

Project Identification

Project number	No. 611421
Duration	1 st Dec 2013 – 30 th Nov 2016
Coordinator	Andreas Hochgatterer
Coordinator Organisation	AIT Austrian Institute of Technology GmbH, Austria
Website	www.miraculous-life.eu



Miraculous-Life

Miraculous-Life for Elderly Independent Living

Document Identification

Deliverable ID:	D6.3a Pilot setup and deployments
Release number/date	V0.5 / 26.09.2014
Checked and released by	Marios Fanourakis (UniGe)
Work Status	Finished
Review Status	Accepted

Key Information from "Description of Work"

Deliverable Description	Pilot setup and deployments.
Dissemination Level	PU = Public
Deliverable Type	R = Report
Original due date	Project Month 8 / 31 July 2014

Authorship & Reviewer Information

Editor	Marios Fanourakis (UniGe) and Nico van der Aa (Noldus)
Partners contributing	Marios Fanourakis (UniGe), Maher Ben Moussa (UniGe), Nico van der Aa (Noldus), Donato Cereghetti (MRPS), Cindy Wings-Kolgen (Orbis)
Reviewed by	Emanuel Sandner (AIT)

Release History

<i>Release Number</i>	<i>Date</i>	<i>Author(s)</i>	<i>Release description /changes made</i>
<i>V01</i>	17.06.2014	MF / UniGe NvdA / Noldus	TOC
<i>V02</i>	13.08.2014	MF / UniGe NvdA / Noldus UCY Orbis MRPS	Inputs from partners integrated
<i>V03</i>	15.08.2014	NvdA / Noldus	Update in general and matching with D6.1a
<i>V03R</i>	16.9.2014	ES / AIT	Review
<i>V04</i>	20.09.2014	MF/UniGe	Post-review changes
<i>V05</i>	26.09.2014	MBM/UniGe	Released version

Miraculous-Life Consortium

Miraculous-Life (Contract No. 611421) is a project within the 7th Framework Programme. The consortium members are:

<i>Partner 1</i>	<i>AIT AUSTRIAN INSTITUTE OF TECHNOLOGY GMBH (AIT, Project Coordinator, AT)</i>
Contact person:	Andreas Hochgatterer
Email:	andreas.hochgatterer@ait.ac.at
<i>Partner 2:</i>	<i>UNIVERSITY OF GENEVA (UniGe, CH)</i>
Contact person:	Maher Ben Moussa
Email:	maher.benmoussa@unige.ch
<i>Partner 3:</i>	<i>UNIVERSITY OF CYPRUS (UCY, CY)</i>
Contact person:	George Samaras
Email:	cssamara@cs.ucy.ac.cy
<i>Partner 4</i>	<i>ORBIS MEDISCH EN ZORGCONCERN (ORBIS, NL)</i>
Contact person:	Cindy Wings
Email:	c.wings@orbisconcern.nl
<i>Partner 5</i>	<i>FRAUNHOFER IGD (Fh-IGD, DE)</i>
Contact person:	Carsten Stockl�w
Email:	carsten.stockloew@igd.fraunhofer.de
<i>Partner 6</i>	<i>Noldus Information Technology BV (Noldus, NL)</i>
Contact person:	Ben Loke
Email:	b.loke@noldus.nl
<i>Partner 7</i>	<i>CITARD SERVICES LTD (Citard, CY)</i>
Contact person:	Eleni Christodoulou
Email:	eleni_christodoulou@cytanet.com.cy
<i>Partner 8</i>	<i>ZOOBE MESSAGE ENTERTAINMENT GMBH (Zoobe, DE)</i>
Contact person:	Sascha Fagel
Email:	fagel@zoobe.com
<i>Partner 9</i>	<i>MAISON DE RETRAITE DU PETIT-SACONNEX (MRPS, CH)</i>
Contact person:	Donato Cereghetti
Email:	donato.cereghetti@hotmail.com

