

EVALITA 2011 –
Student Contest on Best Voice Application on Mobile Platform

EVALITA is an initiative for the assessment of tools and applications for the automatic processing of texts and speech in the Italian language.

In this area, EVALITA, in conjunction with AISV, Associazione Italiana di Scienze della Voce (*Italian association of voice sciences*), and with Loquendo S.p.A., is launching a contest for the best voice-interaction application for mobile devices using either mobile (3G) or Wi-Fi data logging, based on the operating system Android release 2.2 (Froyo) or higher.

The contest is divided into two sections, one about a subject of choice, in which the entrants may freely define the area of interest of the application they are going to propose, and one specifically designed for Automotive applications.

Loquendo will provide the entrants with evaluation software licences for their SDK speech synthesis technology (hereinafter referred to as TTS) and voice recognition technology (hereinafter referred to as ASR) on an Android platform in Italian.

To enter the contest, all the conditions hereunder must be met.

Registrations will start on June 1st, 2011 and will end on July 30th, 2011 (the "Registration period").

To take part in the contest, the entrants must fill in a specific form at:

<http://www.evalita.it/2011/registration>

during the registration period, the contest is open to secondary-school and university students of all ranks.

A team composed of at least one and max three people will be set up for each registration.

Individual entrants may not change their team or remove themselves or other members from a team after the end of the registration period.

A team does not have to be composed of members from the same school or university. Although not compulsory, it is advisable for each team to include one (1) mentor (usually a teacher) in addition to its three (3) members. A team may not have more than one (1) mentor.

If all team members are under age, then the team must have one mentor (of age); in any case, the team appoints one member of age who will be responsible for fulfilling the licensing requirements for the software packages provided by Loquendo.

Within 30 days of the registration, the teams must fill in a simple questionnaire, describing the application they intend to develop.

For such description to be eligible, it must contain a proposal for a software application which covers all the points listed below; such statement of intent may not be eventually changed.

Requirements

The proposal for the free-subject section must cover the development of software working on an Android Mobile platform (release ≥ 2.2) where the method of interaction is based on voice technology, preferably integrated with 'classic' methods, such as *touch* and keyboard. For the free-subject section, there are no limits on the type of application or application/semantic domain. However, the jury's rating will be based on the distinctive nature of the chosen domain as well as the goodness of the project and the technical qualities of the work.

The proposal for the specific-subject section shall be built around the Automotive industry. Therefore, the developed application shall involve the hands-free, eyes-free use of an Android device for a typical "in-car" scenario.

For both sections of the contest, depending on the usability ratings, the Committee's judgement will be solely based on the observation of the application on a mobile device, not on a simulated environment. In order to streamline any *testing* or *debugging* session for the applications, the entrants are advised to use Eclipse as a development environment.

As from June 30th, 2011, Loquendo, will send every Team who will accept to subscribe a specific confidentiality agreement, the information they need to download and implement the SDK and voice technology; on their part, the Teams shall independently set up their own workstations for the Android development environments. Such licenses will expire on February 28th, 2012.

Loquendo will not directly provide the Teams with technical support in connection with such licensed packages; however, the LUSI-Lab of the University of Naples *Federico II* will host a forum (already available at <http://sds-napoli.dsf.unina.it>), chaired by an academic expert who, insofar as compatible with his official engagements, will act as an interface between the Teams and Loquendo to solve the most difficult problems. It is hoped that, in a spirit of broad cooperation, the Teams too will use such forum to help solve some technical problems. The final rating will also be based on the 'fair play' showed by the Teams in their mutual assistance through their posts on the forum.

The applications, perfectly working and properly documented, shall be sent to the organisation by 01.12.2011.

Sending the result of the development project means sending a zip file containing:

- 1) the installation package (extension .apk)
- 2) the source code
- 3) a presentation of the project (doc,ppt,pdf) in Italian or English
- 4) an abstract with a description of the application
- 5) (optionally) a video showing the application being used on a mobile device.

The address the materials shall be sent to will be disclosed later on. If the size of one or more of the above files is very large, they can alternatively be provided by linking them to some website.

Information or documentation which is incomplete or sent past the deadline, invalid links to the documents or videos, will not be accepted; every entrant group shall be responsible for checking any requirements or prerequisite.

The jury in charge of selecting the winners will meet from December 2011 to January 2012; the awards ceremony will take place in Rome during the final Evalita event.

A list of teams going through to the finals and the logistic details will be published on Evalita's website. Just one (1) proposal per team will be accepted.

The jury reserves the right to select one or two projects in the free-subject section and one or two projects in the specific-subject section, which will be asked to attend the Evalita event in January 2012 in Rome. During the Evalita session for the contest, the selected Teams may present their work to the public; such presentation shall not last more than 10/15 minutes.

RATING CRITERIA

- 30% Definition of the problem and innovation – How relevant is the problem chosen by the team and to what extent does the project stand out for its innovation, problem-solving ability and impact on broad target groups.
- 30% Design and User Experience (Usability) – How pleasant and effective is using the application to solve selected problems by means of voice recognition and synthetic technology.
- 20% Technical architecture (Maintainability and Scalability) – From an architectural point of view, how technically open is the project so as to make for further developments.
- 20% Market value – To what extent does the application have technical value and what is its potential market value.

Scoring system

A simple numerical scoring system will be used. Each assessed point will be given a score of 1 to 10 by each judge. All scores will be normalised according to the above rates.

PRIZES:

The teams selected for the final Evalita event will win Android-based smart-phones and tablets. A detailed list of prizes will be published on Evalita's website before the deadline for registration.

Intellectual property

The purposes of this contest are merely basic research and the development and dissemination of the growth and development potentials of voice interfaces for mobile platforms.

First and foremost, therefore, this contest does not aim to make profit from or sell the projects submitted by the committees at Evalita, AISV or Loquendo, the sponsor of the initiative.

However, note that the entered applications will remain the intellectual property of the entrant Team. Should a Team intend to start selling (or, subordinately, distributing, even free of charge) the product through any channel (including direct distribution or publication on specific 'markets'), Loquendo reserves the right to convert the ASR and TTS licences from a temporary 'gratuitous loan', as established in order to boost participation in the contest, to a commercial payment, according to methods that will be agreed with the persons concerned.

In any case, Evalita, Loquendo and AISV will ask the Teams for a specific acquittance for using the applications, which, without prejudice to the applicable confidentiality clauses and intellectual property rights, must be usable for:

- a) analysis of sources for the assessment;
- b) reproduction of portions of the code for research, dissemination and educational programmes;
- c) use of applications by Loquendo for demos or marketing campaigns.