

USTC

Study abroad in China

学
在
中
国



信息检索

日常生活中的



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第一章

CHAPTER I

一

SHOPPING

二

SEO

三

TRAFFIC

四

OTHER AREA



INFORMATION RETRIEVAL IN SHOPPING

购物



第一节

SECTION 01



The consumer online shopping activities

problem solving process or information processing of purchasing decision

Three Stages

1. demand determination
2. pre-purchase information search
3. evaluation of alternative goods





The consumer online shopping activities

淘宝
Taobao

宝贝 天猫 店铺

Q 送女生礼物特别



搜索

新款连衣裙 四件套 潮流T恤 时尚女鞋 短裤 半身裙 男士外套 墙纸 行车记录仪 新款男鞋 耳机 时尚女包 沙发



主题市场

天猫 聚划算 天猫超市 | 司法拍卖 淘宝心选 天天特卖 | 飞猪旅行 智能生活 苏宁易购

女装 / 内衣 / 家居 >

女鞋 / 男鞋 / 箱包 >

母婴 / 童装 / 玩具 >

男装 / 运动户外 >

美妆 / 彩妆 / 个护 >

手机 / 数码 / 企业 >

大家电 / 生活电器 >

零食 / 生鲜 / 茶酒 >

厨具 / 收纳 / 清洁 >

家纺 / 家饰 / 鲜花 >

图书音像 / 文具 >

医药保健 / 进口 >

汽车 / 二手车 / 用品 >

房产 / 装修家具 / 建材 >

手表 / 眼镜 / 珠宝首饰 >



1 billion products

100 million search queries per day

I. browse and search

II. provide necessary information

III. implement decisions and purchases





The activities of consumer in network information space

The consumers' cognition and task activities in the network information space can be divided into the following three ways:



01

Browse:

Informal and opportunistic with **no specific purpose** low efficiency in completing tasks, and largely dependent on the external information environment But it can better form an **overview** of the whole information space structure.



02

Explore:

find **new information** in a certain field The information collected in searching is helpful to achieve the ultimate goal of **discovering new information**. When searching, users have to visit many different information sources, and the search activities are highly dependent on indexing.



03

Search:

It is the process of finding and locating **specific information** in a large information set. The **purpose** of searching is strong, and the activity efficiency is the highest.



types of online consumers

- I. Simple and convenient type —— convenient and direct online shopping
- II. Surfing type —— constantly updated and have innovative design features
- III. newcomer type —— believe in the brands they are familiar with in life
- IV. Bargaining type —— have an instinct to buy cheap goods
- V. Regular type and Sports type —— usually attracted by the content of websites



行者无疆



Tmall platform



products' catalogue

well-known brands and trademarks

B to C mode

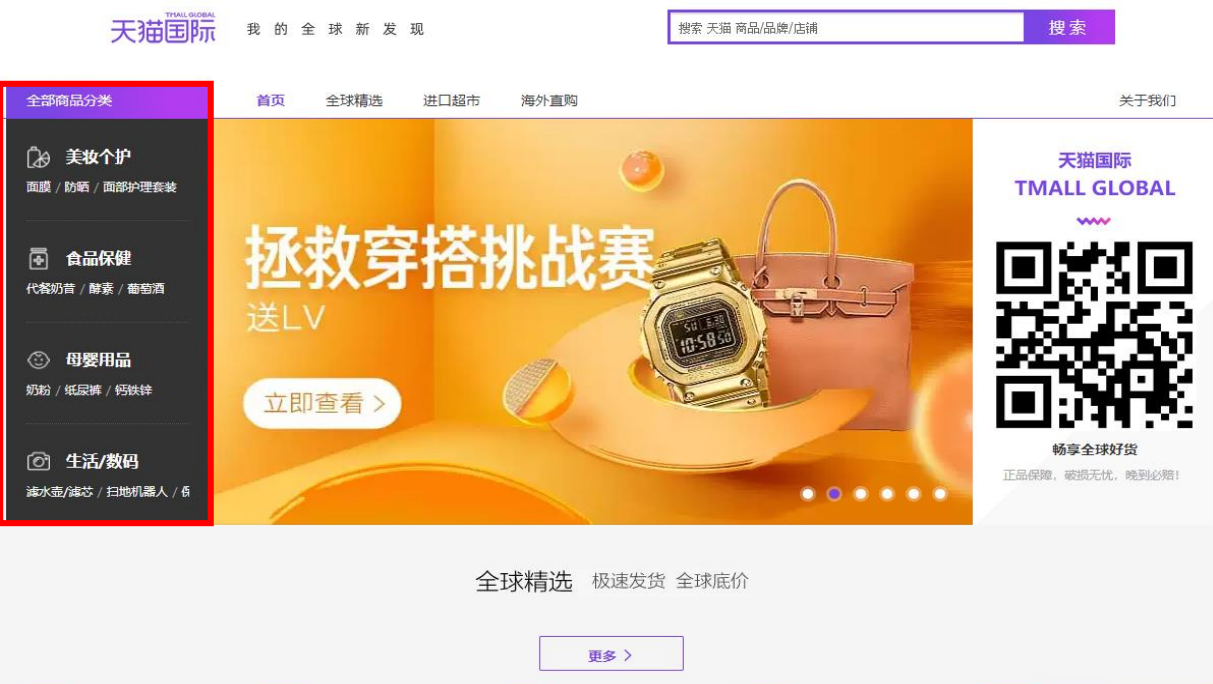
Simple and convenient type

newcomer type





Tmall International platform



regular type and sport type consumer

mother and baby products

Beauty products

health care products

digital products





Information retrieval in taobao



01

The underlying algorithm of Taobao's search engine has not changed for so many years, only some minor adjustments in function have made

02

Taobao's search engine is much simpler than those in professional scientific research databases, for example, web of science

03

Customers of all ages and educational levels will have no obstacles in using it



高级搜索技巧,找宝贝更省心——节省输入时间下搜索框

寒弈 发表于 2011-10-11 16:35 浏览 (39211) 回复 (39) 赞 (0)

节省输入时间下搜索框

在搜索框输入商品（包括拼音或者缩写）之后,会出现下搜索框(见下图红框),可以直接选择你需要搜索范围的选项



行者无疆



Information retrieval in taobao



卖家关心的问题——淘宝搜索排序简介

秦奔 发表于 2011-10-12 14:36 浏览 (75251) 回复 (445) 赞 (0)

淘宝搜索排序简介

A、概述

- 1、 淘宝搜索排序的目的是帮助消费者找到最满意的商品。店铺经营情况、商品价格与信息等可能会对搜索结果产生影响。
- 2、 淘宝反对通过各种不正当手段对搜索结果进行影响的行为，并将给予严厉打击。淘宝有权对卖家的违规行为和作假情况进行统计，并根据卖家的相关记录调整其商品在搜索结果中的排名。
- 3、 淘宝有权根据多变的业务情况，采取灵活的解决方案，对商品排序与搜索结果进行持续的调整与改善。

B、排名下调的情形：

- 1、 重复铺货；
- 2、 虚构交易，包括炒作信用和炒作商品销量；
- 3、 标题乱用关键词；
- 4、 错放类目和属性；
- 5、 发布广告商品；
- 6、 商品邮费、价格严重不符；
- 7、 标题、图片、描述等不一致。

01

The quality of business operations of the store, commodity prices and information may have an impact on search results

02

some cases that will lower the ranking of products, such as repeatedly distribute goods, fictional transactions, misuses of keywords in title and so on

行者无疆



Information retrieval in taobao



卖家关心的问题——搜索作弊行为评判标准

秦奔 发表于 2011-10-12 15:06 浏览 (37512) 回复 (89) 赞 (0)

A. 虚假交易，包括炒作信用和炒作销量。

定义： 虚假交易，包括炒作信用和炒作销量。以增加“会员积累信用”为目的或通过炒作商品销量提高商品人气而发布的商品，会被判定为虚假交易商品。 [查看更多细则>>](#)

搜索降权时间： 系统识别后立即降权，**降权时间根据作弊的不同严重程度而不同**，一般为30天左右。店铺虚假交易行为过于严重的，全店铺商品都将被降权。

建议： 删除虚假交易的商品。

B . . : 换宝贝

定义： 指卖家为了累积销量或人气，修改原有的商品的标题、价格、图片、详情等变成另外一种商品继续出售。这是种严重炒作销量的行为，有这种行为的商品会被淘宝搜索判定为换宝贝立即降权。 [查看更多细则>>](#)

搜索降权时间： 系统识别后立即降权，**降权时间根据作弊的不同严重程度而不同**，一般为30天左右，严重的可永久降权或屏蔽。

建议： **删除该商品**。

C. 重复铺货

定义： 完全相同以及商品的重要属性完全相同的商品，只允许使用一种出售方式（从一口价，拍卖中选择一个），发

布一次。违反以上规则，即可判定为重复发布，并在搜索结果里靠后展现或不予与展现；对于不同的商品，必须在商品的标题、描述、图片等方面体现商品的不同，否则将被判定为重复铺货。 [查看更多细则>>](#)

搜索降权时间： 系统识别后立即降权，**降权时间根据作弊的不同严重程度而不同**，重复的商品删除后**最早**可在5天内结束降权。

建议： 删除重复的商品。

D . 重复铺货式 开店

定义： 指卖家通过同时经营多家具有相同商品的店铺，达到重复铺货的目的，淘宝搜索此开店方式为重复铺货式开店。这种行为，严重干扰卖家正常经营秩序，并破坏买家的购物体验，属于搜索作弊行为。

搜索屏蔽时间： 系统识别后，保留其一个主营店铺，其余店铺屏蔽。

建议： 保留一个主营店铺，其余店铺关闭。

A

false trading is that the products released to speculate the sales volume or increase the popularity, and the purpose is to increase "members accumulate credit"

B

the seller modifies the **title, price, picture, and details of the original product** to become another kind of product to continue selling

行者无疆



Information retrieval in taobao

F. 错放类目和属性

定义： 商品属性与发布商品所选择的属性或类目不一致，或将商品错误放置在淘宝网推荐各类目下，淘宝搜索判定为放错类目商品。[查看更多细则>>](#)

搜索降权时间： 系统识别后立即降权，**降权时间根据作弊的不同严重程度而不同**，错放类目和属性?纳唐返髟 泛?
最早可在5天内结束降权。

建议： 将商品放到正确的类目和属性中。

G.：标题滥用关键词

定义： 卖家为使发布的商品引人注目，或使买家能更多的搜索到所发布的商品，而在商品名称中滥用品牌名称或和本商品无关的字眼，使消费者无法准确地找到需要的商品。有这种行为的商品会被淘宝搜索判定为滥用关键词商品立即降权。[查看更多细则>>](#)

搜索降权时间： 系统识别后立即降权，**降权时间根据作弊的不同严重程度而不同**，标题滥用的商品修改正确后**最早**可在5天内结束降权。

建议： 将商品标题修改正确。

H.：SKU 作弊

定义： 指 **刻意规避淘宝商品sku设置规则**，**滥用商品属性**（如套餐）设置过低或者不真实的一口价，从而使商品排序靠前（如价格排序），淘宝搜索将这种商品判定为 **SKU 作弊商品**。[查看更多细则>>](#)

搜索降权时间： 系统识别后立即降权，**降权时间根据作弊的不同严重程度而不同**，**SKU 作弊**的商品修改正确后 **最早**可在 5 天内结束降权。

建议： 将 **SKU 商品**修改正确

I.价格不符

定义： 发布商品的定价不符合市场规律或所属行业标准，滥用网络搜索方式实现其发布的商品排名靠前，影响淘宝网正常运营秩序的，淘宝搜索判定其相关商品为价格不符商品[查看更多细则>>](#)

搜索降权时间： 系统识别后立即降权，**降权时间根据作弊的不同严重程度而不同**，价格严重不符的商品调整正确后**最早**可在5天内结束降权。

建议： 按照市场规律和所属行业标准，将价格调整正确。

01

the keywords in product titles, the sales volume of the product, the price, the evaluation of the product, the product picture

02

the operation of the store which including the overall sales of the store and the reputation of the store

03

the weighting calculation

行者无疆



Other factors affecting ranking



REMAINING TIME OF THE PRODUCT



WINDOW RECOMMENDATIONS



DISCOUNT EVENTS AND ADVERTISING



HOMEPAGE DISPLAY POSITIONS



Other factors affecting ranking



REMAINING TIME OF THE PRODUCT



WINDOW RECOMMENDATIONS



DISCOUNT EVENTS AND ADVERTISING



HOMEPAGE DISPLAY POSITIONS

搜索优化

S
E
O



第一节

SECTION 02





Search Engine Optimization



It's a hotly debated topic and there is LOTS of content written about it online.



What Is SEO?



SEO is the process of improving your website so that it ranks higher in search engine results for certain keywords. Typically people focus on appearing in Google or Baidu, but there is also Taobao.

It is all about getting users to visit your site without directly paying for advertising. It's a discipline of marketing that absolutely loves acronyms:

SERP – search engine results page

CTR – click-through rate

CTA – call to action

CRO – conversion rate optimization

UX – user experience



Users' behavior analysis

These business concepts of click-through rate, call to action, and conversion rate are also applicable to e-commerce platforms such as Taobao.

Therefore, if you want to improve the visibility of your store through these marketing methods, you must **analyze the users' behavior**. When each of us uses Taobao to shop, our browsing habits, retrieval ways, and visit purposes will be recorded unreservedly.

Simultaneously, **data analysis software** also came into being.





Business Advisor



After years of development and integration since 2011, Taobao has finally upgraded their **data tool "Business Advisor"** that was originally used in Alibaba's B2B market, into a unified data product platform for Alibaba's merchants.





