

A Machine Translation-Powered Chatbot for Public Administration

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Partners

- Luxembourg Institute of Science and Technology
- Romanian Academy Institute for AI
- BEIA Consulting Romania
- SupWiz

Duration

01.06.2021 – 30.05.2023

Objectives

- Development of a multilingual **e-government chatbot** which lowers the language barriers in EU.
- Deployment in **Luxembourgish, Romanian, and Danish** public administration.

Where can I apply for the certificate of residence?

Cum se răspândește COVID-19?

Bună ziua! Pentru ce fel de construcții trebuie să deții o autorizație de construcție?

Wat sinn d' Ouvertureszäiten vun der Gemeng?

I need to make an appointment.

I found a mistake in my certificate of residence.

E-Government chatbots

Challenges

- Large number of relevant services
- Complexity of administrative services
- Context-dependent relevance of user questions
- Differences in expert-language and user-language
- Privacy & Cybersecurity
- LANGUAGE DIVERSITY

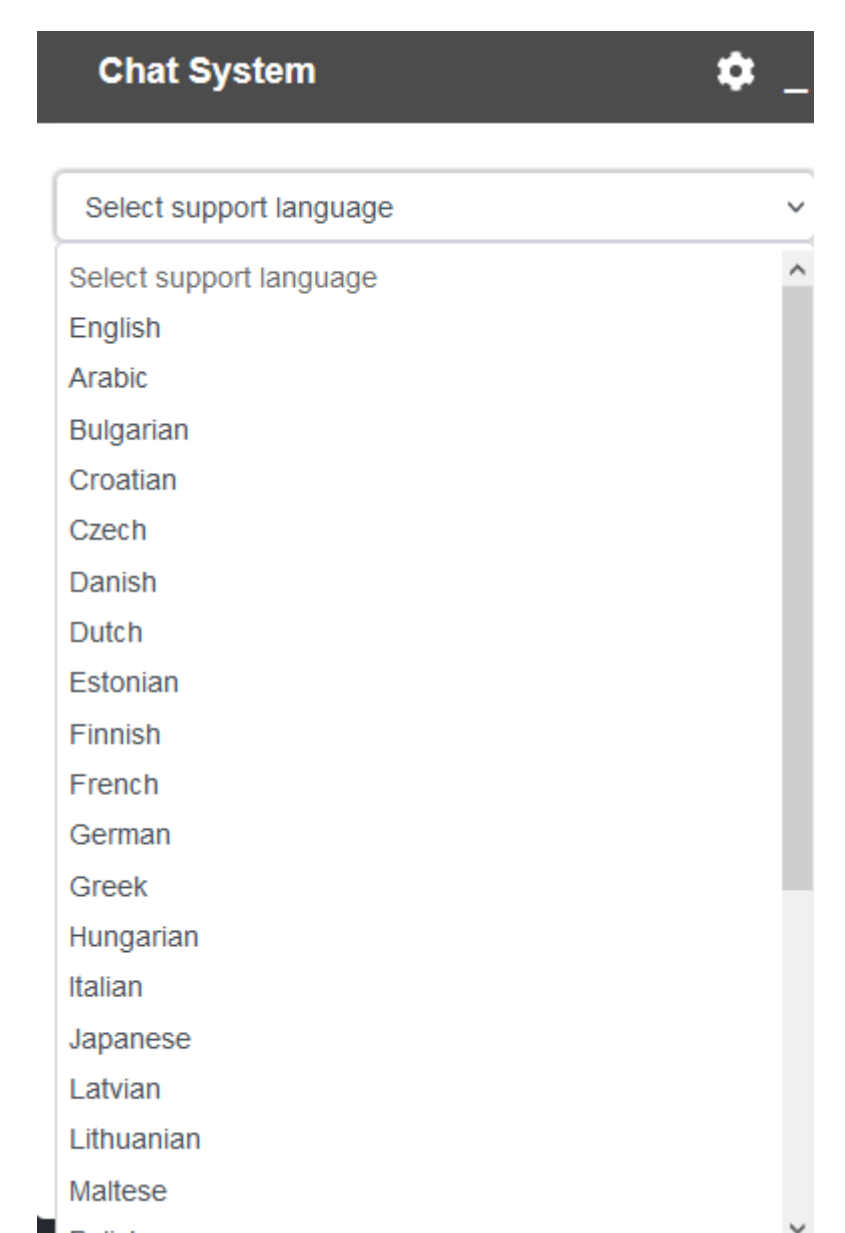
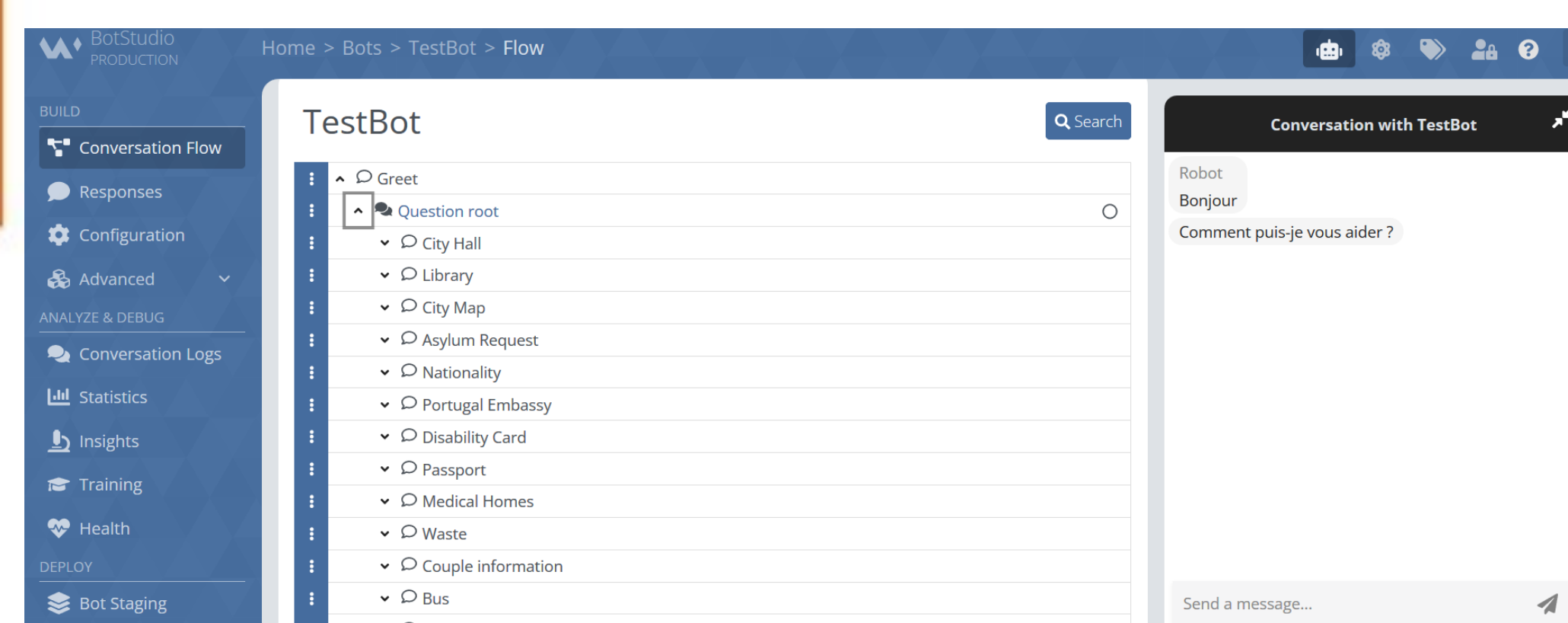
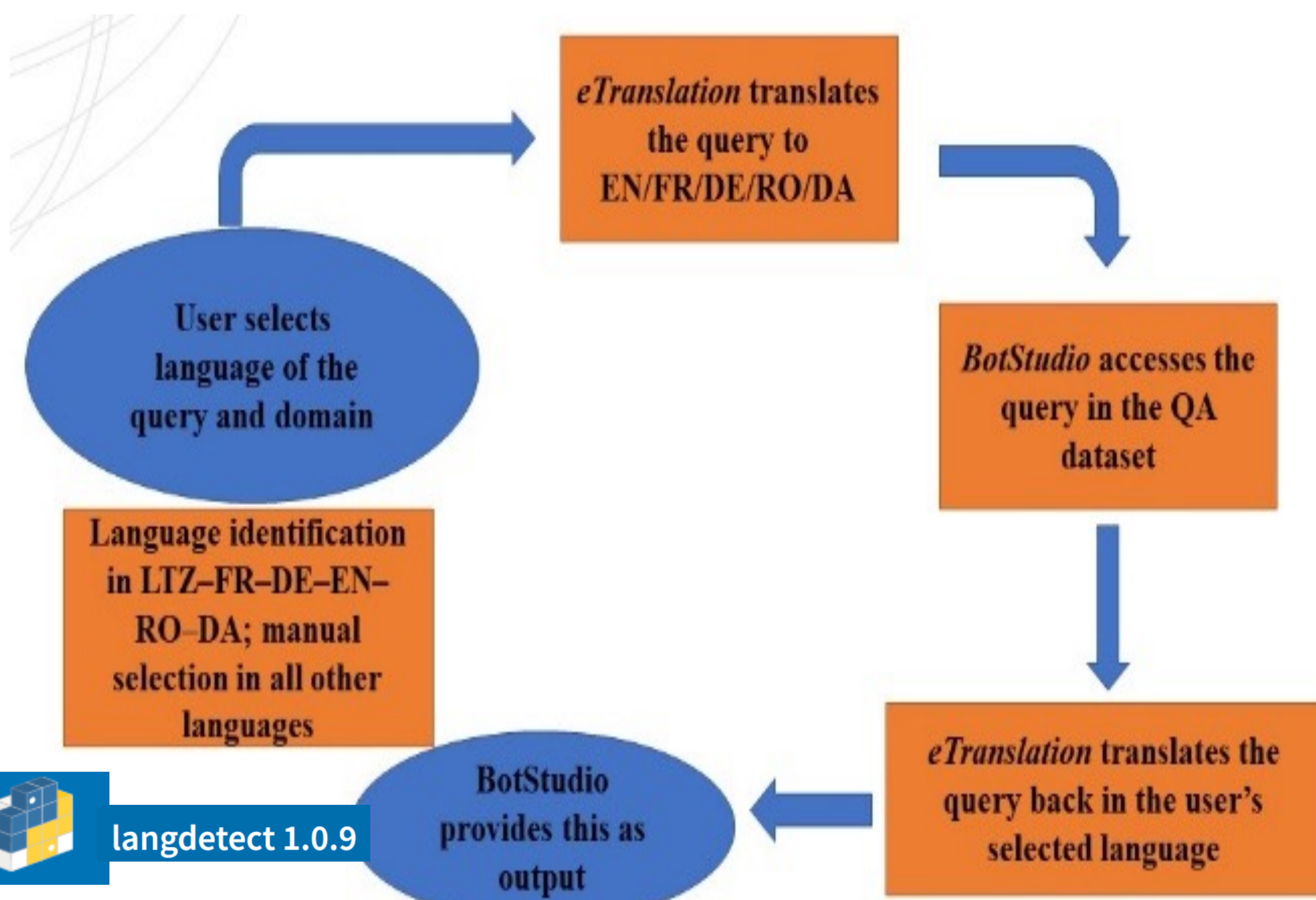
- Available 24/7
- Can reach large amounts of people
- Irrespective of
 - age
 - gender
 - educational background
 - geographical barrier
 - LANGUAGE

Method

- Active development of three datasets
 1. COVID-19 (RO)
 2. Construction permits (RO)
 3. Administrative questions (LTZ-FR-DE-EN)
- Fine-tuning of BERT-based models for question labelling and similarity
- User authentication

CEF eTranslation

- Neural MT tool by the EC to EU bodies, public services, public administrations and SMEs for 24 official languages of the EU, plus Chinese, Russian, Turkish, Arabic, but no support of Luxembourgish.
- Building Block you can integrate into your digital systems, if you need to embed them with translation capabilities
 - 87 projects reusing eTranslation
 - 7.000 SMEs registered
 - > 40 Mio. pages translated in 2020



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