



Chinese digi-tech politics: Steering growth, spurring innovation, and reinforcing control

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RECOMMENDATIONS

- Stay up to date on China's evolving digi-tech politics and capacities.
- Promote Norwegian and joint European digi-tech interests amid the enhanced China-US rivalry.
- Realize the scope of Chinese digi-tech exports when working with development partners, and support digital security based on local situations and terms.
- Stay invested in multilateral bodies where digi-tech standards are discussed.
- Maintain active policies for addressing the increasingly difficult balance between promoting open economies, digital security, constructive alliances, digitalization in the global south, and human rights principles.

China is a growing digital technology (digi-tech) power. In some regards, China is already a digitalization champion, with digital payments, shopping and media platforms, and multifunction apps having been widely used in Chinese society for many years. It is within digi-tech that we find several of China's foremost globally recognized brands, some of which have invested and gained leading positions in many countries and international markets, especially within network construction and mobile phone sales. In many developing countries, Chinese digi-tech is no doubt contributing to realizing UN Sustainable Development Goals.

In other digi-tech domains, such as the production of sophisticated semiconductors (chips), operating systems, and groundbreaking research, China has several shortcomings but is investing heavily in building capacity. Its growing middle class, moreover, presents strong incentives for foreign

digi-tech actors to stay in China, despite facing increasingly restrictive regulations. Chinese authorities have, in the last few years, introduced a wide scope of regulations aimed at relaxing the domineering position of digi-tech giants, strengthening consumer protection, and reinforcing state and Chinese Communist Party control. Nevertheless, facilitating digi-tech growth and innovation remains a top political priority with a clear ambition for the country to become a self-sufficient and leading digi-tech power.

Internationally, China’s digi-tech growth is stirring concern regarding digital security and the safeguarding of individual freedoms. Digi-tech is at the heart of the major power rivalry playing out between China and the USA. In this brief, we study the key drivers and main implications of Chinese digi-tech politics while also considering Norwegian digi-tech interests.

Two clarifications: First, we use digi-tech, instead of the broader term information and communications technology, to emphasize the digital nature of the products and activities we discuss. Second, digi-tech capacities are vital for the advancement of many military weapon systems, considerations of which require other types of data that we do not study in this project or brief.

Becoming a digi-tech leader

2 China has been building digi-tech capacity for many years. Some growth has been stimulated by mandated knowledge transfers between international investors and Chinese enterprises. However, many of China’s largest and most innovative digi-tech companies started small, founded by private entrepreneurs and talents. Internationally, it is a common assumption that many Chinese digi-tech successes are an effect of authoritarian restrictions keeping foreign competitors away. There is some truth to this, as many international giants, including Google, Facebook, Twitter, and recently LinkedIn and Yahoo, have all stopped, or significantly reduced, their China operations due to censorship, internet blocking, and general tightening of restrictions and compliance rules. However, such explanations greatly undermine the innovative and commercial skills demonstrated by Chinese digi-tech entrepreneurs.

Dividing digi-tech into four business sectors (listed in the table), we consider a selection of China’s largest digi-tech companies.

Besides being very large, these companies diverge along many characteristics. Some are already internationally leading brands—like Huawei, Lenovo, Xiaomi, and Tencent—known for considerable technical or commercial innovation. None of these are state-owned. Notably, Huawei is the largest provider of digital network infrastructure in many countries, not least in the developing world, where digi-tech resources are also included in Chinese lending, credit, and aid packaging. Both Huawei and Xiaomi have, for years, been among the world’s top-selling mobile phone brands. Other companies in the table are associated with considerable internationalization potential but still cater mainly to the domestic market. These include Alibaba, Tencent, and NetEase. Several of these have scaled up their foreign investments, effectively widening their global networks and operations. Some companies in the list produce a lot of digi-tech goods but trail the advancements of international competitors. This is the case within the critical components category, where many companies are state-owned.