Business Advisor



These data have too many dimensions and quantities, so they are divided into some topics, such as **traffic**, **transaction**, **service**, **evaluation**, **logistics** and so on.





core indicators



unique visitors
page views



payment amount
transaction conversion rate



bounce rate
refund rate



customer unit price
service score

Other important indicators:

the amount of products added into favorites
the amount of goods putted into the shopping cart
page dwell time
customer return rate
the depth of page access



Business Advisor

生意参谋 | 数据分析师就业班 主店

消息 订购 个人中心 退出

首页 实时 作战室 流量 商品 交易 内容 服务 营销 物流 财务 市场 竞争 业务专区 **取数** 学院

取数分析

我的报表

新建报表

推荐报表

我的报表 > 新建报表

报表名称

选择维度 数据粒度 ☒ 店铺 ☐ 商品

数据维度 ☒ 店铺整体 ☐ 店铺分小时 ☐ 店铺流量来源 ☐ 店铺引流关键词 ☐ 店铺类目构成

选择时间 时间周期 ☒ 自然日 ☐ 自然周 ☐ 自然月

更新设置 ☒ 自动更新 ☐ 不自动更新

查询时间 最近 30 天

选择指标 选择终端 ☒ 所有终端 ☒ PC 端 ☒ 无线端

选择主题 ☒ 流量 ☒ 交易 ☒ 转化 ☒ 推广 ☒ 服务 ☒ 评价 ☒ 物流 ☒ 互动

待选指标 ☐ 选择全部 (104个)

PC端访客数	PC端浏览量	访客数	无线端访客数	浏览量	无线端浏览量	商品访客数
无线端商品访客数	PC端商品访客数	商品浏览量	无线端商品浏览量	PC端商品浏览量	平均停留时长	
无线端平均停留时长	PC端平均停留时长	跳失率	无线端跳失率	PC端跳失率	商品收藏买家数	

已选指标 拖动已选中的指标可调整指标在表中的列顺序

尚未选择任何目标

生成报表

微信号: dmerncn

104 parameters or indicators

The general routine is: dimensionality, time granularity, and indicators





Indicators for shop operation

The indicators of traffic analysis include three indicators: bounce rate, average page views, and average dwell time

Affected by the details page of the product, Asking Everyone, Buyer Shows, and Comments





INCREASE
NATURAL
SEARCH
TRAFFIC

流量



第二节
SECTION 03



real core indicators

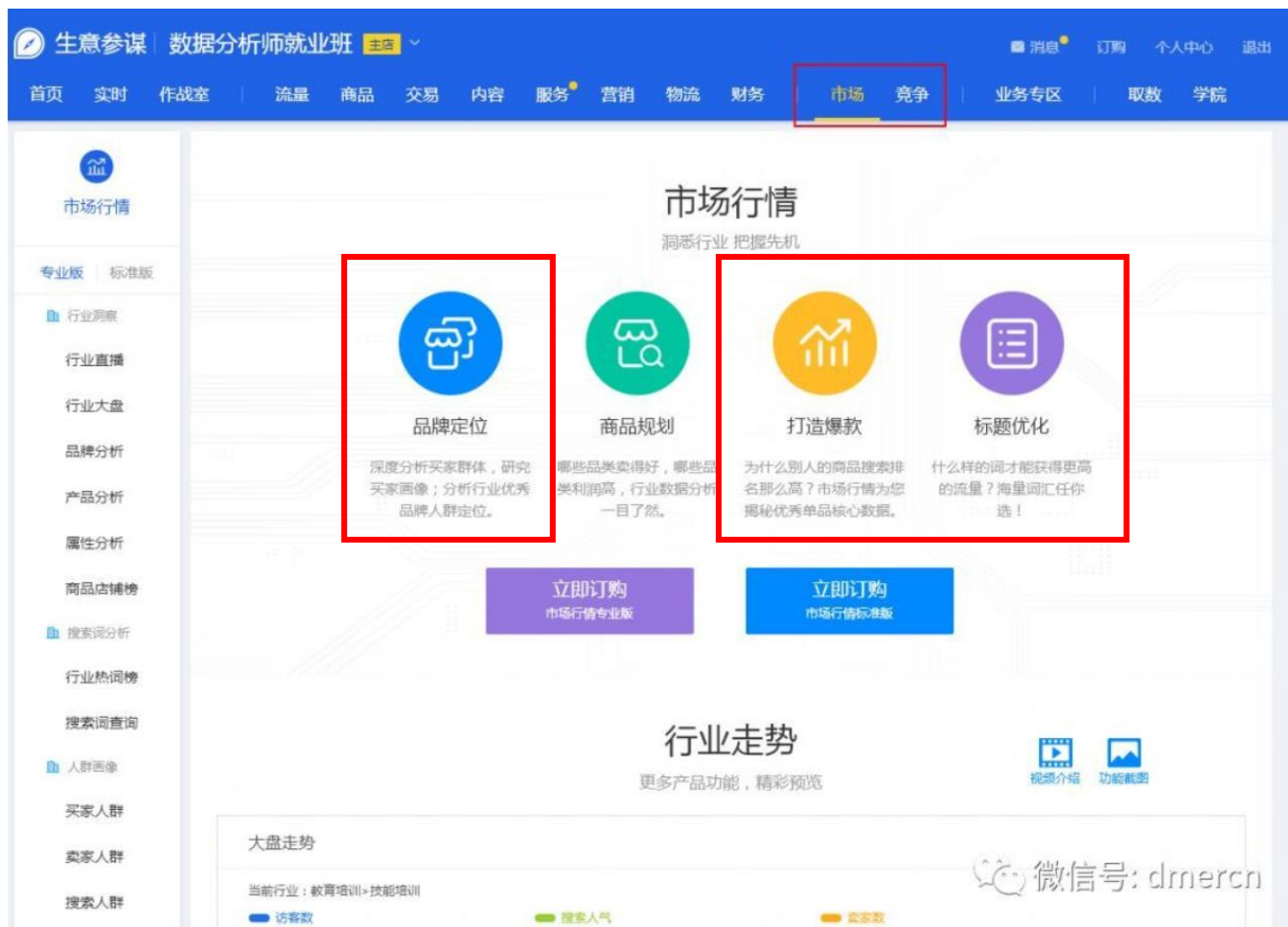


Achieving huge store traffic is the kingcraft

These indicators can't help sellers solve these problems we raised earlier, that is getting higher ranking and higher traffic. Therefore, the parameters related to this problem are the real core indicators.



market quotation

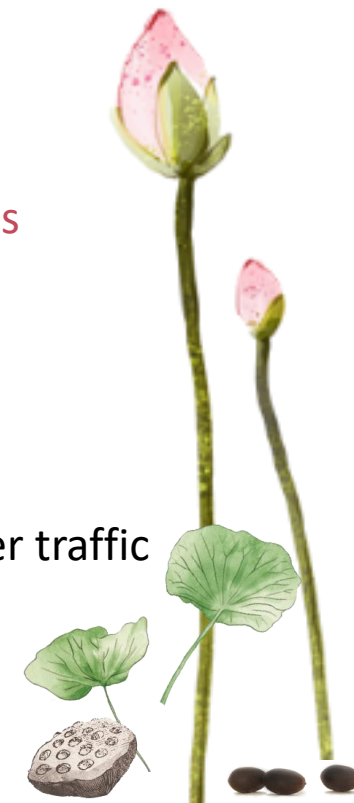


brand positioning

In-depth analysis of buyers and study of buyers' profile

creation of explosive products
improve search ranking

product title optimization
find out what keywords can get higher traffic





keywords selection assistant

带来的浏览量	在所选的终端（PC或无线）上，通过搜索某个关键词后，点击店铺或者店铺的宝贝，进入店内的访问次数，同一个人多次访问记为多次。
带来的访客数	在所选的终端（PC或无线）上，通过搜索某个关键词后，点击店铺或者店铺的宝贝，进入店内的访问人数，同一个人多次访问记为一人。
引导下单买家数	在所选的终端（PC或无线）上，对于店外搜索关键词，是指通过搜索某个关键词访问某个宝贝后，在当天后续时间内拍下该宝贝的人数；对于店内搜索关键词，是指搜索某个关键词后的店铺搜索结果页中，点击搜索结果中的某个宝贝后，在当天后续时间内拍下该宝贝的人数。
引导下单转化率	在所选的终端（PC或无线）上，对于店外搜索关键词，是指引导下单买家数除以该关键词带来的访客数；对于店内搜索关键词，是指引导下单买家数除以该关键词搜索结果页的点击人数。
全网搜索人气	在所选的终端（PC或无线）上，根据关键词搜索人数折算所得，该值越高表示搜索人数越多。一个关键词被同一个人搜索多次，搜索人数记为一人。
全网搜索热度	在所选的终端（PC或无线）上，根据关键词搜索次数折算所得，该值越高表示搜索次数越多。一个关键词被同一个人多次搜索，记搜索次数为多次。关键词的一次搜索后多次翻页查看搜索结果，搜索次数记为一次。
商城点击占比	在所选的终端（PC或无线）上，当用户搜索关键词后出现的搜索结果中，点击天猫店铺宝贝的次数除以点击所有（天猫店铺+淘宝店铺）宝贝的次数。
全网点击率	在所选的终端（PC或无线）上，搜索关键词后出现的搜索结果中，点击店铺或者宝贝的次数除以关键词的搜索次数
全网商品数	在所选的终端（PC或无线）上，搜索关键词后找到的相关宝贝数，由于不同的时点搜索结果略有差异，当前采用的是所有次搜索得到的结果宝贝数的最大值。
全网下单转化率	在所选的终端（PC或无线）上，搜索关键词并点击查看相关宝贝后，在后续时间里该用户拍下该宝贝，我们记为全网引导下单买家数。全网引导下单买家数除以全网搜索人数即为当前指标值。

店内搜索人数	在所选的终端（PC或无线）上，在店铺内搜索关键词的人数，一个关键词被同一个人搜索多次，搜索人数记为一人。
搜索结果页点击人数	在所选的终端（PC或无线）上，在店铺内搜索关键词后，点击搜索结果页中宝贝的人数。一个人点击多个宝贝或对一个宝贝点击多次，均记为一人。
搜索结果页点击次数	在所选的终端（PC或无线）上，在店铺内搜索关键词后，点击搜索结果页中宝贝的次数。一个人点击多个宝贝或对一个宝贝点击多次，记为多次。
搜索结果页点击率	在所选的终端（PC或无线）上，关键词搜索结果页的点击次数除以搜索次数
曝光量	通过搜索关键词展现店铺或店铺商品次数（淘宝+天猫）
引导入店人均浏览量	在所选的终端（PC或无线）上，通过搜索某个关键词后，产生的入店访客PV/入店访客UV
跳失率	在所选的终端（PC或无线）上，通过搜索某个关键词后，一天内，来访您店铺浏览量为1的访客数/店铺总访客数，即访客数中，只有一个浏览量的访客数占比。该值越低表示流量的质量越好。多天的跳失率为各天跳失率的日均值。
引导入店浏览量	在所选的终端（PC或无线）上，通过搜索某个关键词后，来访店铺浏览量PV

search keyword indicators in store

search keyword indicators in taobao home page



retrieval keywords analysis

关键词	搜索人气	点击率	商城点击占比	在线商品数	支付转化率
连衣裙	327,081	323.66%	33.89%	15,983,280	2.73%
连衣裙女夏2018新款	211,627	304.21%	37.26%	5,235,032	3.51%
连衣裙女夏	146,288	325.81%	27.50%	8,410,210	3.09%
雪纺连衣裙	120,209	287.39%	40.21%	2,411,556	4.15%
一字肩连衣裙	96,882	273.43%	26.06%	571,630	3.51%
连衣裙春季2018新款...	83,430	294.95%	39.24%	77,088	1.91%
棉麻连衣裙	83,106	262.90%	36.48%	537,264	3.54%

01

To optimize the products title still need another function: **search term analysis**

02

dig out keywords on the Taobao platform, and then filter the keywords to **find out a series of intentional words with high scores** of various indicators and great relevance to the product



filtering retrieval keywords

	A	B	C	D	E	F
1	关键词	搜索人气	点击率	商城点击占比	在线商品数	支付转化率
2	连衣裙	327,081	323.66%	33.89%	15,983,280	2.73%
3	连衣裙女夏2018新款	211,627	304.21%	37.26%	5,235,032	3.51%
4	连衣裙女夏	146,288	325.81%	27.50%	8,410,210	3.09%
5	雪纺连衣裙	120,209	287.39%	40.21%	2,411,556	4.15%
6	一字肩连衣裙	96,882	273.43%	26.06%	571,630	3.51%
7	连衣裙春季2018新款女中长款	83,430	294.95%	39.24%	77,088	1.91%
8	棉麻连衣裙	83,106	262.90%	36.48%	537,264	3.54%
9	真丝连衣裙	80,969	265.96%	47.54%	554,300	2.97%
10	孕妇连衣裙	77,632	276.95%	35.54%	746,384	16.58%
11	蕾丝连衣裙	73,919	262.91%	38.08%	1,832,432	2.77%
12	碎花连衣裙	73,447	274.59%	37.69%	1,472,977	3.23%
13	吊带连衣裙	72,412	275.64%	19.75%	2,047,889	3.18%
14	女童连衣裙	71,073	277.40%	47.68%	2,656,375	9.29%
15	连衣裙女	68,283	344.69%	26.25%	11,299,930	2.63%
16	ins超火的连衣裙	67,777	258.13%	24.33%	107,096	3.09%
17	真丝连衣裙女2018新款大牌	62,475	257.21%	55.39%	22,017	3.50%
18	夏季连衣裙女2018新款	59,889	305.54%	37.99%	2,546,578	2.51%
19	黑色连衣裙	59,425	267.77%	18.57%	3,206,300	3.48%
20	红色连衣裙	59,043	263.14%	27.92%	2,115,477	3.50%
21	连衣裙2018春新款女	58,409	272.68%	37.60%	1,319,113	2.26%
22	裙子春季2018新款女连衣裙学生	57,745	340.36%	24.51%	9,401	1.50%
23	小清新连衣裙	56,101	317.38%	32.82%	884,001	2.66%
24	v领连衣裙	55,031	307.00%	22.81%	2,274,009	2.92%
25	大码连衣裙	53,896	356.72%	25.78%	2,041,416	4.21%
26	冷淡风连衣裙 复古	53,519	279.07%	23.24%	56,043	2.46%
27	复古连衣裙	51,855	356.97%	12.64%	1,368,770	2.16%

	A	B	C	D	E	F	G
1	关键词	搜索人气	点击率	商城点击占比	在线商品数	支付转化率	竞争度
2	网红衣服女连衣裙	30,686	256.70%	21.23%	2,377	1.29%	4274.907067
3	压褶吊带连衣裙	34,369	293.76%	3.51%	13,942	2.16%	1564.185402
4	极简主义 连衣裙	43,451	260.83%	9.85%	8,068	0.77%	1081.638539
5	港味连衣裙夏 气质	42,884	256.51%	19.59%	19,998	1.96%	1078.124947
6	港味连衣裙夏 学生	40,087	296.82%	11.56%	12,602	1.05%	991.3945808
7	冷淡风连衣裙 复古	53,519	279.07%	23.24%	56,043	2.46%	655.5938553
8	冷淡风连衣裙 极简	48,447	249.02%	30.34%	69,997	3.53%	608.410074

filtering formula :

competition degree = search popularity * click rate * conversion rate*10000/number of online products

filtering principles :

First, when selecting keywords, we need to select words that match the features of our own products.

Second, keywords should not conflict with each other.

Third, pay attention to avoid brand words that are not authorized by the owners.



summarize the useful words and then combine them as a titles

front and back principle:

that is, the words at the front and back of the title have the highest weight

壹

貳

The space principle: Taobao defaults that spaces are mandatory separators, and the purpose of adding spaces is to force word segmentation.

The principle of order is irrelevant:

when you combine titles, it will not affect the search results if you randomly shuffle the selected long-tail words.

叁

肆

close arrangement principle:

there are no spaces and no other words among keywords.





create an explosive product

keywords are popular, that is, buyers find the products by searching for a keyword, and generate clicks to enter the store.

01

the keyword has a turnover, that is, the buyer enters the store through a certain keyword and places an order for transaction

02

Keywords bring praises, that is, Will the buyer give a good service feedback after placing an order?

03



When we have a good title, to create an explosive product, we need to increase the weight of keywords in this title in order to get a better search ranking.



making a large amount of fake orders



the primary level

popularity weight has a relatively low effect on ranking



Intermediate level

sales weight brought by keywords is the main way to improve the ranking



the advanced level

service weight will affect how much effect the sales weight can produce



persona-users' profile



When buyers search keywords in Taobao, click to enter the page through searching, or generate purchase etc., these behaviors will be labeled, and combined with the user's identity information, location information, user's equipment, social circles and all other data that can be collected, a profile of a specific user will be formed. The more customers use it, the more complete and accurate the persona will be.

At the same time, when the product is searched, clicked, collected, purchased and evaluated by customers, it will also be reversely indexed. Then the product labels are automatically matched with the labels of buyer's Taobao account to achieve precise brand positioning, and the Taobao's webpage is personalized for specific customers as well, which called thousands persons with thousands interfaces.



