

# TECHNOLOGY OFFER

# INTELLIGENT VIRTUAL ASSISTANT FOR NATURAL LANGUAGE CONVERSATION

#### Fields of use

Artificial Intelligence (AI), User Interfaces, Usability, Applications for Tourism, e-Government, Information and media, society, Databases and online information services, Natural language, Web semantics, Voice synthesis, Conglomerates and holding companies

### Current state of technology

Already on the market

Type of cooperation License agreement, Technical cooperation agreement

Intellectual property Copyright, Exclusive Rights, Secret Know-how

Developed by Jožef Stefan Institute

#### Contact

Center for Technology Transfer and Innovation Phone: + 386 1 47 73 224 E-mail: tehnologije@ijs.si Web site: http://tehnologije.ijs.si/

More information about the invention



## Summary

Slovenian researchers have developed a virtual assistant platform that answers questions textually and orally in a natural language on the web site or in a mobile application. The platform is ready for the integration and transfer of know-how for language and domain customization to the specific use of a partner. The research institute is looking for partners interested in licensing and technical cooperation agreements.

# Description of the invention

Web search engines are not always suitable for finding answers to questions in specific domains quickly and user friendly. They do not make possible to assist users in a natural language dialogues. The proposed platform provides web and mobile users of the service with an intelligent assistant who can answer questions textually and orally in a natural language. It offers a range of additional services specific to the needs of the user, enables interactive communication with the user through comments and entering remarks, and gives the client the chance to review interactions. The platform is available also for mobile applications via four mobile platforms (Android, iOS, BlackBerry, Windows Phone). The intelligent assistant contains elements of virtual assistants, intelligent agents, web and mobile services, social networks, speech technologies and artificial intelligence.

The virtual assistant platform is currently adapted to the needs of municipalities and associations of senior citizens with the possibility of rapid transmission to other areas. Furthermore, in addition to the assistant, the application also offers a knowledge base and editor tools.

The members of the development and research team are internationally recognized researchers with extensive knowledge in the field of artificial intelligence, language processing, intelligent systems and web applications.

The researchers are looking for partners interested in licensing in the solution. The researchers are also looking for partners interested in technical cooperation agreement for further joint development of the solution.



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# Main Advantages

Main competitive advantages and innovative aspects in comparison to competitive services and solution providers:

- Cost effective and competitive price performance ratio.
- Unique features (Teletext (TTX), feedback, context, etc.) that improve user experience and reduce the costs of maintenance of the knowledge database.
- Available for integration in mobile applications and services.
- Fast and easy implementation of the system no highly specialized experts needed for local support and customization.
- Expose specific client services, application or topic with added advantage of narrowing the context of question answering which results in more relevant answers for users.

For the end users, marketing departments of end-user companies:

- Better user experience in comparison to looking for information on the web site manually or with search engines, frequently asked questions (FAQ) lists (faster answering for the domain specific topics).
- Less investment needed for call centres.

# Partner Sought

Two possible partner types for licensing agreement and technical collaboration are sought:

Organizations that are looking for better availability of information for their clients and are able to provide an in-house ICT support for the implementation of the service at their web sites. The organizations could be municipalities, governmental organizations, ministries and agencies that extensively communicate with their clients and citizens who are interested in their services, specific information etc.

Also private companies with an extensive customer demand for specialized information about their products, customer support, also by employment of call centres.

Another type of partners are ICT and marketing companies with access to the market of virtual assistants. These companies should be able to have know-how for customization and local support of the technology.