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Google

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GLOBAL MONITOR

Google

XIUDIAN DAI

Advertising guru Maurice Saatchi argues that in each category of global business it will only be possible for one brand to own one particular word in order to lead global competition, and that the reason why Google has become a success story is because the company is now the owner of one of the 750,000 words in the English language: 'search'.¹ The growing wealth of information on the internet means that internet users are increasingly reliant upon search engines to find the information they need. Increasingly, 'the quantity of information available in cyberspace means little by itself. The quality of information and distinction between types of information are probably more important'.²

Google's search power of finding anything, anywhere, anytime on the internet prompted a New York Times columnist to ask the question 'Is Google God?', implying that Google, like God, is everywhere and sees and knows everything.³ A technology journalist at the BBC also posed the question 'is Google too powerful?', and proposed that the government should start investigating Google and considering whether there is a case for creating 'Ofsearch', the Office of Search Engines.⁴

Is Google too powerful? Some argue that politics and economy are intertwined with media and communication and 'new communications technologies have made it possible for media giants to establish powerful distribution and production networks within and among nations'.⁵ The critical role that information and communications technologies (ICTs) play is further highlighted by the claim that the global economy has entered into a new era – the 'informational economy' based on the information technology revolution.⁶ Meanwhile, the role of technology in general and ICTs in particular remains a much neglected factor in the study of global political economy.⁷ This essay aims to discuss the growth of Google and its implications for the study of global political economy, with a particular focus on the relationship between the company and the nation-state. It begins with a review of Google's origins and its growth into a global leader in the internet search engine sector. This is followed by a discussion on the 'Googlisisation' of the

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world of information and the impact this process has upon the authority and autonomy of the nation-state, including three case studies centring on Google's relations with France, the USA and China. Finally, the essay concludes by suggesting that Google has already become a significant global actor and the impact of Googlisation upon the nation-state, and *vice versa*, is intrinsically linked to the control of information in cyberspace.

Google: the search for success

The origin of the word 'Google', as explained by the company's two founders, is linked to the word 'googol', which means the number '1' followed by 100 '0s' to form a googolplex: 'We chose our system name, Google, because it is a common spelling of googol, or 10^{100} and fits well with our goal of building very large-scale search engines.'⁸ Symbolically, the word 'Google' suggests an infinite world of digital information.

Google, as a search engine company, was set up by two Stanford University graduates, Larry Page and Sergey Brin, in California in September 1998 with only three employees including the two founders. By October 2005, the number of 'Googlers' had reached 4,989. Estimates vary about the scale of the Google search system, but one source suggests that the company currently ranks some 8.2 billion webpages.⁹ Google claims that it employs a supercomputer network of 100 machines to evaluate more than a million variables in milliseconds to pick which to display each time there is a search query.¹⁰ More specifically, Google works in three steps: (1) upon receiving the search query from the user's machine Google's web server sends the query to its index servers; (2) the query then travels to Google's doc servers, which retrieve the stored documents and generate the search results; (3) the search results are returned from Google's doc servers to the user in a fraction of a second.¹¹

Google search begins with a simple and user-friendly homepage centred on a blank box for inputting search terms. It does not allow pop-up advertisement banners to appear on its website mainly because most users find them annoying. However, this does not mean that Google could survive without advertising. In fact, virtually all of Google's revenues come from its 'AdWords' programme, which provides advertising space for advertisers worldwide. Google's AdWords programme matches the key words of each search that a user entered into the search engine with the relevant products or services of the fee-paying advertisers. At the same time as when the search results are displayed, the matching advertisements, which are also text-based, are displayed on the right hand side of the computer screen. It is expected that a person searching for information containing key words related to the Google-selected advertisements, s/he might also click on one or more of the advertising links. Advertisers are charged by the number of clicks that have been received on Google's search site and this model of pricing is known as cost per click (CPC). Google's AdWords approach has the potential to target more precisely the individuals who are likely interested in additional information related to their search terms.

