

HUMAINE - EC Network of Excellence on Emotions

Intelligent Interfaces - University of Bari

Wizard of Oz Tool for Evaluating Dialogs With ECAs

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For a more detailed description of the aims of this tool, see at:

<http://www.di.uniba.it/intint/HUMAINE/WOZ.html>

This doc only describes how to use it.

The application needs the following files:

Setup file for Oz application

Setup file for Subject application

Haptek player

SAPI Microsoft (TTS)

This tool was designed with the aim to simulate and evaluate dialogs with ECAs, with the Wizard of Oz methodology. It is based on a client-server architecture, is written in Visual Basic 6.0 and uses several libraries and components.

The Oz side

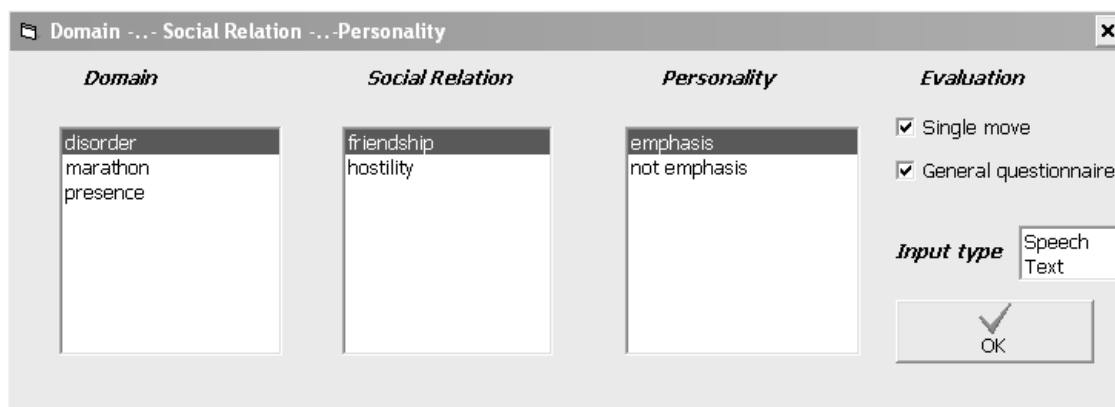
In the same path where run oz.exe is run, a domain folder must be created for every application domain (selected during the oz.exe initialization). This folder includes a list of APML files which are organized, in their turn, in a set of folders, each of them grouping the set of agent moves that were defined, in the design phase, as belonging to the same category.

Other files:

