GAMES FOR VISUALLY IMPAIRED

Brian Tran Electrical Engineering & Computer Sciences University of California, Berkeley

BACKGROUND

- Technology applications are generally not designed with the blind in mind
 - Newest technology products (Google, Microsoft Windows, Facebook)
 - Daily life technological applications (ATM, PCs, websites)
- Access to technology applications would empower the blind to be more active in society
- Research with audio games has shown blind children more adept at certain tasks and more confident around non-blind children

APPROACH

- Study previously done projects on games for the visually impaired
- Find aspects of games that lead to improved skill and confidence
- Use findings to develop schema for game design

COURSE RELEVENCE

Child psychology by Piaget and Vygotsky

- Zone of proximal development and scaffolding
- Social identity
 - Role playing with others
- Ethnomethodology
 - Blind and non-blind children can play with one another and gain better understanding
- Symbolic interactionism
 - Games can make players expect certain things in the real world

LEARNING EXPECTATIONS

• Psychology of blind people

Impact of technology on life of visually impaired

• Understanding daily life of blind people

SUCCESS CRITERIA/EVALUATION

- None of the shortcomings of studied previous projects for the visually impaired exist in the schema
- Self-test
 - Basic run-through of lo-fi prototype with eyes closed to ensure usability for the blind