

# THE NEW DIGITAL WORLD

## HEGEMONY OR HARMONY?

By François Candelon, Martin Reeves, and Daniel Wu

**T**WO CENTERS OF GRAVITY govern today's digital world: the US West Coast and the East Coast of China. These gold coasts are home to 9 of the top 10, and 18 of the top 20 internet companies, when measured by market capitalization.

The leading companies in online search, social media, and e-commerce are all based in one or the other of these two regions. With a large head start over competitors, they are also the leading candidates to win in the next economic era.

The world is about to undergo a Schumpeterian cycle of creative destruction in which digital will spark widespread disruption in other industries. What has already happened to newspapers and record labels will soon happen to all industries. In the next five years, digital technology could conceivably disrupt a large share of the market capitalizations of industries as varied as automotive, financial services, health care, and retail. The creation phase of the cycle is likely to occur further in the future. And we do not yet know who will capture the gains.

Will the two centers of gravity hold, or will the gains be more widely distributed?

By default, the two gold coasts have a built-in edge: they have accumulated massive value, wealth, and power by taking advantage of the winner-take-all economics that govern many digital business models.

Yet, all companies and countries—including the US and China—have a vested interest in a winner-take-*less* outcome. The digital giants do not want to face a future of digital Balkanization and protectionist backlash, which is almost inevitable if other countries and companies are substantially excluded from the fruits of digital creation.

We are at a turning point. Will the door open to allow for greater equality, or will it shut out opportunity for all but a few?

Executives and public officials alike can play active roles in shaping this future by thinking about three major uncertainties and the options available to address each of them:

- Will governments build digital walls that curtail economic and digital activity in the name of protecting local industries?
- Will other countries nurture local champions and create innovation hubs that rival or complement Silicon Valley and the string of coastal cities that constitute China's innovation corridor?
- Will China's digital giants, which have been focused at home, succeed in expanding overseas and partnering with local companies to make them more successful?

The answers to these questions will shape national competitiveness, wealth distribution, power, and consumer choice for decades.

## The Next Battle

Winner-take-all economics favored the companies in the US and China that were able to take advantage of large domestic markets to achieve scale and to surround themselves with rich ecosystems of startups, suppliers, and customers. Thus, companies on the gold coasts of the US and China have essentially won in the arenas of online search, social media, and e-commerce.

The contest is now shifting toward more traditional industries. Uber Technologies and Airbnb represent the best-known examples of digital disruption, but they are not alone. Google's rebranding as Alphabet is the visible manifestation of its entry into several new vertical markets, including driverless cars, smart homes, smart cities, and health. Alibaba, which manages the world's largest money market fund, is assuming a similar role in financial services. Amazon's acquisition of Whole Foods Market is perhaps the purest expression of the blending of the digital and physical worlds. Unsurprisingly, Amazon's potential move into drug retailing has hurt pharmacy stocks. Many of the digital giants in both countries are investing in artificial intelligence (AI) and other technologies that will facilitate their entry into other industries.

The so-called unicorns—private companies whose value exceeds \$1 billion—are playing the same game. According to CB Insights, these companies are active in more than 20 industries today. In fact, the median value of unicorns in financial services, such as Lufax and Stripe, is larger than the median value of consumer internet unicorns.

## A Concentration of Wealth, Value, and Power

The concentration of digital activity in a handful of companies in two regions has tremendous spillover effects on wealth, value, and power. Most of these companies' employees are located in their home countries: 75% in the case of Google and Facebook and more than 95% in the case of Baidu, Alibaba, and Tencent, the big three Chinese online companies. These employees are well paid in terms of both salary and stock options and are much more likely to jump to another digital giant or a nearby startup than to a company outside the region.

Because insiders and venture capitalists closely hold the stock of many of these companies, wealth tends to stay within any given region. For example, when Facebook bought WhatsApp in 2014 for \$19 billion, the acquired company had 55 employees. That works out to a market value per employee of more than \$300 million. Sequoia Capital—the lone venture capitalist financier, with a stake of nearly 20%—made 50 times its investment on the deal.