TABLE 1. Google selected financial data (2002–2005)

	2002	2003	2004	2005
Total revenues (US\$)	439,508	1,465,934	3,189,223	6,138,560
Year on year growth rate of total revenues (%)	409	234	118	92
Advertising revenues (US\$)	410,915	1,420,663	3,143,288	6,065,003
Year on year growth rate of advertising revenues (%)	514	246	121	93
Percentage of advertising revenues in total revenues (%)	93.5	96.9	98.6	98.8

Sources: Based on financial data released by Google. See http://investor.google.com/fin_data.html.

The growth of Google in a short space of time from a garage-based small business in the Silicon Valley to one of the most profitable corporate giants in the world is demonstrated by the fast increase in its advertising revenues, which account for 98.8 per cent of the company's total revenues in 2005. Although the growth rate of Google's total revenues has slowed down since 2002, when the company recorded a growth rate of 409% on the previous year, it was able to establish a track record of impressive growth (see Table 1). To boost his company's potential and ambitions, Google's chief executive recently claimed that Google is 'building the systems and infrastructure of a global US\$100 billion company'.¹²

With an initial investment of US\$1 million in 1998, Google's stock value reached US\$80 billion in June 2005. This makes Google the most highly valued media company, leaving the traditional goliaths, such as Time Warner, Disney, Viacom and News Corp, trailing behind it. Since Google floated on the stock market in August 2004, when its shares were traded at about US\$85 each, the high expectation of the company's potential made Google's share price sky rocket to around US\$370 in August 2006.

Although it is difficult to count precisely how many search queries internet users make through Google, some survey figures are indicative of the search engine's current position relative to other search engines. A survey by Nielsen NetRatings suggests that, in July 2006, nearly half (49.2 per cent) of internet search volume in the USA was generated by Google, followed by Yahoo (23.8 per cent), Microsoft MSN (9.6 per cent) and other search engines combined (17.4 per cent). A similar survey by Hitwise Intelligence puts Google at 60.2 per cent for the same period.¹³ If the figures from the two different surveys are averaged, Google would account for 54.7 per cent of the total search volume in July 2006. This puts Google well ahead of its competitors.

Google, globalisation and the nation-state

Google has set itself the mission 'to organize the world's information and make it universally accessible and useful'.¹⁴ While this is undoubtedly a positive factor in the process of globalisation, nation-states might see Google's search power as a

threat to their autonomy. First, the autonomy of the nation-state declines due to the fact that Google search reinforces the trend towards economic globalisation. It is likely that the more people make use of search engines, the more advertisers would be lured to jump onto the bandwagon of search engine-based advertising.¹⁵ This trend will contribute to the growth of a global consumer market for globally advertised products and services.

The challenge posed by Google to the nation-state is also linked to the fact that the process of online search helps make national, geographical and cultural boundaries, which are key features of the territorially based nation-state, less relevant to the flow of information. Each time when a query is typed, Google's search engine will 'comb' through the entire internet network to identify and rank webpages irrespective of national boundaries. Google claims that it 'examines billions of web pages to find the most relevant pages for any query and typically returns those results in less than half a second'.¹⁶ Google's ability to 'shrink' the size of the world is best manifested in its tool 'Google Earth', which enables internet users to explore and 'experience' the world from a computer screen. By combining satellite imagery, maps and its search technology, Google promises to put the world's geographic information at users' fingertips.

While internet users celebrate the 'freedom' of information offered by 'Googling', it is worth asking what kind of world of information Google creates. To internet users, 'Googlisation' of information seems to be a matter of concern. A comparison of the search results for the query term 'China' from Google and its main competitors, Yahoo! and Microsoft MSN, demonstrates the extent to which information search is 'Googlised': merely one out of the first 10 returned items, namely 'www.china.org.cn', was common to the three search engines.¹⁷ While Google gave American government source (the Central Intelligence Agency (CIA)) on China top ranking, both Yahoo! and MSN gave Chinese official sources top ranking and MSN did not even include the CIA source within its top ten items. Both Google and MSN listed independent media sources, such as the BBC and Guardian Unlimited, whilst Yahoo! made no reference to these sources at all. It is also worth noting that the total number of search results produced by the three search engines differs significantly: Google returned 1,780,000,000 items in total within 0.07 seconds, compared to 468,000,000 items within 0.13 seconds by Yahoo! and 87,225,482 within 0.10 seconds by MSN. Despite the differences, many search engine users remain unwary. According to a recent Pew survey, the majority (or 68 per cent) of internet users in the USA believed that search engines were a fair and unbiased source of information, compared to a relatively low proportion of respondents (19 per cent) saying they did not place their trust in search engines.¹⁸ The high level of discrepancy between search results could well be one of the reasons why some governments were concerned about the impact of 'Googlisation'.