INFORMATION
RETRIEVAL IN
OTHER AREAS
OF LIFE

其他领域



第四节
SECTION 04



Beike platform

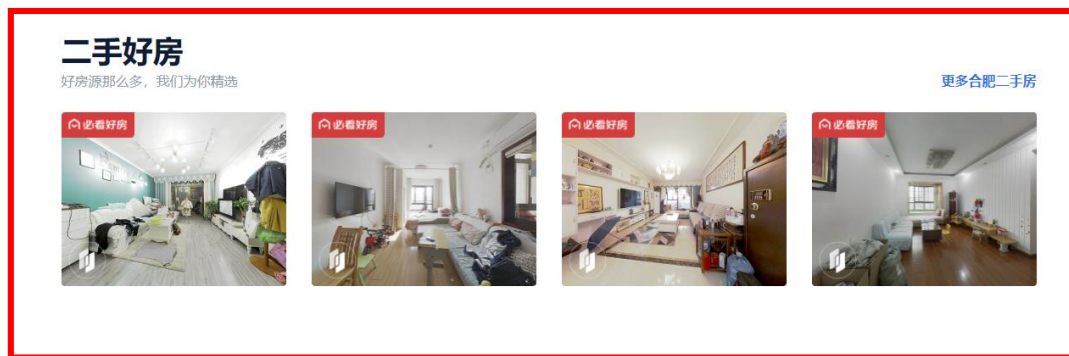


its retrieval system is much simpler

the pictures of houses

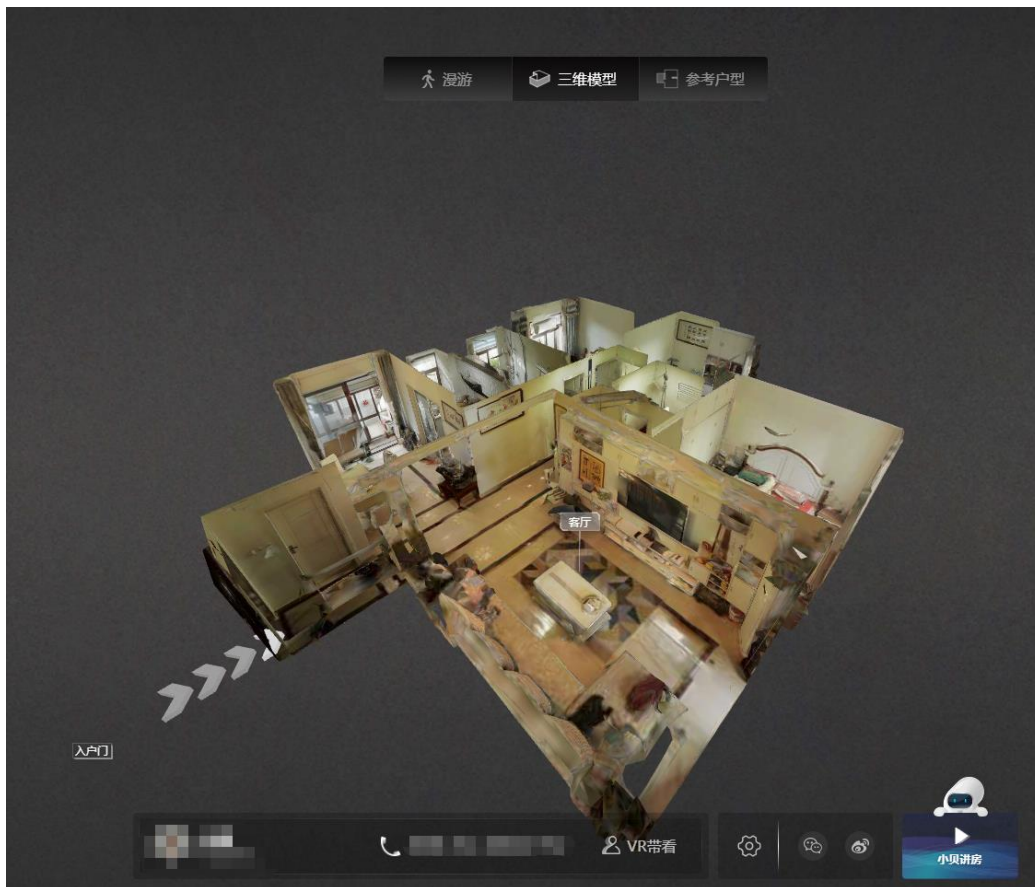
the retrieval keywords are relatively fixed

the number of search results is not much





Beike platform



Even with **VR system**, we can have a more comprehensive understanding of the internal condition and structure of the house, but the environment inside and outside the community and the surrounding living facilities still need on-site investigations. **This is an area where online retrieval system cannot completely solve the problem.**

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Dazhong Dianping

local life circles and
consumption

Influence of users' reviews on this platform
is almost decisive

Three dimensions
distance, delivery time and users' evaluation





Other field



Video



Music



Travel



Live stream

第二章

一

二

三

四

S E
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SERCH ENGINE

搜索引擎



第一节

SECTION 01

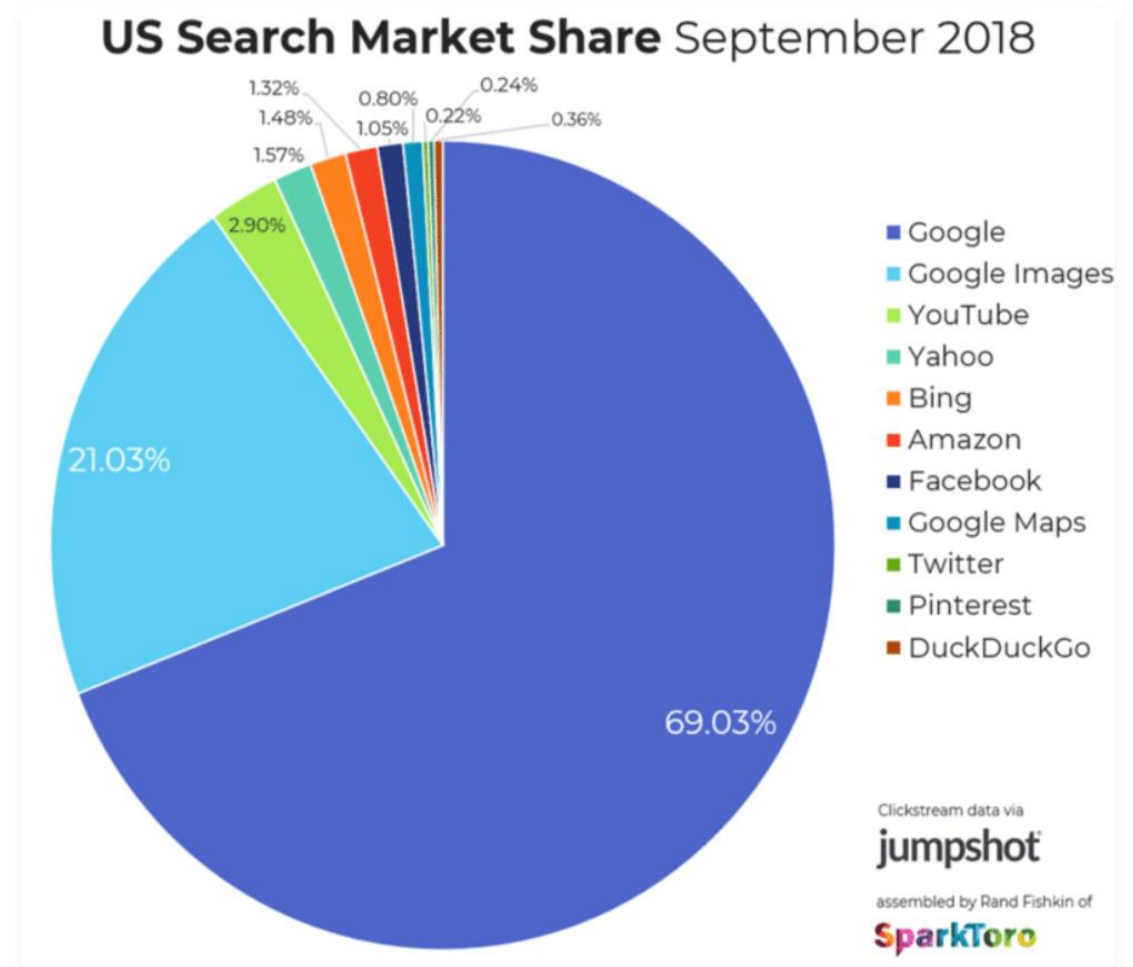


Search Market Share

Google Search Engine

An industry giant

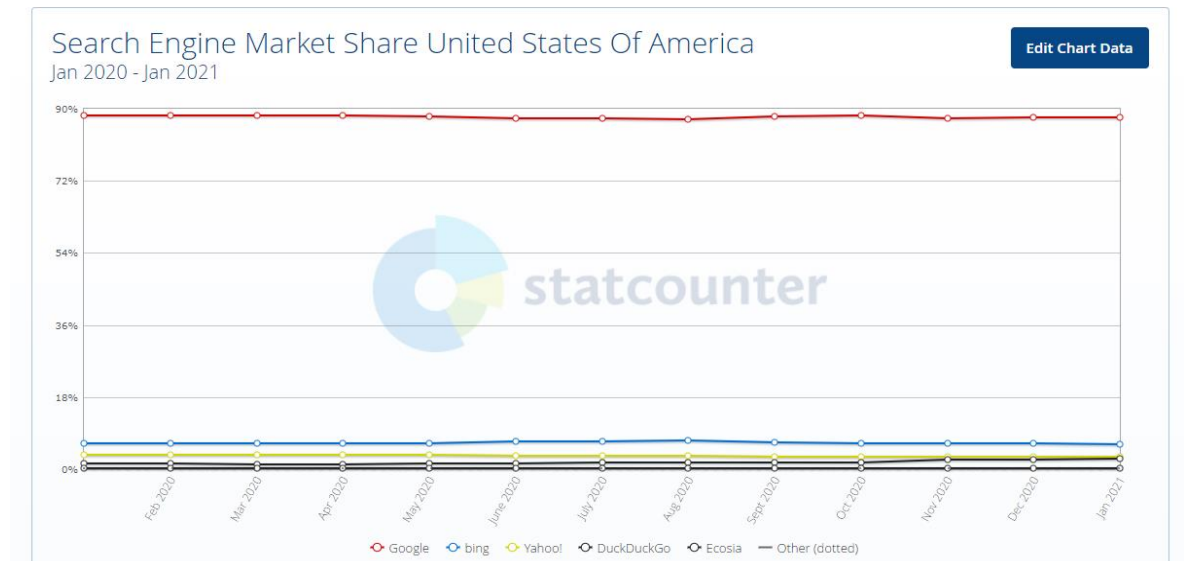
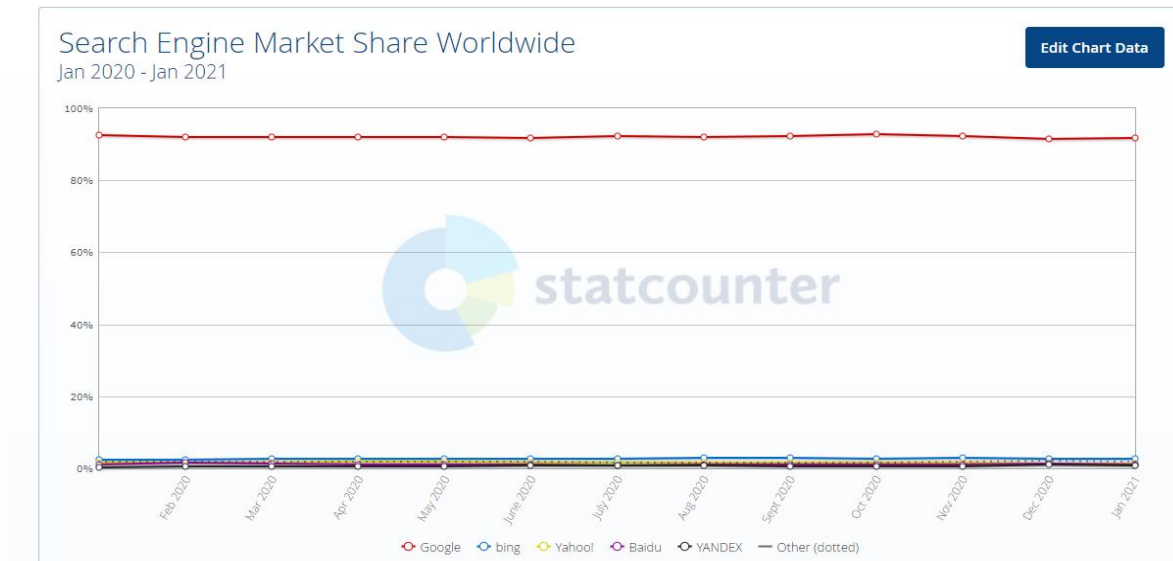
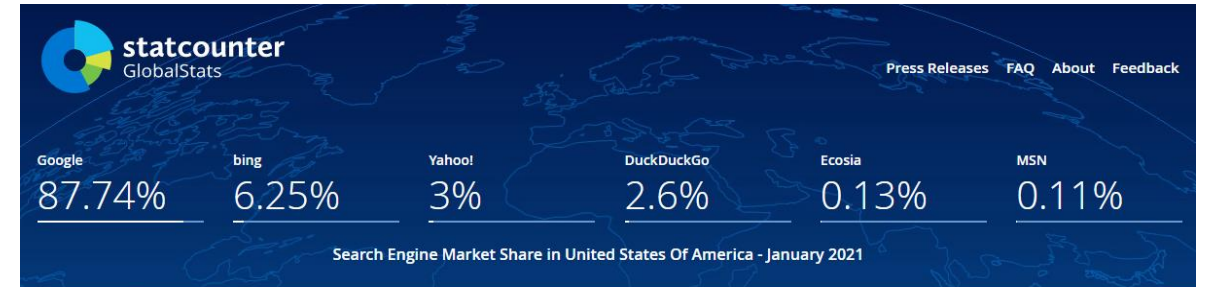
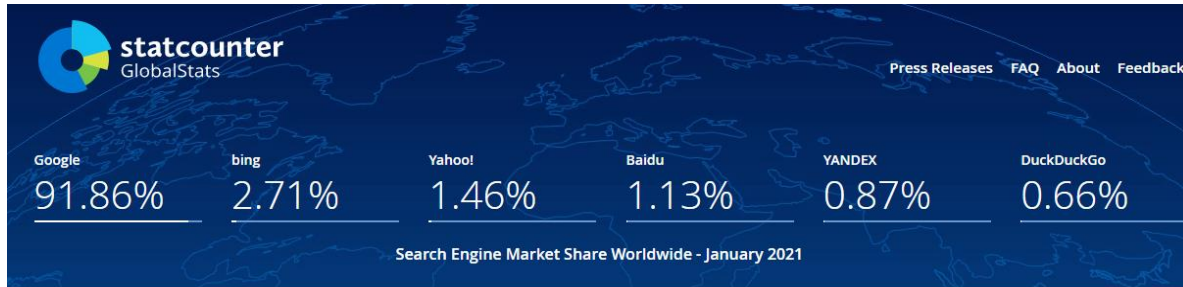
The biggest market share
google, google image, youtube, yahoo,bing
and so on



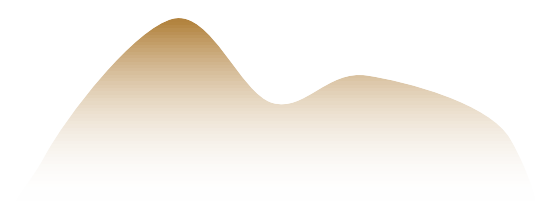
— Search engine market share



Search Engine Market share

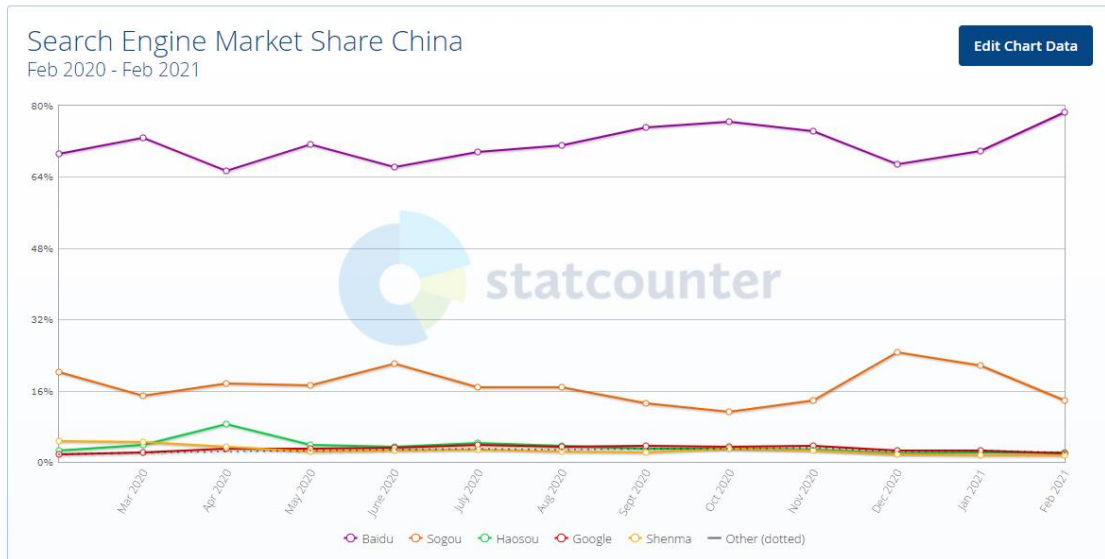


Google's share of the global search market is far ahead





Search engine market share in China



Baidu is still the leader in the search field in 2020.

