In Search of Excellence – Google vs Baidu

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Abstract—This paper compares the search engine marketing strategies adopted in China and the Western countries through two illustrative cases, namely, Google and Baidu. Marketers in the West use search engine optimization (SEO) to rank their sites higher for queries in Google. Baidu, however, offers paid search placement, or the selling of engine results for particular keywords to the higher bidders. Whereas Google has been providing innovative services ranging from Google Map to Google Blog, Baidu remains focused on search services – the one that it does best. The challenges and opportunities of the Chinese Internet market offered to global entrepreneurs are also discussed in the paper.

Keywords—Search Engine, Web analytics, Google, Baidu

I. INTRODUCTION

HOW is a website found by customers in the vast world of cyberspace? How does a new online business get noticed ahead of its more well-established competitors? Website promotions can be based on Web analytics. Web analytics is the measurement, collection, analysis, and reporting of Internet data for the purposes of understanding and optimizing Web usage. Fig. 1 shows the triangle for success in website promotion.
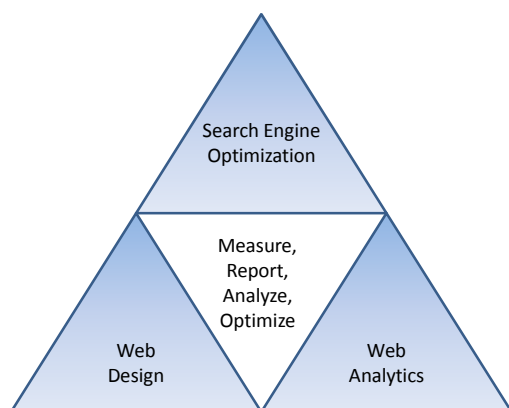

Fig. 1 Website Promotion: the Success Triangle

II. WEB ANALYTICS

There are two categories of Web analytics: offsite and onsite. Offsite Web analytics is the measurement and analysis of a Web site's possible audience (opportunity), share of voice or percent of the niche market owned in a market segment (visibility), and buzz (commentary) that is occurring over the entire Web. Onsite Web analytics measure what a visitor does on your Web site; in other words, the performance of your

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Website from a commercial perspective. This includes drivers and conversions (e.g., which pages promote purchases). This information is used to improve audience reaction. Two web analytics technologies are "visitor intelligence" and "social measurement".

A. Visitor intelligence

Visitor intelligence identifies, targets, and manages customers with one view. Its analysis allows users to:

Get one view of a customer across channels and domains. It incorporates on-line insight into enterprise dashboards and corporate systems (e.g., a data warehouse of customers).

Drive small but crucial market segment and online experiences as presented on dashboards (a software-based control panel for applications) and in reports. Identify targeted segments for advertising by comparing visitor information, frequency and important site information.

Drill down into dashboards to find comprehensive visitor and buying behaviour for each product. This allows the viewer to identify visitors who have abandoned their carts so that they may be targeted for follow-up offers. With data that is based on the actions a visitor takes on your site over time, you can prepare more effective emails as well as behaviour-based campaigns.

Improve workflow across the organization with interactive dashboards and ad hoc reports that help shorten decision-making time and put together collective intelligence about the performance of your online business.

B. Social measurement analysis

Social measurement analysis lets you:

Monitor. You can listen in on social media conversations and receive current notification about mentions of your products across millions of social media settings.

Measure. You will take advantage of buzzmakers or what consumers are talking about in the industry. These trends end up impacting your products and brands across the social Web, and here, you will be able to anticipate them.

Engage. Conversations will be tracked and, based on what you learn, the requisite tasks assigned. You will keep abreast of how discussions evolve using workflow and engagement tools.

Decide. Make better, more knowledgeable business decisions based on the information you gain from social media.

III. SEARCH ENGINE OPTIMIZATION

Since putting a Web page at the top of search listings is very competitive, many marketers are trying to outsmart the ranking algorithm and find shortcuts that can lead to a better position in the search results. This is the basic idea of search engine

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optimization (SEO) [1]. Search engines use algorithms to determine the position of a Web page in a search result based on certain criteria, such as popularity (e.g., the click-through rate) or centrality. Companies can try to optimize by themselves. However, sometimes it may be wise to use a professional optimizer. The optimizer needs to consider how search engines work, what people search for, the actual search terms typed into search engines, and which search engines are preferred by their targeted audience. The optimizer then can tailor the ads and the keywords accordingly. The optimizer, which can be a company person or a consultant, can use algorithms (such as Google analytics) to do the tailoring. Another solution is to buy keyword ads on the page that contain the search engine (e.g, Baidu)'s results of a search. This is referred to as paid inclusion or sponsored search.

