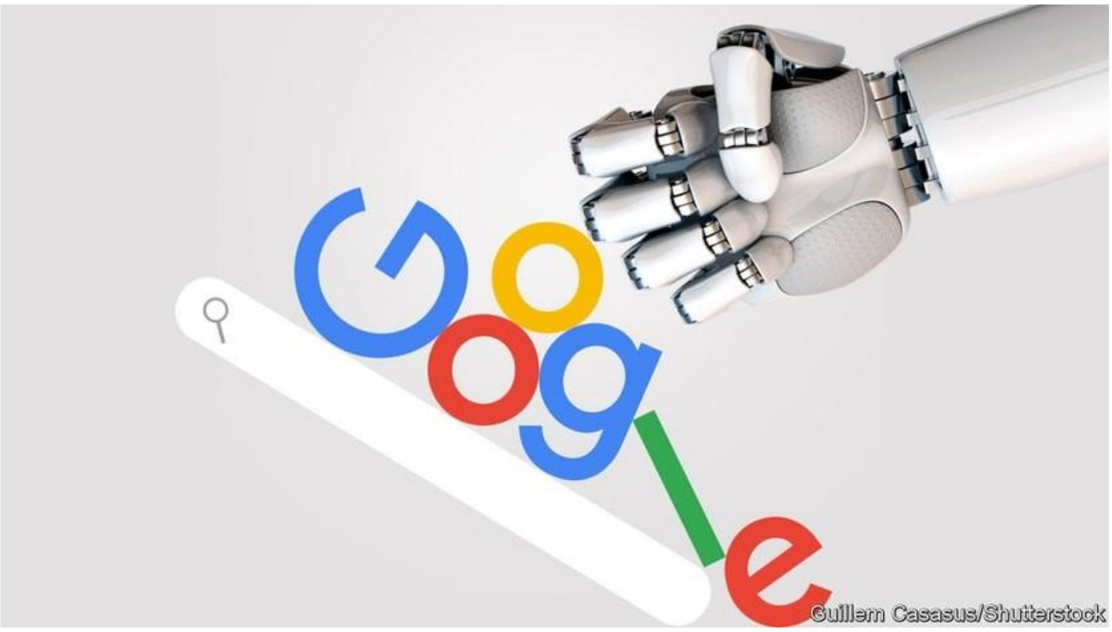
Leaders | Search engines

The battle for internet search

Will the AI chatbots eat Google's lunch?



For more than 25 years, search engines have been the internet's front door. AltaVista, the first site to allow searches of the full text of the web, was swiftly dethroned by Google, which has dominated the field in most of the world ever since. Google's search engine, still the heart of its business, has made its parent, Alphabet, one of the world's most valuable companies, with revenues of $283bn in 2022 and a market capitalisation of $1.3trn. Google is not merely a household name; it is a verb.

But nothing lasts for ever, particularly in technology. Just ask ibm, which once ruled business computing, or Nokia, once the leader in mobile phones. Both were dethroned because they fumbled big technological transitions. Now tech firms are salivating over an innovation that might herald a similar shift—and a similar opportunity. Chatbots powered by artificial intelligence (ai) let users gather information via typed conversations. Leading the field is Chatgpt, made by Openai, a startup. By the end of January, two months after its launch, Chatgpt was being used by more than 100m people, making it the “fastest-growing consumer application in history”, according to ubs, a bank.

ai is already used behind the scenes in many products, but Chatgpt has put it centre stage, by letting people chat with an ai directly. Chatgpt can write essays in various styles, explain complex concepts, summarise text and answer trivia questions. It can even (narrowly) pass legal and medical exams. And it can synthesise knowledge from the web: for example, listing holiday spots that match certain criteria, or suggesting menus or itineraries. If asked, it can explain its reasoning and provide detail. Many things that people use search engines for today, in short, can be done better with chatbots.

Hence the flurry of announcements, as rival firms try to seize the initiative. On February 7th Microsoft, which has invested more than $11bn in Openai, revealed a new version of Bing, its search engine, which incorporates Chatgpt. Satya Nadella, Microsoft's boss, sees this as his chance to challenge Google. For its part, Google has announced Bard, its own chatbot, as a "companion" to its search engine. It has also taken a $300m stake in Anthropic, a startup founded by ex-Openai employees, which has built a chatbot called Claude. The share price of Baidu, known as the Google of China, jumped when it said it would release its chatbot, called Ernie, in March.

But can chatbots be trusted, and what do they mean for search and its lucrative advertising business? Do they herald a Schumpeterian moment in which ai topples incumbent firms and elevates upstarts? The answers depend on three things: moral choices, monetisation and monopoly economics.