Table of Contents

<i>Miraculous-Life Miraculous-Life for Elderly Independent Living</i>	<i>I</i>
<i>Release History</i>	<i>II</i>
<i>Miraculous-Life Consortium</i>	<i>III</i>
<i>Table of Contents</i>	<i>IV</i>
<i>Table of Figures</i>	<i>V</i>
<i>List of Tables</i>	<i>VI</i>
<i>Abbreviations</i>	<i>VII</i>
<i>Executive Summary</i>	<i>1</i>
<i>1 About this Document</i>	<i>2</i>
1.1 Role of the deliverable	2
1.2 Relationship to other Miraculous-Life deliverables	2
<i>2 Pre-trial test environments</i>	<i>3</i>
2.1 Orbis	3
2.2 MRPS	3
<i>3 Pre-Trial Hardware Equipment and Physical Setup</i>	<i>5</i>
3.1 Pre-Trial Equipment	5
3.2 Physical Setup	5
<i>4 Pre-Trial Software</i>	<i>7</i>
4.1 Software Testables	7
4.1.1 Knowledge Base	7
4.1.2 User Interface and HCI	7
4.1.3 Services	8
4.2 Software Installation	9
<i>5 Pre-trial setup</i>	<i>12</i>
5.1 Setup	12
5.1.1 Orbis	12
5.1.2 MRPS	12
5.2 Training and support	12
<i>6 Further Work</i>	<i>13</i>
<i>Appendix A Echo de l'Age d'Or N°315 (p. 9-10)</i>	<i>14</i>
<i>Appendix B Echo de l'Age d'Or N°316 (p. 23)</i>	<i>16</i>
<i>Appendix C Presentation MRPS, 16 July 2014: slides</i>	<i>17</i>

Table of Figures

Figure 1: MRPS test environment	3
Figure 2: Physical setup of system at Orbis Hoogstaete.	6

List of Tables

Table 1: Miraculous-Life MRPS and Orbis pre-trial hardware equipment 5

Abbreviations

<i>Abbrev.</i>	<i>Description</i>
AAL	Ambient Assisted Living
Mbps	Mega bit per second
MRPS	Maison de Retraite du Petit Saconnex
WIFI	Wireless internet connection

Executive Summary

The pre-trials aim to validate the robustness of the system and identify possible problems by simulating specific activities of daily living situations based on the extrapolated scenarios, which were produced during the requirement specification stage. The pre-trials will be carried out in a supervised environment setting with a small number of selected users.

This deliverable describes the technical setup of the pre-trial system. In D6.1a the overall Pre-Trial setup is provided, including the scenario, the user profile and the procedure of performing the pre-trial. Complementary to D6.1a, we will describe the setup of the physical system. The end-user organisations will provide information concerning the test environment, while the technical partners will provide the pre-trial system setup as defined within the consortium. This first system version does not yet include the full Miraculous-Life functionality since it is merely considered as a proof of concept design. Additionally, the technical partners will publish guidelines of how to handle the system for the end-users.

1 About this Document

1.1 Role of the deliverable

The goal of the pre-trial is to test specific components in real conditions before the actual trial takes place. This deliverable describes the procedure of setting up the system for the pre-trials, mention the active components in this setup, deviations from the overall system setup and present the installation guidelines for the setup.

1.2 Relationship to other Miraculous-Life deliverables

The deliverable is related to the following Miraculous-Life deliverables:

<i>Deliv:</i>	<i>Relation</i>
D1.2	Specification of use case scenarios and User Interface: This document presents the use case scenarios and also an analysis of the interaction requirements needed to specify the Human-Computer interface. D6.3 uses the first user scenario provided by D1.2
D5.3	Specification of the Miraculous-Life system integration: This document describes the setup of the general system. Since D5.3 serves as a reference for D6.3, only deviations are addressed in D6.3.
D6.1	Trials specification and design. This document provides the design of the trials examining issues like how the trial sites are organized, what kind of training will be needed, and how the evaluation data will be collected. D6.3 provides the technical setup of the system that supports this design.

2 Pre-trial test environments

2.1 Orbis

The pre-trial will be performed in a conference room at the main building of Orbis Hoogstaete and not at the homes of the elderly (for this first pre-trial). The conference room has an average size of 40 square meters. The room has about 10 meters of windows divided in 2 pieces, all provided with an electric sunscreen and is lit by fluorescent tube lights as well as spotlights.

The conference room is covered by two WIFI-networks, which provide the necessary internet connection for the Miraculous-Life pre-trial. The average download speed is 0.510 Mbps, while the upload rate is 0.087 Mbps. An internet connection is required for downloading and presenting the Avatar videos, which are generated and rendered on a Zoobe Server, and also to provide the possibility of maintaining and testing the system setup remotely via TeamViewer.

2.2 MRPS

The two pre-trials will be carried out in a supervised environment setting. The MRPS restaurant “Le Jardin des Iles” (<http://www.jardindesiles.ch/>) rents four seminar and conference rooms: *Hodler*, *Hainard*, *Hachette* and *Fazy*. The pre-trials will take place in these rooms.



