Data Platforms and WebVR: Representations of the Buoy Experience

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WebVR is an experimental JavaScript application programming interface that allows internet browsers to render a three-dimensional scene without the use of any additional plug-ins. Visualizing data from an oceanographic research buoy in WebVR allows us to include the buoy in the representation. The goal is to create an online portal for information that reveals the sensing apparatus - in this case, an RI C-AIM buoy in Narragansett Bay - that is typically hidden or ignored in traditional visualizations of data.

The final project will be a WebVR representation of the buoy in its environment. Users will be able to manipulate 3D models of the buoys and learn more about the various technical components and their scientific applications. Users can also visualize what the buoy is sensing by querying the most recent data from the buoy hosted on the RI Data Discovery Center website. The data that is retrieved will be used to generate animations of the buoy "experience."