Sogou has developed very well, which has already left 360 Haosou far away.

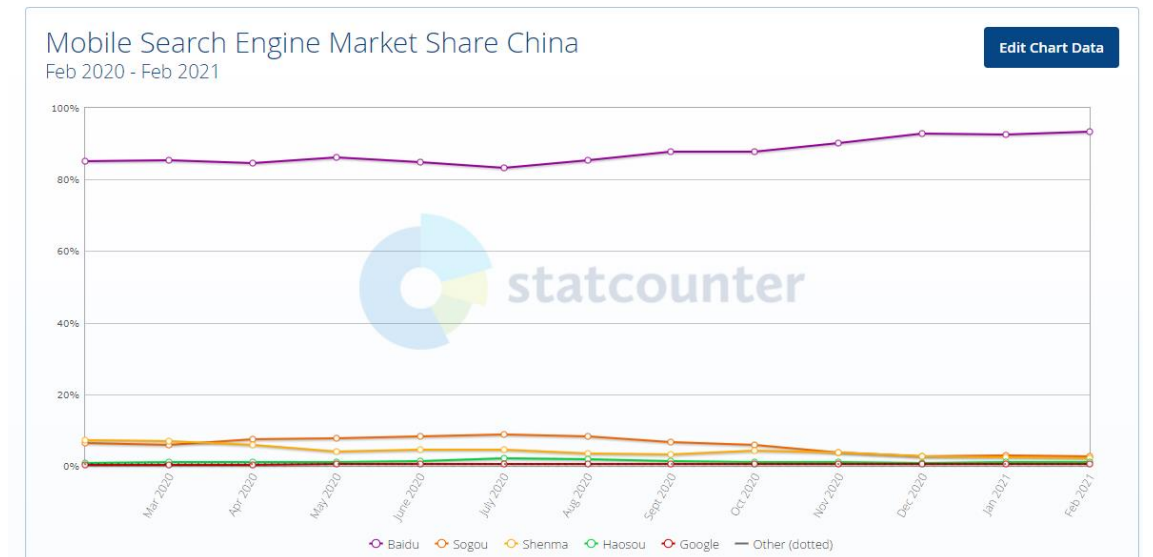
The main users of bing and google in China are a small group of people who need to search foreign websites.

The last search engine Shenma mainly has certain users on the mobile terminal.

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Desktop and Mobile Search Engine Market share in China



Sogou and Baidu have a similar market share

Baidu is in a monopoly position

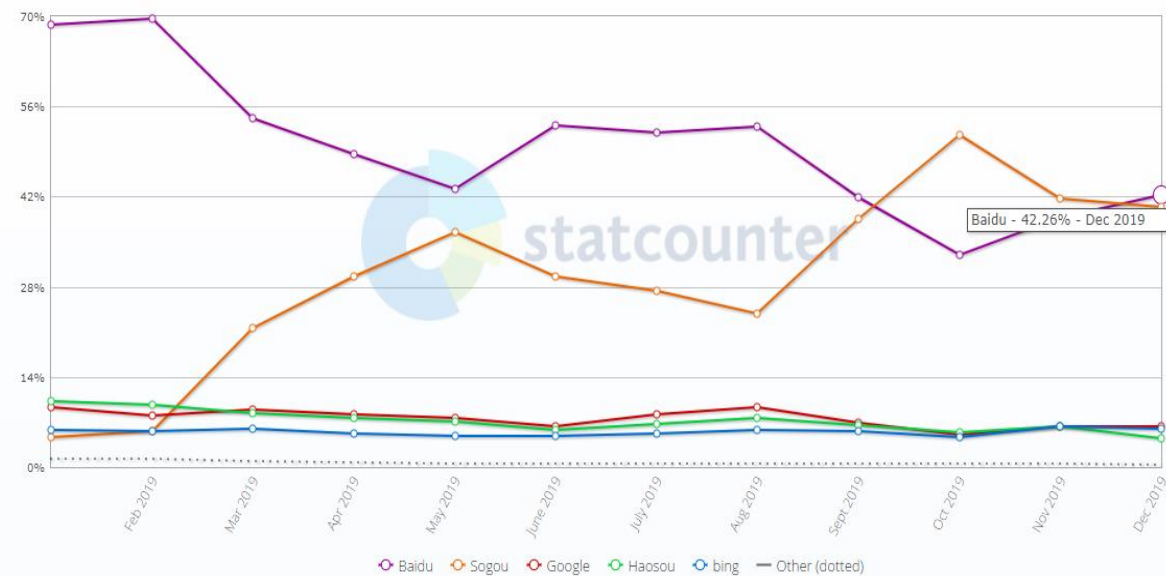


Desktop and Mobile Search Engine Market share in China

Desktop Search Engine Market Share China

Jan - Dec 2019

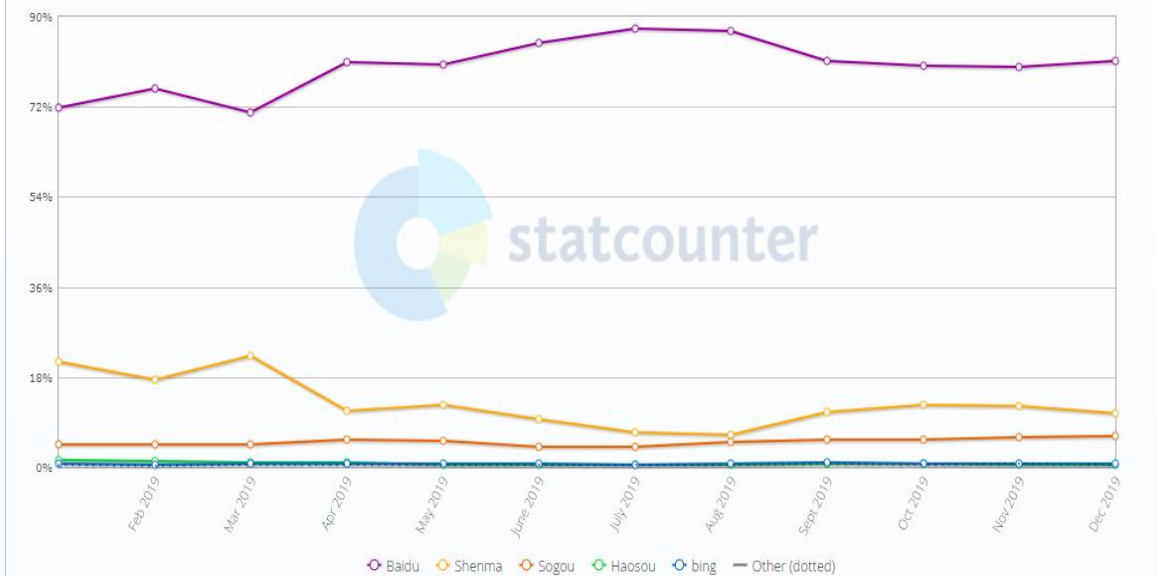
Edit Chart Data



Mobile Search Engine Market Share China

Jan - Dec 2019

Edit Chart Data

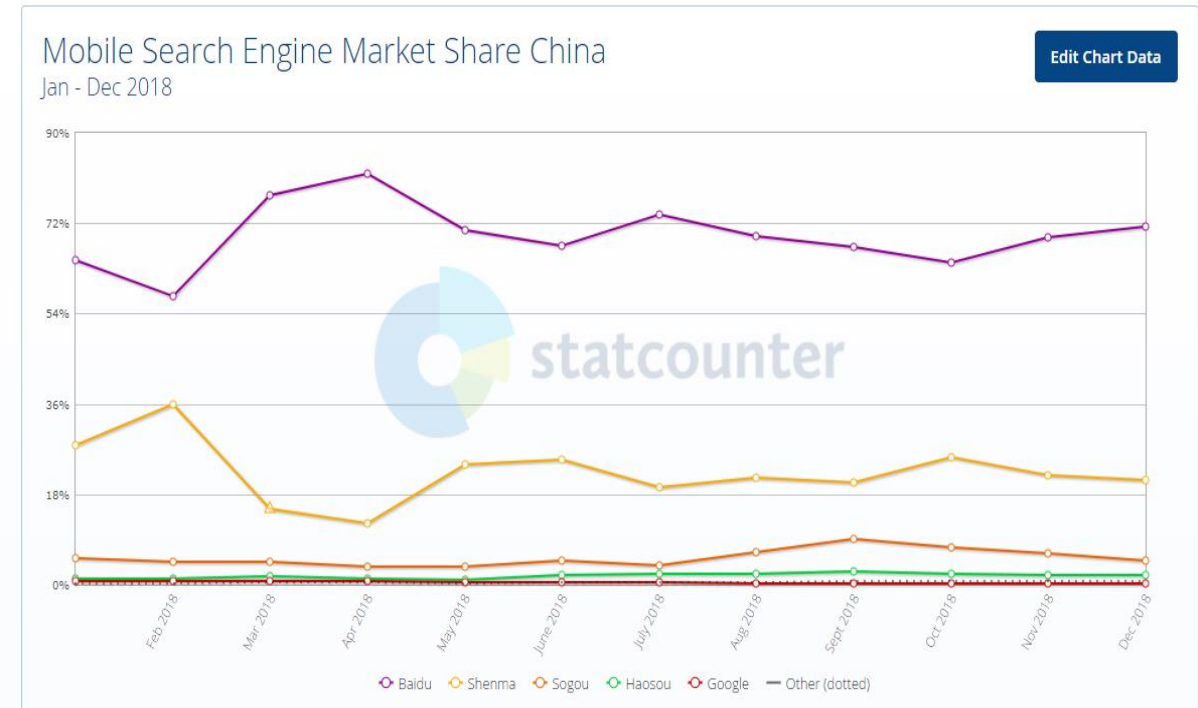
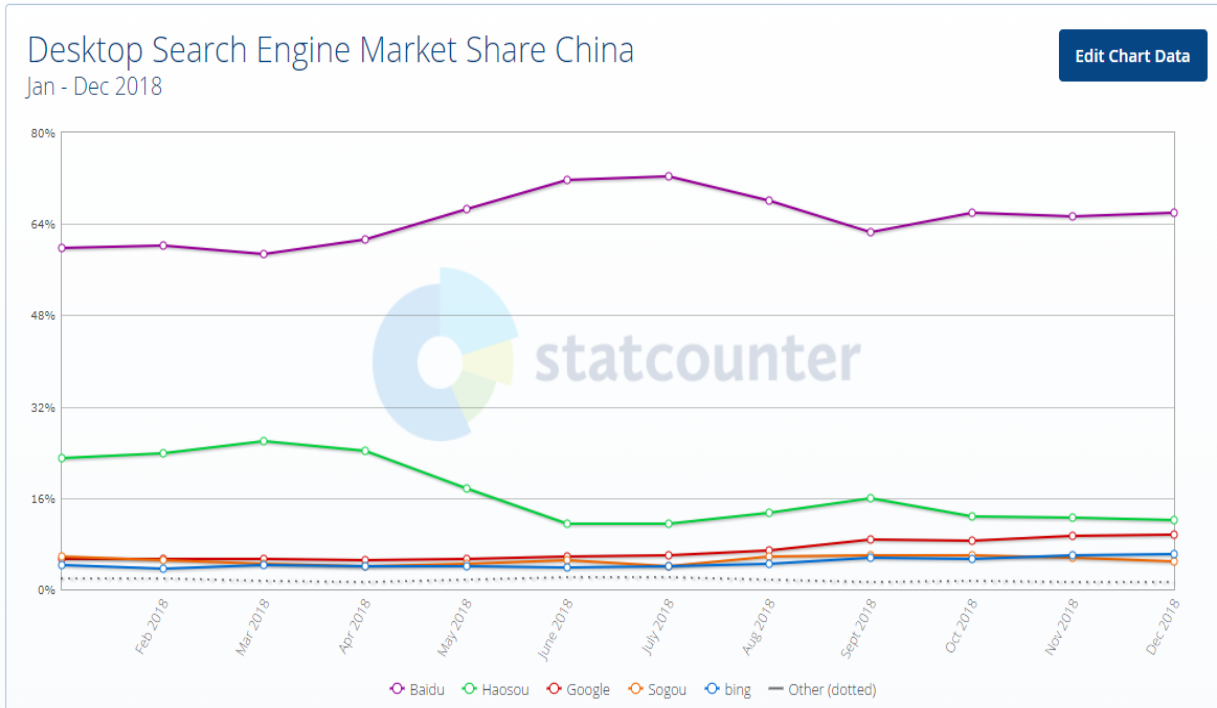


Sogou has grown rapidly since February 2019

The Market share is in line with our general impression



Desktop and Mobile Search Engine Market share in China



The desktop market is occupied by Baidu and 360

Baidu's monopoly position is not so stable



one-size-fits-all

Google's position in the world search field is difficult to challenge.

01

Baidu's leading position in China is only slightly shaken on the desktop.

02



However, this **one-size-fits-all** situation will cause many problems. We will discuss this issue next.



Trump's doubts



Former US President Trump's unusual worldview often makes some jokes. But once his version of the paranoid style of American politics has led to an interesting tech question at the center of the media universe.

Trump has questioned the fairness of Google's algorithm and search results, claiming that conservative media outlets are suppressed.



Google's response

Google has vehemently denied the president's charges. But given how central Google is in most of our lives at this point, Trump's assertion raises the question of **how well we understand its search algorithm.**





Is google search fair?



Grant Ingersoll, CTO, Lucidworks

He's an algorithm expert and he talked something specifically on the question of whether Google search is fair.

