CASE STUDY

Redeia implements a content classifier for managing its multimedia assets

Turing ha desarrollado para la compañía de transporte eléctrico una solución ágil que permite catalogar en un único repositorio los recursos audiovisuales disponibles sin recurrir a costosos entrenamientos del modelo.

turing agile AI

Introduction

The solution developed by **Turing** using **artificial intelligence (AI)** technologies has provided the company a substantial improvement in managing and organizing its multimedia assets.

The implementation of the solution has been carried out in an active collaboration between **Redeia** and **Turing** to quickly comply with the requirements and efficiently manage changes following an agile philosophy.

Redeia is the only Transmission System Operator (TSO) in the Spanish electrical system. Its business is dedicated to guarantee the continuity and safety of the electric supply. It is also tasked with ensuring the smooth operation of the electric supply system.

The challenge

Redeia has amassed a wide range of video and image assets because of its big turnover. However, these assets remain siloed and uncatalogued across several business areas. This lack of organization hinders the reuse of the available assets. Therefore, time and resources are lost in searching manually the assets. In the worst case, assets need to be created again.

The solution

A web app has been developed that indexes available assets and categorizes them into content-oriented classes chosen by the business. This way, any resource can be easily found via a search engine.

Some of the classes that are automatically identified with AI within the multimedia content are: wind turbines, power stations, persons, submarine cables, satellites, and so on.

The main innovation of this solution is that it allows to add new elements for identification (classes) with no need to label images before retraining the model. This labeling task is costly in terms of time and processing cost. A process that doesn't require labeling results in a more agile and flexible solution.

To achieve this, the solution leverages a new AI paradigm that measures the proximity between a question you ask in text format and the elements that appear in an image. This means we can ask 'Is there a person wearing a suit?' and it will find the images containing such element. Besides, the model also returns a scoring specifying the accuracy of coincidence.

Benefits

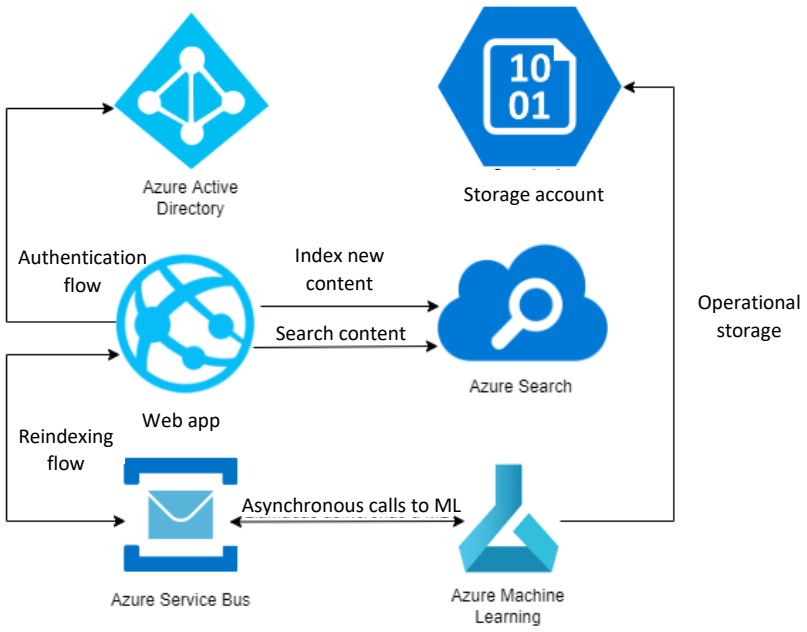
The implementation of this solution has already had a very positive impact on **Redeia's communication department**. They report to feel much lighter in their daily routines thanks to the solution.

The main benefits provided are:

- Centralized storage of information.
- Efficiency: time optimization to find assets.
- Effectiveness: agility and success in finding assets.
- Scalability: the classification system can easily grow by adding new assets or classes.
- 24/7 availability.
- Maintenance of the service by Turing.

Technologies used

This solution leverages the following technologies and AI and cloud-computing services:



About Redeia

Redeia (formerly known as Red Eléctrica de España) is dedicated to transporting and operating the electrical system. When it was founded in 1985, it was the first company of the world based exclusively on such business model. At the time, it counted with 93 employees and more than 6,500 miles of power lines. Nowaday, it employs more than 2,000 people for more than 24,000 miles of power lines.

However, Redeia has achieve more than just consolidate its position in Spain, it has grown internationally. For 20 years, Redeia's branch Redinter has thrived in Peru, Chile, and Ecuador.

The business lines of Redeia also include communication satellites broadcasting via its branch Hispasat. In the last ten years, it has entered the sector of telecommunications via its branch Reintel. Since 2019, the branch Elewit provides technological innovation solutions for the rest of the Redeia corporate group.

Today, Redeia's growth efforts are oriented towards renewable energies and sustainability. Within this business line, Redeia is implementing projects such as the creation of the Control Center of Renewable Energies (Cecre in Spanish) for controlling and integrating renewable energies or the reversible hydroelectric plant of Soria-Chira.

Further information

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