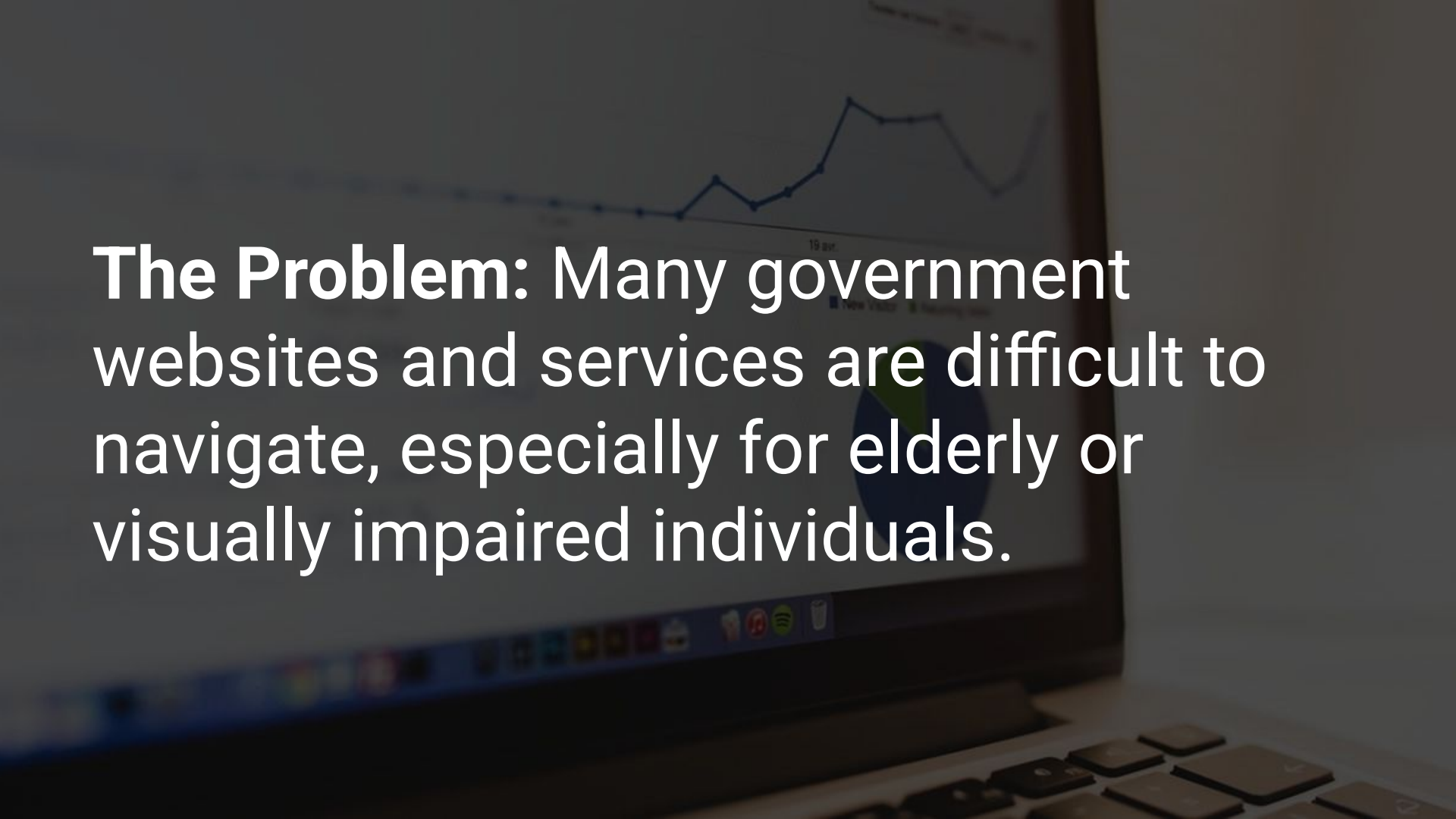
# ChatPSI

Your Simple Gateway to Public Service Information



**The Problem:** Many government websites and services are difficult to navigate, especially for elderly or visually impaired individuals.

# The Team

*Double Trouble*

## Hope Mabuza

Hope is a dynamic junior data scientist with a robust background in IT

## Motsekuwa Malefane

Motsekuwa is a passionate and detail-oriented Data Scientist with a background in Information Science and Engineering

# The Solution

**What Is ChatPSI?** ChatPSI (Chat Public Service Information) is an AI-driven chatbot designed to guide users through the often complex maze of public service information. Built with natural language processing (NLP) capabilities, ChatPSI understands user inquiries and offers precise, easy-to-understand responses—whether users need to know how to renew documents, locate local healthcare facilities, or navigate other government services. The interface is designed to be intuitive and accessible, with a focus on simple conversation rather than overwhelming webpages or menus.

# Key Characteristics

**Accessibility and Inclusivity:** The solution is tailored to meet the needs of populations who often struggle with navigating digital government services, notably the elderly, visually impaired individuals, and those with limited digital literacy.

**User-Centric Design:** ChatPSI emphasizes a conversational interface that communicates in plain language. This design removes technical barriers and provides a seamless user journey from question to answer.

**Efficiency in Information Retrieval:** By parsing complex government data and directing users to the exact piece of information they need, ChatPSI minimizes time spent searching and reduces frustrating navigation through cluttered websites.

**Multimodal Capabilities (Potential for Expansion):** Although initially designed to simplify text-based queries, the framework can evolve to incorporate voice commands, multilingual support, and even visual aid integration to better serve diverse communities.

# User Persona (Nomsa Moyo, 68)

## Background

A retired educator living in a semi-urban community in South Africa, Nomsa enjoys staying connected with community events and local services. Although she owns a basic smartphone and is familiar with calls and texts, she struggles with complex digital interfaces.

| Challenges | Needs | Goals |
| --- | --- | --- |
| • Difficulty navigating cluttered and information-dense government websites | • A simple, conversational interface that talks her through the process of accessing services like document renewals and healthcare facilities | • To access public service information independently without relying on friends, family, or caregivers |
| • Struggles with small fonts and intricate website layouts due to visual impairment | • Clear, straightforward instructions that eliminate jargon and minimize visual clutter | • Maintain confidence in managing day-to-day administrative tasks with ease |

# Impact on South African Society

By addressing fundamental issues in accessibility and digital literacy, ChatPSI contributes to a more inclusive society where public infrastructure becomes a force for empowerment rather than a source of frustration.

**CyberSecurity Measures:**

- Sanitizing User Input: Validate and sanitize all user inputs to prevent common attack vectors like SQL injection, cross-site scripting (XSS), and command injection.
- Use of Prepared Statements: When interacting with databases, employ prepared statements or parameterized queries to further reduce injection risks.