He has extensive experience in the tech industry, as he started the Mahout Machine Learning Project and is also a contributor to Solr

Apache Mahout



Apache Mahout is a project of the Apache Software Foundation to produce free implementations of distributed or otherwise scalable machine learning algorithms focused primarily on linear algebra. In the past, many of the implementations use the Apac... +

Apache Solr



Solr is an open-source enterprise-search platform, written in Java. Its major features include full-text search, hit highlighting, faceted search, real-time indexing, dynamic clustering, database integration, NoSQL features and rich document handling. Pr... +

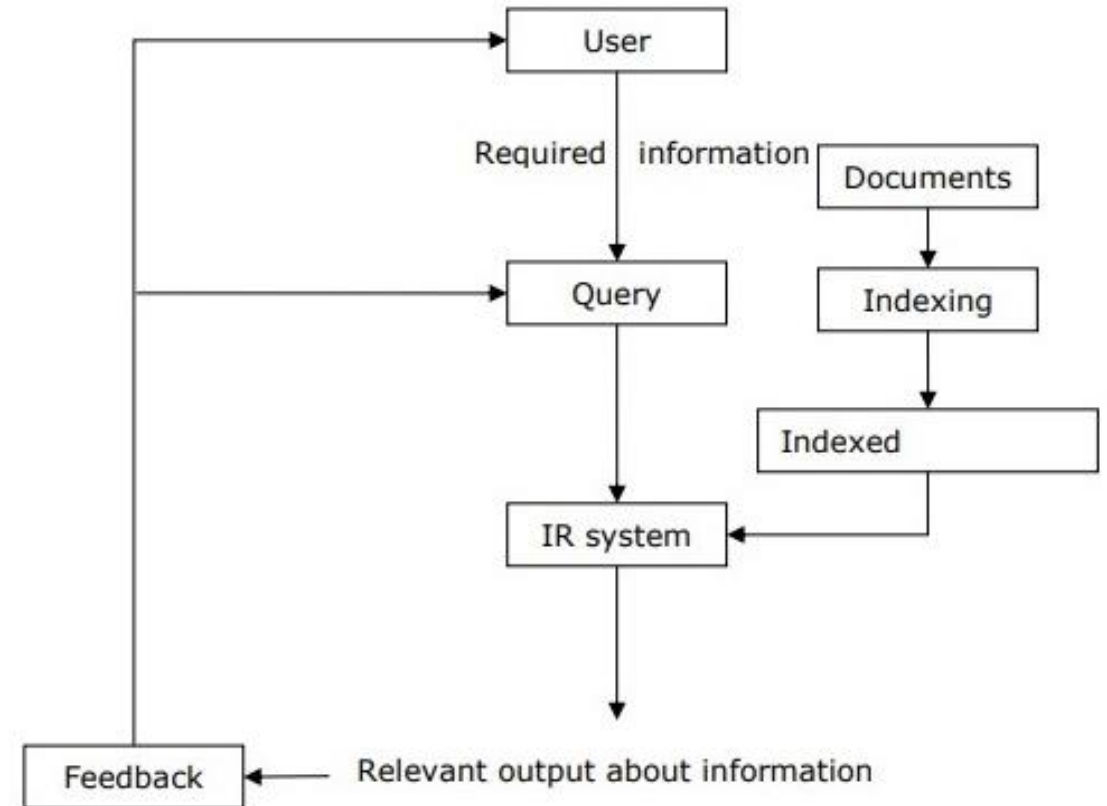
行者无疆



How most search engines work

Search Engine

1. Core algorithms do the pre-processing
Content is acquired
then parsed
and then fed it into the engine
2. web crawling to find all documents or sites that
mention the words the user is looking for
3. using inverted indexes to find what is most
relevant





How most search engines work

There is some form of **editorialization** in almost every search engine in that the algorithm must in essence **decide what is important**. The editorial perspective is **reflected in weighting algorithms** that rank sites by **reviews, popularity, purchase prices, and freshness of the content**.

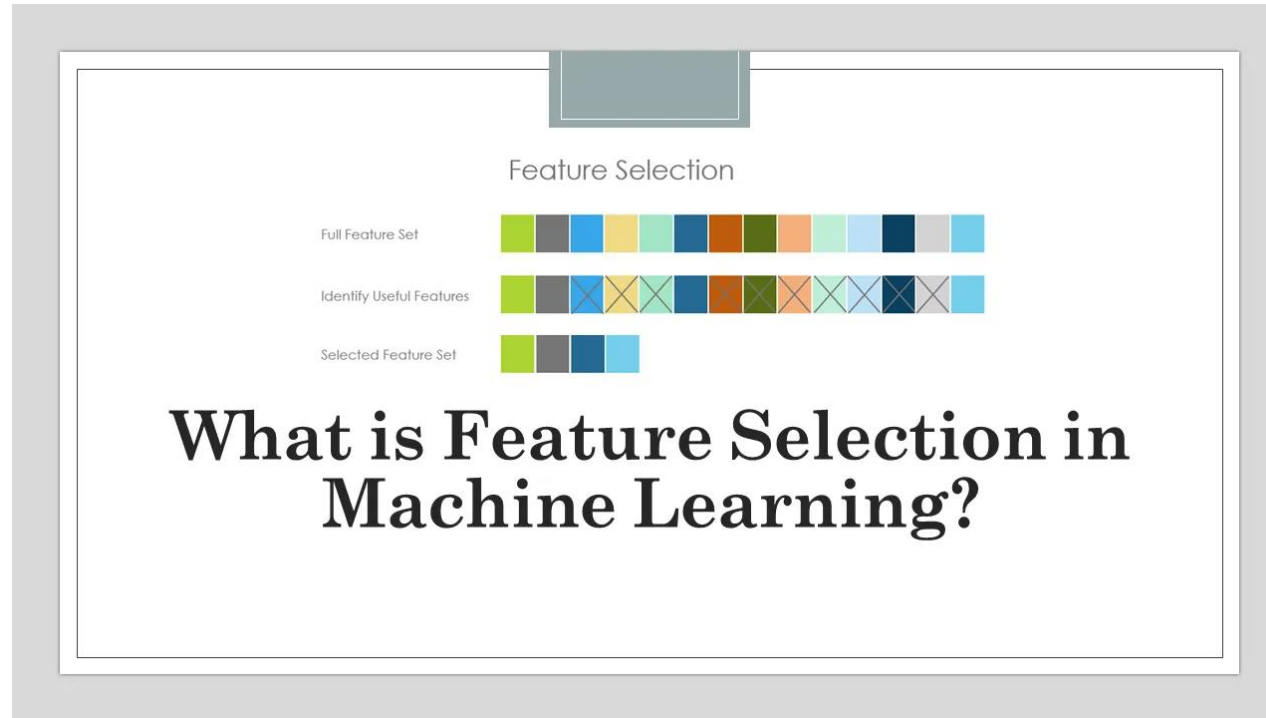
AI and machine learning provide **personalization** to the user. At each site, there are dozens of AI and machine learning techniques that are being applied to guide the results so that they are most relevant to the person conducting the search.





Machine learning uses what's called features

Features are
attributes of
content




For a product it might be a price, whether an item is in stock, and what color it is.

For a blog or article, it's keywords, the title, the topics, and the author.

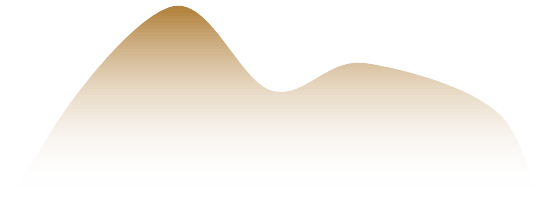


Trump's doubts



The question is to what degree it's ripe for manipulation by third-party sources

As soon as you make that choice of a feature, it then becomes a target for somebody to manipulate it in an adversarial way.





Search manipulated by unscrupulous people



google

Black-hat SEO

Link and results hijacking



Baidu

Wei Zexi incident

Baidu and Putian hospitals



UC/360

Hospital bidding ranking

Fake medical advertisement



Search engine bias

Users Shape
the results

While a company like Google has many savvy, intelligent engineers, but it's us, the users, that really help define the results that the engine brings back.

Yes, Google has a lot of really smart people. But the reality is that we, as consumers of Google, do the large majority of work. We 'vote with our fingers,' if you will. We tell Google what's important. And it's not just us individually; all of us together say, 'I like this document and not this document,' or 'I like this site, not that site.' Ingersoll



why Google's search works so much better



we offered these feedback whenever **we buy something** or just by **how long we stay on a particular page**

That feedback is also why Google's search works so much better than the internal search on many company sites. Google is receiving **feedback from billions of users at all times** — something that internal search engines do not get.



OTHER OPTIONS

其他选择




第一节

SECTION 02







Our Guide to Alternative Search Engines

Bing
Web Search Engine



Microsoft Bing is a web search engine owned and operated by Microsoft. The service has its origins in Microsoft's previous search engines: MSN Search, Windows Live Search and later Live Search. Bing provides a variety of search services, including w... +

Wikipedia Instagram Official site YouTube

Founded: Jun 03, 2009

Headquarters: Bellevue, WA

Written in: ASP.NET

Created by: Microsoft

Bing

Founded in 2009 by Microsoft

DuckDuckGo
Internet Search Engine



DuckDuckGo is an internet search engine that emphasizes protecting searchers' privacy and avoiding the filter bubble of personalized search results. DuckDuckGo distinguishes itself from other search engines by not profiling its users and by s... +

Wikipedia Facebook Official site LinkedIn

Founded: 2008

Headquarters: Paoli, PA

CEO: Gabriel Weinberg

Founder: Gabriel Weinberg


Written in: Perl, JavaScript, Python

Available in: Multilingual





Duckduckgo

Founded in 2008 that emphasizes
protecting searcher's privacy

Wolfram Alpha
Answer Engine



WolframAlpha is a computational knowledge engine or answer engine developed by WolframAlpha LLC, a subsidiary of Wolfram Research. It is an online service that answers factual queries directly by computing the answer from externally sourced "curated dat... +

Wikipedia Facebook Official site YouTube

Founded: May 18, 2009

Founders: Stephen Wolfram · Theodore Gray

Headquarters: Champaign, IL

Written in: Wolfram Language

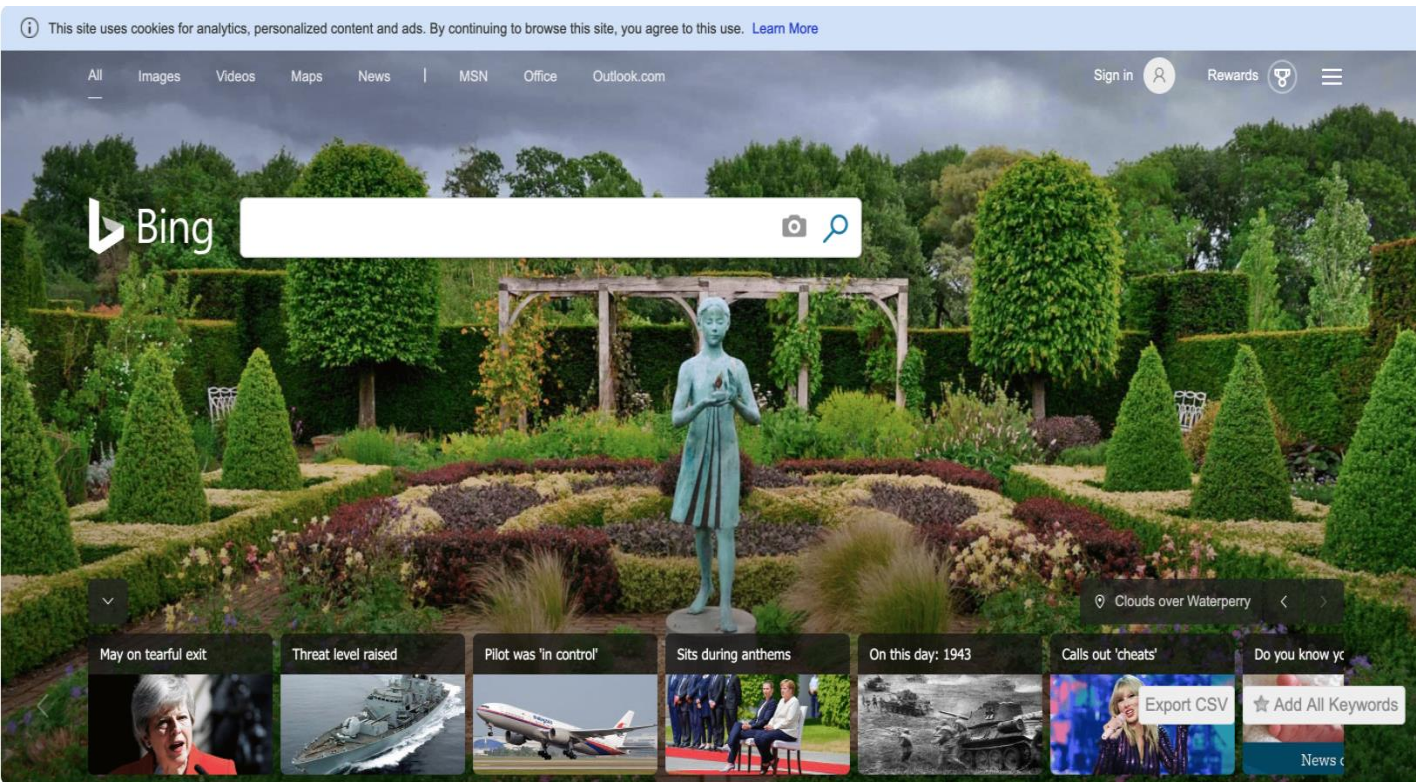
Created by: Wolfram Research

Wolfram Alpha

Founded in 2009 that is a
computational knowledge engine



Bing



— Bing search engine

It's easy to use and provides a more visual experience with beautiful daily background photos. Bing is great for image searches and video searches, as if you hover over thumbnail images in Bing Image Search or Video Search, you'll also get a short preview of the video with sound. This helps you to quickly check whether a clip is relevant without visiting the website.



Bing



Microsoft Bing



网页 工作 图片 视频 学术 词典 地图

每日词汇

avenger

美[ə'vendʒə(r)]



英[ə'vendʒə(r)]



n. 复仇者



共享到:



阅读推荐

“复仇者联盟：残局” 预计将打破票房纪录
'Avengers: Endgame' Expected to Shatter...



