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○ Meeting new projects

Building a WebVR environment to bring historical shipping data alive

11:30 → 12:00 📍 Ruaha

The main objective of this presentation is to show techniques and technology that enable the proper display, exploration of spatio-temporal data using the WebVR environment. Which techniques and technology can we use to create VR environments? What is the added value of VR for spatio-temporal data exploration compared with the traditional Web? How to create a FOSS based WebVR geo environment? These are some questions we would like to answer. For this case study, we use the A-Frame framework with several customized A-Frame components and a data set about ships and crew members from the Prize Papers archive. The digitized interrogations of the Prize Papers are a vast and valuable collection of judicial documents, private letters, shipping lists and ledgers covering the period between 1652 and 1815. They provide an insight on trade routes, commodities were shipped, migration patterns of maritime personnel, the scope of merchant networks and about life on board. The display of all this data quickly leads to visual clutter. Data representation in VR might partly overcome this and help us to see and explore spatio-temporal patterns of the movements. One advantage of VR environment is the unlimited space which can be used for data representation during the interaction process with data. Therefore, in VR we can combine multiple dashboards in a single environment. In addition to this, the user may create additional dashboard views representing their interest in more detail. Although WebVR is a recent technology and not many frameworks/libraries exist at the moment, the power of it in displaying and analyzing spatio-temporal data. With some limitations it's possible to create spatio-temporal environments using current FOSS technology. The possibility of having the user surrounded by data representation in a 3D space and faster experience compared with normal Web. Usability research of the new environment is foreseen in a follow-up project.

Speakers on a session



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