

EUROPEAN SEARCH

IN BRIEF

- The European search engine market is heavily dominated by Google.
- In Europe, the call for “digital sovereignty” is getting louder and louder.
- The design of European search engines is linked to different values, but also associated with different ideas of Europe.
- The notion of a pluralistic Europe is related to technological diversity and decentralisation.
- This could be supported with long-term funding, interdisciplinary counsel, and the opening up of data.

WHAT IS IT ABOUT?

With a stable market share of more than 90%, the European search engine market is heavily dominated by Google. Google’s quasi-monopoly, its information biases and business practices have long been criticised. The idea of creating a European search engine to counter-act Europe’s dependence on large US technology companies is not entirely new either. The project Quaero, for example, tried to rival Google and Yahoo; a goal that could not be achieved in the end.

Against this background, the project Algorithmic Imaginaries investigated European search engines. Its main research aim was to analyse visions and values that shape the design of search engines, how these are translated into search technologies, and which role the European context plays in these sociotechnical practices. The dream of “digital Europe” has existed for decades: Already in the early 2000s, the EU formulated its “eEurope” action plans. Many of the central goals back then, such as eHealth, eGovernment, eLearning, and eBusiness, can still be found in recent EU policy papers such as the 2030 Digital Compass. What’s relatively new, however, is the “European way” towards digital transformations. In the context of the tough negotiations for the GDPR, fundamental rights, in particular the right

to data protection, were strengthened and shaped as core European values. More recently, buzzwords such as digital sovereignty, transparency, fairness, and sustainability – in short: the “human-centred approach” to digitisation – have also been added. At times, these are at odds with the economic interests of the EU, which is committed to the expansion of the “digital single market”. A central question is therefore what kind of visions do alternative EU-based technology projects pursue and how these are implemented.



Source: pixabay

The “European way” towards digital transformation

The project investigated three European search engines in detail: the privacy-friendly search engine *Startpage*, the peer-to-peer search engine *YaCy*, and the *Open Web Index* initiative which aims to build a publicly or EU-funded web index as a backbone for the development of independent search engines. Drawing on 40 qualitative interviews, participatory observations, and workshops with three developer teams, the study analysed 1) which visions and values search engine developers articulate and how they translate these into technologies, but also which visions of Europe are linked to their practices. The latter point to 2) several challenges they encounter in the specific European context, but also to 3) opportunities for change that are worth pursuing in a pluralistic Europe.

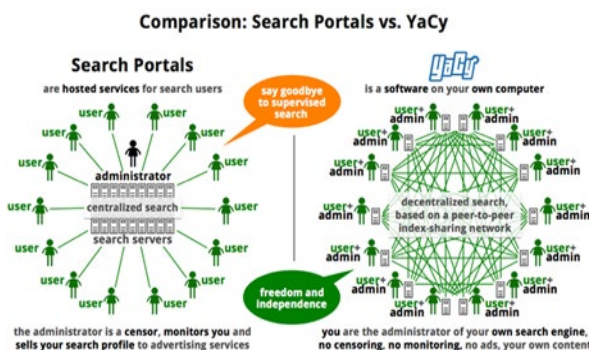
BASIC DATA

Project title:	Algorithmic Imaginaries
Project team:	Mager, A.
Duration:	11/2016 – 11/2022
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KEY RESULTS

The results show that the technology design of the search engine projects is driven by values such as privacy, openness, decentralisation, and independence. These values are not fixed or rigid, but rather fluid, contextual and changing over time, and closely intertwined with the ongoing development of the technology. This flexibility enables the projects to develop a certain “value pragmatics” they need in order to grow and become more sustainable.

Moreover, “European values” as well as broader notions of Europe as “unified or pluralistic” were imagined and shaped along the technologies. Some of them, such as privacy and digital sovereignty, were anchored in larger European narratives evolving around “human-centred digitisation” to position and promote the projects.



Source: archivierte YaCy-Webseite

YaCy: decentralised alternative search

Furthermore, less prominent visions of Europe were shaped in the context of alternative search engines, which pointed towards challenges in the specific European context. The image of a “bureaucratic Europe” deserves special mention in this context as search engine developers associated it with cumbersome funding structures and a reluctant start-up mentality. In addition, alternative visions of a pluralistic Europe were articulated with regard to technological diversity and decentralisation. An open web index, for example, could lead to a whole range of different search engines, ranking algorithms, and applications. This would better correspond to multicultural, divers, and federal European contexts than large global technology companies, such as Google, which primarily count on monopolisation and commercialisation.

WHAT TO DO?

There are numerous pathways towards a “digital Europe”. Alternative technology projects can be strengthened, thereby paving the way towards a pluralistic Europe associated with technological diversity and independence:

- **Long-term funding and scalability:** Big infrastructure projects such as an open web index as a backbone to search engine diversity require bold, long-term, and sustainable funding structures to achieve digital sovereignty.
- **Continuous auditing and consultations:** Both the design and governance of digital technologies require continuous and interdisciplinary counsel guaranteed by professional, independent processes and authorities, as well as sufficient resources (as opposed to ex-post, snapshot auditing).
- **Opening up of data:** The development of alternative technologies and infrastructure requires data to train algorithms and machine learning models. How to open up commercial data, use public data, and create collective data pools that go beyond individual responsibility and ownership of data are key future questions that need to be addressed.

FURTHER READING

Mager, A. (2023) European Search? How to counter-imagine and counteract hegemonic search with European search engine projects. *Big Data & Society* 10(1) journals.sagepub.com/doi/10.1177/2053951723116317

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