

**Technology sector****Baidu, ByteDance and the perilous business of Chinese search**

As users flock to superapps such as WeChat, search engines fight for dwindling market



Nian Liu and Christian Shepherd in Beijing 12 HOURS AGO

When it was revealed last summer that Google had been working on a search engine for the Chinese market called “project dragonfly”, Baidu chief executive Robin Li responded with fighting words.

“In 2010, when Google left China, its market share was falling and Baidu’s market share had already passed 70 per cent,” Mr Li wrote on social media platform WeChat. “If Google comes back now, we can just PK [player kill] again for real.”

The fight for search in China, however, is not shaping up to be a match between Baidu and Google — which announced in July that “project dragonfly” had been “terminated” — but rather a question of keeping ad dollars and users from flowing into the walled ecosystems of Baidu’s Chinese rivals, start-up ByteDance and tech conglomerate Tencent.

While fallout from the row between Washington and Beijing over trade and technology endangers the future aspirations of China’s technology giants, losing Chinese users’ attention poses an immediate threat to revenues, as growth slows in the country’s digital advertising market, worth about \$60bn.

“It’s not search competing against search any more. It’s search competing against everything else,” David Dai of Bernstein said.

## China and the west: a tale of two internets

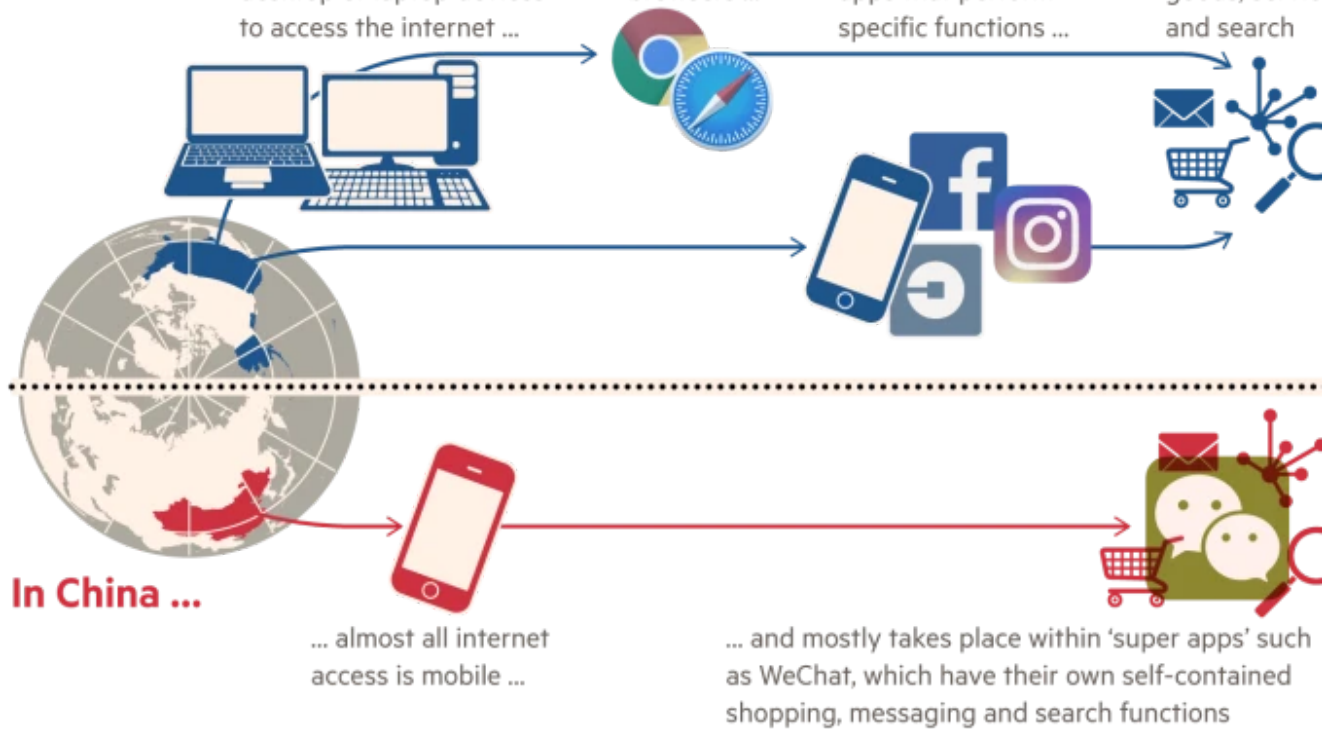
### In the US ...

... most people use desktop or laptop devices to access the internet ...

