VO.I.C.E. First

VO.I.C.E. First = VOice Intelligence for the Customer Experience

voice first · **Teleperformance** · Unione Europea · REGIONE PUGLIA · PUGLIA FESR-FSE 2014/2020 *Il futuro alla portata di tutti*

Research and Development project which involves the creation of a prototype of an integrated Artificial Intelligence SW solution made up of the following modules:

• Speech Recognition and Analysis
• Social Media Brand Monitoring
• Integrated Dashboard with multi-channel interactions and analytics and Next Best Account prediction
• Chatbots & Virtual Agents

Affiliated benefits

Through this Investment Program, In&Out Spa a socio unico - Teleperformance, aims to improve the Customer Care service by strategically repositioning its operational site in Puglia, transforming it from a telephone call center into an innovative Omnichannel Contact Center and hub for digital and analytical services. All of this will make it possible to strengthen the Company in terms of constant improvement of the performance and efficiency of the service offered; orientation to customer needs and market trends; increase of digital and analytical skills of human resources; greater employment protection in a constantly evolving market.

Technical-scientific interest

In&Out Spa a socio unico - Teleperformance intends to create a prototype of an integrated software solution that will allow it to obtain a complete view of consumer behavior in relation to a brand, product or service, defining the next best business through artificial intelligence algorithms, and consequently improving Customer Care activities and sales performance. The project is fully consistent with the company's strategic plans. The software solution to be implemented, in addition to increasing the number of services offered, will allow significant organizational improvements thanks to a better distribution of the internal human resources involved, directing them towards specialist support roles and consultative. Furthermore, the company believes that the realization of the R&D Project will allow to increase the problem-solving approach and, the collaboration with the consultants, will allow a more rapid achievement of the objectives.

Realization Goals

OR0 Definition of the integrated software solution

The integrated SW architecture that we intend to use for the object platform of this project will be oriented towards microservices, each of which is executed by its own process and communicates with a lean mechanism, often an HTTP API, in full compliance with security and scalability standards.

OR1 Speech Analysis & Voice Data Collection

The realization goal involves the development of a speech analytics application which, through Speech Recognition and Deep Learning technologies, translates the voice interactions of the contact center into textual data and user information , able to predict consumer behaviour, to automate customer support processes, to provide marketing insights.

OR2 Social Media Brand Monitoring & Web Data Collection

The realization goal will develop a Social Media Brand Monitoring tool based on Artificial Intelligence algorithms and structured in research, monitoring, focus, analysis and reporting of customer sentiment with respect to a specific brand, product or service.

OR3 Innovative Dashboarding solution for integrating data from voice and web channels

In this realization goal a module will be developed that will allow cross-referencing the data derived from the application of Text Analysis to the transcripts of conversations with the opinions expressed online in social networks to obtain a real-time complete view of consumer behavior in relation to a brand, product or service and to predict the next best action through an artificial intelligence algorithm.

OR4 Conversational and Chat Virtual Agents

Machine Learning and Artificial Intelligence algorithms will be used to create Virtual Agents capable of understanding natural language and providing real-time support to operators involved in managing telephone and chat interaction with final customers. In particular, the virtual agents will exploit the knowledge extracted from the transcription and analysis work referred to in the OR1 and articles extracted from a Knowledge Database (Questions on Answer pairs) for the problem treated.

OR5 Enhancement and dissemination of results

The fulcrum of this realization goal is the "Communication and dissemination plan of the Project results" which has as its objective the enhancement and dissemination of the results achieved in relation to R&D and it will provide for the drafting of contents suitable for dissemination in the academic, industrial and social fields. Participation in conferences and events in the sector of a regional, national and European nature is also envisaged.