Artificial Intelligence for Home Carers

2024-1-PL01-KA220-ADU-000252371

Main objective

To improve the level of knowledge of informal caregivers about existing applications based on AI engines, as they can find application in daily caring activities of their elderly relatives.

Project Consortium

- Fundacja Malopolska Izba Samorzadowa, Poland
- Etairia Nosou Alzheimer Kai Sinafon Diataraxon Athinon Somateio (AAADRD), Greece
- Pragma Engineering, Italy
- Asociación Moviéndote, Spain
- Verein zur Foerderung Assistierender Technologie in Europa (AAATE), Austria

Target Groups

Primary

- **The informal caregivers that** support elder people with different levels of dependency at home
- **Elderly people who live on their own homes** regular, lasting, physical and / or emotional support and assistance

Secondary

- **Health and social care professionals,** trainers/educators
- **Healthcare sector decision makers,** governmental entities and organizations
- **Researchers, service providers** and technology providers in the areas of disability and ageing

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Project Results

Result 1

- The AI4H training path for informal caregivers

The methodological framework of the AI4H training path for informal caregivers, cover general understanding of the AI as applied in products and devices available in the market, going to deep specific aspects crucial for the application in caring contexts: availability, costs, privacy, reliability

Result 2

- An open AI4H training platform

based on the methodological framework of the AI4H training path, with focuses on the practical element so that the career can understand what the solution is, how to use it in daily care, what are its limitations, etc. and examples of in-practice application, explaining the processes, pitfalls and results.

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The research activities in partners countries

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AI4H – Artificial Intelligence for Home Carers

Summary Report

on research among informal caregivers in Greece, Poland, Spain and social & health sector professionals in Austria, Italy

February 2025

https://ai4homecare.eu

Methodology:

- Focus groups conducted in partner countries: Spain, Greece, and Poland (for caregivers), and Italy and Austria (for professionals).
- Mixed approach: Face-to-face, online groups, and individual sessions.
- Each focus group consist of 6-10 participants.

Participants of the Focus groups:

- **43 informal caregivers** (mostly women), with varying mean ages across countries (55.6 to 70.5 years). Caregivers had different relationships with care recipients (daughters, spouses, mothers). Years of experiences as a caregivers 1-8.6 years.
- **16 professionals,** age 40-50 years old, varied care sector backgrounds, including therapists and tech specialists.

Focus group's aspects:

- Informal caregivers: responsibilities, duties and challenges of caregiving; Professionals: caregiving support
- Technology using by caregivers in their everyday care
- Expectations from technology in caregiving in future

The main results from the Focus Groups

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Informal caregiver’s Perspective:

Challenges: Medical, emotional, logistical, and personal (stress, loneliness).

Technology Usage:

- Basic tools: Alarm reminders, smartphones, monitoring cameras.
- Advanced AI: Rarely used.
- Mixed perceptions on AI: Some see potential, others skeptical.
- Concerns: Reduced human connection, data privacy, replacement of judgment.

How Technology Can Help: Medication management, health monitoring, communication. AI-powered reminders, robotic caregiving, and tracking devices.

Key Needs AI Could Address: Medical support, daily assistance, cognitive/social engagement, mobility/safety. Digital literacy is a key barrier.

Future Vision: Rapid tech advancement, AI as a support tool (not replacement), user-friendly AI, and cost-effectiveness.

Professionals' Perspective:

Caregiver Needs (as seen by professionals): Emotional support, respite, training, addressing financial and technological barriers.

AI & Tech in Caregiving: Skepticism exists, but potential seen in cognitive disabilities, neuromotor deficits, home automation.

The Artificial Intelligence for Home Carers Training Path

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Core Methodological Principles of the training path

Modular and Non-Linear Structure
the training path is set of interconnected modules. Caregivers can choose their own path, focusing on topics most relevant to their immediate needs, much like selecting a chapter of interest from a larger resource.

Varied Content Formats
Due to users different learning preferences, content is delivered through a mix of engaging formats, including short videos, practical infographics, audio podcasts, and concise articles.

Persona-Driven Learning
The path uses relatable personas and user stories to illustrate the real-world challenges of caregiving and demonstrate how specific AI tools can provide practical solutions.

The storytelling approach
presenting real-life scenarios, real stories, or case studies that illustrate how AI technologies can address specific challenges in home care.

Level of knowledge in caregiving
Beginner or Advanced

Focus on Accessibility
The training path is designed specifically for informal caregivers, with a low barrier to entry - the platform guides them from there.