"Avengers: Endgame" has its sights set on world domination.

variety

[更多文章](#)

文章难度: ★★★★★

重点单词:

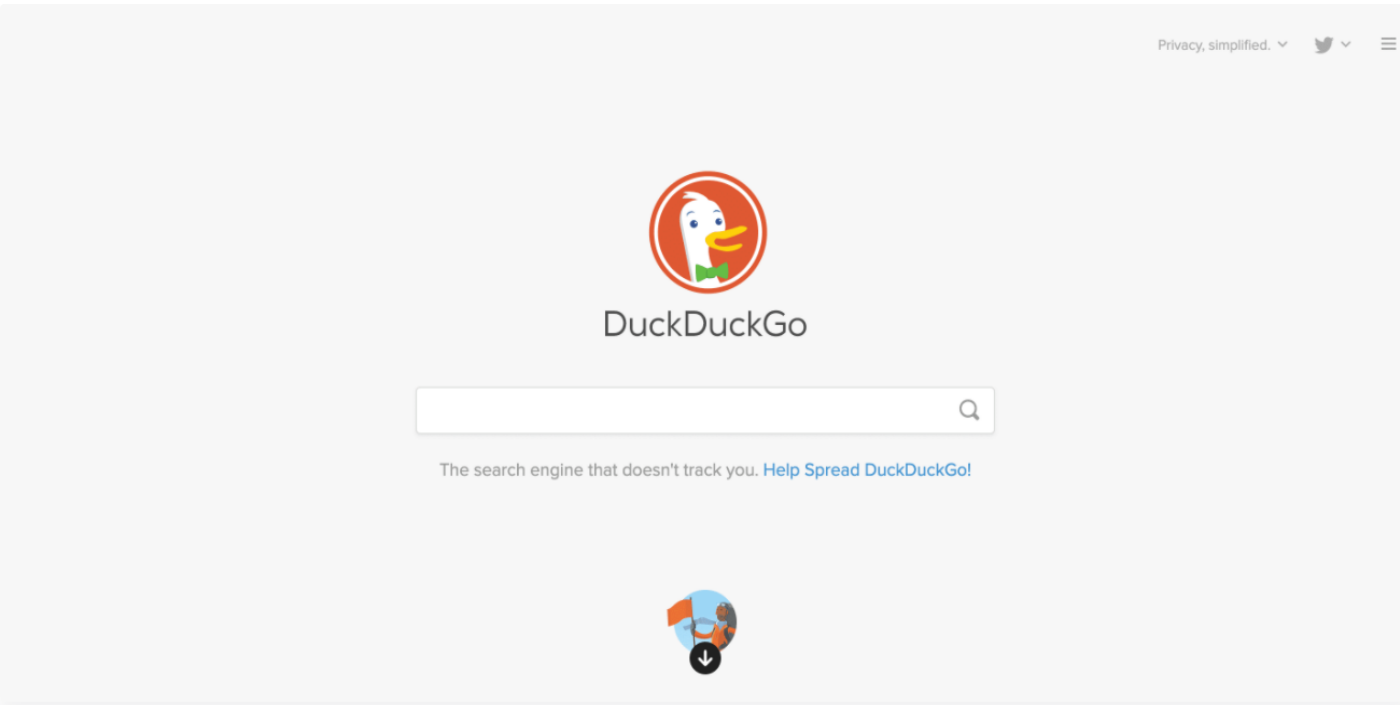
endgame ['end,geɪm] n. 尾声

qualify ['kwɒlə,faɪ] v. 限定

assemble [ə'semb(ə)] v. 装配

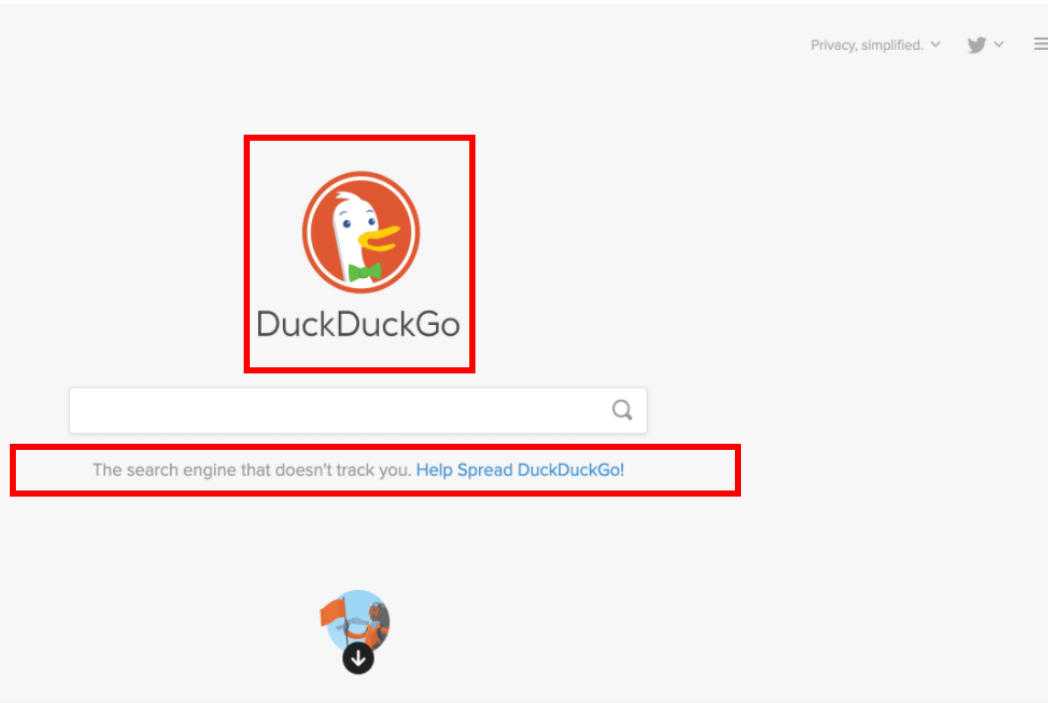
Just like Google, Bing is full of internal features like currency conversion, translation, and flight tracking, making it a really versatile tool that holds its own in the global market. Make sure to read our in-depth guide on Bing Webmaster Tools.





— DuckDuckGo search engine

DuckDuckGo is a popular search engine for those who value their privacy and are put off by the thought of their every query being tracked and logged.



— DuckDuckGo search engine

People who meet duckduckgo for the first time may be **attracted by its strange logo**: a duck with a silly open mouth, a harmless expression of human and animal, two tufts of duck feathers on the top of his head, and a green tie on his neck, which is out of place with the red background. This image, which seems to come out of the comics, is in sharp contrast to **the serious slogan “the search engine that doesn’t track you”** at the bottom of the page.



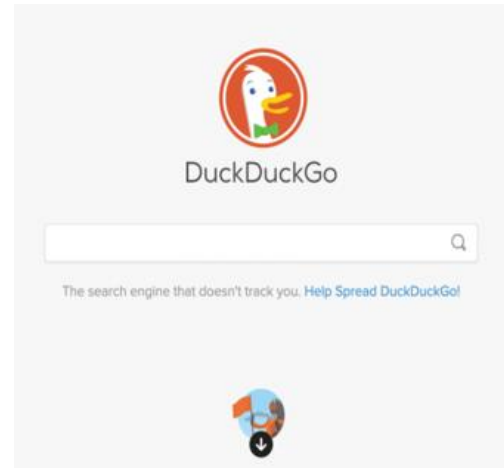
summarize the useful words and then combine them as a titles

2011.1, duckduckgo set up a giant outdoor billboard in San Francisco, which directly pointed to Google's tracking behavior - "**Google tracks you. We don't.**"

2013, **prism gate incident** broke out, which once again aroused the public's concern about **Internet privacy**. The average daily usage of duckduckgo has more than doubled in one year.

壹

貳

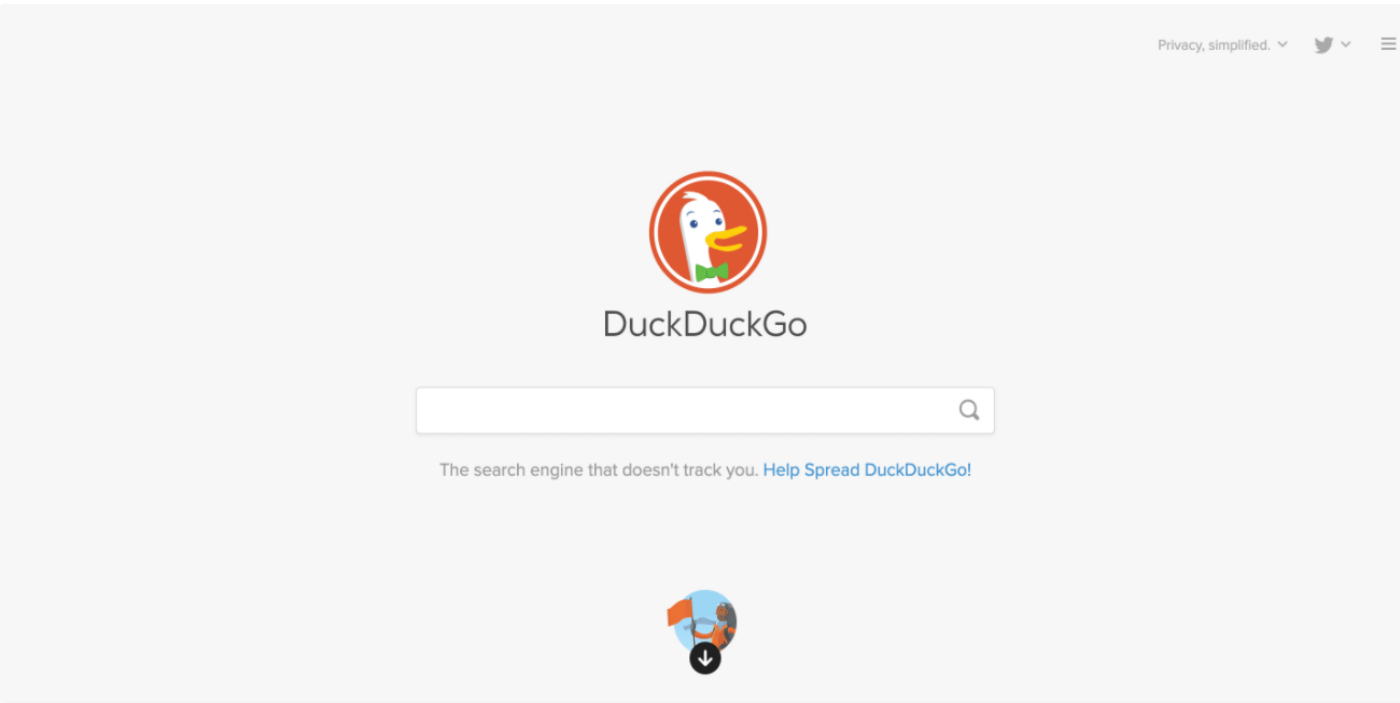


叁

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2012, Google announced an update to its privacy policy and decided to **collect user information** in its various online services. DuckDuckGo ushered in a surge in traffic.

2014, **Safari** and **Firefox** announced that duckduckgo will be launched As **an optional search engine**, it further promotes the growth of its users.



— DuckDuckGo search engine

After nearly a decade of development, duckduckgo now has **more than 16 million searches per day**. Although this is only a drop in the bucket compared with **Google's 3 billion searches a day**, it is also a very gratifying achievement that **it relies entirely on community support** without any giants behind it.




Privacy protection

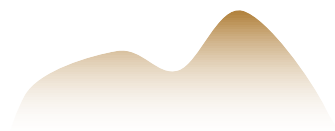
As mentioned earlier, duckduckgo believes that **the key feature** that distinguishes itself from all other search engines is its emphasis on **maintaining user privacy**.



On the one hand, search engines usually **collect and record all kinds of information about you**. The purpose of this is to give users a “**persona**” what we have mentioned in the Chapter one.



If the search engine can **better understand your residence, identity and preferences**, it can more **accurately give you promotion information**, so that you are more likely to be interested in it and click to visit it, so as to improve its advertising revenue.





Privacy protection



In addition, what is more worrying may be **the potential danger of user information being resold and stolen.**

duckduckgo's commitment is:

it will neither record **your user agent** (user ID, used to identify your browser),
IP address, search keywords and other passively transmitted information,

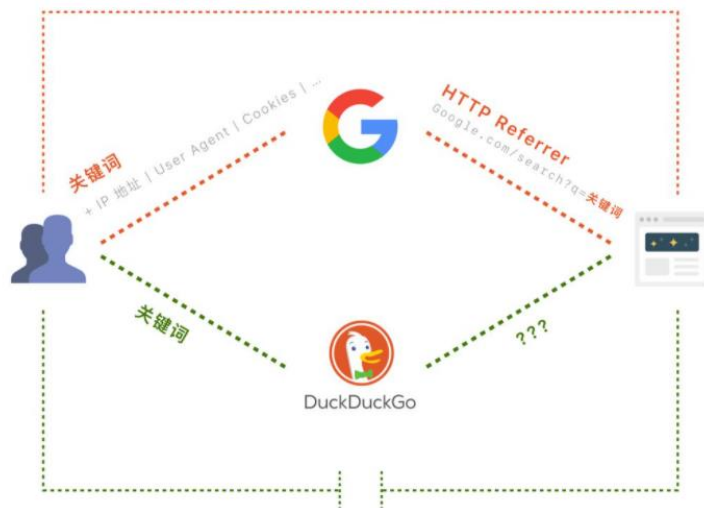
nor will not actively identify you through cookies (web pages stored in the local cache) and other mechanisms.





disclose your search behavior to third-party websites

using search engines will also **disclose your search behavior to third-party websites**



Two measures:

1. when forwarding your visit, duckduckgo will **process the request**, so that the third-party website can not know that you are jumping from its search results page.

2. it will also automatically **modify the URLs** of some major site indexes to point to their HTTPS addresses when you click to access them, so as to further improve security.

Three risks:

1. click a link of website B on the search results page a, website B will know that from **the source address field of HTTP header**
2. you can see **keywords from the URL** of the search page, website B also knows that.
3. it **discloses the user's identity** information to a third-party website, website B can further know that **who initiated the search**.





pursue the ultimate privacy protection

it allows users to **send search requests** **01**
through **the post method** instead of
the get method

after enabling this option, your search **02**
keywords will not be seen from the URL
of the browser address bar



the search history will not be presented in the history, which is similar to the effect
of "**stealth mode**", and is conducive to **further protecting privacy on public devices**



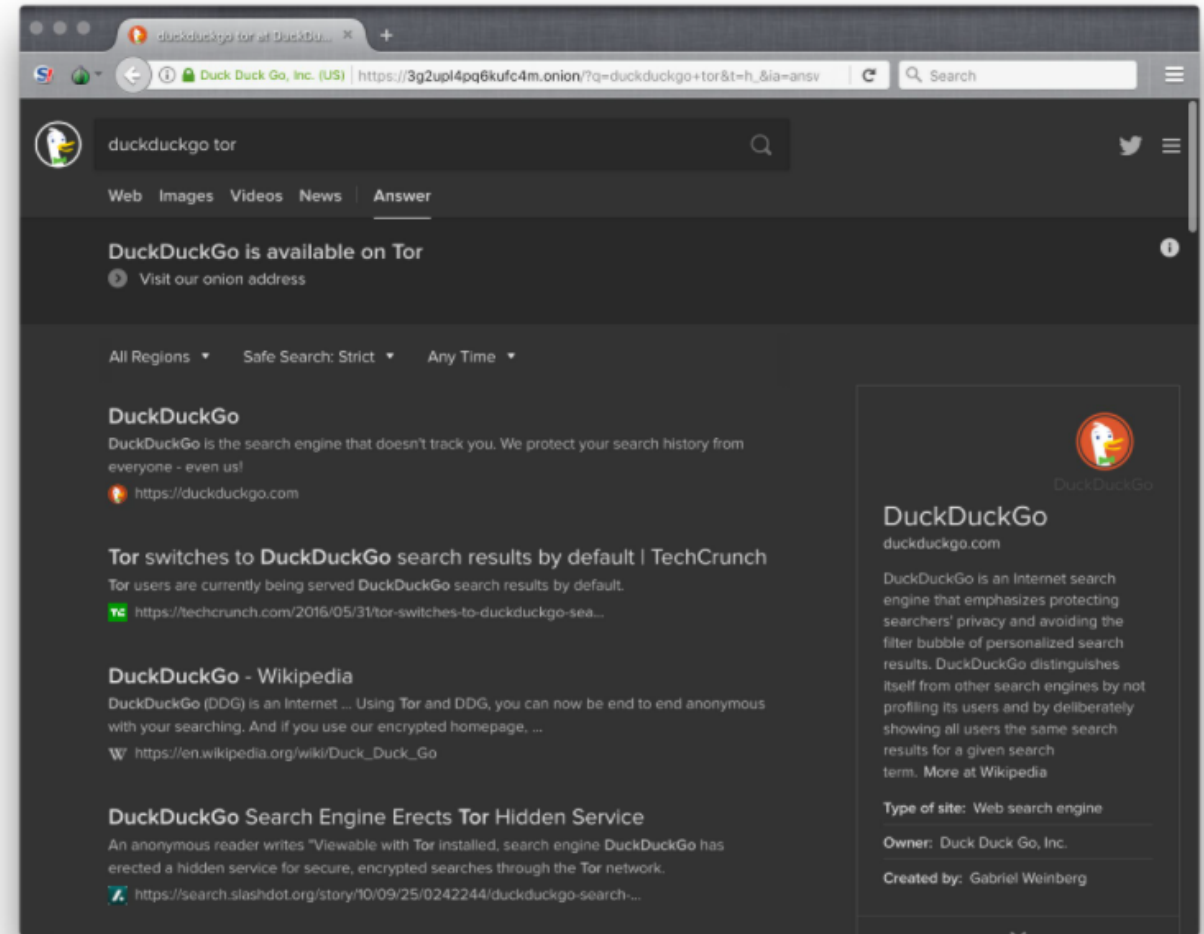
pursue the ultimate privacy protection

Duckduckgo Search Engine

a rare search engine that provides Tor sites

onion routing, commonly known as
"dark network"

