



## MODULAR E-COURSE WITH VIRTUAL COACH TOOL SUPPORT

2<sup>nd</sup> COACH BOT NEWSLETTER  
OCTOBER 2009

The Newsletter Issue 2 is part of the informative material concerning the aims and activities of the project and it intends to disseminate and promote the main project outcomes.



### The European context of home health care assistance

The “*Need analysis report*” has been published on the project web site ([www.forcom.it/coachbotproject](http://www.forcom.it/coachbotproject)). The need analysis has been undertaken in each partners' country (Italy, Denmark, Slovenia, Romania, UK, Switzerland) and in Croatia.

The need analysis has been carried out through a desk research, which consists of a comparative study of the European literature, case studies and best practices. In addition, it has been interviewed two health care professionals in each country to collect information on the project target group characteristics, the health care context main lacks and the main characteristics of the training offer and needs of the health care professionals in target countries.

*A great part of the staff that is taking care of old people and sick or handicapped people in their homes in Europe are people with a low educational background.* This conclusion can be made from the research results presented in this report. Also professions with medium and higher education such as doctors, psychologists, nurses and physiotherapists are employed in elder care but with more specific tasks than the ordinary home care giver.

The target group of the home care professionals is complex. They work with elderly people, adults with disabilities, people who are terminally ill or have chronic diseases (physical or mental), people in need of rehabilitation and any other persons in need of care.

The level of knowledge of the English language and the level of computer literacy among the home care professionals in the above mentioned countries differ from low to medium. Professions demanding only a low level of education, offering low salaries and having low social



status are in all Europe normally dominated by women. On this background it is not surprising that home care is a profession for females.

Apart from being a woman with a short or with no education the typical European home caregiver is older than 40 years.

The reports from the seven European countries give a clear picture of a profession where you have to face a lot of different problems during your working day. The caregiver must know how to work with people with specific diseases and handicaps - including blind and deaf people - people with physical problems after for example surgery and people with psychological problems and alcohol problems, people with dementia. She must every day handle to be working in another person's private home - sometimes with this person's relatives around her. She must be able to evaluate the patient's situation and changes in this situation and to communicate this to her/him. Besides the profession is characterized by lack of resources and staff - you are overloaded with work and have too little time available for each patient/client - and also for participating in training. There is also a lack of contact with colleagues as the caregiver is often working alone and there is a lack of professional and psychological support and clinical supervision.



### The results of the training needs analysis

As already concluded the educational level of home care professionals is not high and consequently there is a need for in-service training. This is common for all countries in the seven countries where the research was carried out but the reports show that the opportunities of in-service are very different in these countries.

In *Denmark* the home care staffs that have the social and health care helper education - that is the required minimum to work in home health care - are regularly offered a wide range of in-service courses related to home health care. The contents of the courses are constantly updated according to the development at the labour market and in science and technology. There is however a need for web-based in-service training.

In *Italy* there are good opportunities for in-service training for doctors, nurses and physiotherapist but these opportunities are not offered to the less educated social workers and care workers. Research carried out recently in Italy shows that there is a need to be better at managing the relationship with patients/clients i.e. to learn about assertive and emphatic communication - not only with old people, persons with different disabilities and dying people but also with their family and relatives. Besides there is a big need for training on the professional role of the caregiver and this is also the case among better educated staff such as nurses.



In Romania there seems to be good opportunities for in-service training for the social assistants and medical assistants, provided by academic staff, but this seems not to be the case for the less educated home caretakers.

In Slovenia and Croatia formal in-service training for health care professionals does not exist at all. Some informal training led by more experienced workers does exist in both countries to a small extent, however, and in Croatia knowledge about home health care is *part* of the curricula in one of the courses of the nurse education. There is a big need for training in communication with people with disabilities, especially blind and partly sighted people and people with hearing disabilities, with elderly people and with dying people and their families.

The UK is the only country (among the seven countries mentioned in this report) where there is the National Vocational Qualification (NVQ). An NVQ is a qualification which demonstrates an individual's ability to do their job effectively and efficiently. These comprehensively designed NVQs at each level achieve a qualification that satisfies UK government requirements. Training is mainly on the job and assessment is directly related to an individual's performance at work, this is undertaken by an NVQ assessor.

In Switzerland specific in-service training is offered when a specific training need is detected among professionals or if new instruments or methodologies must be explained. In addition the professionals' organisations offer psychological support meetings and seminars to discuss ethical or motivation issues. There is a need for training in handling the relationship with people with special needs and with the families and relatives of the patients/clients. Besides psychological support and possibility for experience exchange with peers is in demand as staffs working in home care seldom have the possibilities to interface with colleagues.



### The training methodology

The COACH BOT methodology (*"Instructional Design handbook"* [www.forcom.it/coachbotproject](http://www.forcom.it/coachbotproject)) has been designed on the basis of the Pedagogical Agents technology. Pedagogical Agents are autonomous software systems, realized with AI-Artificial Intelligence, methods that can operate in the training environment as tutors or facilitators who adaptively assist users in performing training tasks.

The COACH BOT virtual assistant will act with different roles within the e-learning platform: as *tutor, teacher, technical assistant, mentor*. The innovative e-learning methodology also includes the designing of a "personalized" learning path, presented and supported by the virtual assistant, for each student according to his/her own profession, experiences and work needs.

