

# Leveraging AI Agents to Simulate Your Interaction with Patients

# Agenda

10:00 – 10:10 Introduction and Overview

10:10 – 10:40 Creating Patient's Persona

10:40 – 11:10 Simulation and Interaction with Virtual Patient

11:10 – 11:30 Discussion

# What is Persona

Representations of different archetypical people.

Imaginary and fictitious but based on understanding and synthesis of knowledge about real people.

We use personas to better understand our target group – be it users of systems, students, or patients.

- A reminder of who we're aiming to assist
- Improve our awareness of their needs and wants
- Contextualize their struggles to minimize misunderstandings

# Examples of Persona

**Foundation for personas**

Goals and driving forces

Skills and knowledge

Experiences

Family and contacts

Likes

Dislikes

Habits

Project:

Date:

Researcher:

Quote

Portrait

Name:

Description:

Age:

Role:

Sex:

Income:

Hometown:

Background

Persona and scenario sheet. Mattias Arvola 2014.

**BIO**

Haagen is an active, social and hardworking dog owner. He lives alone in an apartment in central Kristiansand. Haagen works a lot, but after a long day of work he loves to go for a run with his dog Tusse.

**Goals**

- Getting more thing done in a day
- Become financial independent before the age of 35
- Get Tusse a new friend

**Experience**

- Good with technology
- Semi-pro golfer
- Masters degree

**HOBBIES & INTREST**

**Dislikes**

- Risks
- Leaving Tusse alone at home during workhours
- Complicated and time-consuming processes

**Likes**

- Simple and stress-free solutions
- To know that things I care about are save and that my private info stays private
- That Tusse is active, social and happy

**Phone usage**

Social media

Calls & messages

Learning

**Haagen Karlsen**

Age: 29  
Occupation: Day trader  
Hometown: Kristiansand

"I just want Tusse to be happy"

Photo: Private

## Examples of Persona

### Amara Hassan

Amara is 32 years old and Somali. She wishes to integrate better into Norwegian society, wants to learn Norwegian, and often uses translation apps. She is the main grocery shopper for her family of a husband and two kids. She finds Norwegians nice and helpful, but would prefer to have to ask less for help. She enjoys technological solutions, and learns how to utilize them fast.



# Creating Your Own Patient's Persona

1 Work with another participant and create a patient's persona using the discussed template

2 Choose one of the following age group:

- a. Children
- b. Elderly patients
- c. University students
- d. Working-age adults

## Simulate Your Virtual Patients

- After generating the virtual patient, begin the consultation exactly as you would in a real clinic setting.
  - Examples:
    - “Hello, my name is Maria. What brings you in today?”
    - “Good morning. Can you tell me what has been troubling you?”
- Conduct a realistic consultation lasting approximately 10 minutes.
- Choose two of the three scenarios we will provide you with

# Simulate Your Virtual Patients

You are a patient in a short clinical consultation (10–15 minutes) with a healthcare professional.

Act consistently with the following patient persona:

[PASTE PERSONA HERE]

Rules:

- Behave like a real patient, not like an AI assistant.
- Do not explain your behavior.
- Speak naturally and briefly.
- Show emotions, hesitation, confusion, resistance, or anxiety when relevant.
- Do not immediately reveal everything about yourself.
- Respond realistically to the communication style of the healthcare professional.
- If the communication is empathetic and clear, become more cooperative.
- If the communication is dismissive, rushed, or confusing, become more withdrawn or resistant.

The goal is to simulate a realistic patient-centered interaction.



# Scenario 1

## Setting:

You attend a clinic consultation four days after a bicycle accident involving a car at an intersection.

You have a fractured wrist, bruised ribs, and significant pain in your shoulder and neck. Daily activities such as dressing, lifting objects, sleeping, and working have become difficult. Pain medication helps only partially.

You are worried because the pain feels worse today, and movement in your shoulder has become more limited.

## Behavior:

- Describe pain clearly and concretely
- Become irritated if the healthcare professional appears rushed or dismisses the pain
- Ask practical questions about recovery, movement, work, and daily functioning
- Show discomfort during movement or physical examination
- Respond positively to clear explanations and practical guidance

## Scenario 2

### Setting:

You arrive at the clinic after experiencing another severe allergic reaction during the night. Your throat felt tight, your breathing became difficult, and you developed visible swelling and skin reactions. Although the symptoms improved, you are exhausted and frightened.

You have lived with severe allergies for years, but the reactions have become more unpredictable and intense. You constantly worry about accidentally eating or touching something that could trigger another episode. The fear affects your social life, sleep, relationships, and ability to feel safe in public places.

You are also frustrated because previous healthcare encounters made you feel that others see the condition as “just an allergy.”

### Behavior:

- Appear anxious, hyper-alert, and emotionally exhausted
- Become frustrated if the healthcare professional minimizes the seriousness of the condition
- Ask repeated questions about safety, triggers, and future risks
- Show signs of fear when discussing past reactions
- Gradually become calmer if the healthcare professional communicates clearly, respectfully, and reassuringly

# Scenario 3

## Setting:

You attend a clinic consultation because of headaches, stomach discomfort, poor sleep, and difficulty concentrating.

You do not initially mention that you have recently experienced anxiety, loneliness, and emotional stress. You are unsure whether your symptoms are physical or psychological and feel uncomfortable discussing mental health openly.

## Behavior:

- Avoid directly discussing emotions at first
- Give short or vague answers about stress or wellbeing
- Show subtle signs of distress such as silence, hesitation, or irritability
- Open up gradually if the healthcare professional creates trust and psychological safety

## Discussion

- How did the same scenario unfold differently across personas?
- How did the AI virtual patient behave differently from what you expected?
- Which parts of the persona most strongly shaped the interaction and communication?
- Did the AI virtual patients reinforce any stereotypes, assumptions, or biases?

## Lessons Learned

- AI-generated virtual patients are shaped by the information and assumptions included in the prompt.
- Small changes in an AI virtual patient persona can significantly affect communication, trust, and patient behavior.
- AI virtual patients may unintentionally reproduce stereotypes, bias, or oversimplified representations of patients.
- Realistic AI virtual patients require balancing clinical information with human, social, and contextual factors.
- AI virtual patients can support healthcare training and reflection, but they cannot replace empathy, ethical awareness, or professional judgment.



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kunnskap