



**Cáritas Diocesana
de COIMBRA**

Virtual versus physical coaches: Pros and cons
LIFEBOTS Exchange | Elisabete Pitarma

30/08/2022

1

AGENDA

- **CDC Presentation**
- **Definition of Virtual and Personal Coach**
- **CDC Projects (Virtual or/and Personal Coach)**
- **Another perspective (cocreation preliminary results)**
- **Challenges...**

2



WHO WE ARE

Cáritas Coimbra (CDC) is a Portuguese social non-profit organisation (NGO)

- **Intervention areas:** social, health, education and pastoral
- **Where:** 5 districts of the Central Region of Portugal
- **How:** 90 Centres (126 social responses) and about 1000 employees
- **Who:** supports about 14000 people/year

3



4



991
Older Adults

Social responses: 34

- 5. Residential homes - nursing homes
- 11. Day care / social centre
- 18. Supported living services



5



6

What is Virtual and Personal Coach?

Typically, a coach is seen as a person that has the knowledge and skills to motivate and support someone to achieve their personal goals.

In addition to human coaches, we can now identify two other types: robotic and virtual.

7

What is Virtual and Personal Coach?

A Robotic Coach is a robotic platform that is able to **interact with people**, receiving input from sensors or other devices and providing verbal and non-verbal communication.

A Virtual Coach is an Embodied Conversational Agent (ECA), **an animated character** that is able to use verbal and non-verbal behaviours to communicate with someone.

8

What is Virtual and Personal Coach?

When connected to an array of sensors and with access to pre-defined plans on how to achieve or maintain goals, these non-human coaches are able to **motivate and support** people to follow these plans.

9

CDC Projects with Virtual or/and Personal Coach for Older Adults



10

Virtual or/and Personal Coach



A coherent user-centric technological solution was provided based on an innovative practice-oriented **Virtual Partner (ViP) care model** that considers established behaviour communication patterns/ways of an older person with a human partner when carrying out daily activities at home.

The use of an avatar, instead of a human, has the major advantage that it is less threatening for the privacy and the users do not have the feeling that they are constantly under surveillance by a human (since they can turn it off at any time).

11

Virtual or/and Personal Coach



The main goal of the project is to provide an affordable robot that will be able to learn from older people's routines and habits, therefore enhancing and adapting its functionality to **dynamically compensate the constant deterioration of the cognitive ability of individuals**, while simultaneously ensuring a consistent service provision and quality of life throughout the aging process.

One important advantage of the robotic system GrowMeUp is its ability to grow over time to cope with elderly specific preferences. More specifically, **the system provides an adaptable and intelligent dialogue component** that will make the system more attractive for older people to interact with.

12

Virtual or/and Personal Coach



DAPAS delivered a innovative solution, which was based on the needs of older adults and their relatives.

The project brought together successful outputs of previous AAL projects, like Emma, DALIA, zocaalo, kwido and RelaxedCare, developed from different companies in different countries.

DAPAS integrated differentiated service packages that increased security, **supports activities of daily living and facilitates communication.**

13

Virtual or/and Personal Coach (older office workers aged over 55)



SmartWork is a European project that addresses one of the main challenges faced by today's older generation, which involves **living and working longer than their ancestors**, through the design and creation of smart, age-friendly living and working spaces.

SmartWork created an Artificial Intelligence (AI) system centered on the worker.

14

Virtual or/and Personal Coach



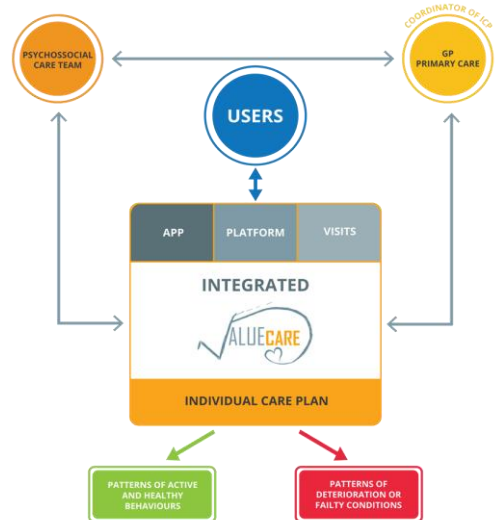
The general objective of Pharaon is to **support the active aging of the European population**, through the creation of a set of open, interoperable and highly customizable platforms providing advanced digital services, devices and tools, including Internet of Things (IoT), artificial intelligence (AI), robotics, cloud computing, smart wearables, and traditional algorithms for intelligent big data analysis.