The Artificial Intelligence for Home Carers Training Path Modular Structure

AI FOR HOME CARERS

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Introduction to AI Technology in Home Care for Dependent Person

- What is Artificial Intelligence (AI)?
- AI applications in informal caregiving
- Benefits and Limitations of AI in an informal caregiving
- Future Trends in AI Caregiving

Become an Active AI User - How Could Technology Help in Caregiving

- AI solutions in assisting with Personal Hygiene
- Mobility assistance and Fall Prevention
- Medication Management
- Responding to Medical Emergencies
- AI Applications in Assistive Technology for Homecare

Using AI Technology in Caregiving at Home

- Introduction to Caregiving Technologies
- Remote Monitoring and Safety
- Smart Home Systems for Caregivers
- Health Tracking Apps
- Evaluating Technology Solutions

Practical AI Applications for Taking Care Activities

- AI for Medication Management
- AI for Fall Detection and Prevention
- AI for Care Planning and Decision Support
- AI for Remote Monitoring and Communication
- AI for Daily Assistance

How AI could be helpful for myself - Emotional and Psychological Well-Being

- Understanding caregiver stress and burnout
- Stress management techniques
- Coping strategies for emotional challenges: Self-care practices
- A support network

Ethical Aspects of AI Solutions in Homecare Giving

- Privacy Regulations and Data Security
- Liability Issues and Risk Management
- Consent and Autonomy
- Secure use of AI apps (financial, personal data protection, etc.)

The Artificial Intelligence for Home Carers Platform

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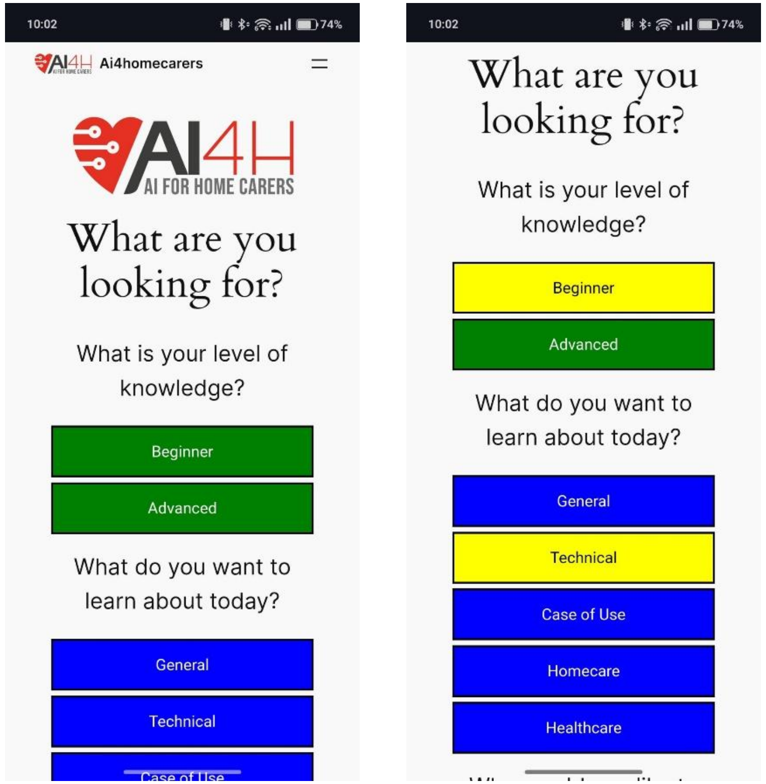
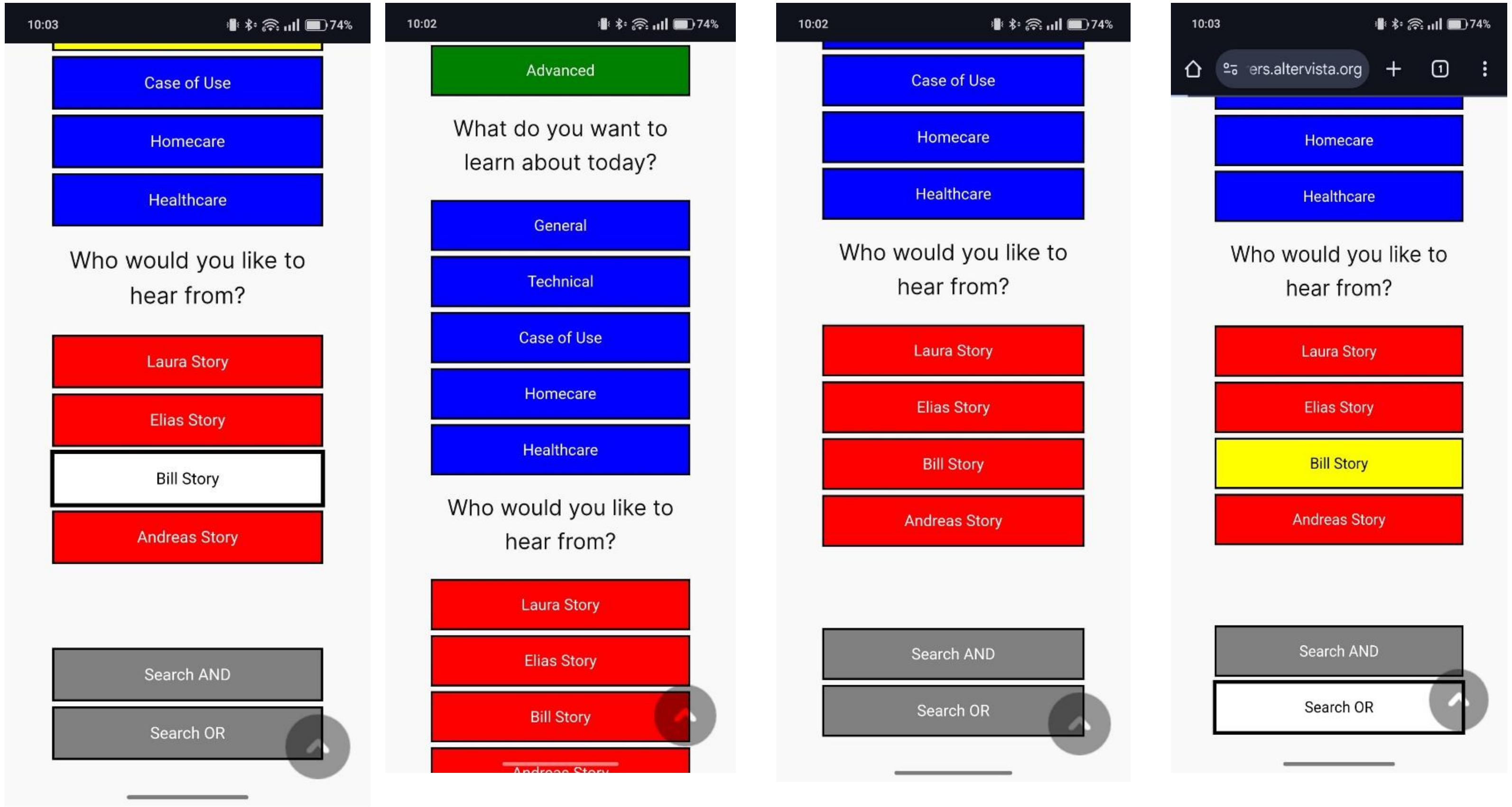
The AI4h platform layout prototype