To further explain the relationship between Googlisation of information and the nation-state, the rest of this section presents three case studies: Google's experience in France; its wrangling with the federal government in the USA; and its dealings with the Chinese authorities with regard to the control and use of online information. These cases reveal the varied degrees to which Google has impacted upon nation-states, and *vice versa*, in the digital age.

Google and France

Google's economic power and cultural influence is in part manifested in the fact that, on the one hand, Google became the first port of call for as many as 74 per cent of French people doing a web search by mid 2005¹⁹ and on the other, its search power has attracted considerable attention from policy makers and business leaders. Google's experience in France is largely characterised by the high level of tension between the company and the French state. It is an open secret that Google's search power has become an increasingly worrying factor to the political elite in France at the highest level. That the internet search sector is dominated by American search engine companies prompted former French President Jacques Chirac to speak of the need to 'take up the global challenge posed by Google and Yahoo!' in order to prevent France from becoming a 'museum country'.²⁰ Against this background, the French government was quick to devise new measures, including the plan to develop a European search engine, dubbed Quaero,²¹ meaning 'I search' in Latin, to rival Google.

The relationship between Google and France is overshadowed by a clash of cultures in cyberspace. In December 2004, Google announced its 10-year (2005–2015) global virtual library project with a budget of \$200 million to scan and put online 15 million books from the libraries at five of the world's leading universities (Harvard, Michigan, New York, Oxford and Stanford) for free access. The plan has aroused fierce responses from Europe – it was viewed by a group of European countries, led by France, as yet another step towards making the English language and Anglo-Saxon way of thinking dominate the internet. In the name of maintaining cultural diversity on the internet, the French-led proposal for a European virtual library project as a counter-measure has received strong endorsement by European Union (EU) culture ministers.²² The European initiative will undoubtedly serve as a strong booster to the French national project Gallica, which has already put online some 80,000 works and 70,000 images, part of the contents of La Bibliothèque Nationale de France (BNF), the French National Library.²³

In addition, it seems that the French legal system has been used by local firms in their attack on Google. In recent years, Google France has been hit by a string of court cases. In October 2003, Google was sued by two French travel companies for having breached intellectual property law. The local companies, Luteciel SARL and Viaticum SA, accused Google's practice of illegally displaying advertisements alongside search results related to their trademarks and Google was fined €75,000 by the court. An appeals court further maintained this ruling in March 2005. In the same year, Google lost a similar case brought by a French luxury goods company, LVMH. Apparently, the practice of responding to an internet search for one company's products with information about those of another is interpreted by the French law as similar to counterfeiting. A Google representative argued that French law has not yet adapted to the advance of technology, leaving internet companies such as Google operating in a gray area that legislators have not yet considered.²⁴

Would Google be able to take on the various challenges posed by the French state authorities and maintain its dominant position as a global actor in the internet

search sector in the years to come? It is worth noting that currently only 0.12 per cent of the EU budget is channelled into culture, which is seen as 'mediocre' and 'insignificant'.²⁵ In terms of investing in technologies, Google might not find it hard to dwarf its rivals with its spending of at least US\$1.5 billion in a single year (2006) on equipment and facilities, compared with the combined public and private funding of Quaero at €450 million. These figures make some commentators believe that the likelihood of success for a state-funded challenge to Google is low.²⁶ However, a concerted European counter-offensive led by the French could create further challenges to Google's operation in Europe. For Google, the image of 'omnigooglisation', a populist reference in the French media to Google,²⁷ makes the company a natural target for projects such as Gallica and Quaero that constitutes 'part of a much wider revolt against American dominance of the web'.²⁸

Google and the USA

Outside France, Google's 'search power' was to be tested again in a high-profile contest for the right not to comply with government orders in the United States. In its renewed effort to revive the 1998 Child Online Protection Act (COPA),²⁹ the Department of Justice (DoJ) served a subpoena in August 2005 to a group of internet companies demanding access to information related to internet search. In response, Yahoo!, Microsoft MSN and America Online (AOL) complied with the government's request and Google refused to cooperate.

