Qwant
Research

Creating technologies

Hackathon TAL – TALN/CORIA Rennes 05/2018

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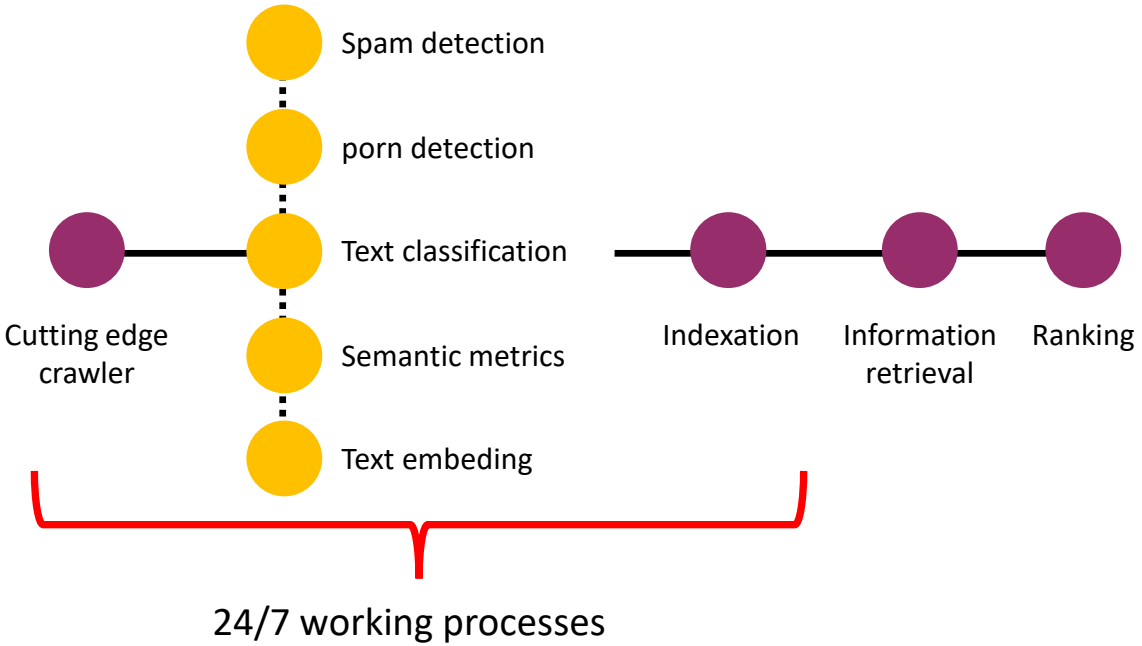
Search Engine innovation

Mixing research, data science, machine learning and engineering to build a modern search engine.

This initiative takes advantage of our strong partnership with INRIA, our technology watch regarding crawling, indexing, processing and information extraction and retrieval.

