GWF
GEOSPATIAL WORLD FORUM
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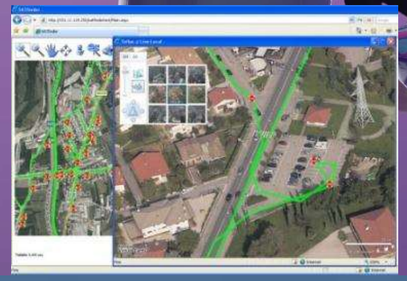
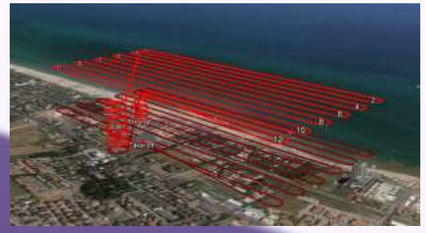
Frontiers of Learning: Advantages of AI-driven Training in the Metaverse





What’s METAVERSE

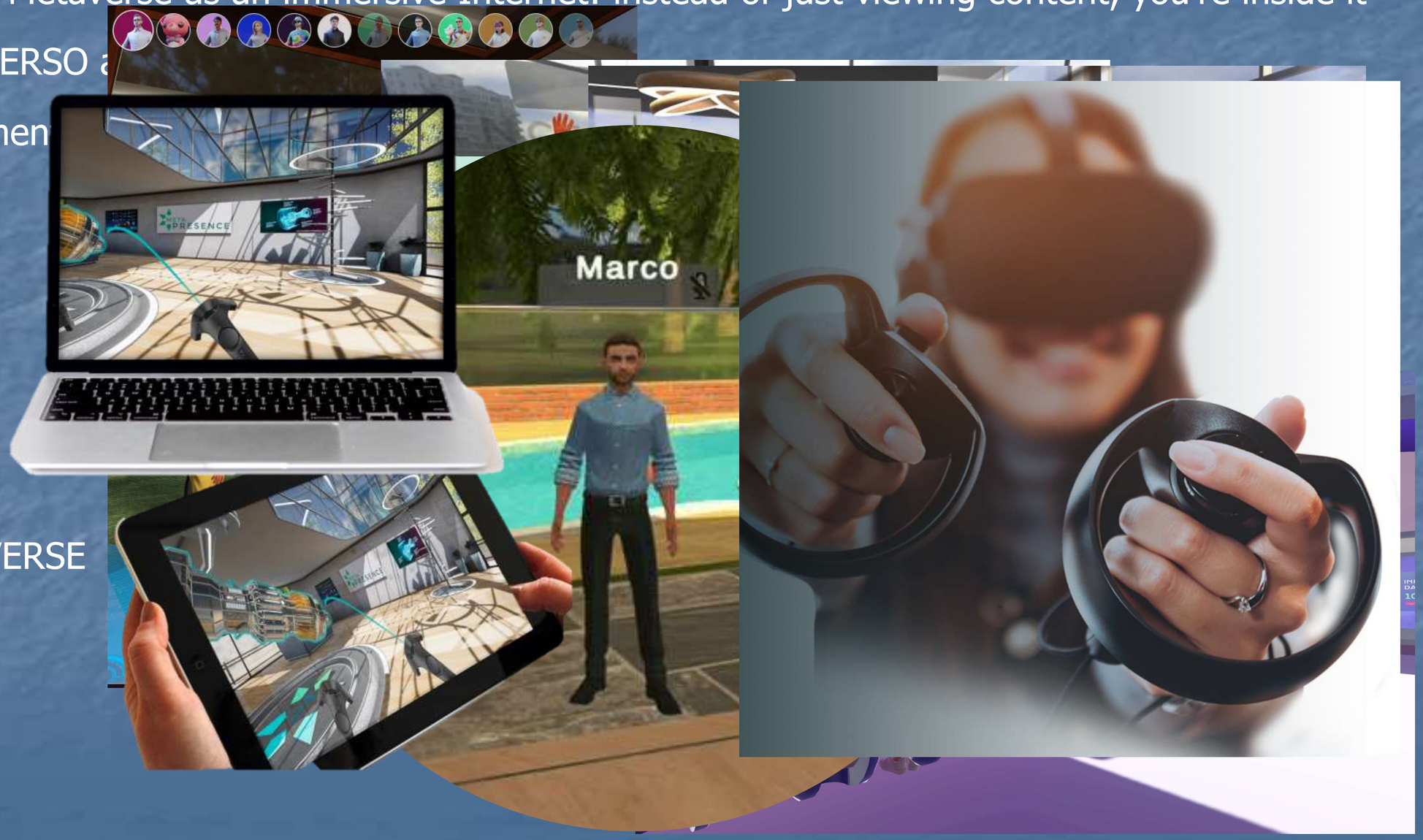
“You can think of the Metaverse as an immersive Internet: instead of just viewing content, you're inside it”

