# **User-Defined Game Control with Smart Glasses in Public Space**

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#### **ABSTRACT**

Without specific game controller and direct-touch, game control on Smart Glasses differs with existing console and mobile games. Although current game control set on Smart Glasses is explored by developers based on system limitation, the set is not reflective of user behavior. To create better game control, we presented an user-defined game control study in public space to collect user behavior. In all, 2448 game controls from 24 participants were logged, analyzed, and paired with think-aloud data for 17 commands performed with 3 interaction methods (On-Body, In-Air and Phone) and 2 glasses forms (Google Glass and Epson BT-100). Our findings indicate that users choose area relatively unobtrusive to perform the game control, and glasses form does influence how users creates game control. We also present a complete userdefined game control set with agreement scores and taxonomy. Our results will help designers create better game control sets informed by user behavior.

## **Author Keywords**

Guides; instructions; author's kit; conference publications; keywords should be separated by a semi-colon.

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## INTRODUCTION

**RELATED WORK** 

**Game Control** 

Glass Input

**Gaming in Public Space** 

**User-Defined Gesture** 

**DEVELOPING A USER-DEFINED GAME CONTROL SET** 

**Overview and Rationale** 

**Game Task Set** 

**Participants** 

**Glass Forms** 

**Interaction Methods** 

**Procedure** 

**RESULTS** 

CONCLUSION

**ACKNOWLEDGMENTS** 

**REFERENCES**