The DoJ demanded the submission of two categories of data from Google. First, Google should submit to the government an electronic file containing all URLs (Universal Resource Locators, or web addresses as more commonly known) that are available in its search index as of the end of July 2005. That would be effectively Google's entire search index. Second, the DoJ asked Google to hand over the record of all queries that had been entered on the company's search engine during a two-month period of June and July 2005. The requested data was to assist a DoJ study about the effectiveness of filtering software in controlling access to online information harmful to minors.

Google's refusal to comply was based on such grounds as that the government was generating an undue burden on the company and that there was the possibility of breaching search engine users' privacy and revealing the company's commercially sensitive information.

In view of Google's non-compliance, the DoJ significantly watered down its subpoena by requesting only 50,000 URLs from Google's search index, plus all search queries of a one week period. The latter was further reduced to only 5000 entries from Google's user query log. This would be a tiny fraction of what the government had originally asked for. Despite the significant compromise the DoJ has made, Google was still standing by its rejection of government demand for information. To break the impasse the court jumped in and ruled that Google satisfy the government's revised subpoena for 50,000 URLs from the company's search index but deny the government's request for 5000 entries from the company's user query log. In addition, the 50,000 URLs that Google was to hand over to the government would be subject to the court's protective

order to prevent the potential disclosure of any trade secrets to third parties. Google was also to be compensated financially by the government for the undue burden on the company incurred by the subpoena.

The dispute between Google and the DoJ has a number of implications. First, Google has already grown into a powerful company that was prepared to defy state authority over the control of and access to information. The case involved three different kinds of interest: national interest in seeking information in order for the government to make informed decisions; corporate interest in maintaining trade secrets associated with information (Google's search index and search query log); internet users' expectation of the confidentiality of their personal information collected by Google. What is common among the three types of interest is the keyword 'information'.

Second, the dispute between Google and the DoJ seemingly puts the former into a high ground of business ethics. However, it would be misguided to suggest that Google is an all-time defender of individual privacy in cyberspace. Apparently, visitors to Google's headquarters 'are regaled with a large screen, in the reception area, that shows users' search queries scrolling by in real time, at all times of day and night'.³⁰

Third, the DoJ-Google dispute suggests that both parties viewed search indices and query logs offer significant information about internet users' details. These details are potentially subject to the interrogation by state authorities and commercial exploitation by companies. With exclusive access to a detailed log of search queries, Google would be able to profile search engine users for its own financial gains. Therefore, what lies behind Google's rhetoric of defending users' privacy is the company's ultimate commercial interest. Microsoft, for example, is known for having sought to distinguish itself by allowing advertisers to enter bids based on the sex, age and other characteristics of the targeted advertisement viewer.³¹ Google could only be more aware of the potential value of similar personal information of its own users.

Google and China

Google's dispute with the DoJ might have earned the company an improved level of trust by 'netizens', given the fact that its competitors were quick to comply with the same government order. However, other headline news, such as 'Google agrees to censor results in China',³² have put the company back into the scrutiny by public opinion over its business ethics. Eyeing the market of the world's second largest internet nation, Google launched a Chinese version of its popular search engine in January 2006 with a Chinese name 'Guge', meaning 'the song of harvest'. While the company may argue that Google's entry into China was purely a business decision, criticisms centre on the inconsistency between its corporate motto of 'Don't Be Evil' and its agreement to dovetail search results to suit Beijing's policy of internet censorship.