To be defined METAVERSO a

- 3D virtual environmen
- Immersive
- Interactive
- Persistent
- Interoperable

To ENTER the METAVERSE

- Avatar
- Device



GEOtechnology and Innovation Course

Apart from GEOtechnology topics

emerging technological trends in the last 10 year

- Drones
- Lidar
- VR/AR and Field Service
- Artificial Intelligence
- CellPhone GEOBigData
- And last year Metaverse

Metaverse and Training in UDINE

- Last year a lesson ON the METAVERSE technology, use cases, new professions

- This year
  - a lesson ON the METAVERSE technology, use cases, new professions
  - a lesson IN the METAVERSE on one of the topics of the course (GPS technology and applications)
  - A 7 lessons course ON the METAVERSE IN the METAVERSE
    - Students of any year and any faculty
    - 50 places booked in 2 hours
    - 95% presences at the lessons

Metaverse Course

To organize a course in the METAVERSE you need

- a METAVERSE platform
- MetaSpaces and MetaRooms for the lessons
- the digital twins
- the AVATAR management tool

We found TechStar a, Metaverse enabler company, with their

- they configured MetaRooms and Metaspaces for the dif twins, animations, ….)

I searched and tested many platforms but must say tha anything with such performances

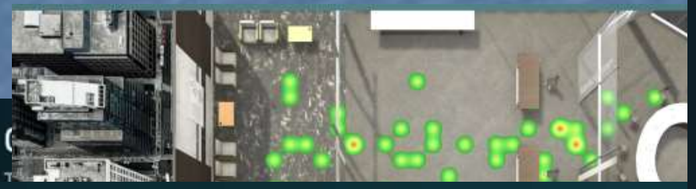
https://youtu.be/YmZZpnWak1M
https://youtu.be/DsPiNqL36dM

Metaverse effects on STUDENTS

- Huge increase in the average presences during the lessons (60%->95%)
- Increase of interaction during the lessons probably because “you don't show our face" and you are represented by our own avatar
- AVATARS depending on the mood of the day
- in the last year more than 50% of my thesis are METAVERSE related
- interesting proposals of METAVERSE applications for the end of course group projects

Dashboard

- Users timeline
- Actions/Reactions
- HeatMap
- Item Focus (video, digitaltwin, dress, …)



