

Assignment 8: Replicating Interaction Techniques (20P)

Hand in in groups of two (or three).

Estimate about 30 hours of work per group member for the whole assignment.

Goals

You understand how complex interaction techniques can be implemented. You can implement interaction techniques based on their description in a scientific paper and supplementary material.

1 Documentation

2P

Search for scientific papers that describe the concept and/or implementation of new interaction techniques. **Demonstration** and **short paper** tracks of conferences such as UIST, EICS, MobileHCI, and CHI might be a good starting point. You can also use projects that were discussed in our journal club – either this year or in recent years. Please do not select a paper that has already been covered in the *Replicating Interaction Techniques* assignment in recent years. You can find an overview of these papers in the *Replicating Interaction Techniques* GRIPS forum.

First, collect papers you find interesting. Then, exclude everything that is not possible to be implemented within **two weeks**, for example because of hardware requirements, or because you would have to gather a lot of training data first. However, feel free to build upon existing code and/or training data. Then, decide which prototype you want to implement and/or extend. Document this process.

2 Implementation

15P

Implement or extend the interaction technique described in the paper. You do not have to build a feature-complete copy, but the general interaction should be similar. If you decide to extend an existing project, your addition should be focused on interaction.

3 Presentation

3P

Present your work at the last ITT session on July 24. You should briefly present the background and interaction technique of the chosen paper. You should also explain the implementation process, the problems you faced, and the limitations and advantages. The presentation should last up to 10 minutes, including a short demo video of your prototype (about 30 to 90 seconds). Please create an entry in the GRIPS forum *Replicating Interaction Techniques* for the paper you are replicating. Also, add the demo video to this post.

Document decision process, implementation, and usage of your prototype. If you are unsure about the project's scope or need access to specific hardware, feel free to ask.