Figure 1: MRPS test environment

Pictures of the MRPS test environment rooms

The first pre-trial will be performed in the conference room Fazy, a large, open room (68 m²) that is usually used for meetings, seminars and group activities. The room is well lit with an even light fixture array on the ceiling. It has large windows on one side, but the sunlight is not expected to obstruct any of the cameras. The network infrastructure of

MRPS provides wireless internet to this room with an average download speed of 0.44Mbps, which will be adequate for Miraculous-Life. Tables, and chairs will be provided by the MRPS restaurant “Le Jardin des Iles”. Additionally, water and fruit will be provided for the participants during the pre-trials.

3 Pre-Trial Hardware Equipment and Physical Setup

3.1 Pre-Trial Equipment

The pre-trial hardware equipment consists of a workstation, a tablet device, and an additional Kinect sensor.

The workstation will act as the processing unit of the system and will be responsible for analysing the sensor data as well as housing the Knowledge Base. Its technical specification was chosen according to internal testing setups, to accommodate the requirements for the pre-trials with regards to processing power and memory performance.

The tablet device will be the main interaction point of the user and the system. A Miraculous-Life android app is used to display the avatar user interface, and provide the text to speech voice output.

While the Kinect for Windows v2 sensor will be used throughout the Miraculous-Life project to provide the necessary gesture and object recognition information, only the built-in microphone array will be used during the pre-trial to collect voice data used for speech recognition.

The individual components of the equipment used for the pre-trial in MRPS and Orbis are described in the table below:

Equipment	Description	Utility	Notes	Price
Workstation	Lenovo thinkcentre e93z – 10BA002MMZ Intel® Core™ i5 - 2.7GHz 4GB RAM	Workstation to do all the processing and contain the knowledge base	It is not the workstation recommended by AIT, but its specifications adequately cover the specifications defined by AIT. Will be used temporarily as the workstation. Windows 8	1100CHF / 905 euro
Tablet device	Samsung galaxy tab 3 - P5210	Tablet device for user to interact with	16GB SSD, Android 4.2	308CHF / 369 euro
Depth sensor	Microsoft Kinect for Windows v2	Sensor to collect sound	Additionally, the sensor can also retrieve colour images and depth information, but not in the Pre-trial.	180CHF / 200 euro

Table 1: Miraculous-Life MRPS and Orbis pre-trial hardware equipment

This table shows the equipment to be used by MRPS and Orbis during the pre-trial.

3.2 Physical Setup

The Lenovo workstation will be setup on a table in a non-obtrusive area of the pre-trial room and will be connected to the network infrastructure available in the complex. The tablet device will also be connected to the same network infrastructure in order to communicate with the workstation. The user will be seated at a table and asked to interact

with the tablet device. The Kinect sensor will be set up such that it is able to capture the speech of the user for the speech recognition module. **Error! Reference source not found.** shows the physical setup.



Figure 2: Physical setup of system at Orbis Hoogstaete.

Picture of the physical setup of the system at Orbis Hoogstaete. For software testing and validation purposes the workstation has a screen. The MRPS physical setup is the same as the one of Orbis Hoogstaete.

4 Pre-Trial Software

The software used in the pre-trial must support the scenario used. For the pre-trial, we will use the first user scenario described in D1.2a about Donato's Life (Section 2.1) with only one adaptation: the VSP will be called Mary to make it more personal.

4.1 Software Testables

4.1.1 Knowledge Base

The Miraculous-Life Knowledge Base (KB) serves as the data management hub for all cooperating services and components of the system. The KB provides a number of typical data management mechanisms (i.e., create, read, update, delete records) as well as specialized query support (e.g., filtering, aggregation) in order to transform low-level data to high quality information. The KB API involves a set of stored procedures that allow services to interact with the data tables and their relationships.

Before the pre-trial, a number of standard tests will be performed for all developed KB API procedures. These tests will reveal the level of completeness in data modelling/information models and how well they support the related components of the Miraculous-Life system.

During the pre-trial a predefined number of KB API procedures will be tested thoroughly through the components involved in the pre-trial. More specifically, the following mechanisms (version 1) will be tested during the pre-trial: (note that we also mention the corresponding pre-trial steps for each mechanism)

- Retrieve daily agenda of a person
- Provide feedback to a specific agenda item
- Retrieve information about a specific activity (for the agenda item of Step 3
- Retrieve a list of active notifications for a single person
- Postpone a notification
- Retrieve a list of Accessories (i.e., Objects of type Accessory) related to an activity
- Provide information about a specific agenda item
- Retrieve information about a specific Object
- Retrieve the typical location of a person's personal item (i.e., object of type Personal Item/Accessory)

Finally, the pre-trial will provide early feedback related to the functionality and completeness of the KB that will be used to adjust and enhance the KB accordingly in order to produce the second operational prototype of the Miraculous-Life System.

