

Making long duration airship travel worthwhile with VR

Proposal author and supervisor

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Background

Air travel is a major contributor to climate change because of its high carbon footprint. Replacing airplanes with airships could lessen the carbon footprint significantly because of more efficient fuel consumption, but the longer travel times – days instead of hours – goes against the current attitude that travel should be as quick as possible.

Is it possible to make long duration flights acceptable for a majority of long-distance travelers? Could the time onboard be made worthwhile? Maybe we could make the time spent on long flight times more worthwhile and entertaining, by using virtual reality for remote business meeting, and socializing with friends and family online. The purpose of this project would be to encourage and enable travelers to take airships instead of airplanes, thereby contributing to the decrease of carbon emissions from long-distance traveling.

Even though airplanes have an almost total dominance over air travel at the moment, there are a few companies trying to re-invent the airship. The UK based Hybrid Air Vehicles will build and sell a number of passenger airships to the Spanish Air Nostrum Group, to be used for domestic traveling. Both of these companies are potential stakeholders for the project.

Project description

The idea with the project is to create a design for how virtual reality can be used onboard an airship. This includes both hardware and software, such as:

1. VR headset and other hardware
2. Private cubicle adopted for VR use
3. Common room adopted for VR use
4. User interface for VR onboarding (optional)

The limited space per occupant, and the need for highly compact designs, needs to be considered.

The researcher proposing the project have already completed a literature review covering relevant areas, as well as writing a design fiction short story illustrating the concept of VR meeting and leisure on an airship. Design fiction is a way to use speculative design to have a starting point in work on disrupting technologies. It is a way to envision things that don't exist yet.

Tasks to work on next includes:

1. Explore travelers' preferences
2. Benchmark existing compact living solutions, for example on boats and airplanes
3. Design a solution for both physical and digital space
4. Illustrate the design solution, for example as a VR experience or design fiction story, or both (illustrating future VR using a fictional VR experience).

One thing to consider is the socio-economical target group. There is a tendency that air ships of the future are assumed to be for very luxurious travels. But if the usage of air ship is to have any major impact on carbon emission, then air ships must be economically available for most travelers. Think train compartment rather than luxury yacht.

Privacy is also important to consider, especially since an airship will be crowded and other travelers will be potentially close by, while VR users tend to prefer a high level of privacy.

Suggested reading material

“AltspaceVR at Microsoft Ignite. Microsoft Mesh”

<https://youtu.be/GBWmdQD5GkY>

Microsoft announces their vision to build VR meeting capabilities.

“New Rose hotel” by William Gibson

<http://www.lib.ru/GIBSON/hotel.txt>

Short story to get into the right cyberpunk, compact living mode...

Target group

The proposal is relevant for students from DV, D and IT.

Special prerequisites

Experience in both using VR and developing for VR is an advantage. But a curiosity for exploring the future is most important.