With hindsight, Google would not have been allowed into China if the company did not comply with state laws and government regulations regarding the internet. Although the Chinese government has allowed the fast diffusion of internet technologies since the 1990s, politically sensitive topics such as the 1989 Tiananmen Square massacre and the independence of Taiwan and Tibet, among others, are

forbidden in cyberspace. In the last few years Google's competitors, such as Yahoo! and Microsoft, not to mention the local internet companies, had already cooperated with the Chinese authorities in censoring the internet and prosecuting cyber dissidents. Prior to the launch of the Chinese version, Google had already had the misfortune of having access from within China to its standard version of the search engine blocked by the Chinese government. The message from this was that non-compliance with the government's censorship requirement would have grave implications for Google's business. The dilemma was that cooperating with the government authorities in China would contravene the company's own account of its search engine technology:

Google's technology uses the collective intelligence of the web to determine a page's importance. There is no human involvement or manipulation of results, which is why users have come to trust Google as a source of objective information untainted by paid placement.³³

By launching the Chinese version of search engine, Google has effectively abandoned its own claim that its search technology is free of human manipulation of results. A comparison of the search results produced by the standard version of Google search and that by the Chinese version reveals the extent to which Google search is manipulated and tainted. Shortly after the launch of the Chinese version, a search for the query term 'Tiananmen' was made using both the Chinese and standard versions of Google search.³⁴ The difference between the two sets of results was striking. First of all, while nine out of the top 10 items of the standard search results listed web pages related to the 1989 Tiananmen Square massacre, only one out of the top 10 items produced by the Chinese version was related to the same topic. This indicates that Google's Chinese version differs significantly and qualitatively from the standard version. Moreover, the standard version of Google search produced nearly 4 million items, compared to only 41,600 items returned by the Chinese version for the same query. This suggests that the Chinese version manipulates search results also in a quantitative way. The smaller number of results suggests that many links and URLs leading to politically sensitive sites had been eliminated by Google search.

Finally, Google openly acknowledged its manipulation of search results but attributed this to the Chinese political and legal system. At the bottom of the first page of search results, Google specifically declared that '*ju dangdi falu fagui he zhengce, bufen sousuo jieguo weiyu xianshi*' ['according to local law, regulations and policy, some search results are not displayed'].³⁵ Should Google be condemned for practicing censorship in China or be praised for being a law-abiding good corporate citizen? While different principles of the international law system might offer entirely different answers to this question, Google's non-compliance with the US government's demands and its willingness to cooperate with the Chinese government do make a sharp and interesting contrast, which commentators will continue to debate in the years to come.

Conclusion

Google does not own or produce much information; it merely indexes readily existing information on the internet. The rapid growth and excessively high stock value of Google reflects investors' perception of the company's ability to organise information in cyberspace and define the way that internet users identify information. With the explosion of information in cyberspace and the increase in the number of internet users, search engines are indispensable to the empowerment of all actors in the global political economy, including 'netizens', companies and states.

In order to answer the question of whether Google is too powerful, this essay discussed the company's impact upon the nation-state through its search power, and *vice versa*. Above all, Google's ability to transcend national boundaries in the organisation of information flows is a significant contributing factor to globalisation and could thus be seen as detrimental to the autonomy of nation-states. Seeing 'omnigooglisation' as an internet-age manifestation of US cultural imperialism, the French government has implemented measures to take on the Google challenge in a strategic way. The launch of Quaero, the implementation of Gallica and the multiple court cases against Google were some of the elements of the French state's defence of French culture. Nevertheless, the tension between the French state and Google was a *de facto* recognition of the latter's influence in shaping global political economy.

Google's power was further tested through a high-profile dispute between the company and the US federal government over access to internet search data. It is likely that this case might not have been resolved without court intervention following government concessions. The fact that Google was prepared to challenge government authority in the world's only superpower begs the question of whether a global actor such as Google could still be contained by the nation-state. In contrast, Google's practice in China seems to be a typical case in support of the argument for 'localized appropriation of globalized media product'.³⁶ After all, the seemingly almighty Google had to bow to Beijing in exchange for market access. Common to these cases seems to be the point that the impact of Googlisation upon the nation-state, and *vice versa*, is intrinsically linked to the control of information for the purpose of empowerment. The varying patterns of Google's relationships with state authorities in different countries present us with a challenge 'to find ways for national governments, working alone or together, to guide globalization through its next phase',³⁷ which is to a growing extent driven by the global flow of information.

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