... via web browsers ...

... or, increasingly, mobile apps that perform specific functions ...

... to access goods, services and search



### In China ...

... almost all internet access is mobile ...

... and mostly takes place within 'super apps' such as WeChat, which have their own self-contained shopping, messaging and search functions

© FT

Although the overall number of search queries in China has continued to show modest growth, Chinese users now spend ever more time on short video and messaging platforms, where they are exposed to content that is not indexable by Baidu.

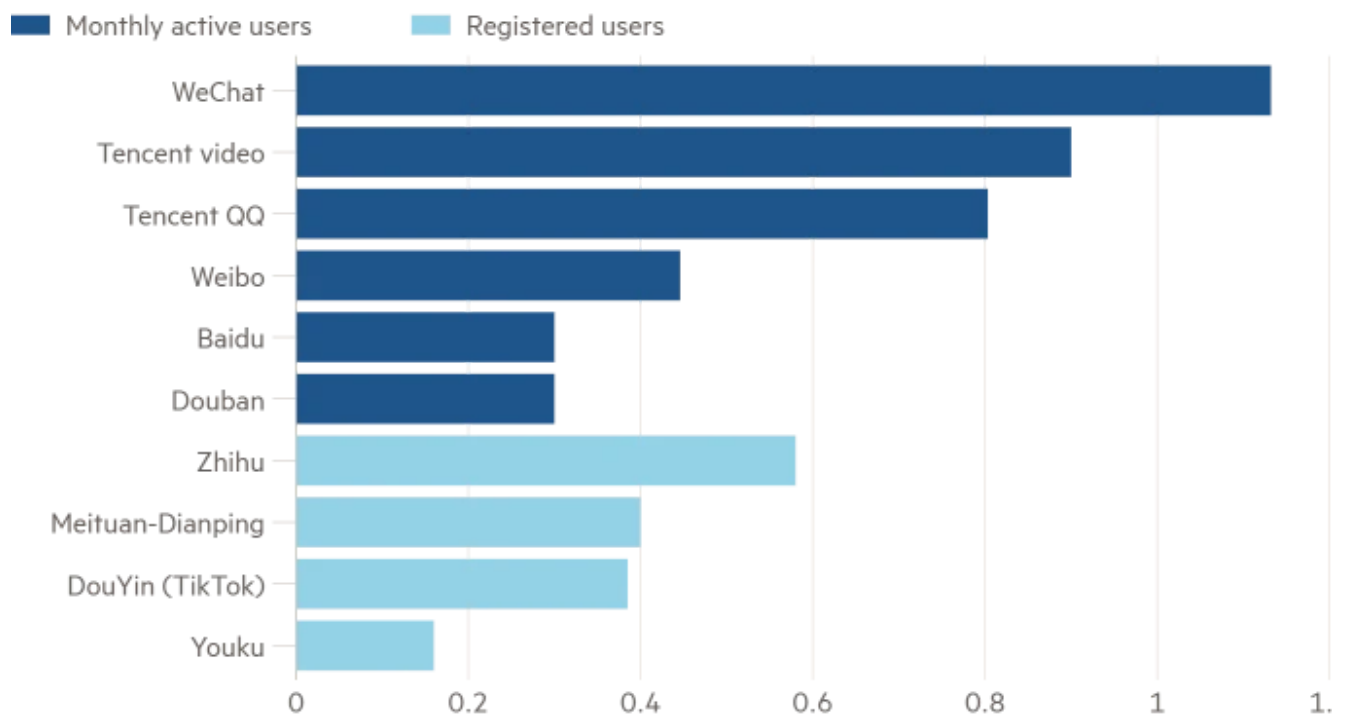
Baidu's advantage is the vast amount of user data it has accumulated from a decade of being the top search provider in China, fielding more than 70 per cent of queries to allow the company to optimise results better than any competitors.

But users now spend more time in feeds provided by Baidu's competitors, and recommendations rather than search play a larger role in the information they consume, according to Mr Dai. "That's an irreversible trend. Overall search is becoming less and less useful," he said.

After Google exited the Chinese market in 2010, citing concerns over government censorship, Baidu has successfully fended off multiple rivals seeking to unseat its leading position, including from Qihoo 360's service, launched in 2013, followed by the Alibaba-backed mobile search engine Shenma in 2014.

## A small share of China's internet users use search engines

Registered and active users (billions)



Sources: Dragon Social, FT research

© FT

Now, the leading Chinese search provider faces an uphill battle to maintain revenue from search as ByteDance and Tencent not only develop their own wildly popular apps but are also moving towards having search functions that yield results from both their own information ecosystems and the wider web.