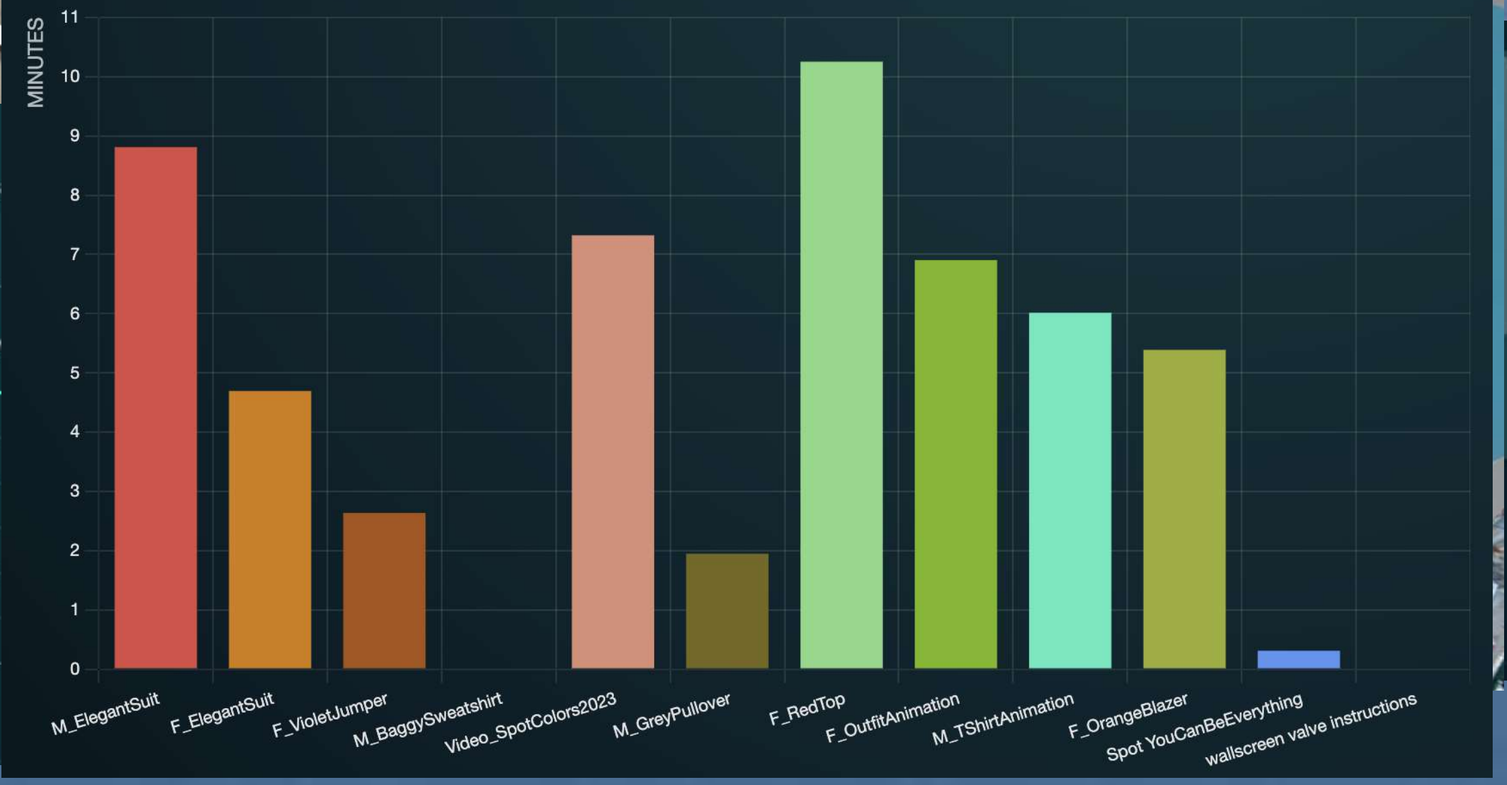
Reactions

The Reactions chart shows the total number of reactions, made by users during a MetaMeeting, breaking them down by type.

Items Focus

In the information tracked, the time interval in which there was focus, the distance between user and object in focus, and the object in focus emerge as significant infor