4.1.2 User Interface and HCI

4.1.2.1 User Interface

Although the Miraculous-Life system builds upon speech recognition as the main component for interaction, the user interface is designed in such a way to support the interaction by showing the relevant information on the screen. For example, if the VSP mentions options for the user to select, the options are also displayed on the screen.

The pre-trial will include the user interface specification as indicated in D1.2a as much as possible.

4.1.2.2 Avatar

This service will be the identity of the complete system. The avatar is a character shown on the tablet screen, to which the elderly can talk to. It will display emotional gestures to imitate a real human person as close as possible. This approach should motivate the elderly to interact positively with the avatar, to accept the avatar as a mode of

communication, and create a pleasant environment when communicating with an emotionally responsive avatar.

The end-user's preferred and accepted appearance of the avatar was found in WP1 through questionnaires. Based on these results, the avatar for the pre-trials will look like a young woman. The outcomes of this first testing will show us if this avatar matches the user requirements, and if we should provide a broader range of avatar appearances in order to facilitate a more personal experience with the system. During the pre-trial, the investigator will note any comments given by the elderly in order to later refine the appearance of the avatar.

4.1.2.3 Text to Speech

Apart from the non-verbal communication via gestures and emotions, the text-to-speech module will provide the verbal communication for the system. The text to speech will firstly match the identity of the character (mainly in term of gender) and will also be implemented for French and Dutch people.

The pre-trial will provide some data especially in terms of interaction flow, meaning if the speech is too fast or too slow for elderly understanding. Therefore, the investigator will note any comments about this flow and also comments about the text to speech language usage (no strange words, or accents etc.).

4.1.2.4 Speech Recognition

By speech recognition we provide the means to have a natural interface. As an initial prototype for the pre-trials, a command-based speech recognizer was implemented using the Microsoft speech API for French and Dutch. Dictation or sentences will not be included in the pre-trials. The Dialogue Manager will provide both French and Dutch dictionaries dedicated to the pre-trial scenario. The speech recognition can be used with an analog or digital (USB) microphone, as well as with the built-in sensor array in the Kinect sensor for the speech input.

As the speech recognition is involved in every part of the pre-trial scenario, the users will be asked to articulate and speak slowly to improve the quality of the speech recognition (true positive commands) and guarantee an optimal flow in the test.

4.1.2.5 Dialogue Manager

The Dialogue Manager is using the Conscientia framework developed at the University of Geneva. It integrates emotion attachment and learning in emotional decision making to achieve more human like behaviour. The decision making is based on emerging psychological theories, which claim that emotions are the basis of every decision making. Based on this rational, the Dialogue Manager leverages human like emotional decision-making, where emotions play a central role in selecting the next action to be performed by the agent.

Since the Dialogue Manager is responsible for the interaction flow of the system, it is involved in every part of the pre-trial scenario. In order to test its usability, the users will be asked to briefly interact with the system as naturally as possible in order to see if the interaction flow is natural or there need to be improvements.

4.1.3 Services

4.1.3.1 Agenda Service

The Miraculous-Life Agenda Service is responsible for maintaining the daily activities of the user in the form of a calendar providing functionality similar to many popular software systems (e.g., Microsoft Outlook, Google Calendar). The Agenda Service stores calendar entries in the KB

Calendar data structure. These calendar entries may be events that occur only once or have a recurrence rule for repeating periodically (e.g., daily, monthly, weekly). The actual recurring entries are generated by the Agenda Daemon and are named as an agenda entry. For example, the Calendar Entry “Play chess every Monday for two months” will generate 8 agenda entries. Similarly to other services, the Agenda Service provides a number of typical data management mechanisms (i.e., create, read, update, and delete calendar and agenda entries) as well as specialized query support (e.g., get daily agenda).

During the pre-trial a predefined set the Agenda Service API methods will be tested thoroughly through the components involved in the pre-trial. More specifically, the following mechanisms (version 1) will be tested during the pre-trial: (note that we also mention the corresponding pre-trial steps for each mechanism)

- Retrieve daily agenda of a person
- Provide feedback to a specific agenda item
- Provide information about a specific agenda item

Finally, the pre-trial will provide early feedback related to the functionality and completeness of the Agenda Service that will be used to adjust and enhance the Agenda Service accordingly in order to produce the second operational prototype of the Miraculous-Life System.

4.1.3.2 Object Location Reminder

This service serves as a “memory support” that helps the elderly to remember where certain objects (i.e. wallet, keys) are usually stored around the house (i.e. in the kitchen drawer). This functionality can be used either for finding an object which has been already stored by the user or to know where certain object should be stored in order to retrieve it easily in the future.