Looking beyond commercial domains, research and space activities are generally good indications of digi-tech capacity. China’s position is mixed but evolving. Chinese institutions are within the research frontier of some digi-tech fields, including supercomputing and artificial intelligence, and China’s satellite navigation system, BeiDou, has achieved global reach and is continuously upgrading. In other digi-tech areas, the Chinese still face substantial shortcomings but authorities, research institutions and commercial companies are pushing to mend gaps. Indicatively, digitalization, technological self-reliance, and investment in research and education are top priorities in China’s new Five-year Plan, adopted in spring 2021. Sophisticated chips and operating systems are among the digi-tech ingredients for which Chinese producers have long relied on imports, which are now affected by US trade sanctions. This is impairing Chinese businesses but is also energizing the state-led mobilization to make China a stronger and independently sustainable digi-tech power. Finally, the digital traffic in and out of China is facilitated by an expanding network of Chinese satellites and cables, enabling relative national control over global digital data flows.

| Networks | Devices | Platforms - apps | Critical components |
|---------------|----------------|------------------|------------------------------|
| Huawei | Lenovo | JD.com | China Electronics |
| China Mobile | Legend Holding | Alibaba | China Electronics Technology |
| China Telecom | Xiaomi | Tencent | Semiconductor Manufacturing |
| China Unicom | Hikvision | Suning.com | International |
| China Tower | TCL | Baidu | Will Semiconductor |
| ZTE | BOE Tech Group | NetEase | |

Table: Examples of Large Chinese Digi-Tech Companies.

Selection based on Fortune 2021 Global 500, Forbes 2019 Top 100 Digital Companies, and Forbes 2021 Global 2000.

Growth bonanza and regulatory storm

By several measures, the success of many Chinese digi-tech companies is outstanding. Although not necessarily moving the most advanced technological frontiers, many companies have demonstrated phenomenal capacity to adapt and commercialize technology. Huawei, with its networks and phones, Alibaba, with its shopping and financial service platforms, Tencent with its communication and service super app, WeChat, and mobile producer Xiaomi, with its app packed phones, are examples of companies and products that have kept innovating, upgrading, and spreading. Notably, many Chinese digi-tech giants have ventured across several digi-tech-related businesses. These include media and entertainment, banking and fin-tech, digital shopping and payment, and automotive and smart device industries typically associated with the Internet of Things.

A key factor in the development of several digi-tech giants is the information they gather about customers and third-party providers of goods and services. This is incredibly valuable in a society where standard credit systems are still weak. In addition to selling attractive products, these digi-tech giants can document the payment records of customers and the authenticity of sellers. Relatedly, Chinese authorities have engaged some of the digi-tech giants in developing scoring apps that may be used in the national social credit system, which has been under development for some years. However, the rapid expansion of digi-tech businesses, especially among giant companies, has also provoked strong reactions from smaller competitors and central authorities alike. Consequently, in the last couple of years, Chinese digi-tech has been swept by a regulatory storm.

International media focused intensively on the faith of Alibaba and its founder Jack Ma, which, in late 2020, experienced direct intervention from central regulators shortly before the planned listing of its Ant Group on the Shanghai and Hong Kong stock exchanges. Many linked this turn of events to Ma having angered political leaders with critical comments about financial regulations in China. Although Ma's outspokenness may have contributed to the decision, in hindsight, this episode very much fits into a widening pattern of stricter regulations that target digi-tech, especially, but some of which also apply to businesses more generally.

Companies operating in the Chinese digi-tech markets are accustomed to navigating restrictions concerning media content and local storing and handling of data. Still, most did not foresee the whirlwind of regulations that have been introduced in the last couple of years. Companies have been instructed to reduce their domineering market positions by allowing smaller actors to operate on their platforms, on better terms, and by restructuring their businesses into separate and

smaller operations. The rules concerning the storage and use of personal information have become even stricter. Authorities are demanding both regulatory and technical changes to entertainment services, particularly gaming apps, so that users, particularly adolescents, reduce screen time and avoid developing addictions. Finally, government agencies are cracking down against virtual private network services and have passed a general ban against cryptocurrency transactions. Combined, such regulations are no doubt affecting the growth of many digi-tech companies, at least in the short term. However, many in China have been calling for updated digi-tech governance, and some of the debated issues point to societal concerns and regulatory processes recognized in other countries too, including in Europe and the USA.

Rights, risks, and rivalries

Although rolling out stricter regulations and reinforcing state control, Chinese politicians very much want the country's digi-tech capacities to grow and for more entrepreneurs and innovators to succeed. Remember, digitalization, self-reliance, and advancement in research remain top priorities in the new Five-year Plan. Arguably, it is this combination of ambitious capacity building and enduring authoritarian control that spurs much of the controversy surrounding Chinese digi-tech internationally. We observe this concerning several policy areas.