User | Distance (up to): 5 Meters | Item



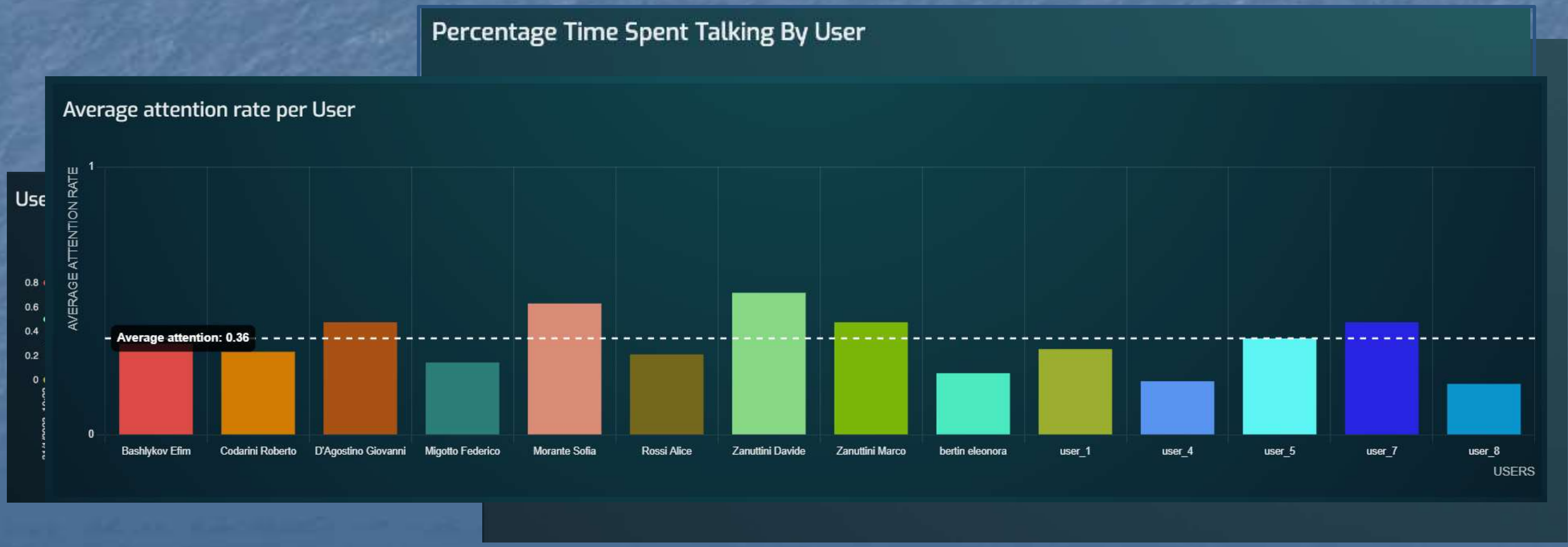
Items Focus

In the information tracked, the time interval in which there was focus, the distance between user and object in focus,

