**Deliverable B: Need Identification and Problem Statement**

**Intended Users**

Shabodi is our primary client, however we are also designing a product that Shabodi can market to their current clients as well as future potential clients in mind. The sectors these clientele work in (and examples of their specific roles) are:

* Banking and Finance: Presenters
* DIY market: Tech enthusiasts, Learning kits
* Education: Secondary, Post secondary (Teachers and Students)
* Government: Politicians, Military
* Health industry: Visual and auditory impaired, Rehabilitation care
* Manufacturing: Machine maintenance workers
* Mining: Mining engineers, Rock blasters
* Seaports: Seacraft navigators, Deckhands
* Sporting: Sports broadcasters, Players
* Travel: Pilots, Navigators, Guides

**Bench Marking**

**Table 1:** This table contains information found through research (see reference page) for the purpose of user bench marking.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Products | **Ray-Ban Meta Glasses** | **Apple Vision Pro** | **Moverio BT-40** | **Navilens** |
| Summary of Reviews | Comfortable and lightweight but suffers from lack of software support and poor image quality (Kamen, 2023). | Lack of features/apps, poor resolution/field of vision and a non-responsive user interface (Fuller, 2024) | Uncomfortable to wear, blurriness around the edges of images, lack of software compatibility (Stevin, 2021). | Excels at assisting users with navigation around an urban area. No real issues (Navilens, 2021). |

**Table 2:** This table contains information found through research (see reference page) for the purpose of technical bench marking.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Specification** | **Priority** | **Ray-Ban Meta Glasses (Ray-Ban, n.d.)** | **Apple Vision Pro (Apple n.d.)** | **Moverio BT-40**  **(Epson, n.d.)** | **Navilens**  **(Navilens, n.d.)** |
| Reliability  (connectivity, processing speed) | High | Sensitive to water and unrefined software. | Does not work when in motion. Multiple software issues in long use cases. Latency when using pass-through display. | Tendency to overheat. Does not connect with apple products easily.  Optional wired connection | Reads Navilens code quickly. Needs internet connection to function. |
| Usability (accessibility, user-friendly design) | High | Can record videos, make calls, live-stream, and listen to music. Connects via Bluetooth. | Watch movies, record videos, make calls, livestream, and listen to music.  Uncomfortable for extended use. | Vision isn’t obscured while being worn. User interface layout can be confusing. Not fitted well. | Difficult to line up camera. In addition, to poor aspect ratio. Built in narrator option. |
| Weight | Low | Slightly heavier than sunglasses | Too heavy | Equally distributes weight across the head. | N/A |

**Need Statements**

**Table 3:** This table contains the need statements listed in descending priority.

|  |  |
| --- | --- |
| **#** | **Need** |
| 1 | Showcase the capabilities of Shabodi’s Developer Sandbox and NetAware APIs (Marketable) |
| 2 | Provide visual and auditory guidance to user |
| 3 | Consistently dependable (i.e. low latency, real-time experiences) |
| 4 | User friendly: easy to understand and use in everyday situations |
| 5 | Easily adaptable for specific use cases |
| 6 | Returns feedback to Shabodi |
| 7 | Compatible with all types of smart devices (i.e., desktops, smartphones, etc.) |

**Problem Statement**

Showcase Shabodi’s Developer Sandbox through the creation of a comprehensible and modular system that provides help for users of varying skill levels through high-quality, real-time experiences, while returning user feedback to Shabodi’s NetAware API.

**Unknown Information**

The following information is unknown but required: date of access, capabilities, and potential uses of Shabodi’s sandbox. Compatibility of Shabodi sandbox with host hardware and which kind of software it can run. Specifics on targeted users, marketing strategies. What is the ideal form of a final project? What is the ideal presentation of a final product? What is considered a final product for this project?

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