



SenApp - Seniors Learning with Apps

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Change log

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Sonia Hetzner	30/01/2015	Version 1
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1. Introduction

The training environment and the training App of SenApp is one of the deliverables of “WP3: Technical development and implementation”.

D3.2 is a prominent work package in the SenApp project. In the scope of this work package core aspects of the project are analysed, developed and implemented, always taken into consideration the target group of the project (seniors), the economical restrictions (budget and necessity to use open source solutions) and the sustainability of the developed products.

The training environment and the training app was developed by taking into account the very specific situation of the project aims, developed products, authoring approach and target groups that have to interact with the system. The basic software for the training and mobile learning platform was chosen and adapted (see D3.1). The authoring process (work flow) was settled from a technical perspective. For this reason the first idea - to use Adobe Captivate version 8 for development of the modules - needed to be rethought and finally was changed. The content of the learning modules was created in a development environment using the authoring tool of the Learning and Management System (= E-Learning Platform, ILIAS OpenSource) that in its Version 5 (released 2015) included a very dynamic and appropriated responsive design, which facilitated the developments in SenApp enormously. In this way it was possible to develop both a web-app for the iOS-system and a hybrid App for the Android System.

2. The development process

The training environment and the respective training App are the core products of the SenApp project. It gives access to the e-learning platform and the learning materials (learning units, videos, glossary, exercises), displays feedback to the learners and collects evaluation (questionnaires and user tracking) data for the SenApp team. The SenApp-App was developed in line with the technical possibilities offered by Learning and Management System.

Authoring software

Different types of authoring software were analysed and tested in a hands-on approach performed by the SenApp partners ILI and GIE.

In D3.1 Adobe Adobe-Captivate software version 8 was perposed, since:

- It includes responsive design and supports mobile learning solutions
- It allows for the development of interactive exercises
- Outputs can be exported to different systems
- It can also generate stand-alone learning units as learning apps
- It is affordable (but unfortunately not for free)

- It has a SCORM interface that allows integration into an LMS

After completing the testing phase of the basic course the decision from D3.1 was discussed and redefined. The consortium decided to dropout the development with Adobes Captivate, and proceed using the Authoring Tool of the ILIAS based LMS. In its new Version ILIAS offered main advantages such as responsive design, which are very supportive for the SenApp Project. Furthermore the tools of the LMS were familiar to the consortium members since they have been used in other e-Learning Projects. The main reason to cancel the further use of from Adobe Captivate modules was that the technical performance between the LMS and the iPads had to be improved. The performance was not satisfactory and the consortium has decided to take extra efforts to overcome the problems and improve significantly the performance.

The Learning Management System (LMS)

The partners decided to use here an ultra-calibrated e-Learning platform, already validated by the practice with a very large number of users.

Additionally, due to the high level of technical adaptations required the partners had to rely on known platforms. For this reason the partners decided to use the open source platform ILIAS version 5 (www.ilias.de), since

- In the latest version it is based on responsive design, thus it is well designed for mobile learning
- The user interface can be easily adapted to user needs and requirements
- The user interface design is simple, flat and intuitive
- It included the necessary communication functionalities
- It has a SCORM interface
- It included tracking functionalities
- It allows for the set-up of a variety of user roles and respective user interfaces
- It includes testing and assessment facilities
- Multimedia elements with high data volumes can be easily embedded
- It is available in all project languages

The SenApp E-Learning platform is created with responsive design functionality. When accessing SenApp with an iPad via a browser (usually Safari browser from Apple) SenApp course and its learning material can be displayed and interactively used. The same is true for the Android system.



App concept

The project has followed the development of a Web-App (for iOS) and a Hybrid-App (for Android) approach that is based on different communication protocols with the LMS. The SenApp partners ILI and GIE were in charge of the software developments. The outcomes were presented at the ILIAS OpenSource Conference in September 2015 and very well received by the developers community.

The new developments and adaptations for the development of the two Apps was especially important to respond easily to the requirements of IOS and Android systems and to avoid long and complicated app release for the IOS system. Furthermore the Web/Hybrid-App approach allows for constant updates and changes on the training materials (Videos, Glossary, 25 Learning Units, Questionnaires). This was especially important for a constant improvement of the quality of the learning products produced within SenApp.

For exporting the modules to the developed App, the modules are exported as html modules and afterwards reimported. So the app could finally import and show each module automatically and in its final version. The interfaces between training and learning platform (an adaptation of learning management system (LMS)) and the training App were designed and implemented.

To access SenApp with an iPad a browser shortcut is used, that appears like an app directly on the home screen. For Android devices the App can be downloaded and installed for free from GooglePlay Store, see below.

3. The product

There are two aspects for SenApp products. A first one describes the Hybrid-App for Android devices, a second give information about the use of the Web-App for the iPad.

For Android device

In the second phase of the project a Hybrid-App for Android devices has been developed, which combines online and offline elements, thus it can be easily used on mobile devices with low web-data traffic. The App can be downloaded from Google PlayStore: <https://play.google.com/store/apps/details?id=com.smarttrade.senapp&hl=en>.





Screenshot: SenApp-App at Google PlayStore (language depends on browser setting)

After download the app users are asked for login data when a person opens the app for the first time. This is to make sure a person is participating in one of the SenApp courses and is getting support when working with the learning materials. Tutor support is one key pedagogical aspect of the SenApp project.

The App is available in five languages: English, French, German, Spanish and Romanian. After successful login, the app automatically starts with its automatic download process of learning modules available for the account that has been logged in. By this way the learning path can be controlled by the course tutor. After the import process has finished, the learning modules (incl. the videos) can be run offline. For using the forum or glossary function an Internet connection is required. Also updates or any other communication between the app (installed on a mobile device) and the learning platform remain related to a working Internet connection. Here are some screenshots of the app:





Screenshots: 1) language menu of the SenApp-App; 2) login interface; 3) the app downloading available learning modules after first login

For iPad

The responsive design of the LMS supports the use of different screen size for SenApp. A normal iPad screen size is 9", this is what most of the developed learning content of SenApp is adjusted to (for iPad course). After successful login to the eLearning platform the user gets forwarded directly to his/her course and all setting options are selected in his/ her pre-set language. Users have a very limited view to the SenApp platform. This is to minimize the risk of irritation and to guide the users focus in an effective way. The structure of the iPad course is the same as for android devices. The only difference is that there is no Web-App on Apple's AppStore available. The App is downloaded as a shortcut on the homescreen.

4. Summary

The technical concept as described in D3.1 has been used as a basis for the development done in D3.2. The development took place in an interactive process while pedagogical and didactical concepts evolved, and feedback as well as evaluation results that came from the testing phase were implemented. This document describes the development process of the learning materials of the project offered to different mobile devices. It describes two main aspects, the one focuses on the development of the material for iPads, which is offered online via the LMS, the other focuses on the app approach, which is available as a web-app for android devices. Both aspects were piloted during the piloting phase of the SenApp project, see D5.3 and D6.3.

