Improving Search Time Performance for Locating Out-of-View Objects in Augmented Reality

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Motivation

Locating virtual (e.g., holograms) or real objects (e.g., vehicles in a traffic encounter) in head-mounted Augmented Reality (AR) can be an exhausting and frustrating task.

Approach

We aim to improve the search time performance for locating out-of-view objects in Augmented Reality. We compare three variants of EyeSee360 with different levels of visual information (assistance) in a laboratory user study.

Variants of EyeSee360

No helplines
Zero helplines
All helplines

Subjective Questionnaire

Performance: I could quickly locate the out-of-view objects.

Distraction: I got distracted by the visualization.

Search Time Performance

Variants with less visual clutter (no and zero helplines) perform significantly better.

Contact

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