Flagship Projects

X.X  Publications Office Intelligent Assistant (Chatbot@OP)

Description

The chatbot of the Publications Office, formerly known as the OP Intelligent Assistant or OPIA, combines conversational AI techniques such as natural language processing (NLP) and machine learning (ML) with interactive voice recognition and the more traditional search system to help users find easily online EU legislation, publications and other authoritative information held by the Publications Office (OP), thereby also increasing discoverability and reach of the content concerned. Chatbot@OP specifically enables spoken or typed conversations between end users and the Publications Office Portal (OP Portal) giving access to or enabling the reuse of the content in question. It is deployed in production since end of December and it works for now in English and French.

An additional goal of OP’s chatbot is to increase the accessibility and usability of the OP Portal. In the light of the provisions of “Directive (EU) 2016/2102 of the European Parliament and of the Council on the accessibility of the websites and mobile applications of public sector bodies“, it is important to develop and make available appropriate instruments to ensure that people with reading disabilities have equal access to the documents/publications and websites of EU institutions. The EU Parliament (EP) mandated the Publications Office of the European Union (OP) to evaluate possible state-of-the-art solutions within the “Reading Disability and Document Access” (RDDA) pilot project and Chatbot@OP is one of the solutions which emerged from that pilot project.

Objectives

- Increase discoverability and the reach of publications and legislation published by European institutions. Enable a natural language interface and facilitate the access for end-users through two main functionalities:
  - Speech-to-text and voice recognition – simple and fast way to search through OP Portal using only voice.
  - Conversational intelligence – understand user context & behaviour and assist them through their journey by getting quick answers with advanced options and/or filtering.
- Increase accessibility and usability of the access to EU Publications and EU Legislation - Solution tailored to the needs of peoples with reading disabilities

Expected Benefits

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<tr>
<th>BENEFITS</th>
<th>RATIONALE</th>
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<tr>
<td>Impactful trustable information</td>
<td>• Easy and fast interaction of users with EU publications and EU legislation</td>
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<tr>
<td>Enhanced</td>
<td>• Ensure accessibility for users with reading disabilities</td>
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<tr>
<td>BENEFITS</td>
<td>RATIONALE</td>
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<td>----------------------------------------------</td>
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<tr>
<td>accessibility</td>
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<td>Enhanced experience user experience</td>
<td>✓ · Advanced content filtering enabling users to find relevant legislation and publications in their context</td>
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<td>New channels of communication with citizens</td>
<td>✓ · Be there where the end users are: “Digital born” users are driving the emergence of voice as a new channel of access to knowledge. The voice interface has already changed the way search engines work driving them to conversations (Q&amp;A).</td>
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**Challenges**

- Define conversational flow and train the model
- Fine tune the model
- Automatic recognition of language
- Support for all 24 EU official languages

**Deliverables**

- RDDA - Final report, Proof of concept (OPIA)
- OPIA - Infrastructure and Technology Selection Report
- OPIA - PoC Technical Report & Proposal for Industrialization
- OPIA – Industrialized and Deployed in OP Portal Production
- OPIA – Enhancements roadmap and scope of work
- OPIA – System Specifications

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