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Contextual Information Visualization on AR platforms in Data Center

While the reality is three-dimensional, the rich information we now have to inform our decisions and actions remains trapped on two-dimensional screens. The gulf between the real and digital world limits us from accomplishing complicated tasks with enough information. While information visualization on AR remains challenging, this thesis explores the space by understanding the data center scenario and generating interactive prototypes.

COGNITIVE LOAD

Cognitive load refers to the amount of information that a user can hold at one time. Reducing cognitive load has been the most prioritized task in the thesis.

Methods like splitting up the screens, providing [hide] feature, and simplifying information architecture are current measures we took to handle the load.

UI COPY & TERMS

User-Interface copy refers to labels for commands that appear in buttons, menu items, and other action-oriented elements in the user interface. Based on my research, users will get better reactions from commands they already use in the current working environment. So UI copy becomes one important category to consider regarding the actual design. Using glossary terms like tickets [to replace tasks] and cabinet [to replace IT equipment holding device] is one of the design criteria.

Besides that, literature reviews also help me develop guidelines when phrasing commands in the interface.

1. **Describe the consequent state**, not the current state.

2. Use **verbs for commands that initiate an action or submit information**.

3. Use **adjectives for commands that trigger a change in the state of the system or the appearance of an element in the interface**.

4. Use **consistent command words**, even if appearing in different contexts.

RtD & PROTOTYPES

This thesis practices the Research through Design approach, which uses different forms of prototypes as probes to engage different audiences. Thus far, we have used information architectures and low-fidelity screen-based prototypes to validate some of our initial manifestations. As pushing the project forward, we are entering a different phase where we will utilize motion-based tools like Unity 3D, Cinema 4D, and After Effects to prototype time-based prototypes to further illustrates our design ideas.

INTERFACE