From 2010 through 2016, the market cap of Alphabet, Facebook, Amazon, Microsoft, and Apple (AFAMA) increased by \$2.3 trillion. In contrast, the value of the 28 non-AFAMA companies that make up the Dow Jones Industrial average rose \$1.7 trillion, seven times less per company than the AFAMA. In China, meanwhile, Alibaba and Tencent are among the ten most valuable companies in the world and, along with Baidu, are collectively worth nearly \$1 trillion.

The unicorns are repeating this pattern of concentration. Half of all unicorns are in the US, and nearly two-thirds of the 148 US

unicorns are based in California. China has more than twice as many unicorns as Europe (69 and 33, respectively), and the Chinese companies have much higher average valuations. What's more, Silicon Valley has often scooped up the promising digital startups that Europe has produced—Skype and AI pioneer DeepMind, for example. Indeed, from 2011 through 2016, the AFAMA companies acquired 53 promising European technology companies. In many cases, as with Skype, the size of the European operation shrank after the acquisition.

## A New Colonial Era?

The current state of affairs is reminiscent of the European colonial era prior to World War I, though the actors have swapped roles. Now, the US is exerting global power instead of European superpowers, and digital China—a rising challenger focused mostly on its domestic market—is playing the role of the US. Meanwhile, India, rather than being pursued by France and Great Britain, is now the object of attention of both the US and China.

The parallels between the historical and digital colonial eras do not stop there. Data is the raw material that is extracted from today's digital colonies and converted elsewhere into value and wealth. Tax optimization strategies allow very little of those riches to return to the countries from which the data originated. Furthermore, as other imperial powers have done in earlier times, the US attracts talent from these countries. Foreign-born employees occupy more than half of Silicon Valley's science, technology, engineering, and math jobs, for example.

## Anticipating and Shaping the Future

Colonial history suggests that countries eventually want both political and economic sovereignty. In other words, the current pattern does not necessarily represent a blueprint for the future as digital technology invades traditional industries. Companies and countries still have agency and the ability to shape their own destiny.

Many individual companies are already taking action. European car makers, for example, are investing heavily in digital activities, while financial institutions explore blockchain and other disruptive technologies. In industries without immediate existential threats, however, the effort is less focused. Many companies have been content to appoint a chief digital officer who plays a vague and often peripheral role. All companies must double down on their digital strategies and activities—including the creation of ecosystems and other forward-looking alliances.

As AI and other technologies take hold, countries will almost certainly face job losses. But if their governments have spent time preparing for the creation phase of Schumpeter's cycle, then these countries can eventually benefit from rejuvenation and job generation. During the transition from destruction to creation, governments should be working closely with entrepreneurs and traditional companies both to ease hardships for displaced workers through ongoing vocational training and to encourage the development of local digital ecosystems.

But even with those steps, there is more to do at a macroeconomic level. The three questions posed earlier help to expose potential scenarios that could reshape the playing field. (We will return to each topic in subsequent publications.)

**Will governments build digital walls?** Many countries believe that they have a legitimate interest in receiving remuneration from digital giants for their local activities. For example, the Estonian presidency of the European Union is pushing for a new way to tax digital giants, and the EU fined Google \$2.7 billion in June 2017 for favoring its comparison-shopping tool in search results.

These steps, however, can easily cross over into protectionism. The Information Technology Industry Council has identified at least 22 laws in 13 European countries that regulate the localization of data. More broadly, other studies have found nearly

300 regulations in 95 countries. And the numbers grow each year. In Germany, telecom providers are required to store metadata within Germany for set periods of time.

While these measures are often enacted in the name of privacy and security, they can also create digital borders that inhibit economic activity. A 2014 study by the European Center for International Political Economy discovered that recently enacted or proposed barriers could reduce GDP modestly in India (0.1%) and more substantially in other markets, such as the EU (0.4%) and Vietnam (1.7%).

**Will other nations develop local champions and innovation hubs?** Many have tried but few have succeeded in developing substantial innovation hubs. Perhaps the most notable exception is the success of Israel's Yozma (Hebrew for "initiative"), a \$100 million venture capital fund that was initially state owned but is now privately run.

