

Building a virtual/ digital avatar to host visitors and augment PSA staff to support visitor and patient queries

A. Problem Statement (current state)

As part of Synapxe's move to its new office premises (scheduled for 2024), we are exploring the use of a virtual or digital host to support hosting capabilities for visitors to the office premises. This virtual host would need to take on certain hosting responsibilities (with a limited scope), including a guided tour and answering questions based on a curated data set. The virtual host should be interactive and able to respond to queries verbally posed by the visitor, much like how a human host would interact with and respond to a visitor in a typical setting.

The use of a virtual host at the new office premises serves a bigger purpose. It is a potential digital solution to support and augment front-facing staff at public health institutions (PHI) and polyclinics who are continuously engaging and addressing appointment-related or general queries from patients and visitors. The new office premises thus serves as a test bed to deploy virtual host as a potential solution to aid Patient Service Associates (PSAs) and other similar use cases.

PSAs play a vital role in supporting front-door processes and operations in PHIs. They are the first point of contact for patients and visitors at the polyclinics and ensure they are right-sited. Visitors and patients, whether due to a lack of understanding of the process, information, awareness of tools and services available to them or understanding how to navigate them (e.g. user kiosks), continue to engage and enquire with PSAs despite the processes and tools in place. Consequently, PSAs have to manage administrative queries and processes while juggling multiple visitors and queries, which can be time-consuming and messy. This may result in a poor user experience and create a stressful environment for PSAs and visitors alike.

From initial conversations with the PSAs, they have shared some key existing challenges:

1. Managing multiple repetitive patient queries and administrative tasks

A PSA's job scope can vary depending on the healthcare setting and specific responsibility assigned. Generally, their role includes providing administrative and clerical support, including patient registration, appointment scheduling and reminders, financial counselling, billing and payment processes, etc. They often handle a large volume of administrative tasks and patient inquiries, leaving them less time to focus on more essential tasks or on exception cases, especially during peak hours when the polyclinics are busy with a large number of visitors and patients.

2. Unable to allocate more time to manage patients and/or caregivers where more time and care is required

As PSAs are often the first point of contact for patients seeking healthcare services, they are also on the front lines of managing patients and/or caregivers who may be experiencing difficult situations and circumstances. Having to manage and juggle patient inquiries while navigating them through the kiosks and tools that were meant to take on these tasks, leaves them less time to manage patients and visitors that require more time and care. This can be physically, mentally, and emotionally taxing and exhausting for both PSA and the patient.

3. Unable to address and answer medical information queried by visitors and patients

PSAs, being the front-line staff, often interact directly with patients and are sometimes queried about medical information and support. They act as a bridge between patients and medical providers, conveying patient concerns and gathering necessary information for medical staff. The biggest misconception is that a PSA is assumed to be a medical profession (e.g. nurse) equipped with relevant medical knowledge to educate patients about their medical condition and treatment plans, explain medical procedures and answer patient questions about their health or medical appointment. While PSAs are not licensed medical provider, they are expected to acquire a basic understanding of medical information to allow them to communicate effectively and provide necessary information and support to patients.

B. Challenge Statement

How might we deploy a digital avatar as a host and aide to augment staff at the new office premise and potentially as aides to PSAs and other similar use cases?

C. What are we looking for? (To-be State)

We are looking for a digital avatar solution that can be trained on a curated set of data to interact with visitors at the new office premises, which will serve as a test-bed to test the viability of deploying a virtual as an aide to support and complement the work of PSAs.

The virtual host may potentially double up as a virtual ambassador that can be use by institutions in their awareness campaigns, including marketing, training, social media, etc. that would replace the need to rely on humans, celebrities, influencers for their marketing platforms.

Outcomes of the to-be state include:

- **Immersive user experience:** A digital solution that can deliver an immersive and exceptional experience to users (on guided tours at the new office premises, or visitors to polyclinics)
- **Reduced reliance on PSA to address general and administrative enquiries:** Virtual host is able to provide instant responses to routine patient inquiries, appointment scheduling and basic medication information, freeing up PSA time and allow PSA to spend more time to assist medical professional. With appropriate training to delivery basic medical care such as visual equity (eyesight test and measuring eye pressure), venipuncture, etc.
- **Patients empowered to self-care:** Able to provide interactive health information and educational resources to empower patients to be more informed reducing the time spend explaining the medical information.