Choosing the level of knowledge in caregiving
(Beginner or Advanced)



Selection of the **personas/user stories**
(Beginner or Advanced)



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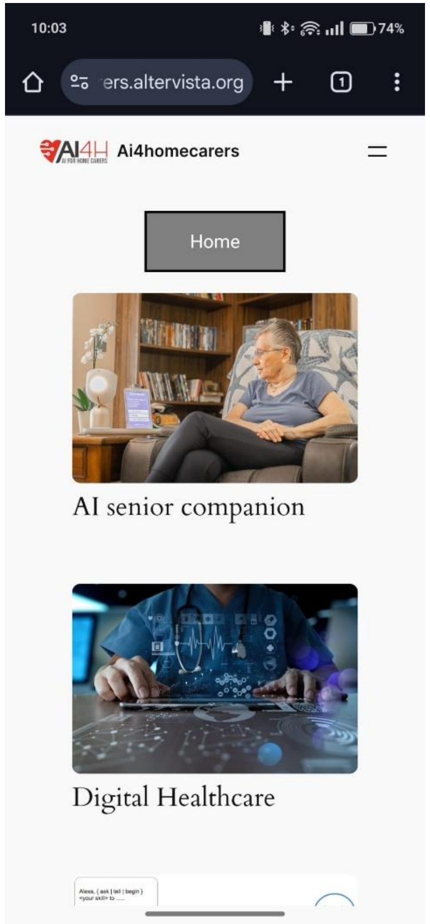
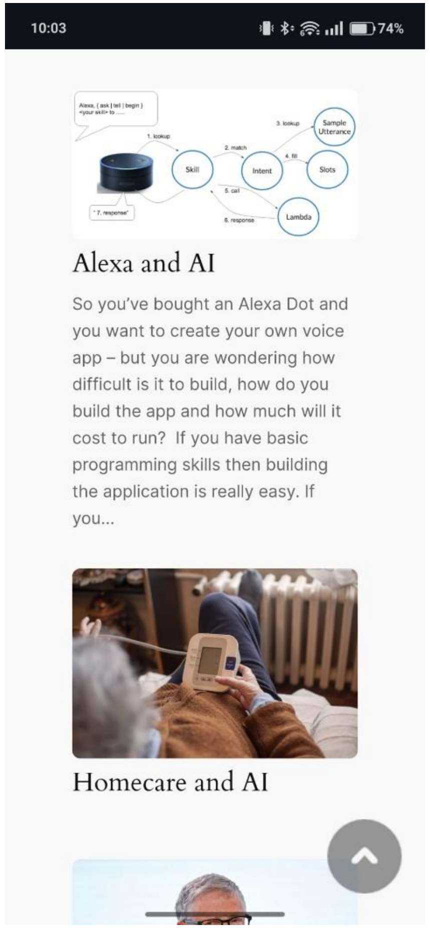
The AI4h platform layout prototype

Prototype with the AI4h platform content screens





AI4H

Artificial Intelligence for Home Carers

Smart Solutions for Home Care

Empowering Caregivers, Enriching Lives

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