Seeing is Believing: Communicating Research through Virtual Worlds

Jiyoon Yi
Food Science Graduate Group, UC Davis

Motivation

- Being able to effectively explain complex research outside academia is incredibly important—for networking, collaborating, teaching, and leading
- Graphics can help, yet graduate education in STEM focuses on data visualization designed for academic papers and talks
- These graphics may not be easy for non-experts to read, limiting the learning motivation and engagement of the public

Five-Part 30-min Webinar Series

- The live webinar series was held on Zoom in April 2021 (20-min general info, 10-min live hands-on activities)
- Each session covered one topic in 30 min to enable asynchronous review in between and reduce Zoom fatigue
- **Collaborator—Communication**: Mary Martin-Mabby, Director of Communications and Marketing for Public Scholarship and Engagement (PSE)
  - PSE had previously developed a workshop on public communication of research values
- **Collaborator—Visualization**: Dr. Chris Simmons, Associate Professor of Food Science and Technology (FST)
  - Dr. Simmons had previously developed a workshop on 3D visualization and web deployment for FST students
- We adapted the workshops for graduate students and postdocs in all major
- We also developed a case study by applying the skills introduced in the webinar series to a research project

Topics Covered

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Project Goal

To provide graduate students and postdocs with resources to visualize scientific data for public communication purposes using a web-virtual reality (VR) tool that brings an interactive experience to target audiences

Audience Persona Analysis

Sample Worksheet

3D Visualization with Blender

Creating a Web-VR Page with A-Frame

An example Virtual Laboratory

Feedback

- 51 people registered, 23 attended
- 38 complete feedback provided through Qualtrics survey created for post-event evaluation after each session

- Many attendees expressed that the live hands-on activities & case study were helpful
- Attendees indicated that this webinar series provided a good starting point to increase the impact of their research

Resources & Future Plans

- The recording of the general info part is available on the GradPathways Institute YouTube channel
  - [Link](https://youtu.be/1hvcLqh4DCw)
- More resources related to public communication
  - [Link](https://publicengagement.ucdavis.edu/communicating-public-audiences)
- Given the positive feedback from attendees and interest in applying this approach to their research projects, Dr. Simmons and I will continue to promote the recording, especially to STEM majors, and write a paper in an education journal

Acknowledgements

- Mary Martin-Mabby and Dr. Chris Simmons, who were extremely generous with their time and in adapting their in-person workshops to this webinar series
- Teresa Dillinger and Ellen Hartigan O’Connor, who organized PFTF this year and supported me in structuring this new format of webinar series
- David Blancha for editing recordings to post them on YouTube, and Olga Garzón for logistics and advertising
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- My PFTF cohort, from whom I learned a great deal over the year-long fellowship