attracting audience's attention

- sound
- movement and lightning cues
- moving objects
- traditional film strategies

Genres

Journalistic

- News
- Life Stories
- Documentaries: Travel, History, Culture, Science

Fiction is very limited.

okay, okay...
but how about
subtitles





*Research & Development
White Paper*

WHP 330

April 30, 2018

Exploring Subtitle Behaviour for 360° Video

A. Brown, J. Turner, J. Patterson, A. Schmitz, M. Armstrong, and M. Glancy

Position of the
subtitles

Speaker location

experimental
solutions

**position of
subtitles**

Follow head immediately

ImAc Project – Romeo & Juliet (Liceu Barcelona)



Evenly spaced

TNYT – The Displaced

- Example:

<https://www.nytimes.com/video/magazine/100000005005806/the-displaced.html>

Speaker
location

Arrow

Radar

Auto-positioning

Im

Ac

Arrow



Wenn gewählt wird und die Bezirks-
verordneten etwas entscheiden, ➡

Radar



Auto-positioning

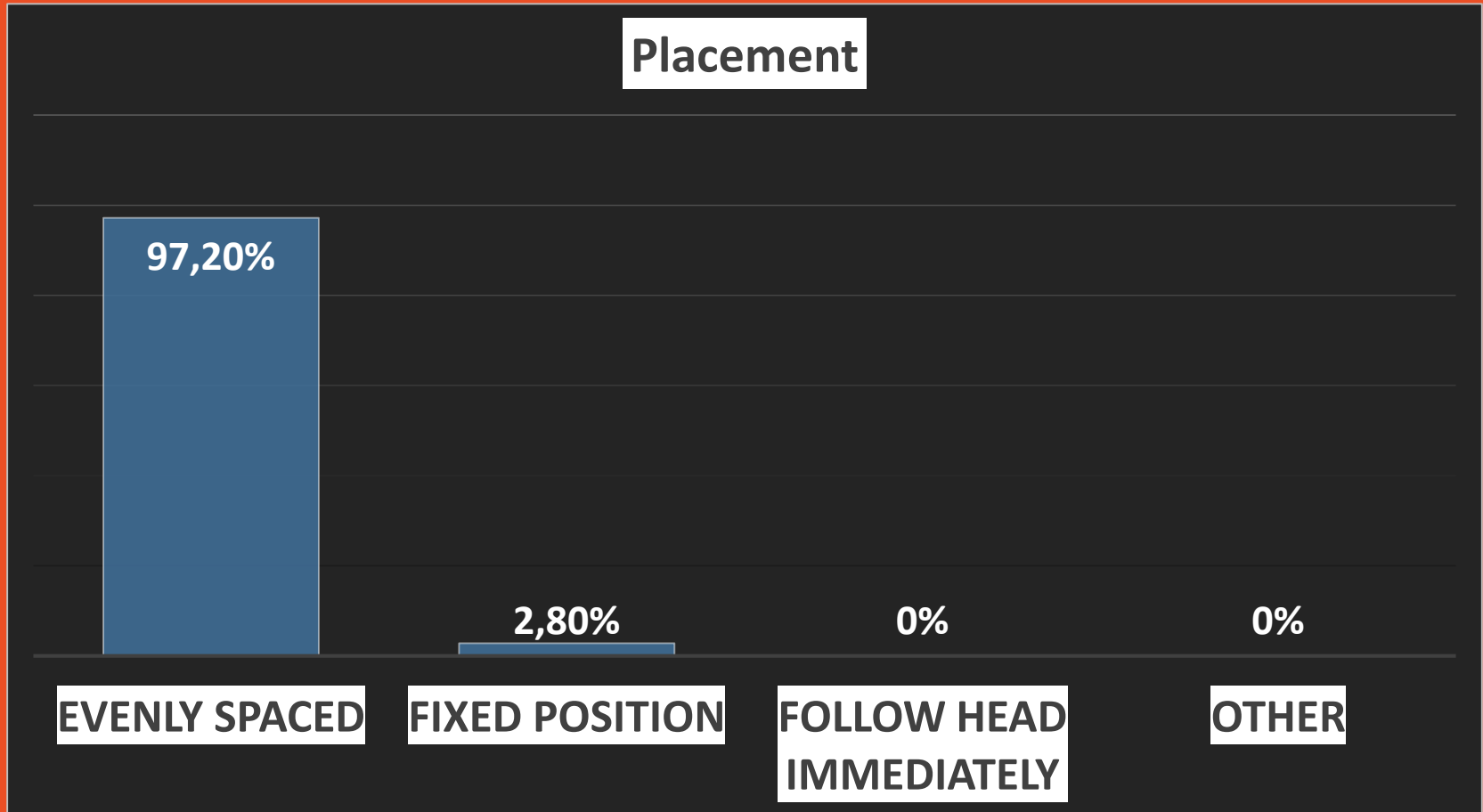
- The system takes you automatically to the speaker.