Chatgpt often gets things wrong. It has been likened to a mansplainer: supremely confident in its answers, regardless of their accuracy. Unlike search engines, which mostly direct people to other pages and make no claims for their veracity, chatbots present their answers as gospel truth. Chatbots must also grapple with bias, prejudice and misinformation as they scan the internet. There are sure to be controversies as they produce incorrect or offensive replies. (Google is thought to have held back the release of its chatbot over such concerns, but Microsoft has now forced its hand.) Chatgpt already gives answers that Ron DeSantis, Florida's governor, would consider unacceptably woke.

Chatbots must also tread carefully around some tricky topics. Ask Chatgpt for medical advice, and it prefaces its reply with a disclaimer that it "cannot diagnose specific medical conditions"; it also refuses to give advice on, say, how to build a bomb. But its guardrails have proved easy to circumvent (for example, by asking for a story about a bombmaker, with plenty of technical detail). As tech firms decide which topics are too sensitive, they will have to choose where to draw the line. All this will raise questions about censorship, objectivity and the nature of truth.

Can tech firms make money from this? Openai is launching a premium version of Chatgpt, which costs $20 a month for speedy access even at peak times. Google and Microsoft, which already sell ads on their search engines, will show ads alongside chatbot responses—ask for travel advice, say, and related ads will pop up. But that business model may not be sustainable. Running a chatbot requires more processing power than serving up search results, and therefore costs more, reducing margins.

Other models will surely emerge: charging advertisers more for the ability to influence the answers that chatbots provide, perhaps, or to have links to their websites embedded in responses. Ask Chatgpt to recommend a car, and it will reply that there are lots of good brands, and it depends on your needs. Future chatbots may be more willing to make a recommendation. But will people use them if their objectivity has been compromised by advertisers? Will they be able to tell? Behold, another can of worms.

Then there is a question of competition. It is good news that Google is being kept on its toes by upstarts like Openai. But it is unclear whether chatbots are a competitor to search engines, or a complement. Deploying chatbots initially as add-ons to search, or as stand-alone conversation partners, makes sense given their occasional inaccuracies. But as their capabilities improve, chatbots could become an interface to all kinds of services, such as making hotel or restaurant reservations, particularly if offered as voice assistants, like Alexa or Siri. If chatbots' main value is as a layer on top of other digital services, though, that will favour incumbents which provide such services already.

Googling the future

Yet the fact that today's upstarts, such as Anthropic and Openai, are attracting so much attention (and investment) from Google and Microsoft suggests that smaller firms have a shot at competing in this new field. They will come under great pressure to sell. But what if an upstart chatbot firm develops superior technology and a new business model, and emerges as a new giant? That, after all, is what Google once did. Chatbots raise hard questions, but they also offer an opportunity to make online information more useful and easier to access. As in the 1990s, when search engines first appeared, a hugely valuable prize—to become the front door to the internet—may once again be up for grabs. ■

领先者 | 搜索引擎

互联网搜索之争

AI 聊天机器人会吃掉谷歌的午餐吗？

25 年多来，搜索引擎一直是互联网的大门。AltaVista 是第一个允许搜索网络全文的网站，但很快就被谷歌打败了，此后，谷歌在世界大部分地区主导了这个领域。谷歌的搜索引擎仍然是其业务的核心，使其母公司 Alphabet 成为世界上最有价值的公司之一，2022 年的收入为 2830 亿美元，市值为 13 万亿美元。谷歌不仅仅是一个家喻户晓的名字；它是一个动词。

但是，没有什么是永恒的，特别是在技术领域。只要问问曾经统治商业计算的 IBM，或者曾经是移动电话的领导者的诺基亚。两者都因为在重大技术转型中的失误而被废黜。现在，科技公司对一项创新垂涎三尺，它可能预示着类似的转变和类似的机会。由人工智能（AI）驱动的聊天机器人让用户通过输入的对话来收集信息。引领这一领域的是由初创公司 Openai 制造的 Chatgpt。据 ubs 银行称，截至 1 月底，在推出两个月后，Chatgpt 已被超过 1 亿人使用，成为 "历史上增长最快的消费者应用程序"。

人工智能已经在许多产品的幕后使用，但 Chatgpt 通过让人们直接与人工智能聊天，将其置于中心舞台。Chatgpt 可以写各种风格的文章，解释复杂的概念，总结文本和回答小问题。它甚至可以（勉强）通过法律和医学考试。它还可以综合网络上的知识：例如，列出符合某些标准的度假地点，或建议菜单或行程安排。如果被问及，它可以解释其推理并提供细节。简而言之，今天人们使用搜索引擎的许多事情都可以用聊天机器人做得更好。

