

Chinese Academy of
Cyberspace Studies

China Internet Development Report 2018

Blue Book of World Internet Conference

Translated by Peng Ping



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Beijing, China

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Foreword

Today, information technology is changing day by day, represented by digitalization, networking, and intelligence, contributing to the development of economy and society, national governance systems and governance capacity, and the people's increasing demand for a better life. Thanks to this historic opportunity, China's Internet has entered the fast lane of development. Especially, the country has worked out a road of Internet development and governance with Chinese characteristics and has contributed to the world Internet development.

Against this backdrop, we have compiled *China Internet Development Report 2018* (referred to as "the *Report*" hereinafter), in which the compiler tries to study and analyze in detail China's Internet development by summarizing what the country has done, analyzing the status quo, and looking into the future, so that the *Report* will be the best choice for people to know about the past, present, and future of China's Internet. To this end, the compiler tries to:

1. We take General Secretary Xi Jinping's Strategic Thoughts on Cyber Power as the Theoretical Basis and Guideline for the Compilation

Since the 18th National Congress of the Communist Party of China (CPC), General Secretary Xi Jinping, a visionary man, has put forward a series of new ideas, thoughts, and strategies based on China's Internet development and governance, systematically illustrating the important theoretical and practical issues concerning cybersecurity and informatization and thus forming rich, profound, scientific, and systematic strategic thoughts on cyber power. All these ideas, thoughts, and strategies are an important part of Xi's Thought on Socialism with Chinese Characteristics for a New Era. In particular, in the speech he made at the National Cybersecurity and Information Technology Conference, based on the general situation of the CPC and the country, he scientifically analyzed the trend and mission

of information reform, systematically illustrated his thoughts on cyber power, and answered a series of theoretical and practical questions about cyber affairs. It is the guideline for making China into a cyber power. We take Xi Jinping's strategic thoughts on cyber power as the spirit and main thread running through the *Report* to interpret Xi's ideas, philosophy, and thoughts so that the readers can accurately grasp the significance of his thoughts.

2. We Take the Practice of China's Internet Development as the Research and Reality Basis

Guided by Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era, especially his strategic thoughts on cyber power, the country has achieved a lot in Internet development and governance. The cyberspace is becoming clearer day by day, the national cybersecurity defense is being consolidated, informatization's role in boosting the economic and social development is becoming prominent, China's power of discourse and influence in cyberspace keeps increasing and the Chinese people are having more sense of gain in sharing the benefits of Internet development. All these vivid achievements provide broad space and rich resources for the compilation of the *Report*. While illustrating the status quo of China's Internet development, and new practice and achievements in particular, the compiler tries to show China's experience in Internet governance.

3. We Take Comprehensiveness, Accuracy, and Objectivity as the Aim and Principle for the Compilation

In the process of compilation, we always follow the principle of making everything internationalized, authoritative, accurate, theoretical, and generalized, to show the Chinese academic circle's understanding of and thought on the Internet development. We try to make the Report comprehensive by doing an all-field and panoramic research on China's network infrastructure, information technology, digital economy, e-governance, network media, cybersecurity and Internet law construction, and international cyberspace governance; we try to make all the data accurate, authoritative, and up-to-date by collecting data from governmental agencies, industries, and research institutes; we try to make our assessment objective by setting up China's Internet Development Index on the basis of the mature index systems from both home and abroad, making assessment on cybersecurity and informatization in 31 provinces (autonomous region and municipalities directly under the Central Government) from 6 dimensions to comprehensively and accurately reflect the Internet development level throughout the country.

It is our sincere hope that the *Report* will provide a new drive for China's Internet development, and will be used as a new window for the world to know about China's Internet development, and a new reference for the world Internet development.

Beijing, China
October 2018

China Academy of Cyberspace

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Overview

Today, information technology (IT) represented by the Internet is developing day by day. Digitalization, network transformation, and intelligent development are playing an increasingly important role in boosting economic and social development and modernization of the national governance system and capability, and in meeting the people's ever-growing needs for a better life. Facing the historic opportunities brought about by IT development, the Communist Party of China (CPC) and the Chinese Government both attach importance to Internet development, application, and governance, coordinating major issues of cybersecurity and informatization in politics, economy, culture, society, and military affairs. They have made important decisions and launched important measures to promote cyberspace administration, which has witnessed historic achievements.

The year 2018 is the opening year of comprehensively carrying out the spirit of the 19th National Congress of CPC, the 40th anniversary of the country's adoption of the reform and opening-up policy, and the decisive and transitional year of building a moderately prosperous society in all respects and of implementing the 13th Five-Year Plan. It is also an important year for China's cyberspace administration to enter a new era, in which it will meet new challenges and see new progress. In March 2018, the Central Leading Group for Cyber Affairs was renamed the Central Committee for Cyber Affairs in accordance with *Decision on Deepening Reform of Party and State Institutions*. It is in charge of cyber affairs, including top design, overall layout, coordination, supervision, and implementation of policies. Thus, the responsibilities of the Office of Cyber Security has been optimized. From April 20th to 21st, the National Cyber Affairs Conference was held in Beijing. General Secretary Xi Jinping delivered an important speech, in which, he, by starting from the overall situation of the CPC and the country, analyzed the trend and mission of the IT revolution, systematically illustrated the important thoughts on cyber power and answered a series of major theoretical and practical questions. His speech provides guidance and fundamental principles for building China's strength in cyberspace. Guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and especially his thoughts on cyber power, the Internet of China, in accordance with the strategic layout made at the 19th National

Congress of the Communist Party of China, is seeing rapid development. Great achievements have been made in cyber strength, digital development, and smart society, contributing to and providing a guarantee for the development of the CPC and the country.