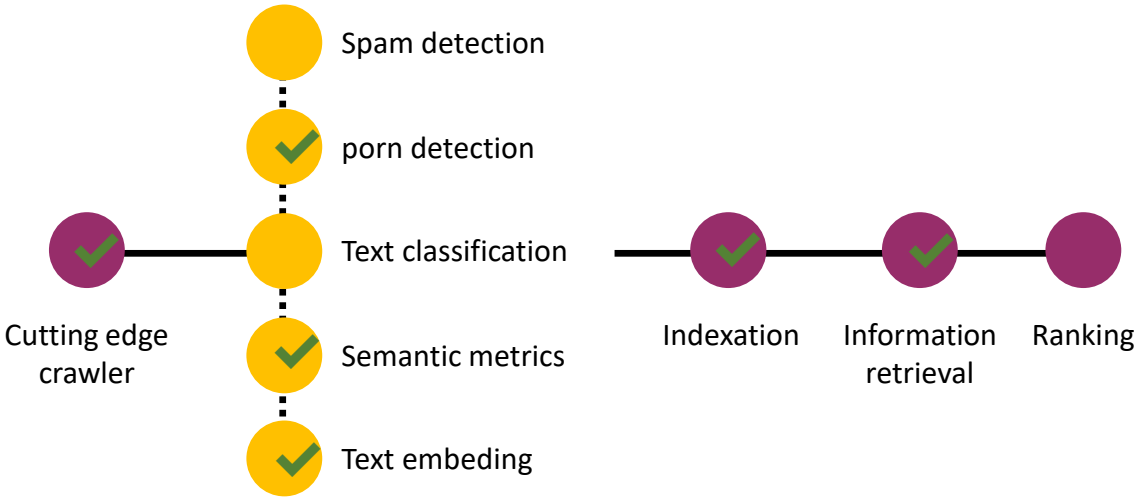
Search Engine innovation

An end-to-end processing chain to innovate on every pieces



Search Engine innovation

Current status



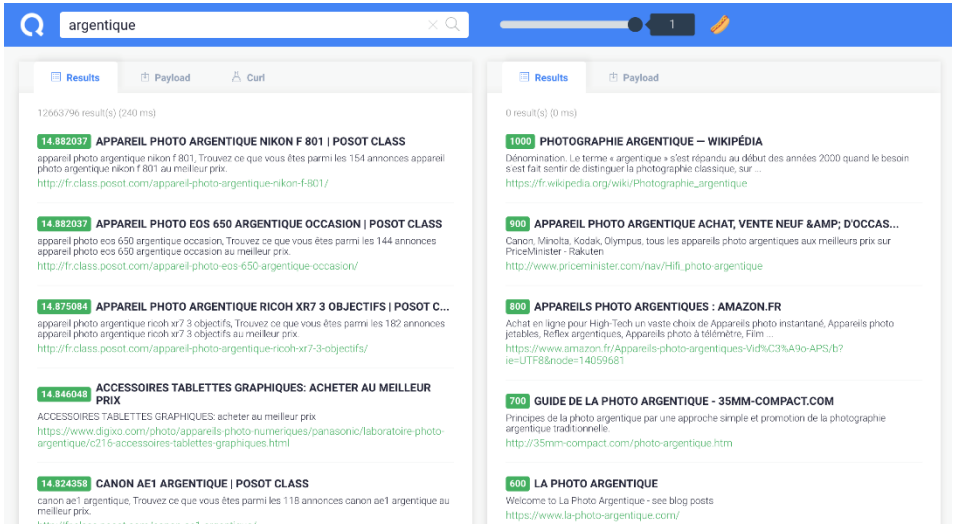
Qwant Search Engine innovation

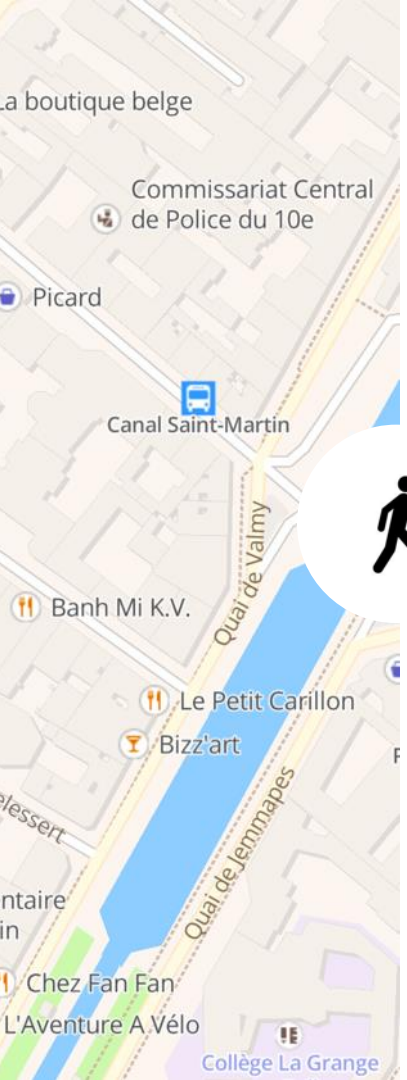
Current status

- Demonstrator is available

Next steps

- Ranking