For the pre-trial, we will test how a user interacts with this service to request and retrieve the location of an object that has been already stored in the system. In the final version, the users will also have the possibility to create and manage their own list of objects. Through the service they will insert or remove objects and modify the usual storage locations of existing objects.

4.2 Software Installation

The software for the pre-trial will be installed by the technical partner responsible for this task for each of the end-user organizations: Noldus for Orbis Hoogstaete, and UniGe for MRPS. The installation procedure will have two main steps: the installation of the workstation software, and the installation of the tablet software. The entire procedure is described in detail in D5.3.

In this deliverable, we will provide a brief installation procedure in order to get the system running without having to be a computer specialist. Assuming that all required software is installed on the workstation as described in D5.3, the installation and starting of the Miraculous-Life system is as follows:

- The whole Miraculous-Life system software is delivered as a single zip archive (all in one package). In order for the ML system to run, the archive simply needs to be extracted to a writeable location on your computer. Note: Please don't modify the folder structure in any way, since this would cause the system to malfunction. Within that zip archive, there are several distinct components and folders:
 - framework: the system framework, i.e. the Karaf container

- UI: the user interface with one HTML file, style sheets (css) and the JavaScript (js) files, which enable the dynamic UI interaction. Additionally, there is a default Avatar video file already available as well as some required images.
- WebServer: the WebServer, which is required for the tablet to access the workstation. The WebServer starts automatically when the whole system is started, with a default Port value of 8080. This Port has to be accessible from another network device and must not be blocked by a firewall. Please ask your local network administrator for further information. This Port value may also be changed if it is so desired.
- dialogue_manager: within that folder, the ASRmanager, which is the speech recognition engine, is located.
- AndroidApp: the Android App that has to be installed on your tablet device(s) is located here (as an apk file). Please copy this file to your tablet(s) and install it there.
- Several Start Scripts: based on the current status of the system development, there are three system start scripts available at the moment for the languages English (EN), French (FR) and Dutch (NL):
 - ML_StartScript_<lang-code>.bat: execute (double click) this file to start the system with the corresponding lang-code language.
 - ML_StartScript_<lang-code>_ASRv2.bat: provides the usage of a different speech recognition engine.
 - ML_StartScript_<lang-code>_With_Reminder.bat: starts the system in order to test it with the activity reminder functionality.
- Before starting the ML system, a microphone has to be available within the operating system.
- After confirming that a microphone is available, simply start the ML system by executing one of the aforementioned StartScript bat files. Several different windows will pop up, which can be safely ignored, but they must not be closed! There is no concrete “system ready” notification yet, except for a browser window, which will be shown after about 25 seconds. Since the user interface is provided as a JavaScript controlled website, it is possible to interact with the system via any browser that supports HTML5, CSS and JavaScript.
- When the system is ready, start the Miraculous-Life App on the tablet, which will present the configuration screen:
 - Side Note: The tablet(s) and the workstation have to be on the same network, so they can find and “see” each other.
 - In the first input field, type in the IP address of your workstation (where the ML system is running). Optionally, the IP address can be saved for later usage by pressing the “Save” button
 - Beneath the IP address, the used Port can be defined. This value must be the same one as provided with the WebServer, described in a previous step.
 - To check if the connection to the workstation can be established, press the “Check connection” button. This process should either result in a “Connection failed” or “Connection successful” message. In case the

“Connection failed” message is shown, please consult your local network administrator.

- Next, select the language you want to use
- Finally, press the “Start MiraculousLife UI” button
- The configuration screen disappears and the user interface will be loaded.
- Now, the ML system can be used

In order to exit the Miraculous-Life system, simply close the App on the tablet and execute the ML_StopScript.bat file, located next to the Start scripts. After that, any remaining open windows related to Miraculous-Life can be closed.

5 Pre-trial setup

5.1 Setup

5.1.1 Orbis

The set-up will be placed in the conference room as described in Section 2.1. Additionally to the physical setup described in Section 3.2, the setup at Orbis will be complemented with a Kinect for Windows v2 sensor. As this sensor was released just before the pre-trials take place, it cannot be incorporated as the main sensor to capture speech. However, the pre-trials give a nice opportunity to capture data of elderly that can be used to test other components like the emotion recognition component as well as the face analysis module.

The inclusion of the Kinect for Windows v2 sensor will be completely complementary. The sensor will be connected to a different PC (provided by Noldus) to store the captured data. To be in line with D6.2a, the users will be asked if the data can be used for the purpose of testing the developed components within the project.

Used informative and privacy documents for the pre-trial (see *D6.2 Privacy Protection Plan*):

- Informative brochure for the pre-trials
- Informed consent form for the pre-trials
- Form for use of one's image

All of these documents are attached in D6.2 Privacy Protection Plan and translated to the Dutch language.

