



### TYPE OF RESULT

New technology  
 New product  
**[ New service ]**  
 New knowledge or skill



### COMMERCIAL MATURITY LEVEL

Conceptual idea  
 Proof of concept (design)  
**[ Validated in a controlled environment ]**  
 Validated in a real environment  
 Successfully implanted



### PROTECTION LEVEL

Non- applicable  
 Patent  
**[ Software ]**  
 Know - how  
 Utility model

### Technology description

Using artificial intelligence for automating caption of data contained in any kind of documents may help to optimise operative time, reduce costs and leave behind manual data entry tasks and work on information analysis instead.

Many companies need to get information from documents that they receive from their providers or clients. This information is usually kept in the company's information systems in order to improve management or to have a deeper knowledge about the market, which may imply a competitive advantage differing from competitors.

However, in most cases, data extraction from text files for their recording in databases or in the information systems of the company is usually done manually, becoming a not very challenging task that also takes a lot of time and resources.



The knowledge here offered is a consulting service and custom software design according to the companies' needs. It is based on previous works on development of neural networks and has as main goal to automate the intelligent data extraction.

An example of application of this service is data extraction from the different types of invoices of energy companies. This may allow to develop models by exploiting this data in order to analyse the market behaviour, making possible to implement policies that contribute to an enhancement in their commercial action.

### Fields of application

This service may be useful in all those areas in which a company or organisation require a business analysis by using business intelligence techniques, as well as a way to automate extraction and recording data from documents on computer systems.

### Market opportunity/ needs

In an increasingly digitised economy, organisations need to find ways that allow them to manage and organise a vast amount of data and documents. This can be done by automating information extraction and processing, which contributes to make factual decisions faster in order to boost the business.

Progress in fields such as natural language processing (NLP) has allowed to mechanise information extraction tasks, even if information has been processed in a structured, semi-structured or non-structured way. It has also contributed to a more precise and fast compression and processing of the contents, adding more commercial value to available information.

### Competitive advantage and innovative aspects

This research group has acquired valuable experience and knowledge in these fields. Such experience has made possi-

ble to develop artificial intelligence algorithms for data extraction and processing related to classification or prediction tasks.

Although several packaged solutions for this type of processes can be found in the market, most of them are offered by big technology consulting companies, with prices that may be expensive for small companies. The main competitive advantage of the service hereby offered is its adaptability to the particular needs of each company or organisation, allowing scalable solutions according to the dimensions of each project and company.

### Resources needed to be implemented

Since this is a custom service, its implementation in a real environment would depend on designing a project.

### Related equipment

Servidor del Centro de Tecnologías de la Imagen (CTIM), donde se puede trabajar para preparar el servicio web.

**AUTHOR**  
 Javier Sánchez Pérez

**CONTACT**  
 Oficina Transferencia de Resultados de Investigación (OTRI)  
 @ arivero@fpct.ulpgc.es  
 ☎ 928 45 99 56 / 43

<https://otri.ulpgc.es/>