AnnaLee Saxenian, Michael Porter, and others have identified a mix of raw ingredients—such as great schools, venture capitalists, strong talent pools, job mobility, and a motive—that encourage entrepreneurs to come together and take risks. Governments should double down on approaches that encourage this entrepreneurship and local ownership. For example, governments could make it easier for companies to choose to stay independent rather than to be acquired. These policies could help create unicorns and, eventually, digital leaders. If Europe could produce more companies such as Spotify to serve as role models, for instance, then other entrepreneurial executives may be less likely to sell early.

Governments could also work with the private sector to reduce "e-friction"—resistance by forces that prevent countries from developing strong digital economies. Countries with low e-friction scores have internet economies that, as a share of overall GDP, are twice as large as countries with high scores. The forces include infrastructure, such as access and internet speeds; skilled labor; online payment systems; data security; and government policy. Of course,

in the absence of other policy changes, a push to reduce e-friction could solidify the hold of US digital giants in these countries.

Efforts to create a unified digital market in Europe and elsewhere also make sense. Meetic, the French dating site, offers a case study in the difficulties of managing across digital borders. The company was created three years earlier than its US counterpart, Match.com. But, unlike that company, Meetic struggled with the varying regulations and consumer behaviors of 15 European countries. Match.com eventually bought out the company.

**Will China's digital giants expand overseas?** Digital giants in China have both the scale and the expertise to expand overseas but have not done so aggressively to date. With just 52% online penetration, the country still has untapped potential. But they could also achieve growth by going abroad. By partnering with subscale companies in other markets, Chinese giants could help balance the global competitive environment now under the sway of US giants.

Some Chinese digital giants have already gone overseas. These companies have often partnered with local businesses, merging their partners' intimate knowledge of the local market with their own strong technology. Two collaborations in India embody this approach: Tencent's investment in Hike Messenger and Alibaba's investment in, and partnership with, Paytm. The Alibaba partnership helped Paytm become the third-largest global mobile payment platform in less than two years.

This model could work elsewhere, too. China's digital giants already understand the needs and behaviors of consumers—at all socioeconomic levels—back home. They also know how to develop innovative business models, fill unmet needs both in B2C and B2B, and work with partners.

By being willing to collaborate with overseas partners, Chinese companies could also offer a welcome alternative to the US one-size-fits-all approach. This type of alliance could be especially powerful if the EU

and other regional economic organizations work with their counterparts in China to grant companies access to the Chinese market and its ecosystem of digital innovation.

China has a long way to go to play this role. Alibaba's share of overseas-to-total revenue is higher than that of either Baidu or Tencent—and it's only 11%. The company, however, is aiming to achieve half of its gross merchandise value from overseas sales by 2025.

Time has become a wasting asset in many markets, as the US way of online life continues to spread quickly. In bandwidth-rich South Korea, for example, Google has supplanted Naver, a local company, in the past six years as the leading search engine. And Facebook and Instagram are making inroads against long-entrenched local social-media outlets. Other markets—including India, Southeast and Central Asia, the Middle East, and Africa—remain relatively open, as do most traditional industries.

**D**URING THIS NEW era, the role and strategy of the US will be pivotal. Because the US currently benefits from the status quo, it does not seemingly have an interest in giving other nations the ability to nurture their digital economies. But that view is short sighted. A conversation between

Walt Mossberg (a former columnist for the *Wall Street Journal*) and a leading technology CEO is instructive: “You only have to dial back the greed by 5% for people to like you 100% more.” It's not in the long-term interest of US companies to be vilified overseas any more than it is in the interest of countries to raise digital barriers.

Companies and countries, including the US and China, have the opportunity to define a future that distributes value, wealth, and innovation more broadly. That future depends on a collective recognition that the rewards of digital creation should be spread beyond the arenas of online searches, social media, and e-commerce. It took several decades after the close of the European colonial era to reach global equilibrium—and it was a bumpy road for the trade of physical goods. As the pace of the new era accelerates, so should the digital journey. Let's also hope that policymakers and executives remember the words of Alexis de Tocqueville: “When the past no longer illuminates the future, the spirit walks in darkness.”

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