5.1.2 MRPS

Used informative and privacy documents for the pre-trial (see *D6.2 Privacy Protection Plan*):

- Informative brochure for the pre-trials (see Appendix A and B)
- Informative presentation for the pre-trials (see Appendix C)
- Informed consent form for the pre-trials
- Form for use of one's image

Finally, UNIGE and the ICT department of MRPS will set-up the Miraculous Life system, ensuring the proper functionality.

5.2 Training and support

As the end-user organizations are not technology experts, Noldus and UniGe will provide technical support to Orbis and MRPS, respectively. These technical partners will install the system, enable a remote connection to the system for software updates (e.g. by TeamViewer) and will provide support on demand in case of emergencies.

Noldus and UniGe are also responsible to train the end-user organizations such that they can operate the system themselves and train the users according to the description in D6.1.

6 Further Work

In future releases, this deliverable will describe the pilot setup and deployment in detail including the individual environment descriptions of each of the pilot users' apartments for both MRPS and Orbis Hoogstaete.

Appendix A **Echo de l'Age d'Or N°315 (p. 9-10)**

A PROPOS Info



La Maison de Retraite du Petit-Saconnex participe à deux projets européens : EDLAH et Miraculous Life. Dans le cadre de ces projets, la MRPS a récemment accueilli un nouveau collaborateur : Donato Cereghetti, dont le bureau est situé à l'accueil Colladon. L'objectif de ces projets est de développer et évaluer des technologies innovantes permettant de : (1) favoriser le maintien de l'autonomie des personnes âgées, (2) améliorer la qualité de vie des personnes âgées,

(3) favoriser la communication et la collaboration entre la personne âgée, les proches et le personnel soignant.

Le projet EDLAH

EDLAH est programme pour tablettes comportant 4 services :

- (1) Un logiciel destiné à fournir des informations générales inhérentes à la santé et à la nutrition,
- (2) Un logiciel d'alerte pour la prise de médicaments,
- (3) Un logiciel permettant de communiquer avec les proches et avec le personnel soignant,
- (4) Un logiciel aidant la personne âgée à retrouver les objets égarés à la maison.

Récemment, une première prise en main du prototype EDLAH a été effectuée par quelques résidents volontaires afin de fixer et comprendre les limites de ce système. Les données précieuses récoltées pendant cette première table ronde permettront aux développeurs d'améliorer le système et de proposer deuxième version du prototype. Ainsi, une deuxième table ronde sera organisée vers les mois d'octobre/novembre afin d'évaluer une version améliorée du prototype.



A propos 9

A PROPOS Info

Le projet Miraculous-Life

L'objectif de ce projet est de développer et d'évaluer un partenaire de soutien virtuel (avatar) qui accompagne la personne âgée dans ses activités quotidiennes et qui gère les besoins relatifs à sa sécurité. Le système Miraculous Life sera capable de détecter des situations potentiellement dangereuses pour la personne – par exemple une chute – et avertir des personnes de référence – par exemple le personnel soignant – en cas de besoin. Un premier questionnaire a été rempli par quelques volontaires afin de fixer les attentes, besoins, envies par rapport à ce système. Les premières analyses suggèrent que les résidents de la MRPS aimeraient disposer des technologies pour :

- Leur rappeler les activités et rendez-vous (fonction agenda)
- Les assister pendant les courses (liste d'achat)
- Rester en contact avec les proches
- Etre informés des activités organisées par la MRPS
- ... Jouer ! ☺

Les partenaires du projet Miraculous-Life sont en train de concevoir un premier prototype du système. Durant le mois de juillet, une table ronde sera organisée afin que des volontaires puissent évaluer ce prototype. Une présentation du projet sera effectuée au mois de juin. On vous tiendra au courant !

Toutes personnes intéressées à participer à ces différents projets peuvent prendre contact avec Donato Cereghetti directement à l'accueil Colladon ou lui téléphoner au : 7925.