First, digi-tech adds new dimensions to debates over individual civil and political rights. Digi-tech provides more opportunities for sophisticated surveillance and censorship. Many observers have expressed dystopian fear when looking at China's development of a national social credit system, where digitized data is used to score companies, citizens, government entities, and other actors' behavior. However, as China's digi-tech capacities and exports grow, more concerns are raised over what is happening outside the country, in organizations where China promotes digi-tech interests, and in places where the use of Chinese digi-tech products spread. When Chinese digi-tech, comprising censorship or surveillance enabling functions, like facial recognition and word detection systems, is exported, it may be used for public goods as well as for political control purposes. This creates dilemmas for development actors, who recognize that Chinese digi-tech will effectively contribute to spurring digitalization in the poor and least developed countries where it is sorely needed, but also worry about safeguarding individual freedoms and human rights. Such dilemmas are not typically flagged by Chinese digi-tech providers and must be addressed by someone else.

Second, digi-tech may facilitate opportunities for intelligence gathering, hacking, and hostile cyber operations conducted or facilitated by foreign states and criminal actors. Digital security is a growing

concern in most countries, and China is enhancing its capacity to both protect against and launch attacks, as indicated by several hacking operations linked to Chinese environments reported in recent years. If trade with digi-tech resources allows foreign states access to digital systems, or to learn how they work, it creates more digital vulnerabilities. However, specifying actual and verifiable digital security risks is tricky, as actions may not be traceable, and questions concerning the potential exploitation of technical components often remain contested. This is illustrated by discussions, in many countries, on whether to contract Huawei to build 5G networks. Digi-tech and digital security issues are clearly not only about technicalities but are intertwined with political considerations and relations.

Third, and building on the previous points, the political significance of digi-tech is probably nowhere as clear as in the budding rivalry between China and the USA. Previous and current US administrations have put digi-tech at the front and center of bilateral disputes with China and have drilled it into security discussions with NATO allies and partners. Digi-tech is surely both a driver and a measure of economic and geopolitical competition and rivalry. Under Trump's presidency, the US blacklisted several Chinese companies, allegedly having strong ties to the military or Communist Party leadership, from trade and investment involving US digi-tech. Relatedly, US representatives have lobbied intensively against the use of Chinese digi-tech in other countries too, particularly related to 5G networks. Although the Biden administration has limited the scope of some sanctions, an overall restrictive grip around digi-tech is very much in place and is expected to tighten rather than ease in coming years. This has implications for international relations between countries, companies, and organizations, the extent and disruptive effect of which are difficult to foresee but should not be underrated.

Responding to Chinese digi-tech politics

The continuing growth of China, the expansion and

increasing sophistication of digi-tech resources, and the evolving China-US rivalry are among the foremost influential issues of our time. Combined, they present a basket of political dilemmas that all countries must consider. Seen from Norway, a relatively small state with sizable international aspirations, there is no single or simple response to Chinese digi-tech politics. Navigating a balance between upholding liberal economic norms, strengthening digital security, maintaining defense alliances, facilitating digitalization in the global south, and safeguarding information freedoms and rights will never be straightforward or easy. A good starting point for any good policy is assessing the facts as they appear.

The reality is that China is a leading provider of digi-tech resources, especially in the developing world, where it is also a leading partner for trade, lending, and investment. Notably, digitalization is a profiled feature within China's Belt and Road Initiative. China's overall importance for international development is a realization that has proven slow to sink in among many world leaders. We should expect more noise as that recognition spreads. While the prospects for Chinese digi-tech growth in the US appear bleak, they remain uncertain in Europe and other NATO-affiliated markets. But Chinese digi-tech resources are likely to keep gaining footholds in places less concerned with US sanctions, where they help spur economic growth, but may also be utilized by suppressive regimes.

Among cooperating states in Europe, we are likely to see a progressively distinct European approach to digi-tech governance, still principled and often conflictual on issues concerning China, but also more cooperative and less confrontational or protectionist than American policies. As to China's digi-tech politics, we expect to see a combination of restricting regulations and incentives aimed at keeping innovation and overall digi-tech capacities growing, for which the domestic market remains a strong driver and a balancing force.

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