Charting the Current Trends in See-through Heads-Up Concepts

Virve Inget, Jonna Häkkilä, Juho Rantakari and Jani Väyrynen

Center for Internet Excellence
University of Oulu, Finland
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- An overview of current concept trends in the area of see-through heads-up displays.
- We charted different application domains and form factors of the existing, promoted and envisioned product concepts.
- An array of concepts was identified and further clustered to categories of Helmets, Glasses, Car Windshields and HUDs and Visionary Concepts in the Media.
Helmet concepts

• Helmet-mounted display (HMD) concepts and solutions that address the challenge how drivers can keep their situational awareness within limited view the helmet is providing.
Glasses concepts

- Head-worn devices, typically resembling eye masks, goggles or spectacles that are positioned near the user’s eyes.

www.google.com/glass/start/

www.oakley.com/en/airwave
Car Windshields and HUDs

• Vehicle and driving context related information is provided for the driver in a way that does not distract driver from the main task of driving.

• Stand-alone devices, mobile apps, build-in projectors and transparent displays.

www.hudwayapp.com

www.landrovergrip.com/tag/evoque/

www.lumineq.com/en/products/tasel
Visionary Concepts in the Media

• Visionary concepts present user interfaces and visual details that would often be hard to achieve with current technologies and where the usability has not been a requirement as such.
Conclusions

• The technology **trend is growing and provides an inspiring domain for application**, user interface, and industrial designers.

• The multitude of technologies ensures that there will be **suitable platforms for augmented and mixed reality applications for various situations** whether it is everyday use wearing glasses, driving a car, or watching the outside world through one’s window at home.

• The key factors in the successful adoption of new technologies is how well they are **designed to embed to our existing world without interfering with everyday life**, and how well they support our senses to enrich our experiences.
Further work

• The study can be used as a primer to familiarise oneself with basic concept ideas around the see-through heads-up displays.
• Further studies will be conducted for example how to differentiate designs between different use cases and contexts.
THANK YOU!

Center for Internet Excellence
User Experience Team
University of Oulu, Finland
www.cie.fi