- Infrastructure deployment for beta and testing

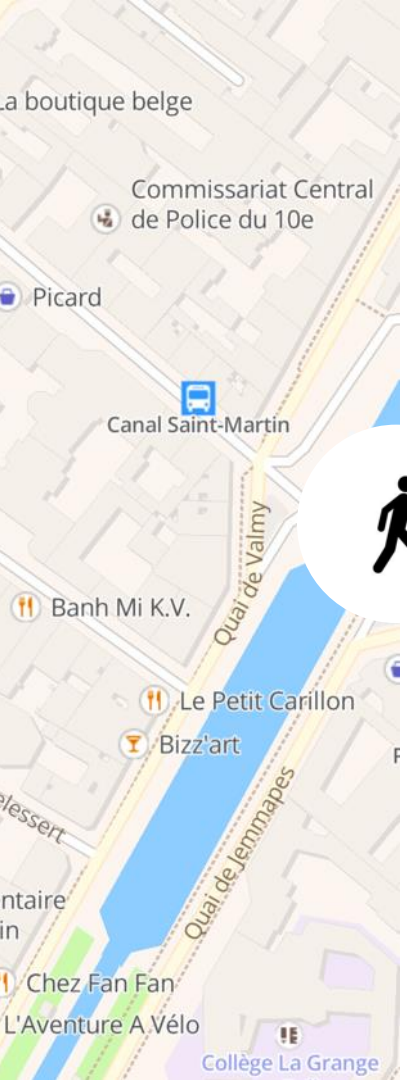




Qwant maps

Maps to be the foundation of our next steps to serve people

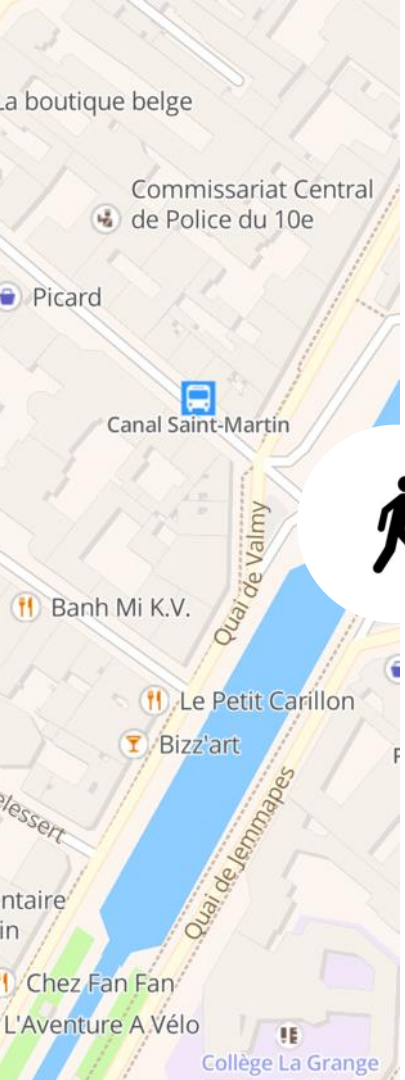
…by making them aware of where they are, where they live, what is happening in their area, Qwant is creating a new layer of understanding.



