

ABSTRACT

Unlike more tactile devices, the uniform glass screens of smartphones make mobile games uniquely challenging to visually impaired users. This project focuses on researching and conceptualizing game design practices that can make mobile games more accessible, thus enabling those with visual impairments to participate in a gaming platform that millions of others enjoy every day.

METHODS

For this project, the authors focused on designing for resources already available to visually impaired users. These include software such as screen readers and magnification tools, as well as ubiquitous hardware elements such as speakers and phone vibrations.

The authors also studied several other sources. They examined existent literature on the subject of digital accessibility, researched modern practices in accessible user-centered design, and even reached out to organizations for the visually impaired.

RESULTS

- Increase communication through non-visual means
- Make text readable by screen readers by using plain text rather than graphics
- Communicate information through sounds and vibrations
- Use contrasting colors to aid partially sighted users
- Make buttons large and easy to press
- Include alt-text for important graphics
- Add native voiceover features

TapShot Mockup Screens

Title Screen:

- Large buttons
- Bright, contrasting colors
- Audio playback option available

**Gameplay Screen:**

- Independent of visual elements
- Bright, contrasting colors
- Audio playback option available

