

Echo Vision and Scope Document

Tyler Hasty, Timothy Iseri, Eduard Bolanos, Charles Pelton

1. Business Requirements

1.1 Background

Many pleasant, constructive and engaging childhood experiences over the last several decades have been strongly influenced by video games and the perpetually advancing technology and additional elements which constitute the medium. My childhood was among those adhering to this pattern. One day when contemplating how the affliction of blindness might impact experience of the world, I began to reflect on my childhood experience; it occurred to me, as it never had before, that my experience of video games would have been radically altered. This line of thinking led me to study the ways in which those afflicted by visual impairments actually do experience video games. In this pursuit I learned about what factors enhance the experience of digital games, and what factors inhibit or prohibit such experience. The goal of our product is to fill the market void for entertainment mediums which are fully accessible to customers with visual impairments. Historically the divergence between mainstream content and accessible content has increased dramatically as graphics technology has advanced considerably.

1.2 Business Opportunity

This product will provide full accessibility and equivalent user experience between users with visual impairments and users without visual impairments. Traditional games which rely heavily on visual elements and interactions fail to provide the same level of engagement for users with visual impairments, and this product intends to remedy this disparity by heavily increasing reliance on tactile and auditory elements.

Customers who constitute the target market for this product require responsive feedback which is not hindered by the presence of any stimulus they are not fully and conveniently capable of experiencing, comprehending and responding to. All barriers to this type of experience found in traditional, competing products, will be removed and/ or substituted. User experience with the product must be of maximum and equal quality irrespective of visual impairment.

1.3 Business Objectives

1.4 Success Metrics

Specify the indicators that stakeholders will use to define and measure success on this project. Identify the factors that will have the greatest impact on achieving that success, including factors both within and outside the organization's control.

1.5 Vision Statement

For users with visual impairments who desire to experience digital games in the same capacity as general audiences, Echo is an audio-based digital game that allows a complete, engaging and unencumbered entertainment experience with zero reliance on visual data, unlike traditional video games our product provides the same experience and accessibility to all users irrespective of visual capabilities.

2. Scope and Limitations

2.1 Major Features

List the product's major user capabilities, emphasizing those that distinguish it from competing products.

Use of vibration patterns to indicate distinct stimuli and circumstances; strong reliance on auditory stimuli and binaural audio feedback; text-to-speech implemented for all interface interactions for maximum convenience.

2.2 Scope of Initial Release

"Echolocation" auditory feedback mechanic; text-to-speech based menu interfaces; one fully implemented maze-like level, including puzzles and other interactions, through which user can progress from beginning to end.

2.3 Scope of Subsequent Releases

Additional game levels with greater degrees of complexity, including harder puzzles, a larger maze to navigate, and different adversaries with unique characteristics; aesthetic and atmospheric elements like soundscapes and other elements to increase engagement but which do not impact functionality.

2.4 Limitations and Exclusions

Comprehensive narrative background to accompany the game; fully developed soundscapes and music tracks; a complete progression of planned game levels (it is possible there will only be time to implement a certain number of maze levels).

Visually appealing assets for users who do not have visual impairments (these will have little to no impact on the quality of user experience with the final product)

Trello: <https://trello.com/b/WgKV5QVZ>