Ask us questions and clarifications at any time !!

Welcome to our study. The purpose of this work is to determine the best placement of meta-data, such as annotations, when combining visualizations on monitors with AR content.

Please read and sign the consent form.

First, we'd need you to install the software on your Hololens.

Download the experiment Toolkit at https://transfert.u-psud.fr/k61c

(Installation steps, done with Experimenter)

1. Connect HoloLens to computer with USB key
2. Download the application (link above). Un-rar it.
3. Open the browser and enter the following address: 127.0.0.1:10080
4. You need to then authenticate (login) to your Windows Device Portal. If you don't have an account, you can create one (or recover it) - Link for no accounts
5. On your browser, click on View and go to Deploy Apps. Click on Search and find the package you downloaded => .\Monitor\Depthinviz_1.0.41.0_Win32_Test\Depthinviz_1.0.41.0_Win32.appx
6. Click on Install and once you see the message Done, we are ready to go.,if the application is inside Views->Apps in the portal in the running list, close the application
7. Check in the running App list in your browser to make sure that the DepthVis application is closed after deployment.(might need instruction to guide how to install the appx file).

(Running the application & Calibration)

1. Open HoloLens Application"**DepthViz**" and hit the "Connect" Button.Don't hesitate to look around
2. Hit the create room button in HoloLens
3. Give permission to the camera
4. Open the Desktop.exe on your computer and maximize the window. \Monitor\Windows\Desktop.exe
5. Give access to the private network
6. Click connect and click join room on your computer
7. Monitor Position Calibration
    a. (On the Desktop) Get a card with the same size as your bank card (e.g., student card, library card, bus card). Put it on the monitor on the white rectangle. Use the slider to adjust the white rectangle to be the size of your card (holding your card on the monitor as a guide).
    b. (On the Desktop) Read the instructions on the screen to calibrate the scene. Try your best to keep your **eyes at the same level as the marker** on the screen. Click the "show marker" to perform the calibration.
8. Monitor Size Calibration

a. Now you need to use the Horizontal slider and the vertical slider to adjust the size of the rectangle inside the HoloLense to be the size of your workspace. Try to not set the rectangle's size out of your screen borders.
b. Click "sent to HoloLens' button and then Click on "finish" button.

9. Inform the experimenter when all steps are done.

8. At meanwhile read the following scenario before you start

Before 1st task: In our study we will combine a monitor with AR to visualize content. The goal of the study is to decide where to best place meta-data information (such as annotations). We will give you a task and ask you to find specific information - in 3 conditions (where AR content is placed at different positions). In the end we will ask you to express your preference and customize them, based on what you saw.

So let's start …
You are a Student visiting Paris, looking for a place to stay. A friend has indicated you need to make sure it is easy for you to reach a neighbourhood from your hotel. Pan to find an area (the area with blue nodes) that a friend has recommended has great nightlife. You focus on that area in the map. You are looking for a hotel that has easy access to this area (on a station on a line that goes through it).
- You have heard that not all lines are reliable so you want to choose a hotel on the line that has the less incidents on average (the tooltip indicates the number will jump out when you click on the metro line).
- Each metro station gives a hotel that is close by and it's price [info on annotation. You look and look for the cheapest one (no money).
In summary: pan to neighborhood, find line with less incidents, find cheapest hotel on it.

Tutorial section
Don’t click on the recalibration button.
This is a training session for you to try the task and system. Try to play with the map by yourself, please do not click on any buttons. Drag your mouse on the black playground to move the map. Click on the metro to see the name and Incidence number,click again to make Hover on the metroline and click on them to explore the details.

We are now moving to the main trials. Try to tell us what you are doing at any given time, and if the placement of the information (metro station highlights, station names, station info) are easy to read.

Depending on condition:
- in this condition all the AR info will be at the same level as the monitor
- in this condition the AR info will be placed in the area between you and the monitor
- in this condition the AR info will be attached to your headset and follow you around

- in this condition we will not ask you to do the task, but rather to arrange the different information (station names, info, hightliights) the way you want them. Please explain to us your choices - EXPLAIN interaction

Task1. Click on start task to start. mouse Click on the metrolines for detailed incidence number. Select the metroline with the smallest incidence number and find the cheapest hotel and write down the name of the hotel.Hit next task to end the task.

Task 2.Click on start task to start, finish the same task as task one. Hit next task to end the task. Note: the number of metrolines and nodes are changed.

Task 3.Click on start task to start, finish the same task as task one. Hit next task to end the task. Note: the number of metrolines and nodes are changed

Task 4. Use the sliders on the bottom left corner to adjust the depth of labels, annotation and highlights until you think is suitable for you.