Qwant maps

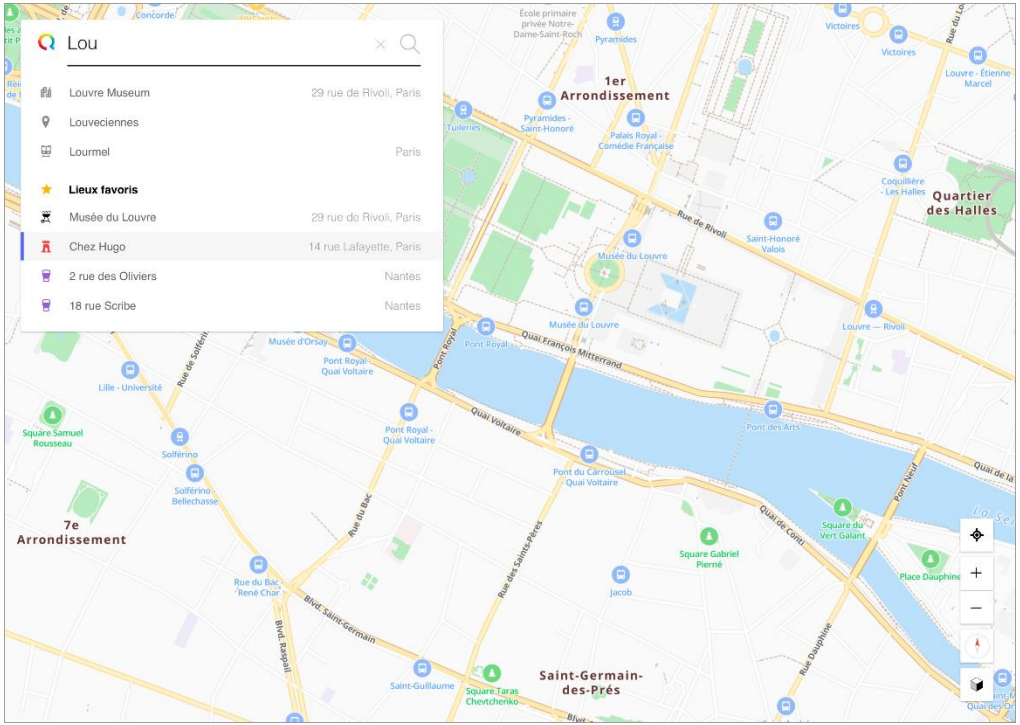
Maps back-end is made of:

- Tile server
- Geocoder
- POIs
  - Information
  - Advertisements
- Itinerary
- Navigation (Mobile)



Qwant maps

Desktop Front-End (WIP)



Qwant IoT

Qwant IoT aims at extending Qwant search answers with data of any kind

…temperature, air quality, parking availability, trafic, noises polution, and much more...

Qwant IoT

Data provider ecosystem

Companies

Websites

Application developers

Smart objects manufacturers

Qwant

Secure
Neutral
Anonymous

IoT current status

Qwant with open source Kuzzle

- The platform is currently in deployement status, it is fed with Netatmo data, Air pollution provided by European Environnement Agency and soon with A2A smart cities lab data.
- Our current plan is to dedicate the platformto non critical businesses where primary goal is to expose their data to Qwant search engine.
- Moving to pre-production and production is currently being worked on

Privacy

To get rid of the user account and reverse the paradigm …

… we create the self owned agent and we call it:

masq by Qwant

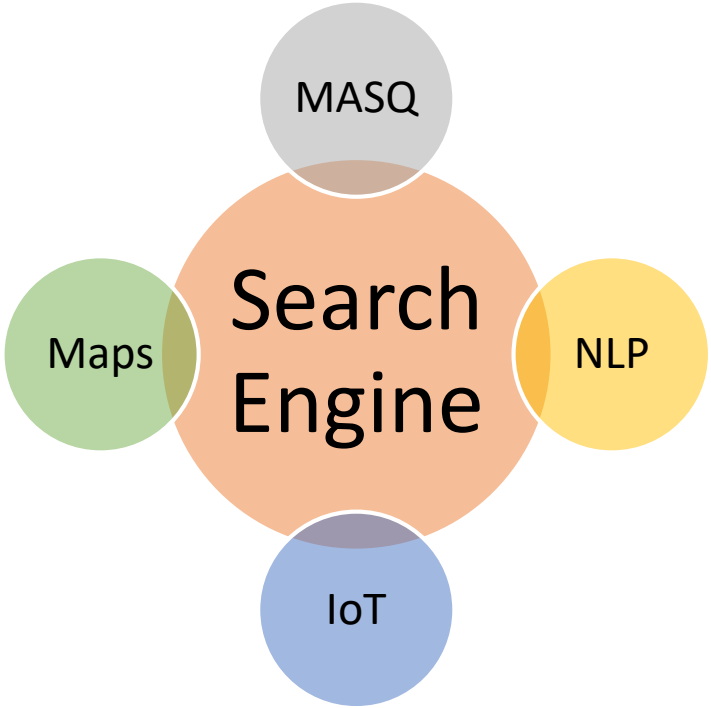
Digital advertising agency

In the land of privacy we believe there is a new story to tell to our users, a story where advertisements are respectful of their life …

Natural Language Processing

The **Natural Language Processing** (NLP) seen as a **key** for the Qwant **Search Engine**, which guaranty **user's privacy**.