IV. GOOGLE'S GLOBAL SUCCESS

No other EC company can match the success of Google and its meteoric rise. Google is considered by many to be not only changing the Internet but also the world. Google uses several varieties of search engine advertising methods that are generating billions of dollars in revenue and profits. The major methods are AdWords (Fig. 2) and AdSense (Fig. 3)

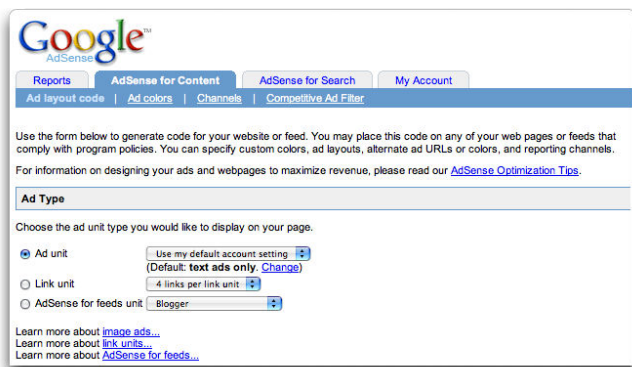Fig. 2 AdWords (adopted from adwords.google.com.au)

Fig. 3 AdSense (adopted from askdavetaylor.com)

Google uses its Internet search technology to serve advertisements based on website content, the user's geographical location, and other factors. The company derived almost all of its revenue from its advertising programs. It has implemented various innovations in the online advertising market that helped make them one of the biggest brokers in the market.

A. Google Web 2.0

Google embodies many of the concepts of Web 2.0. One of the most basic uses of Web 2.0 technologies is collaborative interfacing with others. Collaborative editing technologies, such as Wiki, and collaborative content technologies, such as social networking sites, share a common heritage of belief in the power of teamwork and individual contribution.

One of Google's earliest ventures into social networking is the social networking and blogging site Blogger.com, acquired by the company in 2002. Blogger.com (Fig. 2) was one of the earliest social networking sites, having been established in 1999 as a small social network site. Blogger.com's corporate policies remain adherent to the ideals of openness and availability of content that is often expressed in Web 2.0 definitions. Limitations on content are restricted only to the legally required minimum, and copyrights are explicitly assigned to the writer in order to encourage content creation and sharing.

Fig. 4 Google Blogger (adopted from webhostingsecretrevealed.com)

B. Web 2.0 Technologies

It is not only Blogger.com's publishing and collaborative content creation capabilities that are in line with Web 2.0 philosophies, but also its technological capabilities. Blogger.com provides its own API and Web services for developers, allowing for extension and creation of entirely new applications within the bounds of its site. The site also offers a wide range of other APIs that allow users to customize the application experience within their site, including Atom format standard APIs and Google APIs. Perhaps more commonly used than its APIs, however, is the ability to modify the layout and appearance of is pages using customizable CSS and HTML tools. The tools available for Blogger.com allow the user to modify not only the appearance of their personal blog, but also the functionality of it. The outcome of these modifications can be as different as the Blogger Buzz development blog (available at buzz.blogger.com) and the Poem of the Week Blog (available at poem-of-the-week.blogspot.com. While it is clear that these two blogs share a common heritage of the base code, the look and feel,

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function, and operation of the site has been modified such that they no longer are standardized in any way. This is one of the most powerful aspects of Web 2.0 technology, and one of the most enthusiastically adopted by content providers. Blogger.com provides a powerful content creation and collaboration tool that is used by many individuals, in many ways, and customized in ways varying from superficial changes in appearance to profound changes in the underlying application base.

C. Dedications to Social Networking Paradigm

Driven by their allowance of twenty per cent time for private projects within their programming teams, Google's tools are constantly evolving in order to stay abreast of new technologies and paradigms. There is no way to predict what turns will come in their minor tools as the political and technological focus of the company evolves. However, Google's adoption of the Blogger.com platform, as well as their further experiments in social networking through tools such as Orkut and Google Blogs, demonstrates a dedication to social networking and the Web 2.0 paradigm. Further improvements in tools that are not nominally social networking sites will continue to occur as the collaborative decision support concept spreads and increased information input becomes more important to the average user of these tools. The modern world demands an increasingly high amount of information, while offering less and less; Google's embracing of collaborative decision support and social networking offers one way to circumvent this tendency and restore the availability of information.

V. BAIDU'S LOCALIZATION

The SEO rules for the Chinese Internet market however are quite different than those discussed earlier due to various social, political and technological reasons. The following explains how the SEO and paid search work at Baidu (Fig. 5) the most popular search engine in China.

Fig. 4 Baidu (adopted from seo.com)

A. History and Growth of Baidu

Inspired by a poem written during the Song Dynasty (960–1279) of China, Baidu—literally meaning "hundreds of times"—rose to become China's leading Internet search engine from a startup business. The company was established by Robin Li and Eric Xu in December 1999 in Silicon Valley. It was incorporated as Baidu.com, Inc., in the Cayman Islands on January 18, 2000. Baidu's market leadership philosophy is premised on localization. Li believes that the company must

focus on the one thing it can do best and do it better than anyone else, that is, Chinese search services. Hence, Baidu's history is marked with a continuous struggle to improve.

