TOM (The Other Me)

A Development Platform For Wearable Intelligent Assistants

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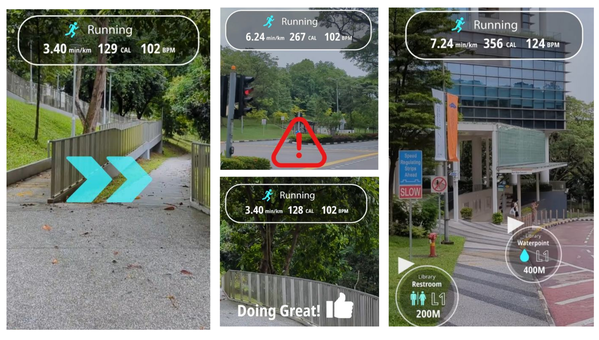
How to minimize the development challenges of wearable intelligent assistants?

We introduce ***TOM (The Other Me)***, a conceptual architecture and open-source **software platform** that facilitates the development of wearable intelligent assistants. It is designed for **cross-device** support, understanding both **environment and user**, enabling **multi-modal interactions** for intelligent, **real-time** assistance.

Running Assistance

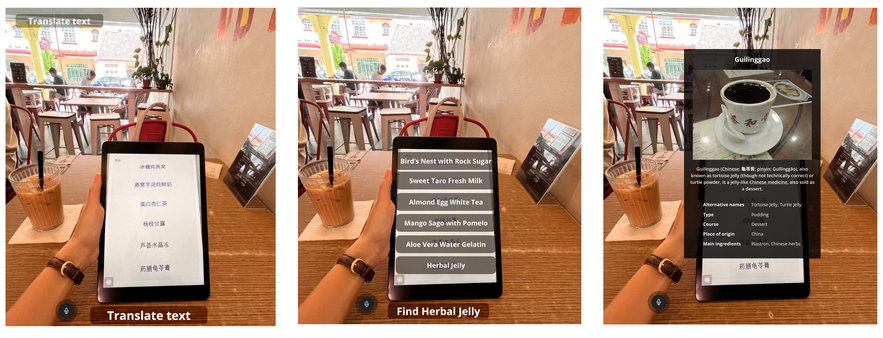
Provide **real-time coaching** during daily running and supports **training** for competitions.



- Training **guidance** (speed, directions ...)
- **Proactive feedback** on potential dangers and motivational encouragements
- Details the locations of water points for hydration
- Summary, **Retrospection**

Translation and Querying Assistance

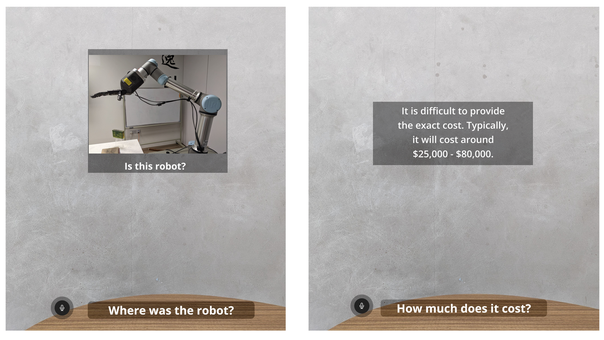
Answer user queries in real-time during activities such as shopping, dining, and learning.



- Translation support for multiple languages to **facilitate communication**.
- **Querying information** on both physical objects and digital data using **voice, gaze, gestures**.
- Displays images relevant to user queries to **enhance understanding**.