因此，随着对手公司试图抢占先机，宣布的消息纷至沓来。2 月 7 日，在 Openai 投资超过 110 亿美元的微软披露了其搜索引擎 Bing 的新版本，其中包含了 Chatgpt。微软的老板 Satya Nadella 认为这是他挑战谷歌的机会。就谷歌而言，它已经宣布了自己的聊天机器人 Bard，作为其搜索引擎的 "伴侣"。它还以 3 亿美元入股 Anthropic，这是一家由前 Openai 员工创立的初创公司，它已经建立了一个名为 Claude 的聊天机器人。百度被称为中国的谷歌，当它表示将在 3 月发布名为 Ernie 的聊天机器人时，其股价大涨。

但是，聊天机器人是否值得信任，它们对搜索及其利润丰厚的广告业务意味着什么？它们是否预示着一个熊彼特式的时刻，即 AI 推翻了现有的公司并提升了新兴公司？答案取决于三个方面：道德选择、货币化和垄断经济学。

聊天室经常出错。它被比喻为一个人云亦云的人：对自己的答案极有信心，而不考虑其准确性。与搜索引擎不同的是，它主要是将人们引向其他页面，并且不对其真实性做任何声明，而聊天机器人将其答案作为福音真理。聊天机器人在扫描互联网时，还必须努力应对偏见、成见和错误信息。当它们做出不正确或令人反感的回答时，肯定会有争议。(据认为，谷歌因为这种担忧而推迟了其聊天机器人的发布，但微软现在已经逼迫它出手了)。Chatgpt 已经给出了佛罗里达州州长

Ron DeSantis 认为不可接受的醒目答案。

聊天机器人还必须在一些棘手的话题上谨慎行事。向 Chatgpt 询问医疗建议，它在回答前会先声明 "不能诊断具体的医疗状况"；它也拒绝提供建议，例如如何制造炸弹。但事实证明，它的护栏很容易被规避（例如，要求提供一个关于炸弹制造者的故事，并提供大量技术细节）。随着科技公司决定哪些话题过于敏感，他们将不得不选择在哪里划定界限。所有这一切都将引发关于审查制度、客观性和真理的本质的问题。

科技公司能从中获利吗？Openai 正在推出 Chatgpt 的高级版本，每月收费 20 美元，即使在高峰期也能快速访问。谷歌和微软已经在其搜索引擎上销售广告，它们将在聊天机器人的回复中显示广告--比如说，询问旅游建议，相关广告就会弹出。但这种商业模式可能无法持续。运行聊天机器人比提供搜索结果需要更多的处理能力，因此成本更高，降低了利润率。

其他模式肯定会出现：也许会向广告商收取更多费用，让他们能够影响聊天机器人提供的答案，或者在回复中嵌入他们的网站链接。让 Chatgpt 推荐一款汽车，它就会回答说有很多好品牌，这取决于你的需求。未来的聊天机器人可能更愿意做推荐。但如果它们的客观性被广告商破坏了，人们会使用它们吗？他们能看出来吗？看啊，又是一罐蛀虫。

然后，还有一个竞争问题。谷歌被 Openai 这样的后起之秀盯上了，这是一个好消息。但目前还不清楚聊天机器人是搜索引擎的竞争对手，还是一种补充。鉴于聊天机器人偶尔会有不准确的地方，最初将其部署为搜索的附加功能，或作为独立的对话伙伴，是有意义的。但随着他们能力的提高，聊天机器人可以成为各种服务的接口，如预订酒店或餐厅，特别是如果作为语音助手，如 Alexa 或 Siri 提供。不过，如果聊天机器人的主要价值是作为其他数字服务的顶层，这将有利于已经提供此类服务的现有企业。

谷歌的未来

然而，今天的新秀，如 Anthropic 和 Openai，吸引了谷歌和微软如此多的关注（和投资），这表明小公司有机会在这个新领域竞争。他们将面临巨大的销售压力。但是，如果一家新成立的聊天机器人公司开发出了卓越的技术和新的商业模式，并成为新的巨头呢？这毕竟是谷歌曾经做过的事情。聊天机器人提出了棘手的问题，但它们也提供了一个机会，使在线信息更有用，更容易获取。就像 20 世纪 90 年代搜索引擎首次出现时一样，一个极为宝贵的奖项--成为互联网的前门--可能再次被争夺。■