**The New York
Times**

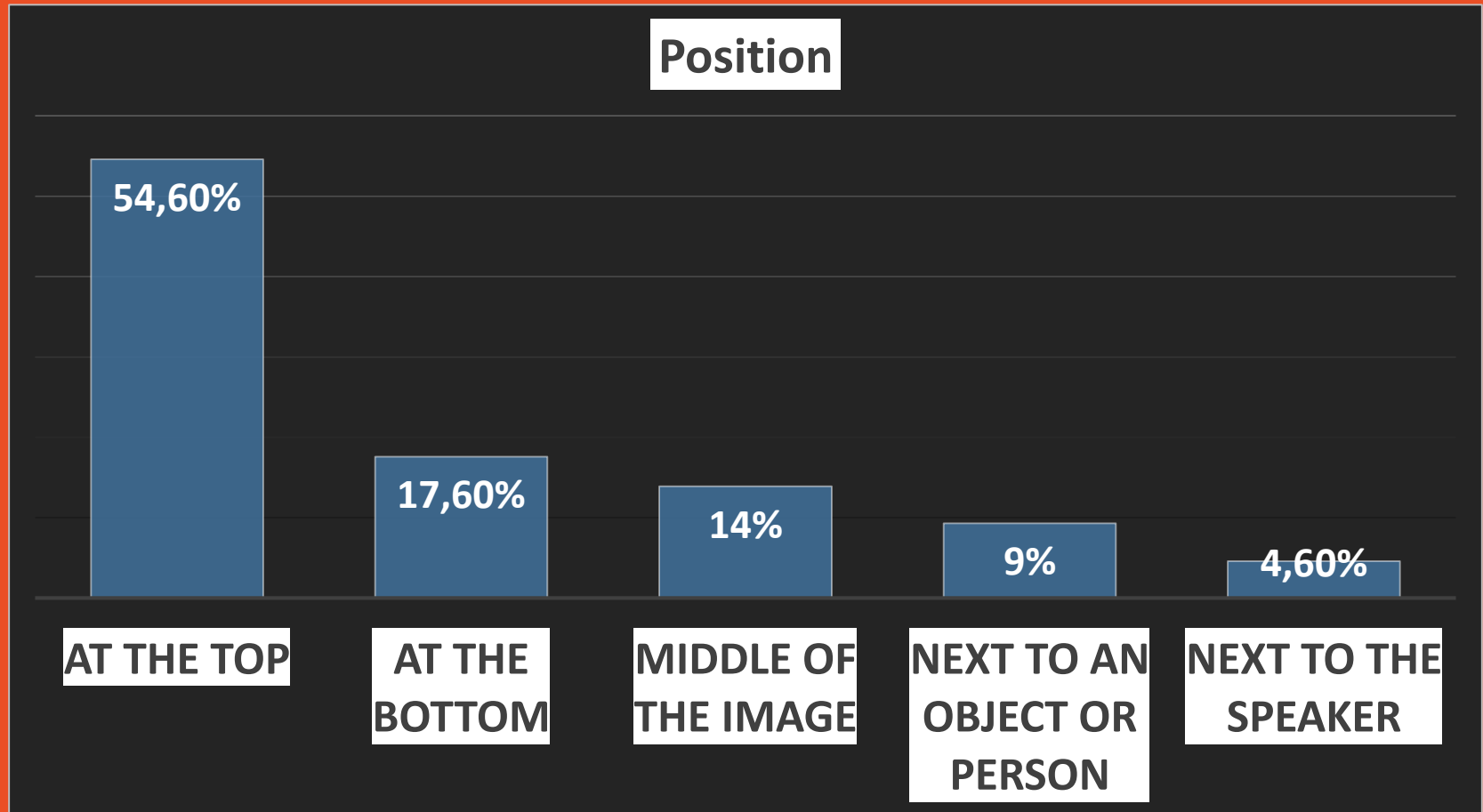


BBC

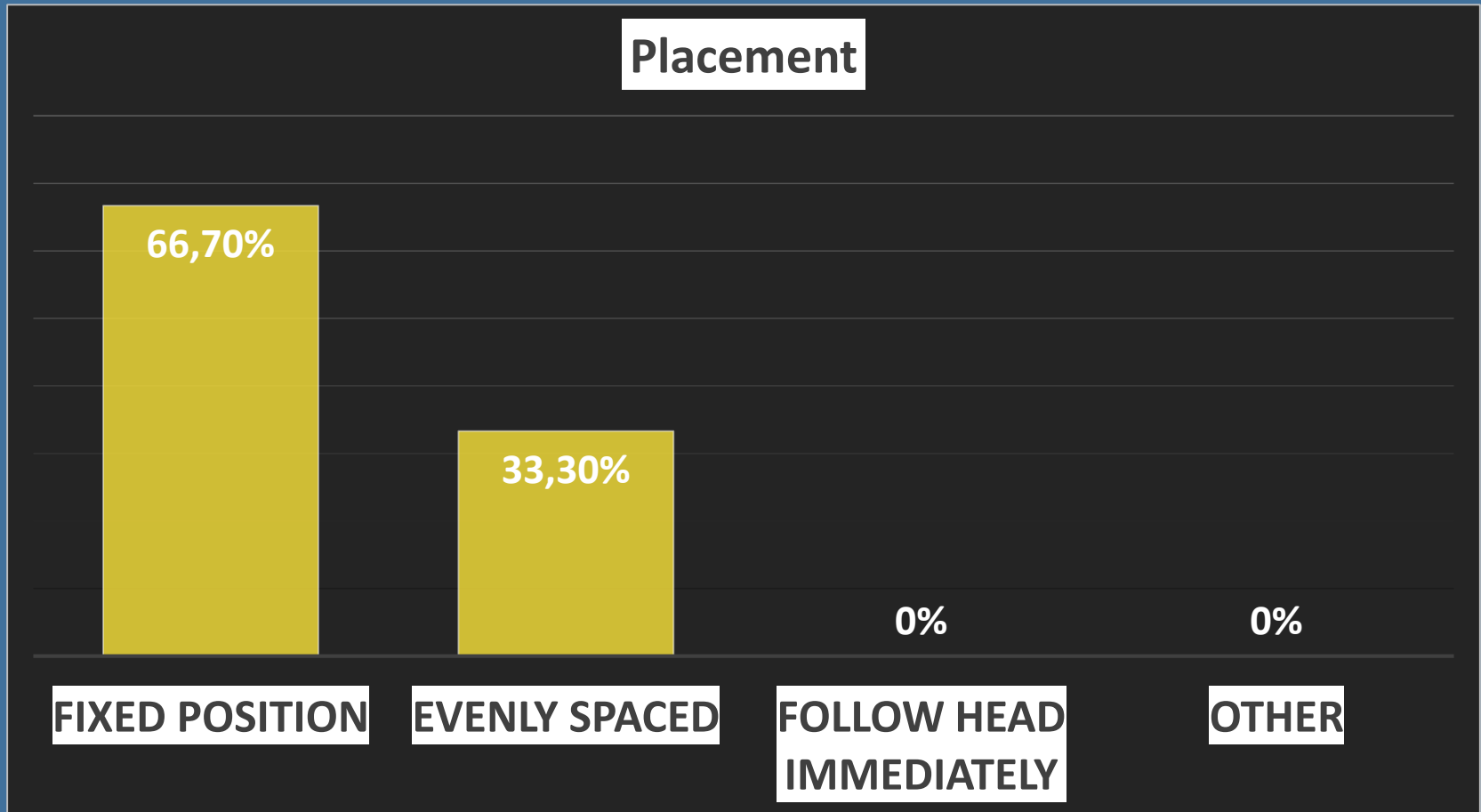
Placement – TNYT



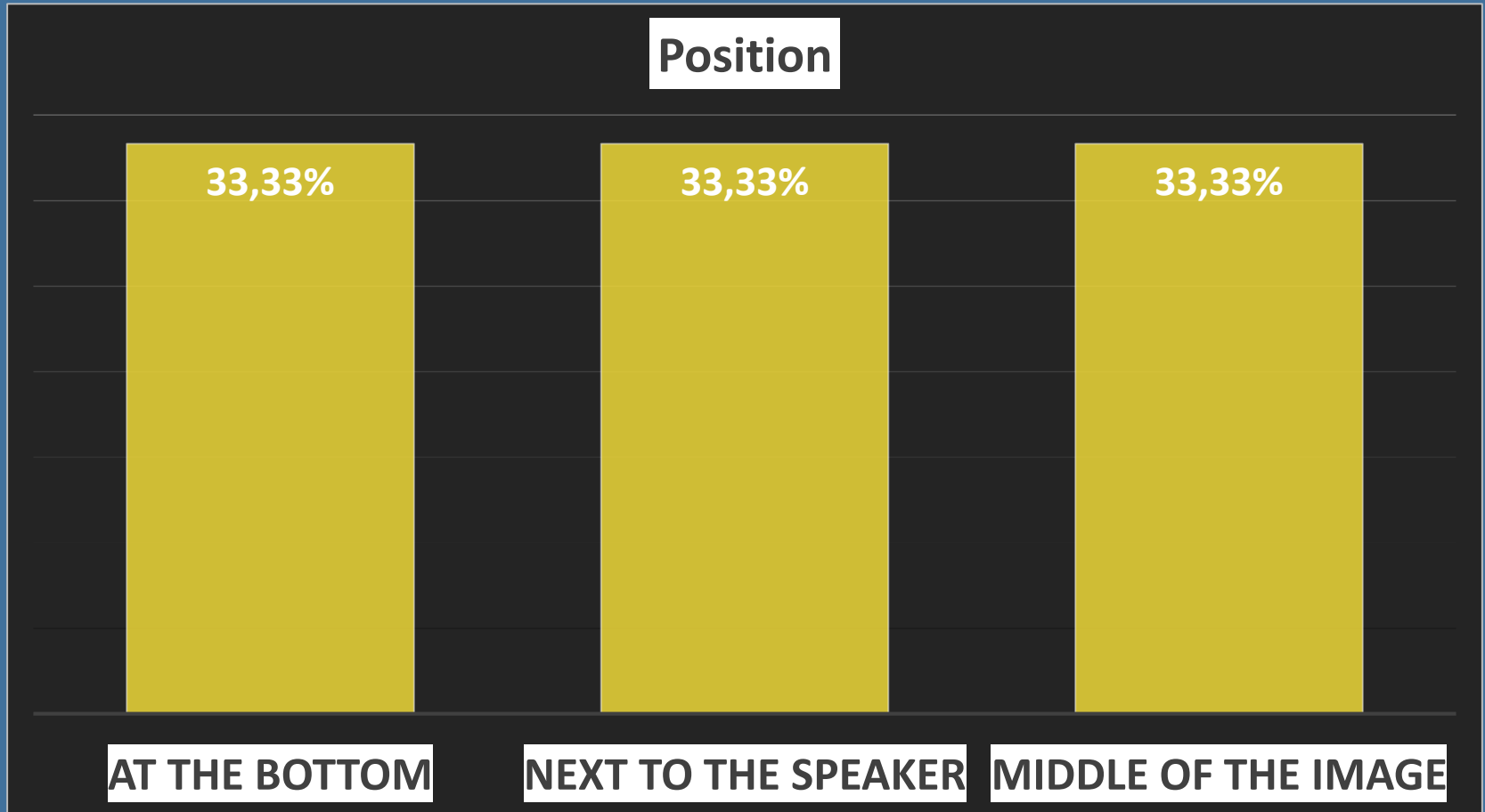
Position - TNYT



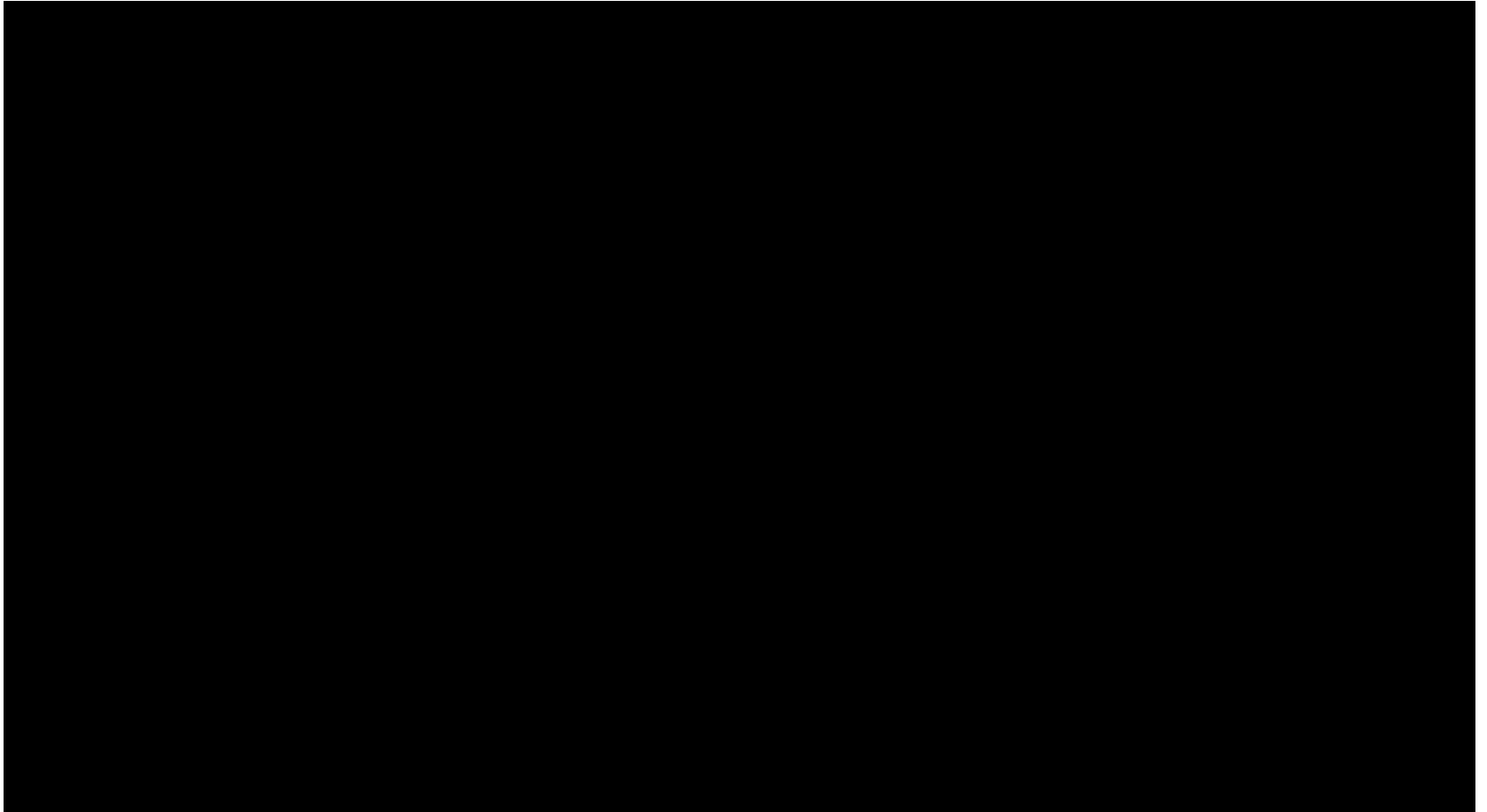
Placement - BBC



Position - BBC



No speaker location mechanism
found in NYT VR or BBC!



NYT VR – To main action

- TNYT VR browser includes a radar that takes the viewer to the main action.
- Example:
<https://www.nytimes.com/video/magazine/100000005005806/the-displaced.html>

BBC and TNYT

In some examples,
they used the titles to
indicate directions.

can

subtitles

be immersive



“ Subtitles will never be disruptive for those who need them.

“
We just need to find an
implementation for subtitles that is
immersive...

and **usable...**

and **accessible**

**what we have learnt
so far.**

accessibility

- it is possible to integrate text in cinematic virtual reality content – **TNYT & BBC did it!**
- **audio cues are a big deal in CVR narrative – speaker location systems are needed!**

usability

- **make subtitles in immersive media as similar as possible to traditional subtitles – “follow head immediately”, according to most users!**
- **make subtitles readable: size and background box**
- **at the top or at the bottom or both? we will need to wait and see how new grammar for CVR content is developed!**
- **Loads of testing needed!**

immersion

- **not disruptive if you need them**
- **“suspension of disbelief”**

Thank you so much!

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