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DIGITAL EXHAUST

What Everyone Should Know About Big Data, Digitization, and Digitally Driven Innovation

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The Global Battle for the Consumer Internet

Key Chapter Points

- By every measure (computers, Internet use, mobile and smartphone sales, and so on), the global Consumer Internet is expanding rapidly.
- US and European companies persist in maintaining a presence in China, despite what is known as "The Great Firewall of China."
- Chinese Internet tech companies are equally interested in competing in US and EU markets.
- This global competition, although occasionally fractious, may be enhancing innovation and growth in the Big Data technology market.

Before we leave the Consumer Internet, it is important to realize that although we tend to think of all this happening in the United States and Western Europe, the same trends are occurring worldwide. If the US Defense Department was responsible for the Internet and Silicon Valley was the first to exploit it, that exclusivity is waning. And despite their early advantage, Western Internet companies are finding that politics, competition, and the NSA are beginning to make

their efforts to expand overseas more difficult, just at the point where the opportunity is at its greatest.

The Global Internet Explosion

The expansion of Big Data and the digital economy globally can be measured in various ways, and one of those ways is to look at the number of computers per capita around the world. Computers have become part of commerce, industry, and personal life nearly everywhere, and more than almost any other commodity, they are international in their manufacture and sale (see Figure 6.1). Apple, HP, Lenovo, Dell, Acer, Toshiba, IBM, and Fujitsu all are manufactured and sold internationally. And as the take-up of computing has expanded, the relative size of the US and Western European market has decreased, making emerging markets the obvious target for growth. This trend is obvious if we look back again to the early 1990s when nearly half of all computers were in America. By 2000, that number was down to just over a third. And with an international growth rate double of that in the United States, by 2015 the United States may have as little as 15% of the global inventory of computers.[1]

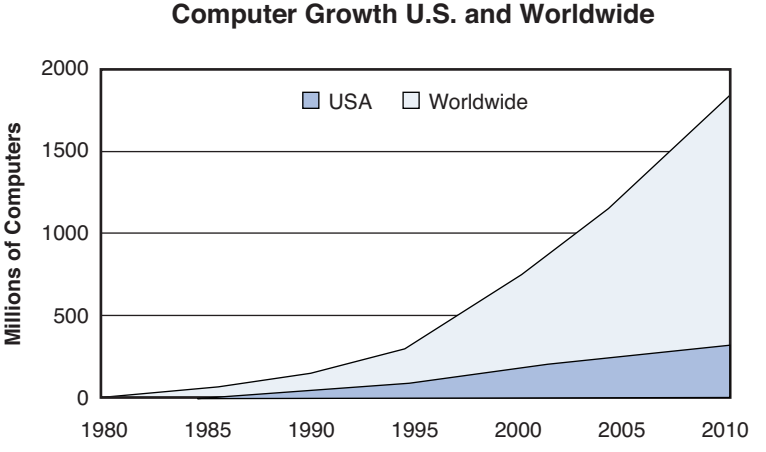

Figure 6.1 Thirty Years of Computer Growth
Data Source: eTForecasts

Internet figures themselves are equally revealing, because they too, indicate that the highest growth areas are in developing countries (see Figure 6.2).

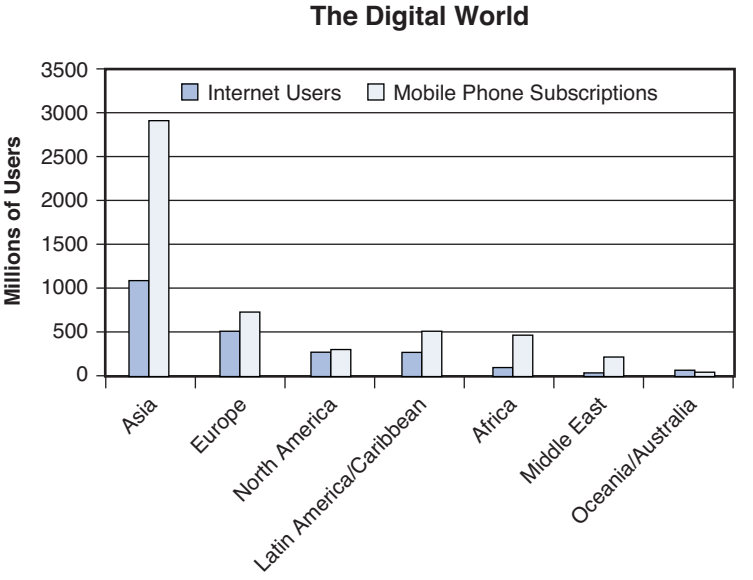

Figure 6.2 Worldwide Internet and Mobile Phone Usage

Data Sources: Internet World Stats and eMarketer

This pattern of growth is equally true with smartphones and mobile devices, which revolutionized telecommunications and messaging, allowing inexpensive, universal communication through phone calls, texting, and e-mails. More affordable than a PC, low-cost mobile devices are invaluable not only for developed economies but especially for users in less-developed nations, who only a decade ago, struggled with poor landline infrastructures and often had almost no access to a telephone at all. A uniquely democratizing technology, the cell phone has become omnipresent, among rich and poor, found in town and country, with young and old, all around the world.