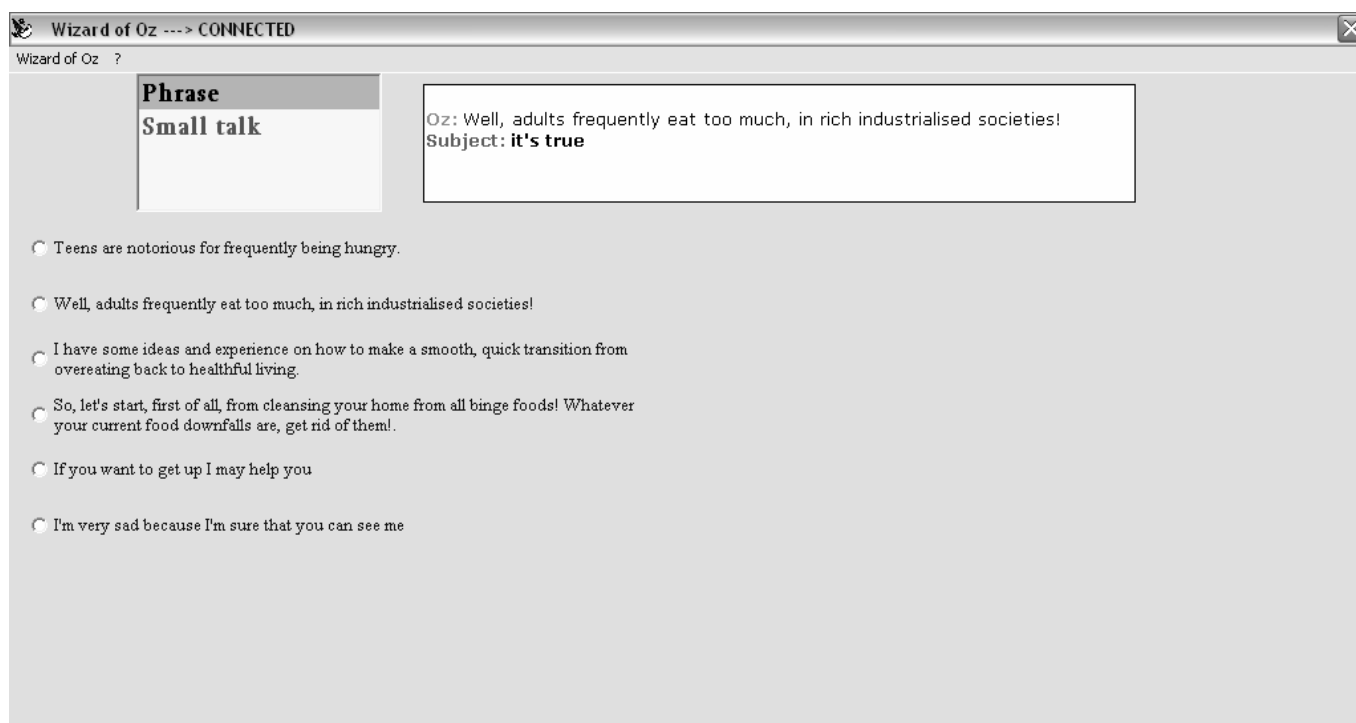
- *Presentation.txt* - contains the texts which will be displayed initially in the subject's interface, during the experiment presentation, for the various applications;
- *Result.rtf* - contains all the results of a study (dialog histories with evaluation of individual moves): these files may be opened with any text editor;
- *Questionnaire.xml* - contains all the questionnaires (as xml structures) which were filled by the subjects as the final evaluation step of interaction.
- *Voicechat.exe* - This application allows speech input

The application uses a Client-Server connection through 220482 and 230585 ports; so, if you have a firewall installed in your computer, you must disable it for the application to function. The Oz tool will run in the server side and the subject in the client side.

When you have installed all the system components, you may run oz.exe: select the experiment conditions (domain, social relation, agent's personality, evaluation method) and the input mode -speech or text-: with these settings, you will indirectly select the path in which the apml files which represent the agent's moves to employ in your study are stored.



The lists of apml files will be displayed in groups, according to the categorisation defined by the folder's structure.



The Subject side

To run the subject application, set 99.info by changing the first text line with the Oz IP which is shown in the Oz application when “?” and “Info” are selected from the menu bar.

When both the applications are running:

First: Select “Start for listening” from the “Wizard of Oz” menu (Oz Application)

Second: Select “Initialize” from the “Configuration” menu (Subject Application)

Other files of interest:

- *99.info* - just explained
- *Haptek.exe* - Haptek wrapper
- *TaggingHap.xml* - contains the information employed by the haptek wrapper to translate the tags in the agent moves (‘meanings’) into ‘signals’, that is face expressions.
- *Voicechat.exe* - This application allows speech input

Note: the “*haptek*” folder contains the haptek character

Using the tool

When both the applications have been started and the connection has been established, the “Connection established” message is displayed on the server side (Oz): the experiment can then begin.

The user playing the role of the Wizard on the server side (Oz) may select one of the available agent moves in the hierarchical menu by clicking on it: the corresponding apml file will then be sent to the subject side and the haptek wrapper executes it.

Subjects may respond, in their turn, with the initially selected modality (text or speech input) and the dialog between the ECA (simulated by Oz) and the subject goes on by alternating the two participant’s moves.

When the subject wants to stop the dialog, he or she may click on the “Stop the dialog” button: the final questionnaire to be filled will then be displayed.

The questionnaire results are sent to Oz when the subject clicks on “Confirm Evaluation” button.

Only now, both applications can be closed.