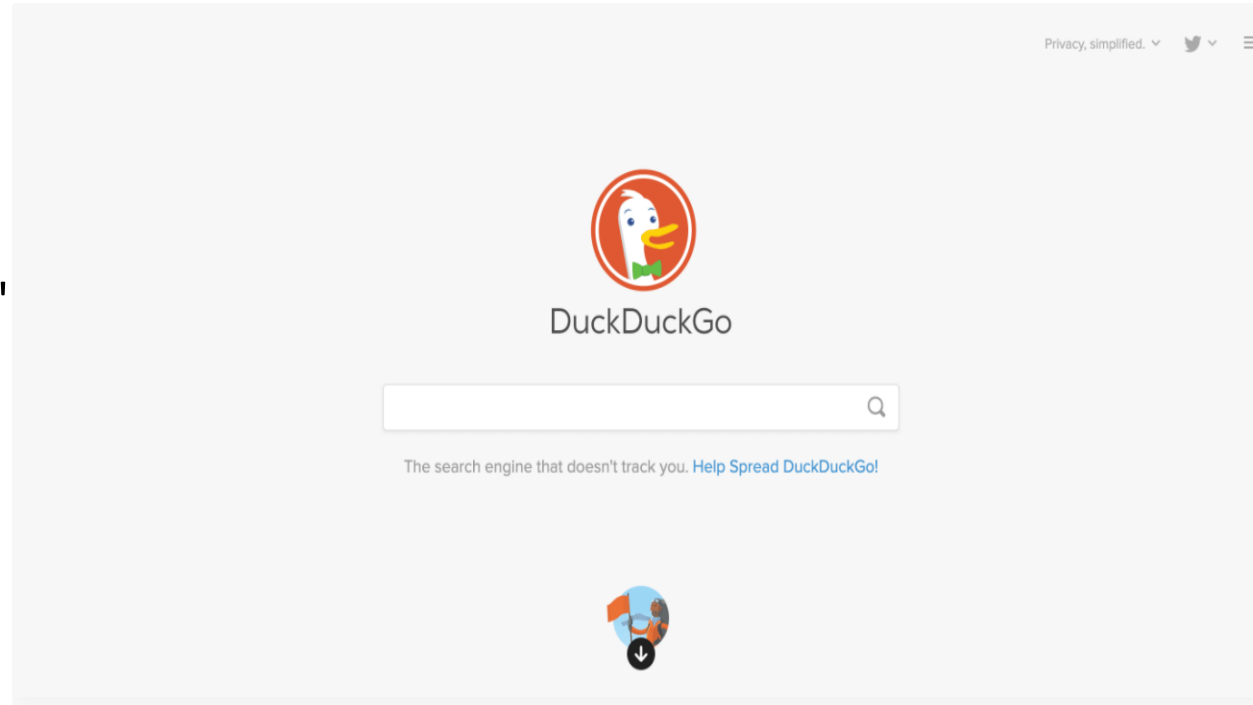
If you can access **Tor network** you can use
DuckDuckGo by accessing **3g2upl4pq6kufc4m.onion**,
and obtain end-to-end anonymity and encryption.





small compromises are worthwhile

The price of privacy protection is that you can't get the "customized" search results in other services in DuckDuckGo.



— DuckDuckGo search engine

The response of HTTPS connection is usually slower, and enabling the POST method will affect the normal function of the "Back" button.

DuckDuckGo really pays more attention to user privacy than other mainstream search engines.



Instant Answers and search result accuracy

**the most
accurate
results**



**the shortest
Time to find**



**other features
and privacy
protection**

First

Second

Third

the quality of its search results

the performance of search engine

advanced demand



the efficiency of providing answers

Mid-Market Rates: 2017-07-21 at 12:00 UTC

100	=	676.74
US Dollar (USD)		Chinese Yuan (CNY)

[More at xe.com](#) | [View Chart](#)

Photoshop
Graphics Editor

File Edit

Ctrl N	New	Ctrl Z	Undo/Redo
Ctrl O	Open	Shift Ctrl Z	Step Forward
Alt Ctrl O or Shift Ctrl O	Browse in Bridge	Alt Ctrl Z	Step Backward

[Show More](#)

Beijing, Beijing

32°

Mostly Cloudy
Wind: 3 m/s (E)
Humidity: 48%

TODAY	SUN	MON	TUE	WED	THU	FRI	SAT
32° 25°	31° 25°	30° 26°	31° 24°	26° 23°	31° 21°	29° 24°	31° 24°

SequenceType.forEach
Swift

Call **body** on each element in **self** in the same order as a for-in loop.

```
sequence.forEach {  
    // body code  
}
```

is similar to:

```
for element in sequence {  
    // body code  
}
```

Note: You cannot use the **break** or **continue** statement to exit the current call of the **body** closure or skip subsequent calls. Note: Using the **return** statement in the **body** closure will only exit from the current call to **body**, not any outer scope, and won't skip subsequent calls. Complexity: O(self.count) Declaration func forEach(@noescape body: (Self.Element) throws -> Void) rethrows

[More at swiftdoc.org](#)

Recipes for how to mix a tom collins

 Peppermint Lemon Stick ... Peppermint, Limoncello, Vodka, Carbonated Water, Ice,... Food52 ★★★★★	 Peanut Butter Sandwich ... Creamy Peanut Butter, Unsalted Butter, Powdered Sugar,... Epicurious ★★★★★
---	--

Wiki

A wiki is a website on which users collaboratively modify content and structure directly from the web browser. In a typical wiki, text is written using a simplified markup language and often edited with the help of a rich-text editor.

[More at Wikipedia](#)

the shortest Time to find that is, the efficiency of providing answers

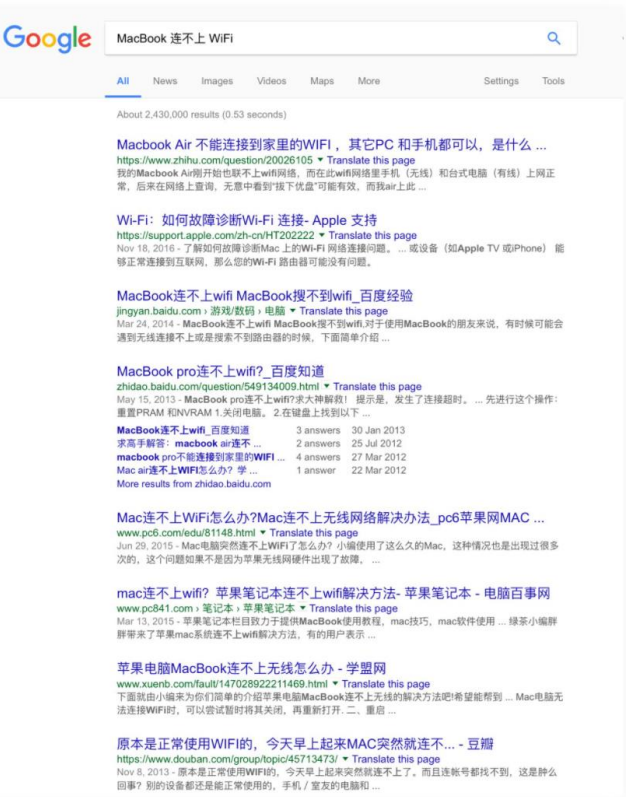
DuckDuckGo's solution is Instant Answers

In short, when you search for a specific keyword, DuckDuckGo will recognize your needs and present the answer to you directly at the top of the result page.

Instant Answers is a completely open source project, and anyone can write new Instant Answers support based on its documentation.



the accuracy of search results



It is a very **subjective criterion**. Different people may have different judgments.

We cannot make an objective judgment on the accuracy of DuckDuckGo

Subjective impressions only:
DuckDuckGo has no significant difference in English search results from Google, at least on the same benchmark as second-tier search engines such as Bing.

There is still **a certain gap** between the results of Baidu or Google **in Chinese search**, and the index of major domestic sites needs to be strengthened.



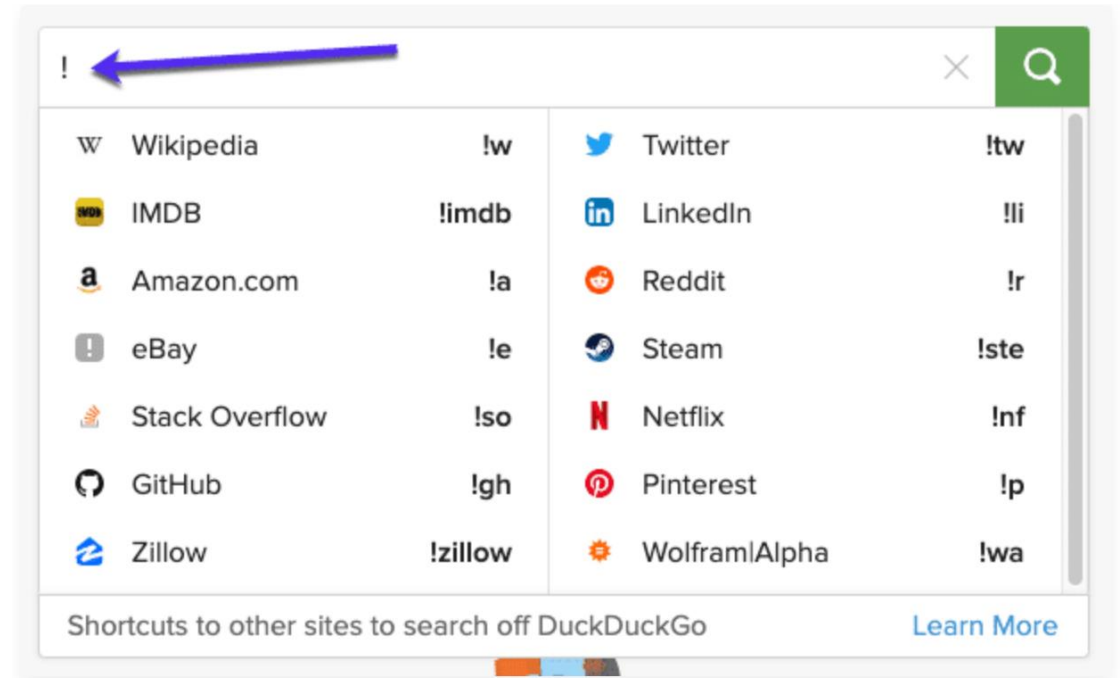
Bang search with DuckDuckGo

Bang Search

the need to **use multiple search engines** at the same time

Calling other search engines than the default is a very classic and common requirement

DuckDuckGo directly puts this function **into the search engine** and calls it **Bangs**. It is no exaggeration to say that this function **fills in the last hurdle** to make it to be used as the default search engine.



— Bang search with DuckDuckGo



Bang search with DuckDuckGo

Duckduckgo
!Bang



DuckDuckGo

typing a **prefix**

! Bang Keyword

DuckDuckGo supports nearly **10,000**

Bang grammars

When you want to search on another site (like Wikipedia, google hk, baidu, Amazon China, taobao, ect) just **add a ! to the search bar.**

!gi	Google 图片搜索
!ghk	Google 香港
!bd	百度搜索
!a	搜索亚马逊
!taobao	搜索淘宝



Bang search with DuckDuckGo

It is nothing more than identifying specific keywords and forwarding them to other websites, acting as a "**springboard**".

However, if you think about it carefully, you will find that this simple "**springboard**" is **the true value** of this feature.



DuckDuckGo

!Bang Keyword

!gi Google 图片搜索
!ghk Google 香港
!bd 百度搜索
!a 搜索亚马逊
!taobao 搜索淘宝

Searches forwarded through Bangs are **completely anonymous**.

When you use Bangs to initiate a search, the target website receives a request **from DuckDuckGo instead of yourself**, so it cannot associate this search with you, and **it cannot "profile" you accordingly**, then carry out follow-up actions such as tracking and advertising recommendations.

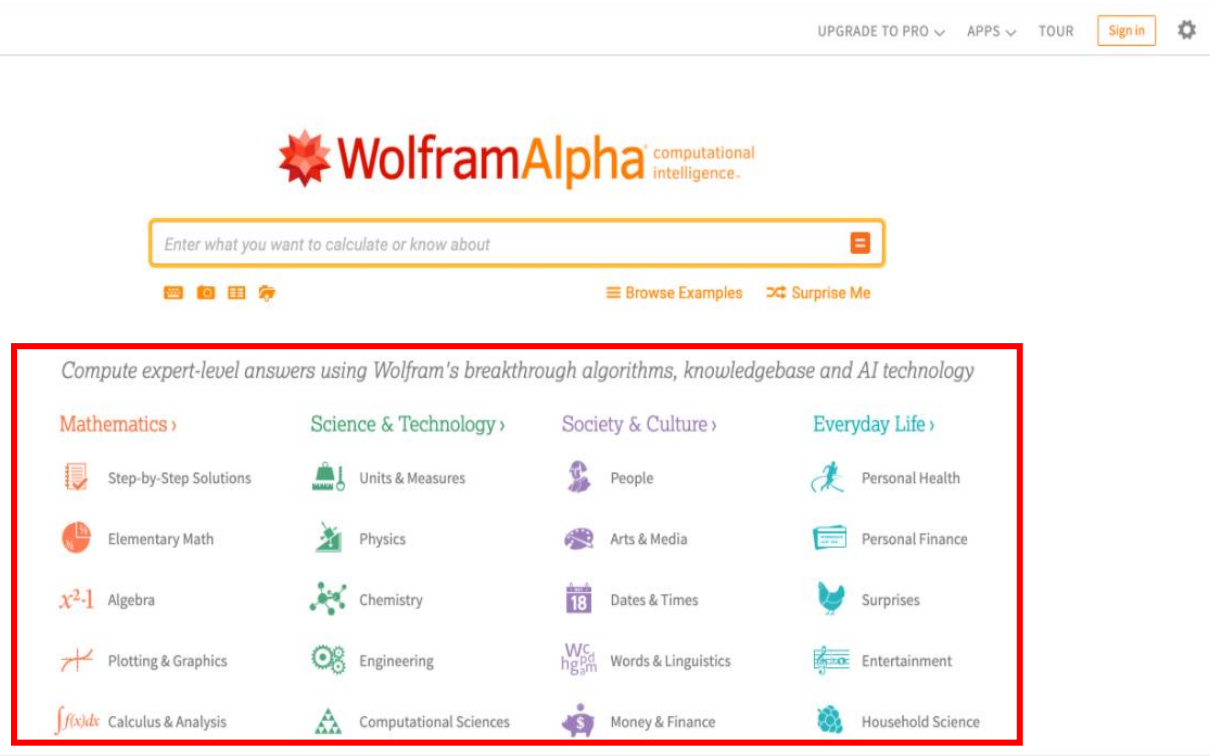
`https://www.google.com/search?q=*`

换成了:

`https://duckduckgo.com/?q=!g%20*`



WolframAlpha



— WolframAlpha search engine

WolframAlpha is a **computational knowledge engine** or **answer engine** developed by WolframAlpha LLC. It is an online service that answers factual queries directly by computing the answer from externally sourced "curated data", rather than **providing a list of documents or web pages that might contain the answer**, as a search engine might.