Financially, Baidu took the road from venture capital (VC) firms to initial public offering (IPO). In 2001, the company raised $1.2 million from VC firm financing, and another $10 million from four VC companies led by Draper Fisher Jurvetson and International Data Group. In 2004, Baidu acquired Hao123.com, a popular Chinese Web directory, then 25th at Alexa.com's global Internet traffic ranking. In March 2005, Baidu began its preparation to go public, and finally in August, it achieved IPO victory in the United States (see Fig. 5), opening at $66 and closing at $120 per share [2].

Fig. 5 IPO victory of Baidu (adopted from nytimes.com)

Indisputably, Baidu has become "China's Google." By the third quarter of 2010, its share in China's search traffic rose to 73 percent while Google's fell to 21 percent [3]. Moreover, during the same quarter alone, Baidu's total revenues reached $337.2 million, a 76.4 percent increase from the corresponding period in 2009 [3].

B. Business Model of Baidu

Baidu's services include algorithmic search, pay for performance, enterprise search, and a host of specialized services, including news, multimedia, and image search. Baidu's focus on a Chinese language search engine service is its biggest advantage. Moreover, the company's local connections and homegrown business practices, combined with the strength of its technology, give it an edge over its rivals.

Although Baidu is nicknamed "China's Google," when it comes to strategy, Baidu is adopting a different approach. First, Baidu and Google differ in the way they sell advertising to customers. Google distributes a great deal of the company's advertising services through a direct sales structure, whereas Baidu sells ads in China largely through distributors. Second, in direct contrast to Google's practice, Baidu does not require clients to use credit cards to pay for their ads. Third, Baidu offers paid search placement, or the selling of search engine results for particular keywords to the highest bidder, which is not offered by Google. Finally, whereas Google has been providing innovative services ranging from Google Mail to Google Maps, Baidu remains focused on search services—the one that it does best.

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C. Competitiveness and Constraints of Baidu

The Chinese government filters certain Internet content, and Baidu has adopted a strategy in successfully dealing with the constraints of censorship. Consequently, the company has recently received the government's "China Internet Self-Discipline Award." Baidu had been plagued by copyright problems. Shanghai Busheng Music and Culture Media Company filed a lawsuit against Baidu in June 2005, alleging that the search engine allowed unauthorized downloads of pirated music. Universal, EMI, Warner, and Sony BMG sued Baidu for copyright infringement involving 137 songs. Beijing New Picture Film Company also filed a copyright infringement suit against Baidu for unauthorized downloads of movies. All suits were settled, but similar issues in the future could adversely affect Baidu's popularity.

D. Baidu Benefits from Google's Exit from China

Google's exit from China has strengthened Baidu, whose stock price rose, reaching a high of $82 in mid-May 2010, more than twice the level it was trading at in January before Google's decision [4]. With Google's withdrawal, Baidu is clearly well positioned to take over an even greater share of the search engine market in China. Baidu's market has become even bigger than that of the United States, with 384 million online users and more than twice as many mobile phone users [4]. From all appearances, Baidu indeed benefited greatly from Google's exit. However, with heightening calls against Internet censorship and Google's still unmatched position on the Web, Baidu cannot stay complacent.

VI. CONCLUSION

With the largest Internet population in the world, China today is a fertile ground for IT innovations. The Internet market in China is growing rapidly, especially in the areas of e-commerce and interpersonal communication. This may be due to the fact that China remains to be a land of low costs, huge markets and of great opportunities. There are a number of drivers of this high rate of growth that can be seen in China, but the main driving factor is increasing income. For example, China's current population growth is steady at 0.5%, but its GDP is growing, leading to a GNI per capita of $9,170.10 (international PPP) in 2009 [5]. This represents a 15% GNI per capita growth, and a 9.1% GDP growth, during a period when there was actually deflation of -0.6% [5]. However, there have also been substantial fixed investments in the telecommunications industry that have driven the increasing rate of Internet use, totaling $277.34 billion between 2001 and 2009 [5]. This rate of investment, a 28.5% increase over the previous year, has significantly increased the accessibility of the Internet across China [5]. The increasing use of e-commerce is especially notable, as this is driven by increasingly secure payment methods and efficient logistics [5].

China has sprouted a number of homegrown companies such as Baidu, Alibaba, Sohu, Taobao, Tudou and etc in the last decade. Some of these companies have already become the world's biggest names. Soon or later, the made-in-China dotcoms, like other goods and services will be ventured into the global market place. What are the challenges and opportunities brought by this new breed of IT entrepreneurs – to China and to the whole world? As pointed out by Mark Zuckerberg in his 2010 speech, "How can you connect the whole world if you leave out 1.6 billion people?" China has different requirements for IT applications in areas such as information presentation and interface design from the developed world. How can IT initiatives be better suited for the China market? IT products and services must address the societal needs of the masses in China and its cultural sensitivities.

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