Among mobile operating systems, as we've seen, Google's Android, with its ties to Samsung, is particularly popular globally, and in a reflection of the growing importance of the emerging economies,

it is estimated that by 2017, more than 75% of Android's sales will come from emerging markets.[2]

In fact, with more than 400 million viewers already, China has a much larger market for online streaming video and television than the United States and has also been building a superfast 4G superstructure throughout the nation. Based in Guangdong, Huawei, the largest telecommunications equipment maker in the world, is already working on next generation 5G technology, promising speeds up to 100 times faster than the current 4G framework by 2018.[3]

Competition is particularly strong when it comes to social media and messaging. South Korea's Naver, originally a group within Samsung, has a multipurpose Internet site that includes games, online shopping, video, and e-books, as well as a search engine that has fended off Google, retaining nearly 80% of the South Korean market. In 2010, Naver also bought KakaoTalk, which provides photo cataloging and a wide variety of virtual goods from games to e-books and brings an additional 60 million users (sending an estimated 3.5 billion messages every day).[4] Line, in Japan, promotes itself as the "Facebook of Asia." WeChat, owned by China's Tencent, is strong not only in China but also in expanding markets such as Mexico and India."[5] The list goes on.

Not all these emerging-country Internet tech companies are as reliant on digital advertising as their equivalents in the United States. Most rely more on sales of virtual goods like games and apps and, puzzling to many in the West, continue to do a brisk trade in the highly popular cartoons and cute animal emoticons—known in Asian markets as "stickers"—which are purchased almost like a stamp to be included when sending e-mails. When combined, these groups account for hundreds of millions of users worldwide, and with their own version of Big Data and Internet technologies, they also provide a growing level of competition to the traditional Western internet tech groups.

In fact, China has overtaken the United States both in terms of the sale of smartphones and in e-commerce, and will soon become the world's largest m-commerce arena, as many millions of Chinese move directly from no phone to mobile phone, omitting the traditional landline. In 2013, 81% of Chinese Internet users accessed the Internet using a mobile device, and online sales in China are expected to expand from $370 billion in 2014 to $670 by 2018.[6] And just like American, European, Japanese, and South Korean companies, Chinese Internet giants are setting their sights on cashing in on the global smartphone revolution.

East Meets West

Relations between all these competitors and countries are not always cordial, and every nation still retains its champions. But as with the Western Internet tech companies, there is increasing competition between those national champions themselves.

Since YouTube is banned in China, Tudou, owned by Youku, the Chinese equivalent, has targeted younger viewers with streaming content from around the world, and its viewership has grown from 100 million in 2012 to 300 million in just one year.[7] This rapidly growing viewership—and the advertising and sticker revenues that come with it—has not gone unnoticed by China's other large Internet and media conglomerates. In a mirror image of the struggle for control of the Internet going on in America, Sohu, a subsidiary of Baidu, the largest search engine in China with a market share of nearly 70%, and Tencent, the hugely successful social networking and gaming conglomerate, are both vying for China's massive viewership with programming that provides younger users with an alternative to state-controlled television. Tencent recently bought WeChat, a competitor with Twitter, which has more than 600 million users, and 100 million of those are outside China.[8] In fact, although it's not a perfect comparison,

Tencent, with its combined social networking and gaming revenue, is larger and more profitable than Facebook; in 2013 reporting $2.5bn in profits (on $9.9bn revenue) against $1.5bn in profits (on $7.9bn revenue) for Facebook.[9]

Chinese corporate protectionism, political censorship, and the complexity of the Chinese language has meant that the Western Internet giants—Google, Facebook, Amazon, and Twitter—have only been able to compete in a limited way within Chinese markets over the past decade. But in many ways, ironically, that resulted in a sort of hybrid vigor in which potential global rivals to the Western Internet giants have arisen with different systems and approaches. Ultimately, this may be a valuable thing in terms of innovation.

The Great Firewall of China

Since forming the State Internet Information Office in 2011, the government of the People's Republic of China has strengthened its Internet censorship capabilities in what is often called "the Great Firewall of China." The main purpose of the censorship is to restrict the availability of Internet sites that are thought likely to contribute to social or political instability, and the Chinese government has from time to time banned or blocked access to many of the prominent Western search engines, social networking sites, content providers, and Internet communications tools, including Google, Yahoo!, Facebook, YouTube, Twitter, Amazon Japan, Netflix, Wikipedia, and even the *New York Times*.

Still, despite restrictions and firewalls, western companies are determined to maintain a foothold in China. As a testament to the power of the Internet, although officially banned there, GlobalWeb Index's Social Platforms Report suggests that there were more active Twitter users in China in 2012 (35.5 million) than were actively tweeting in the United States (23 million). In fact, by 2015, despite the ban, almost one-third of Twitter users are expected to be in Asia (compared