It's designed to **deliver expert knowledge** and is categorized into **Mathematics, Science & Technology, Society & Culture, and Everyday Life**.



what is D-sharp major scale

Extended Keyboard

100 flips, 41 heads

Extended Keyboard

the current location of the International Space Station

Extended Keyboard Upload Examples Random

Assuming "major"

Interpreting as:

Input interpretation:

D \sharp major scale

Notes:

D \sharp E \sharp F \times G \sharp

Music notation:

Keyboard display:

Alternate scale name

Ionian

Bilaval Thaāt

2773 (12-digit binomial)

Relative minor:

B \sharp minor

Related modes:

Dorian mode on E \sharp

Phrygian mode on D

Lydian mode on G \sharp

Mixolydian mode on F \times

Aeolian mode on E

Locrian mode on C

Intervals:

D \sharp to E \sharp m

E \sharp to F \times m

Input interpretation:

coins

Probability of occurrence

0.0158691 \approx $\frac{1}{63}$

(assuming a fair coin)

Distribution of number of heads

Other probability

less than 41 heads

41 or less heads

more than 41 heads

41 or more heads

(assuming a fair coin)

Stated frequency

fraction of heads

fraction of tails

Input interpretation:

International Space Station position

Results:

Show DMS Show 3D Orthographic projection

31.54° South 36.2° East (ocean)

(computed from orbital elements determined 230.9 minutes ago)

Current sky position from Hefei, Anhui:

(not currently visible)

altitude	- 48.09° (below horizon)
azimuth	238.6° (WSW) (magnetic: 244.2°)
constellation	Sagittarius

Sources Download Page

POWERED BY THE WOLFRAM LANGUAGE

The real innovation of WolframAlpha lies in the ability to immediately understand the question and give the answer.

If you ask "what is D-sharp major", WolframAlpha can play it;

if you enter "100 flips, 41 heads up", WolframAlpha can guess that you actually want to know the probability of tossing a coin.

Even the time of next solar eclipse somewhere, or the current location of the International Space Station, WolframAlpha can give you the answer.



WolframAlpha



sin(2x^2)

Extended Keyboard

lithium + water ->

Extended Keyboard

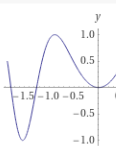
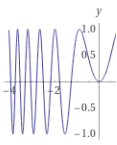
uncle's uncle's brother's son

Extended Keyboard Upload Examples Random

Input:

sin(2x^2)

Plots:

Alternate forms:

$2 \sin(x^2) \cos(x^2)$
 $\frac{1}{2} i e^{-2ix^2} - \frac{1}{2} i e^{2ix^2}$

Roots:

$x = \sqrt{\frac{\pi}{2}} (-\sqrt{n})$
 $x = \sqrt{\frac{\pi}{2}} \sqrt{n}$

Integer root:

x = 0

Properties as a real f

Domain

\mathbb{R} (all real numbe

Range

$\{y \in \mathbb{R} : -1 \leq y \leq 1\}$

Assuming "lithium"

Assuming "hydrog

Input interpretation:

Li + H₂O

lithium water

Balanced equation:

2 Li + 2 H₂O →

Structures:

Li + H

Names:

lithium + water

Reaction thermodyn

Enthalpy

ΔH_{rxn}^0 - 975 k

Equilibrium constant

$K_c = \frac{[\text{LiOH}]^2 [\text{H}_2]}{[\text{Li}]^2 [\text{H}_2\text{O}]^2}$

Rate of reaction:

rate = $-\frac{1}{2} \frac{\Delta [\text{Li}]}{\Delta t}$

(assuming constant

Chemical names and

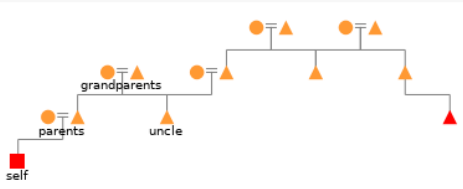
formula

Hill formula

Input interpretation:

genealogical relation uncle's uncle's brother's son

Genealogical tree:



(assuming no additional individuals are related)

Possible named relationships:

first cousin once removed

uncle

father

(4 additional relations with no standard names)

Relationship properties:

More Show details

	first cousin once removed	father
difference in generations	1	1
generations to common ancestor	3	1
blood relationship fraction	$\frac{1}{32} = 3.125\%$	$\frac{1}{2} = 50\%$

Download Page

POWERED BY THE WOLFRAM LANGUAGE

For example, you enter a **trigonometric function** like $\sin(2x^2)$. WolframAlpha can not only draw an graph of function for you, but also find its integral expression and so on.

If you enter a chemical equation "Li+H2O->", WolframAlpha can automatically obtain the reaction results and give the balanced equation.

if you want to check the relationship "uncle's uncle's brother's son", wolframalpha realize that what you want to know is a pedigree relation, and it will automatically draw a genealogy for you.



ANSWERS
OF THESE
QUESTIONS

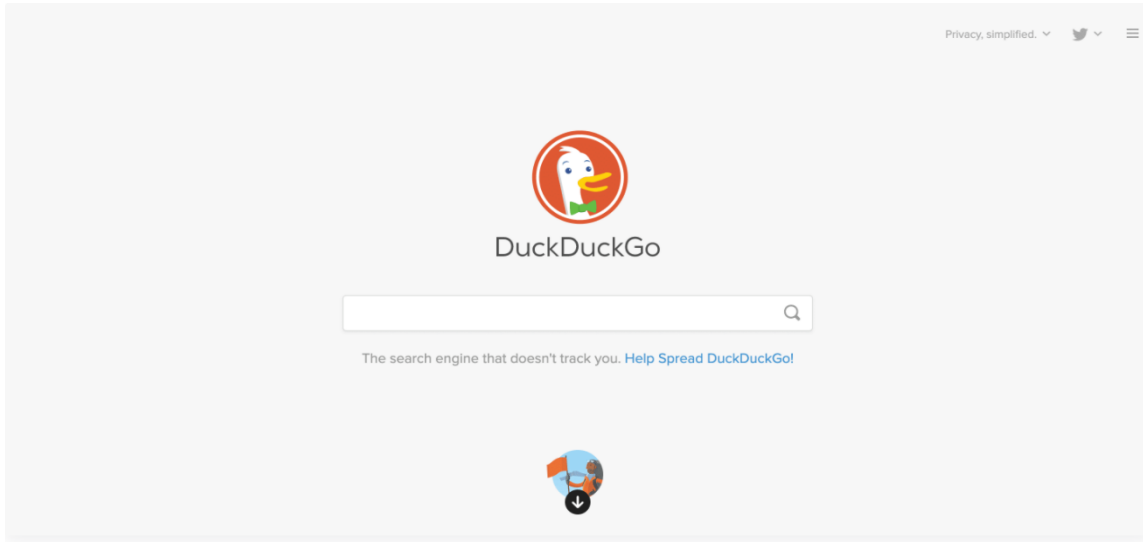
问题答案



第三节
SECTION 03

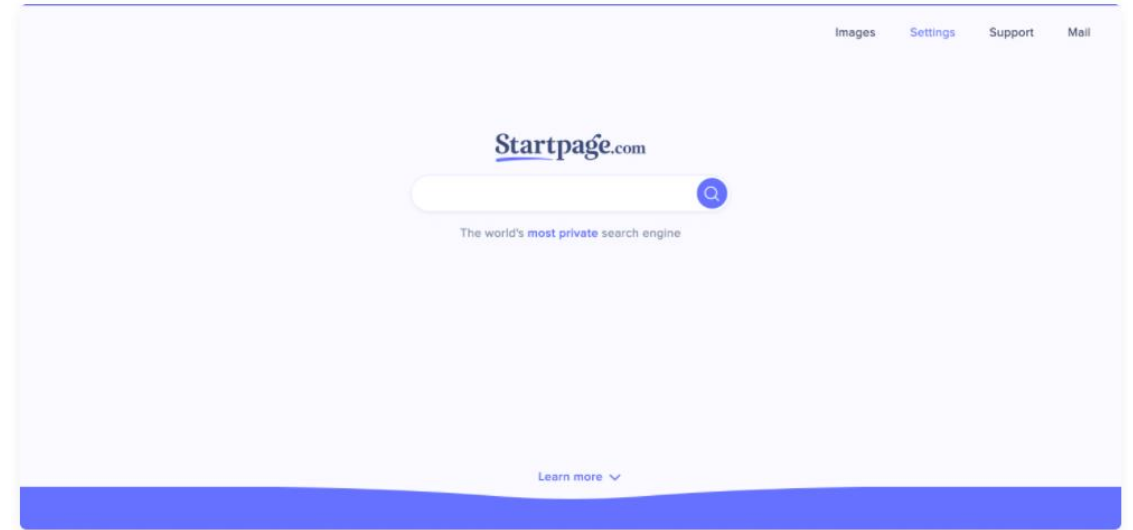


What Is the Best Search Engine for Privacy



— DuckDuckGo search engine

Duckduckgo



— Startpage search engine

Startpage

DuckDuckGo includes **a detailed and transparent privacy policy**. However, if 100% privacy is your goal, you should know that **it does save search histories**. DuckDuckGo claims that this is “**non-personal**” and **aggregated data**, so your searches cannot be traced back directly to you.

StartPage’s privacy policy is simple and to the point: “**We don’t track you. We don’t profile you. Period.**” When using this private search engine, **metadata is removed from your search query**. This anonymous search request is then sent to Google, the results are sent to you via StartPage.



Which search engine is best

Google Search Engine

There is zero doubt that **Google is the biggest and arguably the best search engine** out there, thanks to its powerful algorithms and AI.



Google 搜索

手气不错

Google 提供: [English](#) [中文 \(繁體\)](#)


But being the best search engine comes at a cost





It is well-known that Google personalizes your browsing experience at the cost of sharing your personal data and by allowing Google to track you across the internet.



What Is the Best Search Engine Other Than Google?

Bing
Web Search Engine

 Microsoft Bing is a web search engine owned and operated by Microsoft. The service has its origins in Microsoft's previous search engines: MSN Search, Windows Live Search and later Live Search. Bing provides a variety of search services, including w... +

   
Wikipedia Instagram Official site YouTube

Founded: Jun 03, 2009

Headquarters: Bellevue, WA

Written in: ASP.NET

Created by: Microsoft

Bing

the best way to search images

DuckDuckGo
Internet Search Engine

 DuckDuckGo is an internet search engine that emphasizes protecting searchers' privacy and avoiding the filter bubble of personalized search results. DuckDuckGo distinguishes itself from other search engines by not profiling its users and by s... +

   
Wikipedia Facebook Official site LinkedIn

Founded: 2008

Headquarters: Paoli, PA

CEO: Gabriel Weinberg

Founder: Gabriel Weinberg


Written in: Perl, JavaScript, Python





Available in: Multilingual

Duckduckgo

the Best Search Engine for Privacy

Baidu
Multinational Technology Company

 Baidu, Inc. is a Chinese multinational technology company specializing in Internet-related services and products and artificial intelligence, headquartered in Beijing's Haidian District. It is one of the largest AI and Internet companies in the world. The holding co... +

   
Wikipedia Facebook Official site LinkedIn

Stock price: BIDU (NASDAQ) 208.61 ▲ +4.04 (1.97%)
Mar 26, 7:59 PM EDT · Price in USD · Market Closed

Founded: Jan 01, 2000 · Beijing, China

Headquarters: Beijing, China

CEO: Robin Li (Since 2004)

Founders: Robin Li · Eric Xu

Subsidiaries: Anquanbao · DuerOS · Baidu Video · Beijing Baidu Netcom Science Technology Co Ltd +

Baidu

the best way to search Chinese websites



FUTURE OF SEARCH ENGINE

未来



第四节
SECTION 04



Can search be different?



Grant Ingersoll, CTO, Lucidworks

“Would the everyday **consumer swimming in a sea of information** and **just wants to get the answer they’re after want it**? Probably not,” he said. “If you’re looking up a recipe for barbecued chicken, do you really need to know why the algorithm chose the recipe? You either like the recipes or you don't.”

Ingersoll was skeptical of the demand for **a white box search engine**.

行者无疆



who really care whether the search results are fair or not



Grant Ingersoll, CTO, Lucidworks

Ingersoll also believes that "If you don't like black box search, there are other search engines besides Google. Nobody's forcing us to use Google. Microsoft has a perfectly viable search engine, Bing. For those who really like privacy, DuckDuckGo has made its whole living these days around being the search engine that doesn't put you in a bubble, that doesn't personalize toward you, and that tries to be more clear about what's going on. In fact, **some chunk of DuckDuckGo's code base is open source.**"



For the future of search

Ingersoll was more sanguine about the possibility of search working better in the future

by using natural language dialogue in the code and then having a bot ask the user clarifying questions about anything unclear in their search





some clear ways that search could be improved

specificity of search

01

adding in time windows

02



Ingersoll sees this as **the true future of search**, where
the engine is acting more like a concierge service.



Google will not open up the viewing window into its algorithm



“Google is, at least at a good chunk of its level, **an advertising company**. Their job is to make money. They need to match ads to it. Their distinct differentiator as a business is the way that they are able to do those kinds of things. So by opening all of that up, they would obviously **be inviting competition**,” Ingersoll said.



Changes in a short term



virtual assistants



graphs



**scaling answers to be
quick and fact-based
for interfaces like **Siri**
and **Alexa****



**figuring out
authoritative sources
for topics in an era of
fake news**



Changes in a short term



Search engine companies are constantly on **the lookout for ways to distinguish the best way of answering**



SEO or similar techniques will never go away



new content types that are being unlocked, the simplest one to relate to is **images or graphs**



Search will always be hampered by some issues



Search will likely always **be hampered** by **the same issues that afflict it now**.
That doesn't mean Trump is right when he says Google search is unfair, but it does mean the question will continue to be one **that is too complex to answer with a simple yes or no**.



Online privacy is a sensitive and complex topic

Online privacy

It is not only a technical issue, but also **a theoretical and conceptual issue** involving the **boundary** between **public** and **private rights**, and the **boundary** between the **rights** and **obligations** of **service providers** and **users**





DuckDuckGo's efforts are likely to be futile

under the leadership
of many **giants**,
collecting user data
is already the
general trend of the
Internet business
model

the **information**
collection behavior
does not necessarily
cause the user to suffer
pure loss: while
transferring some
privacy, users are also
enjoying the benefits of
personalized services
and the **O2O model**?

Without **data**
support, can **big**
data and **artificial**
intelligence
technologies
achieve rapid
development?



Such a view is unfounded



01

Don't keep silence

Users cannot expect to be "charited" by others, but should actively **use their words and actions to claim their rights**. In fact, the voice of users is enough to change the stereotypes and prejudices of any large company.

Facebook



02

Keep competition

to **maintain the pressure of competition** in a monopolistic market, so that the upper-level people dare not stand still, recklessly, and harm User benefits.

Verizon and AT&T



03

differential privacy technology

the **benefits of information collection** are not inconsistent with maintaining **privacy**

Apple and DuckDuckGo



Future will be better



In the wave of the Internet, DuckDuckGo chose a path upstream. This is destined to be a difficult direction: we cannot predict how long the privacy it brings can last, or even verify how reliable the security it promises.

But what is certain is that as long as there are "**traitors**" like DuckDuckGo swimming in the waves, the Internet will not become a desert of privacy.

USTC

Study
abroad
in
China

学
在
中
国



感谢聆听

信息咨询部 赵培



INDAILY
LIFE
RETRIEVAL
INFORMATION