In August, ByteDance, the company behind short-video app TikTok and one of the world's most valuable start-ups, launched a search function within its Jinri Toutiao news aggregator. Backed by SoftBank, ByteDance's popular games, news and short video apps have made it a rare Chinese start-up to boast a sizeable overseas audience.

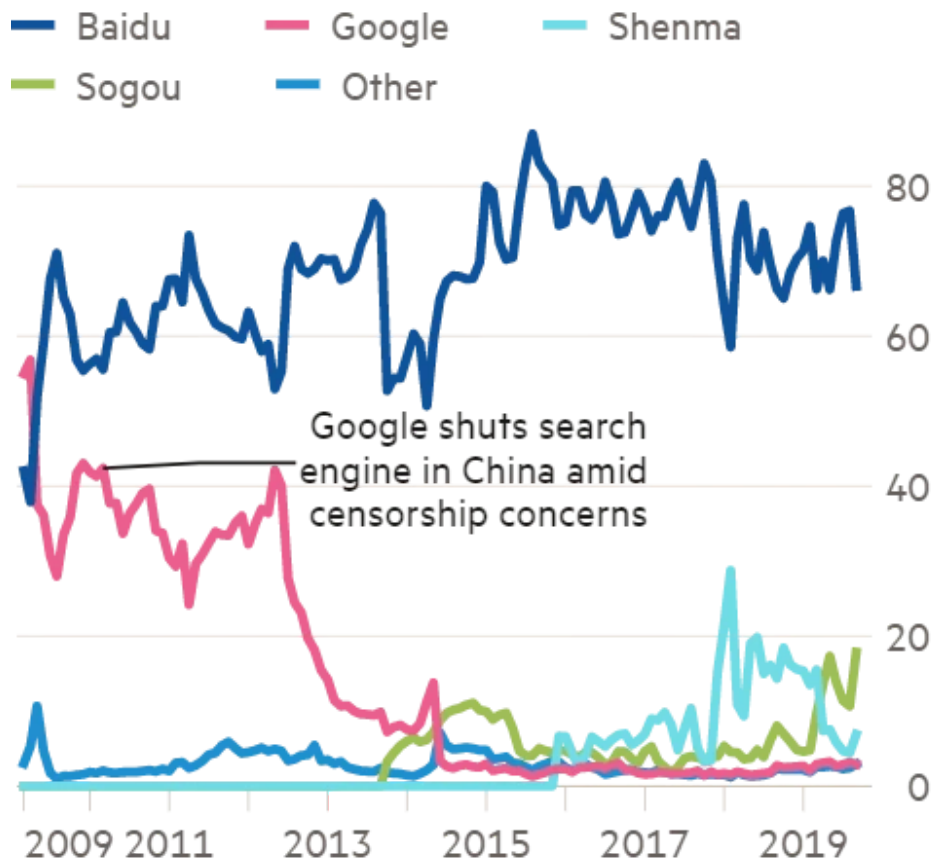
The company, which has been considering filing for an IPO as soon as this year, has increasingly run into regulatory hurdles in India and is exposed to fallout from the US-China trade war, reinforcing the importance of pushing new initiatives in its home market.

"ByteDance has gained so much traffic through its news feed and short video apps, many users already started to search for content within its systems, that's why they are taking search to the next level and commercialising it," according to Zhang Xueru, an analyst at Shanghai-based 86 Research.

"The problem [for Baidu search] is not that its business model is wrong; it's that user behaviour is changing," said Ms Zhang.

## Winning the war on search in China

Market share (%)



Source: StatCounter Global Stats  
© FT

Bytedance's advertising alliance Pangolin, launched in 2018, boasts 36bn requests per day from 700m active users, as well as what analysts estimate is now the largest network of advertisers in China.

A report by Hua Chuang Securities released last week said that search had lost its position as the core purveyor of information for advertisers and that competition from platforms including Bytedance's Jinri Toutiao and Tencent's WeChat had "shaken Baidu's dominant position".

Although Baidu's click-through rate currently remains higher than for Jinri Toutiao, the increasing use of automated recommendations, or "programmatic ad buying", means that companies will increasingly rely on the efficiency of their recommendation algorithms, the report's authors wrote.