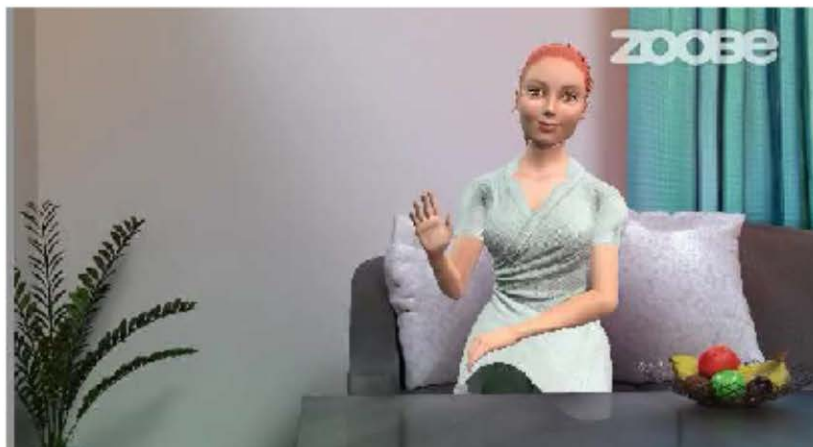
Donato CEREGETTI
Chef de projet

A propos 10

Appendix B **Echo de l'Age d'Or N°316 (p. 23)**

A PROPOS Info

Projet tablettes : miraculous life



Chers résidents,

Vous êtes chaleureusement invités à participer à la présentation du projet de recherche « Miraculous Life » le

Mercredi 16 juillet à 10 h00 aux salons Fazy Fatio

L'objectif de ce projet est de développer et évaluer des technologies innovantes permettant de : favoriser l'autonomie des personnes âgées, améliorer leur qualité de vie, et favoriser la collaboration entre la personne âgées, les proches et le personnel soignant...

...Et tout cela grâce à un partenaire virtuel qui accompagne la personne âgée dans ses tâches de la vie quotidienne.

Nous vous attendons nombreux !!

Donato Cereghetti, chef de projets tablettes

A propos 23

Appendix C Presentation MRPS, 16 July 2014: slides

28/07/2014



Projets tablettes

Miraculous-Life
EDLAH

Donato CEREGHETTI, chef de projet «tablettes»
Tel interne: 7925
Email: donato.cereghetti@hotmail.com

1



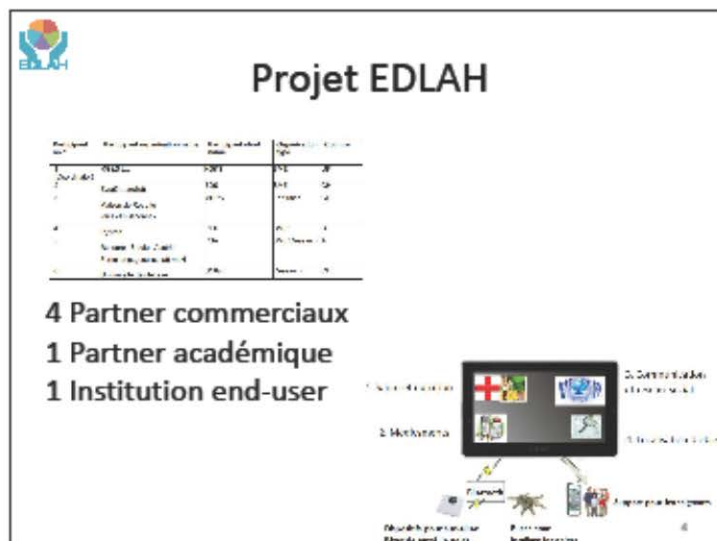
Objectifs des projets tablettes

- Prévenir la dépendance et favoriser le maintien de l'autonomie des personnes âgées
- Augmenter la qualité de vie des personnes âgées
- Favoriser la collaboration entre la personne âgées, les proches et le personnel soignants
- => **Grâce à des technologies innovantes**


2

1

28/07/2014




28/07/2014




Projet EDLAH

- **Etat du projet:**
 - 1^{er} workshop en avril 2014 sur un premier prototype
 - Réalisation d'un petit documentaire, film sur le projet
 - Actuellement nous cherchons des résidents pour répondre à un court questionnaire de 15 minutes...

5



Projet Miraculous-Life



Partenaire n°	Partenaire / organisation / service	Partenariat (2014)	Commentaire
1	Université de Bordeaux (MIRACULOUS)	Académie	Académie
2	Université de Bordeaux (MIRACULOUS)	Académie	Académie
3	Université de Bordeaux (MIRACULOUS)	Académie	Académie
4	Université de Bordeaux (MIRACULOUS)	Académie	Académie
5	Université de Bordeaux (MIRACULOUS)	Académie	Académie
6	Université de Bordeaux (MIRACULOUS)	Académie	Académie
7	Université de Bordeaux (MIRACULOUS)	Académie	Académie
8	Université de Bordeaux (MIRACULOUS)	Académie	Académie
9	Université de Bordeaux (MIRACULOUS)	Académie	Académie

5 Partner commerciaux
2 Partner académiques
2 Institutions end-user

6

3


28/07/2014



ML: Une vue générale


Un robot qui soit assez «humain» pour communiquer pourrait être une excellente aide pour les personnes âgées. Mais est-ce possible? Pour le savoir, la Commission européenne a lancé le projet «Miraculous-Life» afin que les personnes âgées puissent avoir une vie autonome.