15

Virtual or/and Personal Coach



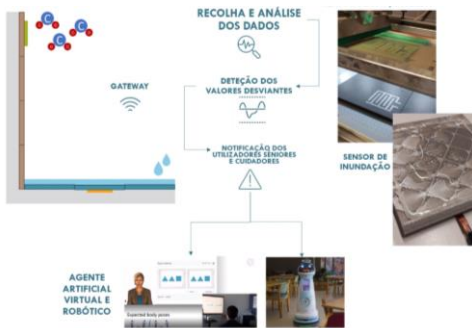
In short, VALUECARE proposes to achieve greater efficiency in the use of resources and in the coordination of social and health care, in a context that generates confidence both in users and in policy makers, when it comes to the access, protection, sharing and standardization of personal data, with replication potential in the EU.



16

Virtual or/and Personal Coach

ACTiVAS



The multidisciplinary project promotes a disruptive response to the challenges addressed by the population ageing , in terms of **environment, cities, and built spaces**, creating new opportunities for economic agents from various sectors. The aim of the project will be to reach market segments more focused on older people, such as residential care or hospitals.

In short, the main goal is to achieve and validate an assisted environment “Active, safe and healthy life” based on a pilot that will integrate solutions developed for new environments and spaces – personalized lifelong health, taking action in several aspects:

- Promotion of human functionality through physical and cognitive stimulation;

17

Virtual or/and Personal Coach

| Projects (CDC perspectiv) | Personal Coach | Virtual Coach |
|------------------------------|----------------|---------------|
| DAPAS | | x |
| VC | x | x |
| Pharaon | x | x |
| Smart Work | | x |
| Activas | x | x |
| GrowMeUp | | x |
| CaMeLi – Care Me for Life | | x |

18

Why do all systems have Virtual Coach?

Active, autonomous and healthy aging is one of the main challenges arising from Europe's demographic evolution.

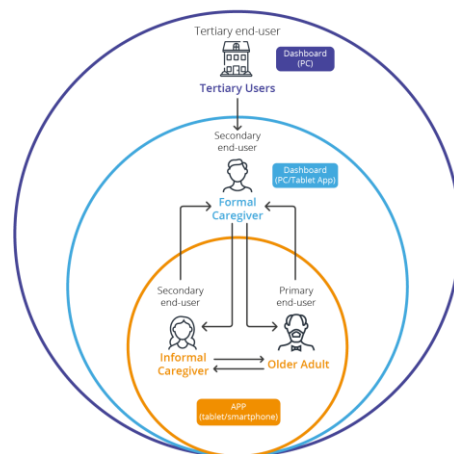
19

Another perspective...



**Active aGeing
And Personalised
service's
Ecosystem**

Ecosystem



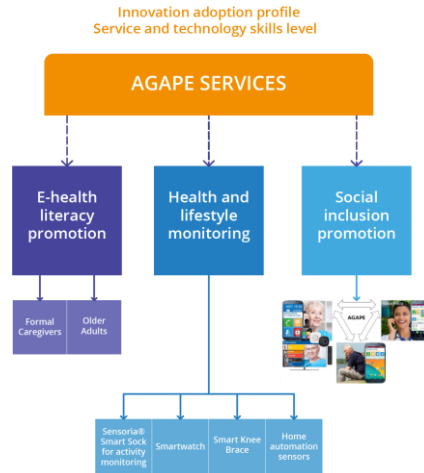
The AGAPE project will address older adults and caregivers' needs and challenges providing care organizations **an innovative platform of technology-based services (AGAPE platform).**

20

Another perspective...



Active aGeing
And Personalised
service's
Ecosystem



This platform will be based on different digital tools (app, dashboard or other) where the 3 different services will merge:

- E-health literacy promotion,
- Health and Lifestyle monitoring
- Social inclusion promotion.

21

Another perspective...



Active aGeing
And Personalised
service's
Ecosystem

The main Agape's innovation is the **deployment of multilayer framework of methods and tools supporting AHA services innovation adoption:**

- Personalized services' configuration,
- **Dynamic coaching strategies**,
- Incremental introduction of advanced services,
- Reinforcement strategies and
- Behavioural change tools.

(AAL Proposal)

22

Cocreation (preliminary results)



23

Another perspective (importance of cocreation)



Active aGeing
And Personalised
service's
Ecosystem

Informal Caregivers (preliminary results – 20)

Please indicate how you feel about this statement:
"The use of technology helps me better understand
 the health status of the older adult I take care of."