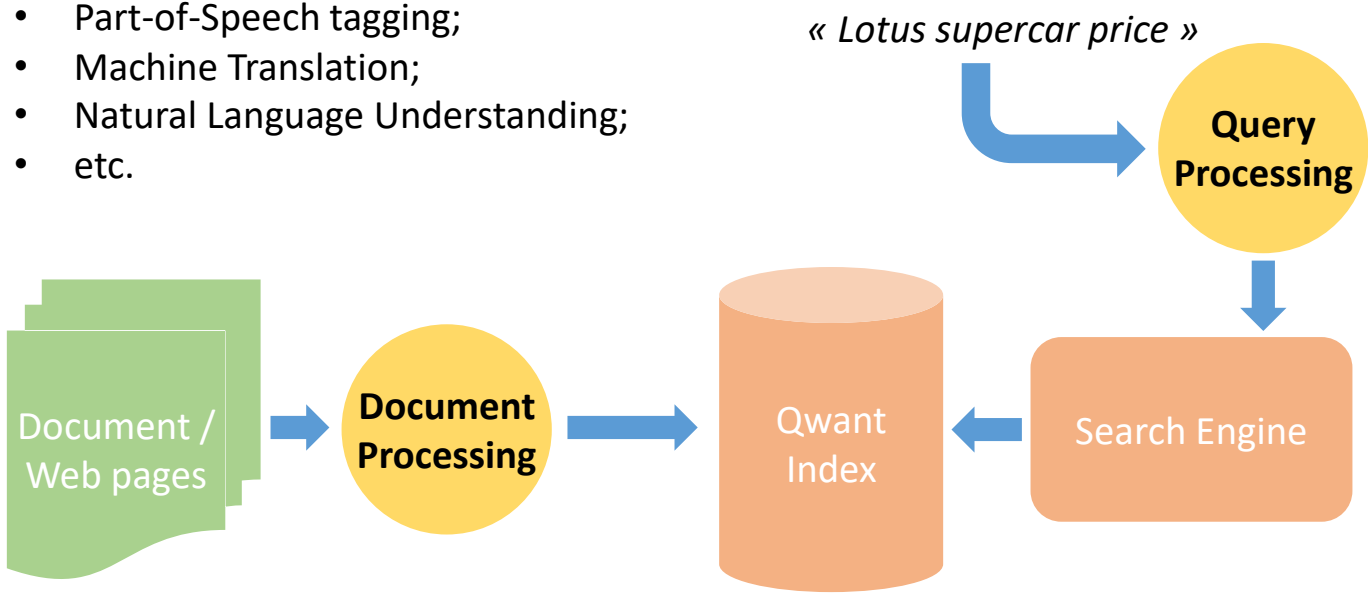
NLP approaches are mainly based on **Deep Learning** algorithms.



Natural Language Processing

Integration into the search engine in **document** and **query processing** such as:

- Embeddings;
- Classification;
- Information Extraction;
- Part-of-Speech tagging;
- Machine Translation;
- Natural Language Understanding;
- etc.



Natural Language Processing

Many challenges:

- Improve accuracy of Instant Answers
- Process queries in Natural Language
- Fake News detection
- Multilingual processing
- Keep safe user’s privacy (restricted data, anonymization)
- Improve parental control (violence, porn, etc.)
- ...
- and many other exiting research!

Natural Language Processing

Qwant Research at TALN / CORIA:

- Christophe SERVAN – Lead NLP & Research Scientist
- Estelle Maudet – Research Engineer
- Oralie Cattan – PhD Student

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