

DIGITAL REVOLUTION

Alternatives to Google: these are the new search engines

Public criticism of Google is growing. This encourages new competitors. What alternatives to Google are doing differently and how they want to succeed.

Düsseldorf, Roma

After 25 years, a technology is outdated, says Gianpiero Lotito. You would buy a television of that age only for the “vintage experience”. “Yet search engines are just as old”. The co-founder of FacilityLive, the startup with the highest potential in Italy, says: it’s time to innovate.

Many have tried to develop an alternative to Google, or to reinvent internet search. The list of those who have failed is almost just as long. But now a number of entrepreneurs is trying again. Including former employees and scientist of Google in Germany. They have been stimulated by regulatory authorities, by the debates on data protection and by technological progress. The possibility to challenge the clearly dominant adversary, Google, has never appeared so great.

Like Lotito, they also hope for the “innovator’s dilemma”: a product that has been revolutionary in a given moment, can only be improved to a small extent with time. And while the market leader needs to focus on sales, new competitors can lead their development.

The hope is also fueled by competitor’s regulators, which want to break Google’s monopolistic power around the world. Furthermore, WhatsApp’s case proves that many internet users really appreciate data protection when given a choice. After their announcement of new and controversial terms of service, download numbers for Signal, which is more respectful of privacy, increased. Data tracing is also the point of criticism in the Google model.

However, Google’s market power is still enormous. In 2020, more than 93% of all research queries on the Internet in Europe were “Googled”. The largest European search engine is Ecosia, which, according to founder Christian Kroll, holds a market share of just over 1% in Germany, France and Great Britain.

This seems incredibly small. But Dirk Lewandowski, who researches and teaches search engines at HAW in Hamburg, emphasizes the “huge number” of search queries. “If you insert a commercial suitable for every search query, you can surely earn money even with a minimal market share”. Only in the 4th trimester of 2020, Google achieved 32 billion dollars in sales with their business related to search engines.

It’s also important to notice that there are many ways to obtain a piece of the enormous market. The majority of search engine suppliers combines different approaches.

The index

A search engine on the internet works like an index. Suppliers have to scan and insert keywords into billions of websites to see if they can find the information they are looking for. Anyone who wants to compete with Google, in the true meaning of the word, has to create an index for websites just as broad and keep it up to date.

It is estimated that Google's index contains between 500 and 600 billion pages, and its biggest competitor, Microsoft's Bing, between 100 and 200 billion pages. Other than these American giants and the Russian Yandex, there are nearly no other search engines with their own index. An exception is Mojeek, which was founded in 2004 by Marc Smith as a private project at the British university of Sussex.

In recent years, the small company has raised nearly 2.7 million euros in risk capital from private investors and promises to not collect the users' data. In April 2020, Mojeek announced that they had indexed 3 billion pages. Cliqz, located in Munich, also tackled their own index. However, the majority shareholder Burda abandoned the mission in 2020. The obstacles were too great.

In fact, the internet can't be scanned easily. Search engines require authorization to access the pages they want to index. But because this burdens the websites, they only grant entry to search engines that will bring them many visitors in exchange – Google, and maybe Bing.

It's a vicious circle. If you don't increase your index you don't gain users. If you don't gain users you can't increase your index. But there are rumors that a new promising candidate wants to build a search engine with its own index: Apple. The producer of iPhone has enough users and capital and is looking for engineers for search engines.

The business model

Without their own index, but with a new business model, two former Google employees want to shake up the market. Before founding Neeva two years ago, Sridhar Ramaswamy and Vivek Raghunathan were in charge of Google's advertising systems and YouTube commercials.

Of all people, they now want to offer a paid service without advertising. According to Ramaswamy funding for advertising requires compromises: more commercials which lead to worst results. This is what Google's founders once said.

After a test phase, Neeva should cost less than 10 dollars a month. The general content will come from Microsoft's Bing, maps from Apple, stock market data from Intrinio and weather information from weather.com. Users will also be able to connect personal data archives such as email inboxes, Microsoft Office or Dropbox. Sequoia and Greylock Partners, renowned American investors, have already invested 37.5 million dollars.

Young search engine suppliers see another marketing opportunity in companies' offer. An example is the Berlin startup Xayn.

Specialization

Richard Socher, a well-known former manager at Salesforce, also wants to shake up the search engine market. With the name You.com, the artificial intelligence expert wants to build a “reliable search engine” that “aggregates the Internet”.

His search engine will initially specialize in complex purchasing decisions, where users typically open multiple tabs at once to compare offers. We don't know much yet. But the investors are also noteworthy: Salesforce founder Marc Benioff and Jim Breyer, one of Facebook's first investors.

Gianpiero Lotito and co-founder of FacilityLive Mariuccia Teroni have also focused on complex research queries. In today's web, you have to “gather information on your own and constantly open a new page”, states Lotito. 15 new thematic platforms, amongst which there are one for museums and one for tourism, will change this, already starting this year.

Sure enough they can aggregate information technologically without redirecting users to other pages. FacilityLive has raised 52 million euros during the pandemic and has obtained a company valuation of 225 million euros. It is considered the startup with the highest value in Italy.

The target group

Berlin company Ecosia is known as the “search engine that plants trees”. Through a license model, it obtains search results from Microsoft's Bing and receives a large part of advertising revenue from its users. In January, Ecosia registered over 2.5 million euro in revenue through this channel. The social enterprise invests 80% of surplus income in reforestation and renewable energy projects. For Microsoft, it's worth the deal because most Ecosia users would otherwise probably use Google.

American search engine DuckDuckGo also works through a Microsoft license model. Its target are users who are very careful about privacy. The fact that Google, Bing and others provide such good search results isn't just due to large indexes, but particularly to a precise analysis of users' behavior. Data collected from users can be used to anticipate exactly what someone might research. Because DuckDuckGo doesn't do this, users often have to click more than once to find the desired results.

Technology

Leif-Nissen Lundbæk is convinced that data protection and accurate search results can coexist. Along with two co-founders, the mathematician founded Xayn at London's Imperial College in 2018: the search engine is based on decentralized learning in artificial intelligence. Xayn also uses different indexes.

The application, which up until now could only be used on smartphones, analyses users' behavior on their devices and doesn't export any personal data. Lundbæk, the CEO, explains that “Instead of bringing data to the algorithm, we bring the algorithm to the data”.

Individual models would be trained on mobile phones, and then search behavior itself could be used as a model to improve other people's search results too. "We believe that privacy will only become mainstream if it provides the same user experience as applications that aren't based on privacy" he states.

In the meantime, the company has relocated to Berlin and has raised 9.5 million euros from Venture Capitalist Earlybird in Munich, amongst others.

In the long run, Xayn wants to fund itself through a premium model and an offer for companies to connect their resources to the search engine. They have been testing this with authorities in one of Germany's main cities.

Dirk Lewandowski, the Hamburg professor, says he has "already seen many search engines come and go". He doubts that Google can seriously be pushed back in the near future. When competitors express this ambition, it's usually more of a marketing strategy, he said. "There are other ways to obtain significant income"

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