TAIGER

SUCCESS STORY IMSERSO

SEMANTIC TECHNOLOGY TO EASE THE RELATIONSHIP BETWEEN SENIOR CITIZENS AND PUBLIC AGENCIES

IMSERSO

INDUSTRY BACKGROUND

Imserso (the Instituto de Mayores y Servicios Sociales—the Senior Citizens and Social Services Institute) is a Spanish public management agency that is part of the Social Security administration and is in charge of the Social Security System benefits' complementary services. Initially founded in 1978, it is attached to the State Social Services and Equality Department of the Ministry of Health, Social Services, and Equality. Among its other responsibilities, Imserso develops and implements the assistance system for dependents, as well as policies and programs related to the active aging population. It is also in charge of setting the basic rules for guaranteeing the principles of equality and solidarity in the definition of the criteria for the recognition of disability levels, and of developing relationships with other international bodies abroad in the scope of its work.

THE NEED

When Imserso and Taiger met, the public management agency was facing two problems:

On the one hand, Imserso had been functioning as the main communication hub through which senior citizens obtain information from and enter into contact with the Spanish public administration regarding ordinary issues affecting their lives. Hundreds of information requests had been entered into the Imserso search field; nonetheless, the users' experience when attempting to retrieve information was not optimal. Users had problems finding the services they wanted to be informed about: sometimes results were poor matches, sometimes there were too many of them. Precision was lacking and the filtering capacity was very limited. Users could not find the desired articles swiftly enough and they had to keep repeating their searches. When executing simple searches the search engine did not offer answers, not even from Imserso's own document repository. As a natural consequence of this poor browsing experience, Imserso senior citizens exited the site disappointed. They realized that the only way to obtain the information was by going in person to the corresponding offices, or calling expensive customer service phone numbers. The underlying and predominant feeling was: "Always the same. The public administration doesn't care about us once we're old."

On the other hand, Imserso needed help publishing its information sources within the framework of the Linked Open Data initiative, which would make it an agency of reference within Spain's public administration. The idea was to structure the current open data and publish them under the semantic format.

ORGANIZATION
Imserso
www.imserso.com

CUSTOMER BASE
8.5 million

COUNTRY/REGION
Spain

INDUSTRY
Public Administration

BUSINESS NEED
Semantic search engine and publication of data in the Linking Open Data project

THE SOLUTION

Regarding search engine improvement, Taiger introduced semantic technology into Imserso using its iSearch solution. User queries were thus understood correctly and, therefore, answered appropriately. By means of this semantic technology Imserso could work with questions in the natural language accessible to every user, and retrieve answers with close to 100% precision. The semantic notation improved information access, filtering the bad results and highlighting the desired query results.

As with most public institutions, 80% of the queries referred to a limited number of contents and procedures. Developing an interactive paradigm which made it easy to understand these requests and at the same time recover the relevant information was to have a significant impact on the user experience. A question-answer system was developed to improve the interaction with senior citizens; for instance, if a person wrote in the search engine: "I'm 75 years old and I would like to know if I can have any economic help to buy my medicine", the system would provide documents or parts of relevant documents as an answer, as well as probably-related procedures.

With regard to the publication of sources under the Linked Open Data initiative, the Taiger semantic search solution sought to give the data meaning and context. Therefore, data were modelled in standard RDF format, data generation procedures were developed, data repositories were set up, access points were published, external data were linked, maintenance tools and procedures were implemented, and certain incentives for the community were established.

THE BENEFITS

The most outstanding improvements were: facilitating information access and retrieval for senior citizens; automating the management of a very import percentage of searches; improving the online help system so that part of the questions posed via e-mail or calls could be handled directly from the website; and, finally, senior citizens could use their own natural language to talk about their problems with Imserso, without having to worry about which keywords they should use to be understood and obtain the right answer.

Thanks to these improvements the senior citizens felt Imserso was caring for them much more, since the interaction between both parties had been simplified and made easier.

Regarding Imserso's own procedures, there was also another advantage: once the initial configuration was completed, platform management was extremely easy.

Finally, and with regard to the Linked Open Data initiative, owing to these improvements and implementations Imserso would be part of this worldwide initiative, achieving the level 5, on a par with public entities such as data.gov, data.gov.uk, datos.gob.es. Data would not only be available for consultation or study, but also for automatic processing and use through a developer ecosystem, which would be processing the date in order to achieve economic profit.

SUCCESS STORY
IMSERSO

TAIGER SOLUTION
iSearch

FUNCTIONALITY
- Conversational interfaces
- Content federation
- Linguistic resources
- Semantics
- Advanced textual analysis
- Query Expansion
- Automatic notation
- Contextual and faceted search

LANGUAGE
Spanish

TECHNICAL INFORMATION
Platform
- Apache Tomcat 4
- Apache http Server
- CentOS Linux 5.8
- Java 1.7

Type of Content
- Internal, external, and
- user-generated content
- Content in Spanish
- Text content