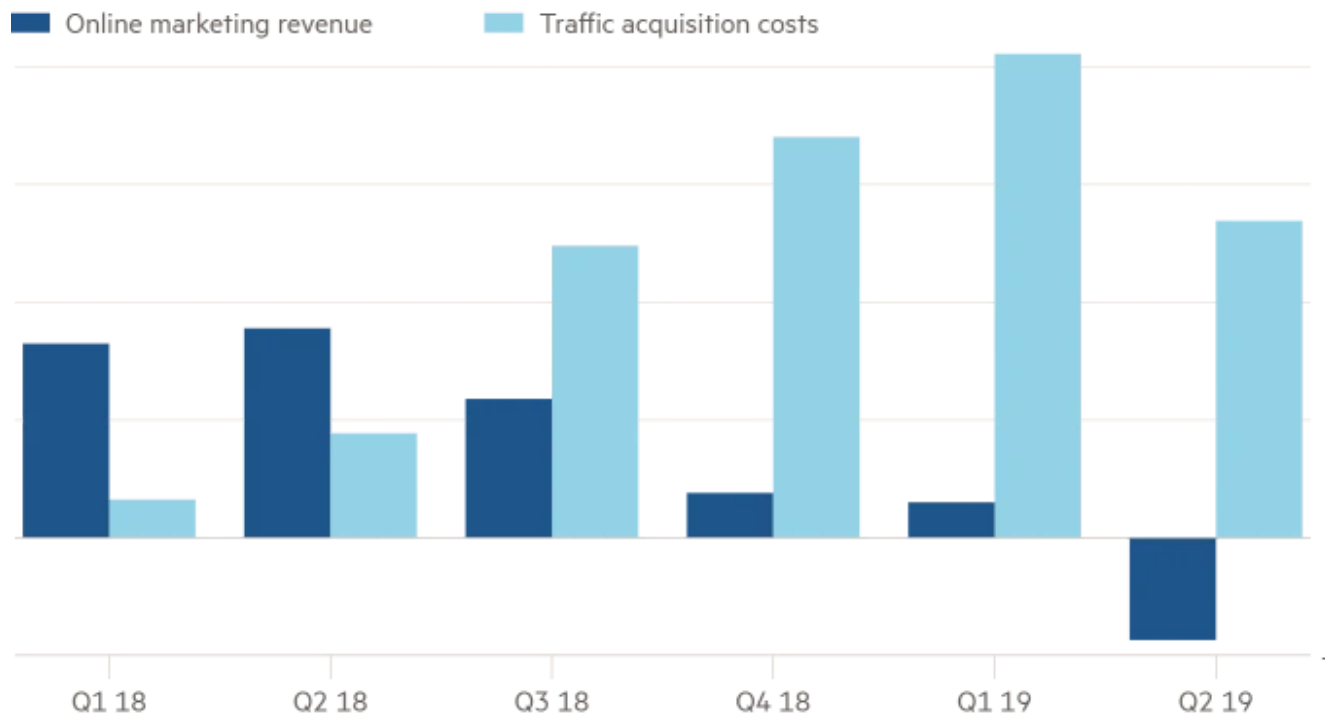
"The high rate of accuracy of Bytedance's algorithms . . . will make it gradually become the market leader," they wrote.

Bytedance's advertising revenue overtook Baidu's in the first six months of 2019, with Jinri Toutiao's share of China's total mobile ad revenue increasing by nearly 8 per cent compared to 2018, while Baidu's share dropped by nearly 6 per cent, according to Hua Chuang Securities' analysis.

Baidu's ad revenue was Rmb17bn (\$2.4bn) in the second quarter of 2019, down 8.5 per cent from a year before, while net profit fell to Rmb2.4bn from Rmb6.4bn. ByteDance's ad revenue was Rmb27bn for the same period, up 170 per cent year on year.

## Baidu's costs eat into its revenues

Annual change in costs and revenue (%)



Source: Baidu  
© FT

Baidu also faces growing competition from Tencent, which has been working more closely with Sogou, currently China's second-largest search engine, in which it has owned a controlling stake since 2013.

Sogou is currently the only platform able to search WeChat public accounts, an increasingly common source of news.

To push back on the competition, Baidu has increasingly focused on its content and news feed offerings, as well as attempting to bolster overall user numbers.

This effort has become an increasingly costly investment, as marketing dollars have less impact in the saturated market, while its bets on smart speakers, cloud services and autonomous driving may take time to return profits.

Baidu's search technologies may be little different to market-leading platforms like Google's AdSense, but that will not matter if they cannot adjust to changing user habits, Mr Dai of Bernstein said.

“What is truly cutting-edge today in China is recommendation ad technology. In this, China might be ahead of the rest of the world — and by China I mean ByteDance,” he said.

*Produced by India Ross*

**Sign up to the daily #techFT email**

**One-Click Sign Up**

[Copyright](#) The Financial Times Limited 2019. All rights reserved.