Application Architecture

The architecture in figure 1 shows how the components have been utilized. Changing the ECA utilized in the tool is easy, provided another apml-character wrapper exists.

Notice that the TTS is a component integrated in our Haptek wrapper and that it is separated from all the other applications: you may therefore use any TTS for your ECA wrapper.

If you want to use a new wrapper and create the corresponding executable file, you have to name this file as haptek.exe, because the subject component runs the haptek.exe file that is stored in the same folder in which subject.exe has been installed.

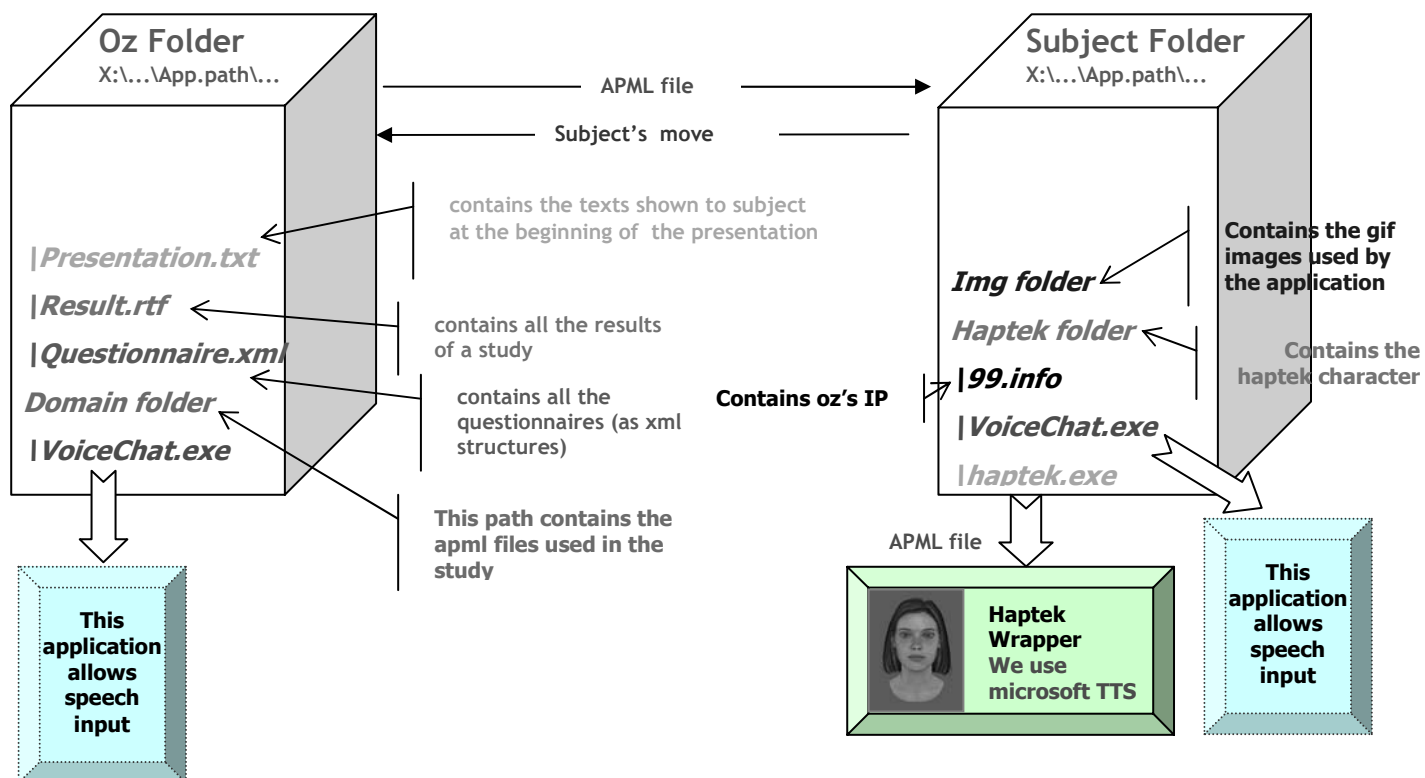


figure: architecture of the WoZ tool