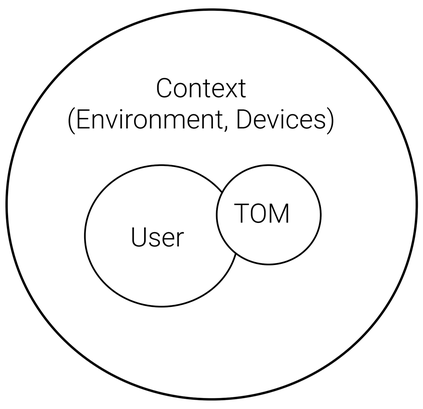
Memory Assistance

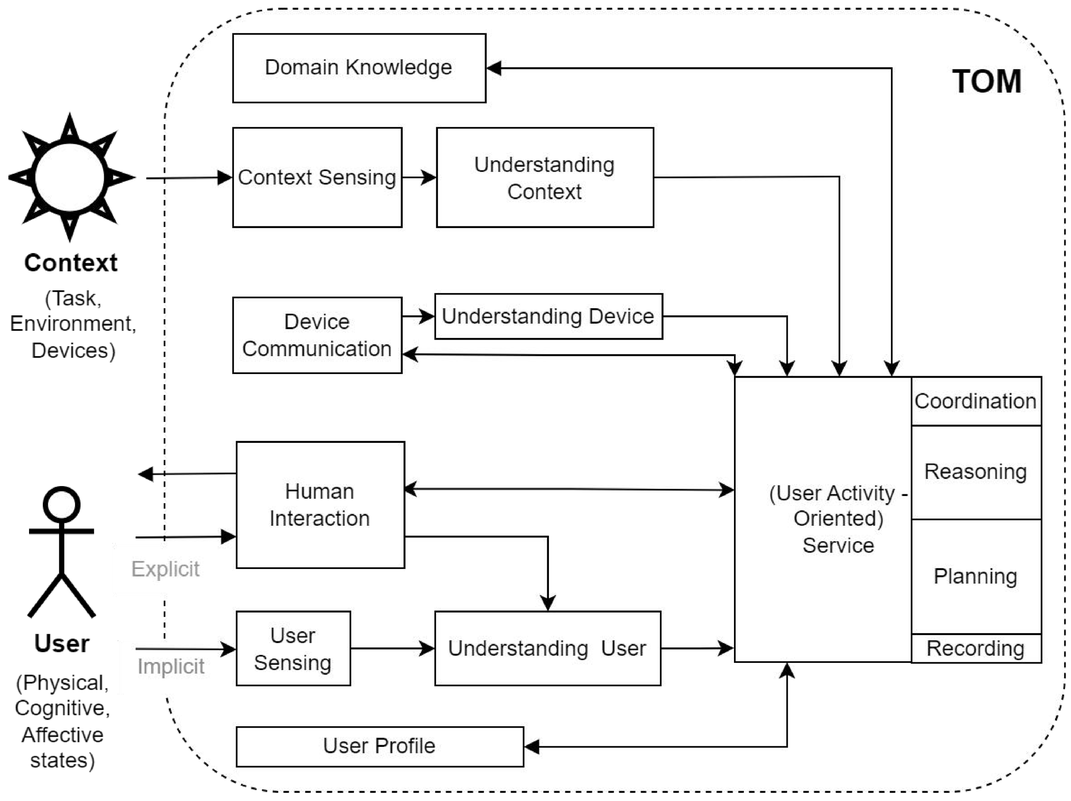
Assist users in **recalling details** such as forgotten locations, names, and items.

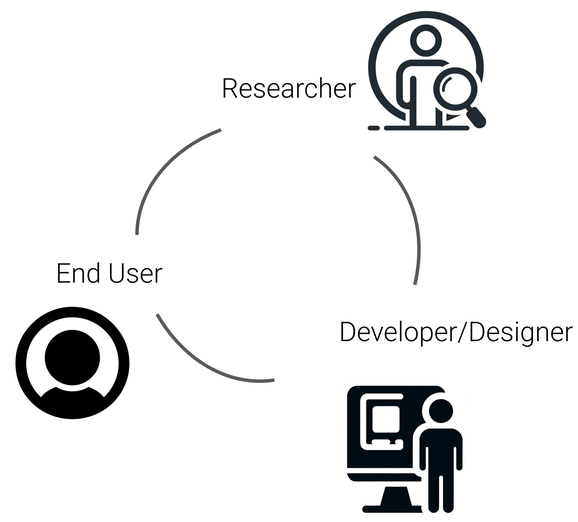


- **Remembering** and **recalling** both **visual** and **auditory** information.
- Facilitates querying of detailed information

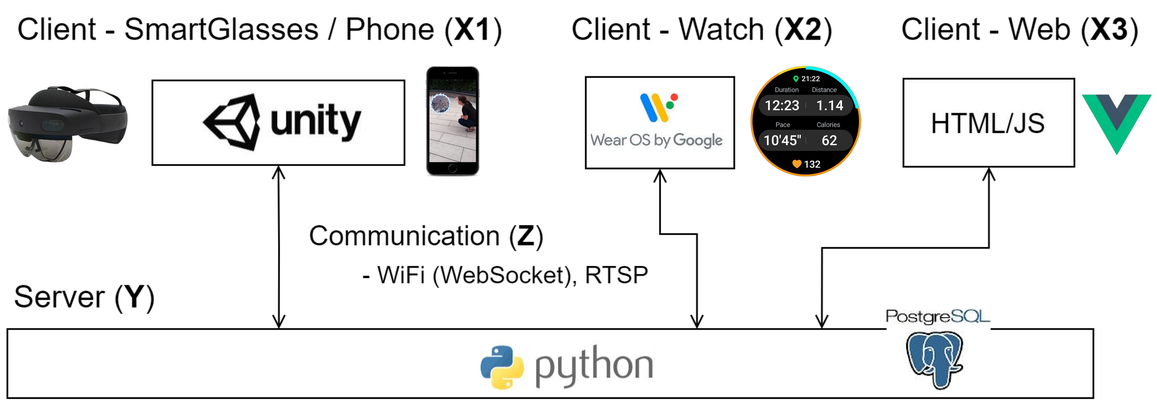
Conceptual Architecture



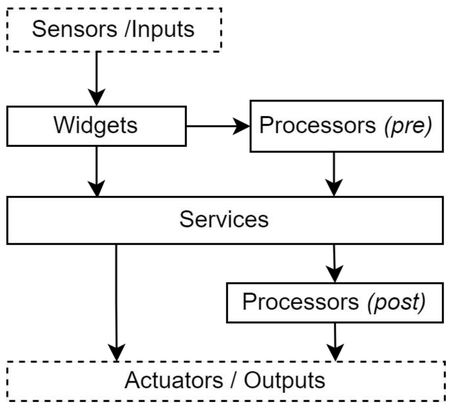




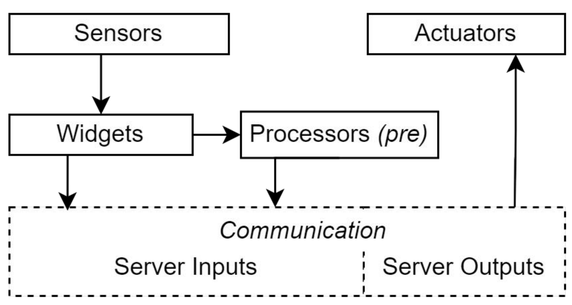
Physical Architecture



Overall Architecture



Server Architecture



Client Architecture

https://github.com/TOM-Platform

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