User | Item | Distance (up to): 10 Meters

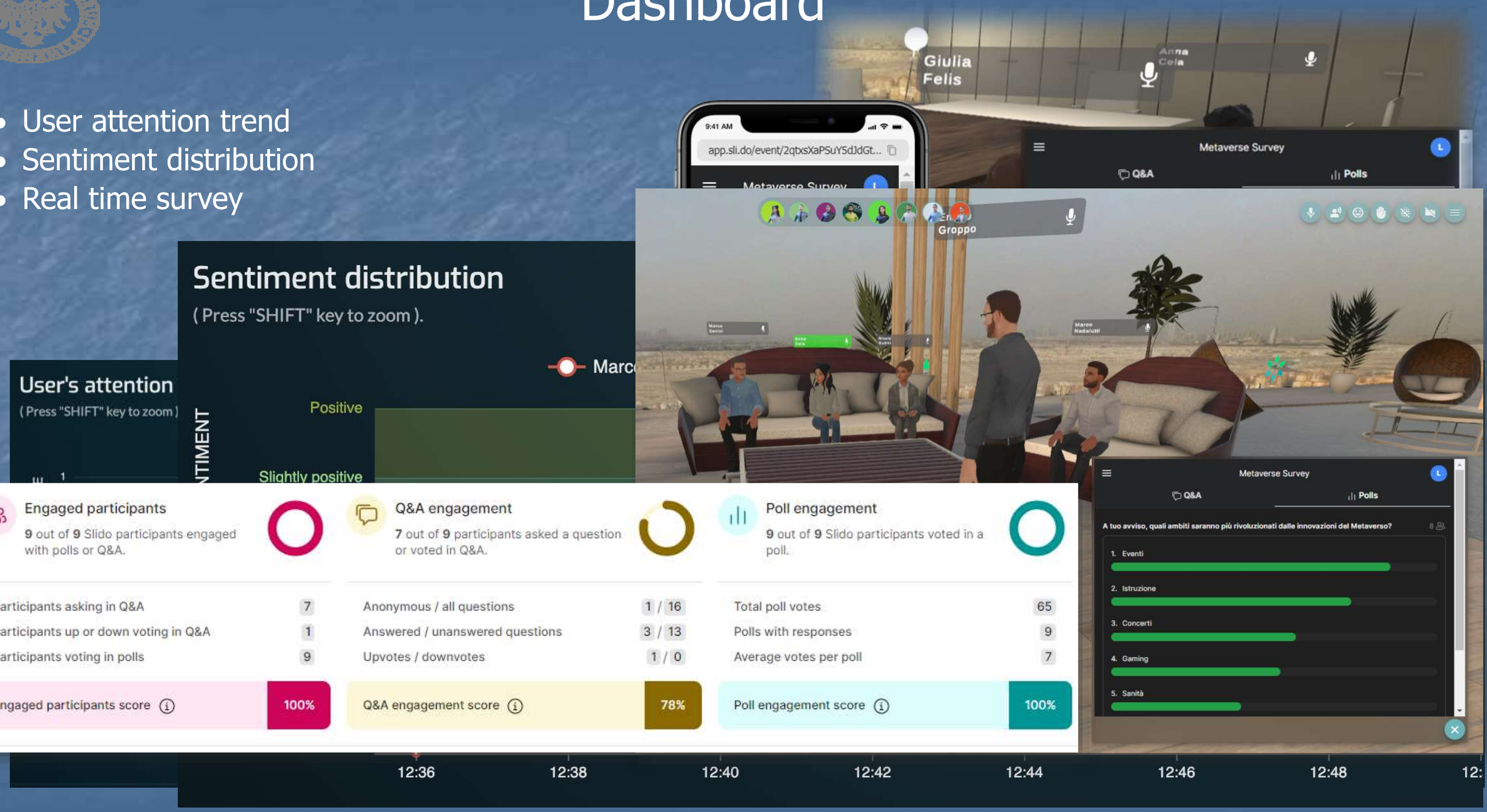
Dashboard

- Interaction among users
- Attention



Dashboard

- User attention trend
- Sentiment distribution
- Real time survey



Metaverse and teacher

This dashboard is giving very interesting feed backs on

- how to improve educational material (slides, videos, …)
- How to choose the 3D virtual environment depending on the topic of the lesson
- How to improve the organization/sequence of topics and modules
- How to manage the pace of lessons (intervals, voice, gesture, …)

In EUROPA the first call to finance research projects to build **CITIVERSE CLOUD EU** which is expecting GEOtechnology + METAVERSE experts to collaborate (25 million USD per 8-10 projects)

Focus on:

- smart communities
- sustainable mobility
- climate resilience
- energy flows
- zero-pollution

Metaverse Professions

The professions within the metaverse. Some of the common professions in the metaverse can include:

- Virtual content developers: create and design virtual objects, environments, and experiences within the metaverse
- Avatar designers: create and customize avatars for participants in the metaverse
- Metaverse architects: design and build virtual structures and environments within the metaverse
- Virtual world designers: create and curate themed virtual worlds or specific experiences within the metaverse
- Artificial intelligence programmers: develop algorithms and AI systems to make the metaverse more interactive and engaging
- Virtual social media managers: manage the online presence of businesses or public figures within the metaverse
- Virtual marketing experts: develop marketing strategies and promotions for commercial activities within the metaverse
- Virtual artists: create digital artwork, installations, and performances within the metaverse
- Virtual teachers and trainers: conduct courses and learning experiences within the metaverse
- Virtual support technicians: provide technical assistance and support to users within the metaverse

THANK YOU

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