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Benchmarking Trips –

AR VR INNOVATE Conference & Expo

26th May 2023 GLOW 2.O:

WP2: Immersive Technology Virtual Planetarium Development

Deliverable D2. 1.1

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Introduction

The main purpose of this trip was to further explore and gain knowledge in Virtual Reality Experiences, I wanted to explore the available options in the market to aid with the technical specification for the virtual planetarium.

ARVR is one of the premier conferences in Europe that focuses on commercial application of AR and VR, this event started in 2014. It has been at forefront in promoting business using AR and VR technologies.

There were three spaces for Talks, Demo & Networking

Main Stage

Which featured talks and panel discussion with the top minds and influencers in the technologies.

Panel Rooms

There were talks in different sectors in this area:

Tourism / Heritage/ Health/ Education/ Training

Exhibition Hall

There were fifteen different AR & VR application available in this area to try.

ARVR Innovate

- Expert Speakers: I discovered how AR and VR can transform the tourism industry as industry-specific speakers share their success stories and strategies for creating unforgettable visitor experiences. Imvizar director gave a demonstration on their app and how it uses AR to bring tourist sites to life: e.g., Spike Island Experience, Sligo Armada Experience & Dublin Docklands Tour.

- Networking Opportunities: I connected with people in the industry to explore collaboration opportunities.

- Industry Leaders & Product Demos: It was a fantastic opportunity to engage with industry leaders, experience innovative product demos, and see the latest immersive technology methods and tools from exhibitors across Europe.

I was able to use the Magic Leap 2 headset: it is one of the newest to the market: its headset resembles a pair of glasses as you can see in this picture, extremely light to wear and it also has over a 50% FOV.

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Key Learnings/ Recommendations:

- Immersive Stargazing Experience: VR could transport users to remote, light-pollution-free locations, allowing them to experience the awe-inspiring beauty of the night sky.

- Educational Content: Incorporation of educational elements into the VR experience, could provide users with information about various astronomical phenomena, stars, planets, and galaxies this may be an option however there are already apps available in the market with this information.

- Interactivity and Customization: It would be beneficial if the users could have the ability to interact with the VR environment, such as zooming in on specific celestial objects or adjusting the time and location to see different astronomical events.

- Customisation options like language preferences and accessibility features is necessary.

- Ensure the physical space is suitable, safe, and optimized for VR experiences.

- Ensure the user comfort and ergonomics by considering factors like headset fitting and motion sickness mitigation techniques.

- Optimize VR content for performance to deliver a smooth and immersive experience.

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Factors to consider when setting up VR experience.

1. **High-Quality Visuals:** To create a convincing and visually stunning VR experience, invest in high-resolution VR displays and rendering techniques that accurately depict the night sky.

2. **Real-Time Data Integration:** This ensures that the VR experience stays relevant and engaging.

3. **Multi-Sensory Integration:** Enhance the VR experience by incorporating multi-sensory elements, such as surround sound systems to simulate the sounds of nature, astrophysical phenomena, or narrations about the night sky.

4. **Accessibility Considerations**: Ensure the VR experience is accessible to a wide range of users. This involves supplying options for different languages, subtitles, closed captioning, audio descriptions for visually impaired users, and adjustable settings for comfort (e.g., motion sickness mitigation).

5. **Ongoing Service & Maintenance of equipment**.

Conclusion

In conclusion, ARVR Innovate provided me a unique opportunity to explore the market.

It gave the Irish Glow 2.0 partners a great insight for key learnings, recommendations, and factors to consider when setting up a new Virtual Reality system.

I received interest and positive feedback from people in the industry in relation to our project. Furthermore, the networking opportunities at ARVR Innovate enabled me to collaboration among stakeholders in the tourism industry.