The first time that the student will access to the platform will be interviewed by the Virtual Assistant. The user begins to be familiar with the virtual agent who starts a friendly conversation



to create a sort of empathetic relationship. The final goal is indeed to define a professional profile and consequently a learning path that fit better the student.

After the guidance interview the student is allowed to access the exercise area of the E-learning platform. The system presents the user as many quizzes as the number of modules foreseen for his/her learning path. These exercises have to be considered as start up quizzes in order to test the initial knowledge of the student concerning topics presented in the course.

Three learning objects (audio/video lessons) have been produced for each module and for each learning object the system will ask the student three questions, that means 9 questions per module have to be answered. If the student will answer correctly to all the 3 questions concerning a particular topic, the corresponding learning object is optional, otherwise mandatory. A customized learning path is then provided, taking into account the previous knowledge of a student: *mandatory* for the topics not well known and *optional* for the ones where the user is comfortable.

Throughout the entire course duration the Virtual agent will assist the students providing them several services such as:

- Help Desk area is to provide the user a detailed help on the web platform functionalities or tools. By using only natural language, the meaning of the different functionalities are well explained by the COACH BOT if a student asks for help. This user-friendliness allows learners to concentrate only on learning the course contents and allows people who are not experts in using a PC and/or learning management systems to effectively use the system.
- In order to maintain learners motivation the COACH BOT interacts with each learner during the entire course duration in different ways, providing ongoing verbal feedbacks on the study progress.
- A final assessment will check the learning carried out by a student after the e-course with the virtual agent's assistance. A singular final quiz will be visible, in the exercise section of the E-learning platform, if and only if the student has answered to all the different questions of the corresponding start up quiz and if he/she has studied 'enough' the corresponding module. Technically, the concept of study 'enough' means that a student has to attend the learning objects within a module at least for an expected time defined by the didactic developers.
- Three case studies to improve the students knowledge showing a practical case will be presented by the "Virtual Coach" at the end of the course through the Machinima technique (use of real-time three-dimensional (3-D) graphics rendering engines to generate computer animation).





### The project Virtual Assistant: “CLARA”

The graphic interface of the “Virtual Assistant” has been designed by the Danish partner (Health Care College of Aarhus). It is a female and her name is “Clara”, below her picture.



Of course I can. Tell me what you are having trouble with.

Can you help me?



### COACH BOT activities: state of the art

Actually the project partners are working on the Work Package 4 which consists of the productions activity. The technological team are developing the project e-learning platform and its integration with the avatar “Clara”.

At the same time the Didactical team are developing all the course Learning Objects (audio lessons, lecture notes, quizzes).

Partners are also realizing dissemination and exploitation activities listed in the following section.



### Dissemination and Promotion events

A second interim meetings among partners has been arranged in Bucharest (Romania), 14/15 May 2009. It aimed at training partners teachers on how develop the course Learning Objects (which LOs to be developed, how develop its, templates to use, images or not to include, tools to include in the web platform or not, etc).



*Some of COACH BOT staff people took part in international events in order to promote the project.*

Suzanne Carder, Norton Radstock College Project Manager, took part to ILearning Forum 2009, 19-20 January 2009, Paris (France).

<http://www.ilearningforum.eu>

Susanna Correnti, For.Com. Project Manager, took part to a National conference focused on the e-learning for the public administration and the health care sector: “L'integrazione dei sistemi di e-learning nella gestione della formazione/conoscenza nelle organizzazioni: tecnologia, condivisione e processi. Il modello della Emilia Romagna e del portale dell'e-learning per le aziende sanitarie Salus.Net”, 10 March 2009 Bologna (Italy).

[http://itelsoc.it/index.php?option=com\\_content&task=view&id=104&Itemid=53](http://itelsoc.it/index.php?option=com_content&task=view&id=104&Itemid=53)

Federica Funghi, For.Com. Project Manager, took part to ICIE'09, the 4th International Conference on Interdisciplinarity in Education, 21-22 May 2009, Vilnius (Lithuania).

<http://www.estiatn.net/ICIE2009/>

Luca Angelo Galassi, For.Com. IT Project Manager, took part to EDEN 2009 Annual Conference, 10 / 13 June 2009 Gdansk (Poland).

<http://www.eden-online.org/eden.php?menuId=410>

*Local and International events arranged:*

Rome 30 September 2009. I° National Seminar.

This event aims to promote the COACH BOT project, to share the project aim and phases with stakeholder, but also it has been an opportunity to meet the home health care professionals in order to involve them in the setting-up process concerning the First general framework for the pilot training course.

*Local and International events scheduled:*

Luca Botturi, Seed Association Project Manager, will take part to the Annual Convention



of the Association for Educational Communications and Technologies - AECT, in Louisville, Kentucky, in 28-31 October 2009.

<http://www.aect.org/>

Susanna Correnti (For.Com.) and Maja Klančič (Secondary School Of Nursing Ljubljana) will take part to the International Conference on Communication in Healthcare, in Verona (Italy), in 7-10 September 2010.

<http://www.each-conference.com/>

The first National Seminar is also going to be arranged in all partners' countries:

Denmark, Aarhus: September 2009/January 2010

Slovenia, Ljubljana: November 2009

Switzerland, Lugano: January 2010

In United Kingdom (Radstock) and Romania (Bucharest) the first National Seminar is going to be arranged between October 2009 and January 2010.