24

Another perspective (importance of cocreation)



Active aGeing
And Personalised
service's
Ecosystem

Informal Caregivers (preliminar results – 20)

Please indicate how you feel about this statement:
“The use of technology will make my everyday life
easier when it comes to talking care of the older
person I am in charge of”.



25

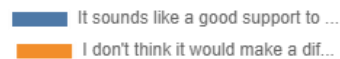
Another perspective (importance of cocreation)



Active aGeing
And Personalised
service's
Ecosystem

Informal Caregivers (preliminar results – 20)

What do you think about having a coach/professional
who follows the goals of the treatment or health care
of the older person?



26

Another perspective (importance of cocreation)



Active aGeing
And Personalised
service's
Ecosystem

Informal Caregivers (preliminar results – 20)

Considering that it is a good support, what do you think would be the best approach for this interaction (to communicate and motivate the user)?

■ In person ■ Remotely (online)



27

Another perspective (importance of cocreation)



Active aGeing
And Personalised
service's
Ecosystem

Formal Caregivers (preliminar results – 25)

Do you think the use of technology can help you to understand the general state of OA health?

■ Yes ■ No ■ I don't know



28

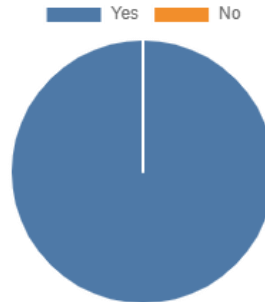
Another perspective (importance of cocreation)



Active aGeing
And Personalised
service's
Ecosystem

Formal Caregivers (preliminar results – 25)

Based on your experience, do you think technology
can facilitate you in daily life?



29

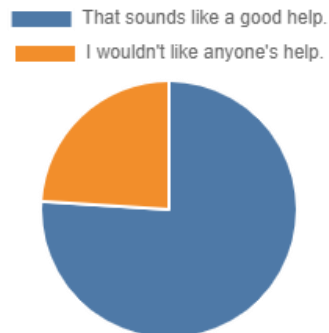
Another perspective (importance of cocreation)



Active aGeing
And Personalised
service's
Ecosystem

Formal Caregivers (preliminar results – 25)

What do you think about having a coach who follows
up on the goals of the OA treatment or their health
care?



30

Another perspective (importance of cocreation)



Active aGeing
And Personalised
service's
Ecosystem

Formal Caregivers (preliminar results – 25)

Why?

More **efficient** monitoring

To better monitor patients

I think it is useful for tracking the daily basis activities in terms of health and well-being.

it is useful for the formal caregiver because **it allows a better patient management**

I prefer to autonomously follow my patients. Technology might be user-friendly not only for the patient, but also for the formal caregiver.

Professional **monitoring with useful feedback** and motivating patient

Professional monitoring motivates and keeps track, train, educate. It would motive the older adult

31

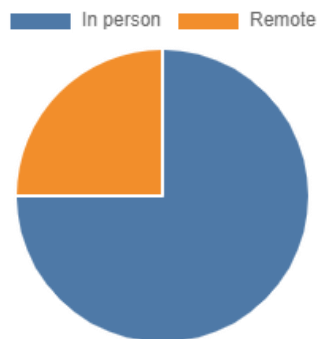
Another perspective (importance of cocreation)



Active aGeing
And Personalised
service's
Ecosystem

Formal Caregivers (preliminar results – 25)

If yes, how do you think it would be the best approach to accompany and communicate to motivate them?



32

Another perspective (importance of cocreation)



Active aGeing
And Personalised
service's
Ecosystem

Older Adults (preliminar results – 65)

Please indicate how you feel about this statement: "I consider it is important to have a coach who follows up on the goals for my treatment or health care"



33

Another perspective (importance of cocreation)



Active aGeing
And Personalised
service's
Ecosystem

Older Adults (preliminar results – 65)

Please indicate how you feel about this statement: "Having a coach that accompanies me to achieve my goals will motivate me to fulfil them."



34

Challenges...

Virtual versus physical coaches: Pros and cons

35



**IN CÁRITAS COIMBRA
WE INNOVATE WITH PEOPLE, FOR PEOPLE**

36

Project Manager | Elisabete Pitarma
elisabetepitarma@caritascoimbra.pt



OBRIGADO!
THANK YOU!



www.caritascoimbra.pt



[@caritascoimbra](https://www.facebook.com/caritascoimbra)



[@caritas-coimbra](https://www.linkedin.com/company/caritas-coimbra)



[@caritascoimbra](https://twitter.com/caritascoimbra)