Son objectif principal est de développer et de tester un partenaire de soutien virtuel qui peut s'occuper des activités quotidiennes, mais également gérer les besoins relatifs à la sécurité des personnes âgées (MSA) dans leur vie quotidienne.



http://www.miraculous-life.eu/images/dissemination/Press_Release_Miraculous-Life_for_Independent_Elderly_Living_French.pdf

7



Le système Miraculous Life

- **Accompagnement:**
 - Agenda
 - Assistance pour le shopping
 - Rappel pour la prise des médicaments, les rendez-vous
 - Localisation d'objets: une caméra reconnaît de manière automatique où les objets perdus se situent dans l'appartement
- **Education, Loisir:**
 - Recettes
 - Discuter avec l'avatar

8

4

28/07/2014



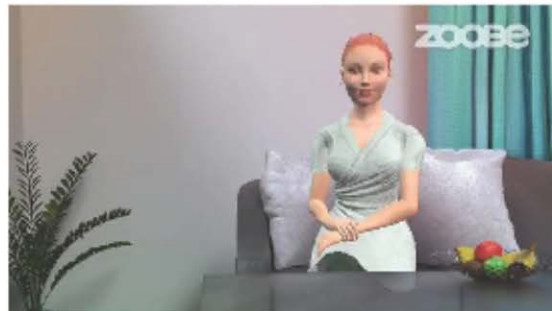
Le système Miraculous Life

- Services de sécurité:
 - Une caméra détectera de manière automatique la chute et des situations dangereuses qui pourraient se produire dans l'appartement
- Collaborative Care Network (Co-Net)
 - Système favorisant la communication entre la personne âgée, ses proches (voisins/amis), le personnel soignant, les animateurs,...

9



Exemple 1: rappel des médicaments



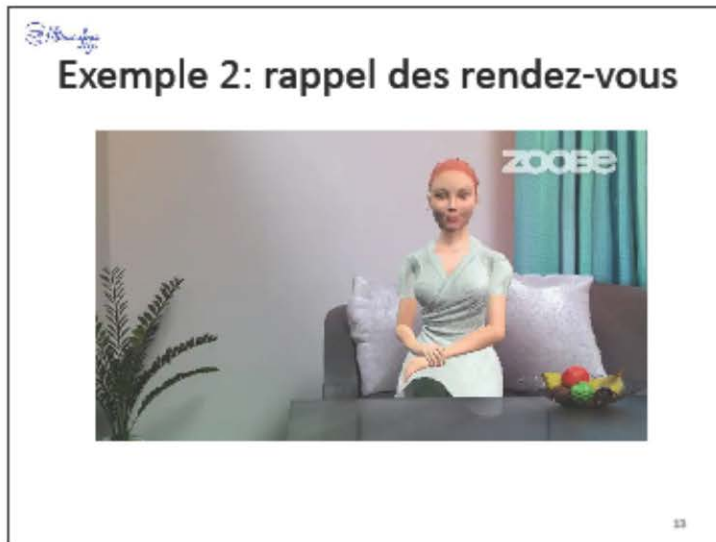
10

5

28/07/2014





28/07/2014




7

28/07/2014

 **Exemple 3: je suis tombé... ☹**



35

 **Plan du projet Miraculous Life**

- Août 2014: premier workshop! Durée env. 1 heure, passation individuelle
 - Combien des participants? Entre 5 et 10
- Fin 2015: deuxième workshop! Durée env. 1 heure, passation individuelle
 - Priorité aux résidents qui ont participé au premier workshop
 - Combien des participants? Entre 5 et 10
- En 2016: le système Miraculous Life sera installé dans les appartements de 20 volontaires pour 6 mois
 - Priorité aux résidents qui ont participé au deux premiers workshops
 - Priorité aux résidents qui vivent seuls
 - Combien de résidents? 20

36

8

28/07/2014



Pourquoi participer?

- Vous allez tester et découvrir des technologies innovantes!
- Votre apport, avis est très important pour pouvoir développer au mieux ces technologies!
- Il ne faut pas avoir le sentiment de « n'être pas capable à faire »
- Ceux qui ne se sent pas à l'aise avec les nouvelles technologies sont les bienvenus !
- Le projet Miraculous Life... ça sera amusant... 😊

37



Comment participer?

- En s'annonçant à l'accueil de Colladon (Isabelle Frey) dans les 2 prochaines semaines



Avez-vous des questions?

38