I. General Secretary Xi Jinping's Thoughts on Cyber Power Provide Guidance and Blueprint for China's Cyber Administration Development

Since the 18th National Congress of the Communist Party of China (CPC), General Secretary Xi Jinping, a visionary man, has put forward a series of new ideas, thoughts, and strategies based on China's practice of Internet governance. All of them are systematic illustrations on important theoretical and practical issues concerning cybersecurity and informatization, covering cyber content building, cyber security, informatization, and international cyber governance, and guiding China's cyber administration in witnessing historic achievements and revolution. An Internet governance path with Chinese characteristics and Xi Jinping's thoughts on cyber power have been formed.

The important speech General Secretary Xi Jinping delivered at the National Cyber Affairs Conference gives systematic illustrations of his thoughts on cyber power. He made explicit the important position of cyber administration in the general layout of the CPC and national development and the strategic goal and tasks of and principles for building China's strength in cyberspace, and put forward proposals on international Internet governance, along with basic methods for cyber administration. The thoughts conform to the trend of the world Internet development, revealing historic opportunities and challenges brought about by the information revolution to China's economic and social development. A series of fundamental and strategic questions are answered concerning the direction and overall situation of the country's cyber development. Therefore, they are the guidelines for building China's strength in cyberspace.

According to Xi Jinping, we should construct a concentric circle of online and offline communities and reach a better consensus to consolidate the ideological foundation for forging ahead in unity. Cyberspace is the common home of humankind and the new space for people's learning, working, and life and a new platform for obtaining public services. Making it better, cleaner, and safer accords with the interests of the people. To enhance Internet governance and content building requires the improvement of comprehensive cyber governance capability, and the CPC committees' leadership, governmental administration, businesses' accountability, social supervision, and Internet users' self-disciplining, as well as the combination of economic, legal, and technical means. We must enhance positive publicity, adhering to the right directions of politics, public opinions, and values, and uniting all the Internet users with Xi Jinping Thought on Socialism with

Chinese Characteristics for a New Era and the spirit of the 19th National Congress of the Communist Party of China. We should carry out education on ideals and convictions, deepen the publicity of Socialism with Chinese Characteristics for a New Era and the China Dream and cultivate and practise the core socialist values. We should administrate, open, and visit the websites in accordance with laws, enhance the accountability of Internet businesses and self-disciplining of the Internet industry, give full play to Internet users' initiative, and mobilize all sectors to participate in Internet governance.

Xi points out that without cybersecurity there would be no national security, stable economy, and society, or people's guaranteed interests. There are an increasing number of threats to and risks in cyber security, which are penetrating into politics, economy, culture, society, ecosystem, and national defense. Anything slight in cybersecurity may affect the whole situation, since it is a significant issue concerning national security and development as well as the people's interest. To safeguard cybersecurity requires the right outlook on it and the realization of the fact that it is something as a whole rather than separate, something dynamic rather than static, something open rather than closed, something relative rather than absolute, and something shared rather than isolated. We must improve our capacity in cybersecurity protection as soon as possible, and strengthen information infrastructure security protection, and construction of the mechanism, means, and platforms for cybersecurity information coordination. We must build the capacity in guiding cybersecurity emergency response, develop cybersecurity industries, and prevent any hazards in advance. Insisting that the cybersecurity should serve and rely on the people, we will implement the accountability mechanism, combat cyber-attack, online fraud, and infringement on citizens' privacy, and carry out popularization of cybersecurity knowledge and skills.

According to Xi Jinping, core technologies are the pillar of a nation. Therefore, we must make up our mind, keep our perseverance, and find the focus to speed up breakthroughs in core technologies of information. Network information technology is an area of technical innovation with the highest input in R&D, the most active innovation, the most extensive application, and the most remarkable radiating significance. It is the height of competition in global technical innovation. So we must realize that China has to catch up with leading countries in core technology breakthroughs. As the "life-gate" for a country's development, core Internet technologies being controlled by others will be a hazard for us. To speed up breakthroughs in them is the fundamental solution to cybersecurity and the requirement of cyber administration development. We should construct the industrial system involving technology, industry, and policy-making while improving the institution and market favorable to innovation and entrepreneurship and reinforcing intellectual property protection and vitalizing innovation. We should provide green channels for the combination of basic research and technical innovation, trying to promote team breakthroughs of applied technologies through basic research.

According to General Secretary Xi Jinping, the cyber and information technology sector represents the new productivity and new development direction, so it is expected to take one step ahead in practising the new development philosophy.

With the accelerated penetration of technical innovation into all areas of economy and society, informatization is producing fundamental and comprehensive influence on the operation of economy and society as well as on production and lifestyles, becoming a driving force for economic transformation and upgrading and high-quality development. To practise the new philosophy of development requires the cultivation of new driving forces through informatization and promotion of new development through new driving forces. We should strengthen network infrastructure construction and in-depth information resource integration, and open up the “main artery” of information for economic and social development. We should develop digital economy, accelerate digital industrialization, drive innovation through IT, and produce new business forms and new modes. We should promote industrial digitalization, transform traditional industries from all dimensions, all angles, and all chains, and speed up digitalization, networking, and intelligent development of manufacturing, agriculture, and service industries, so that we can improve the total factor productivity and data can play an amplifying, superimposing, and multiplying role in the economic development.

Xi points out that to promote the global Internet governance is the general trend conforming to the people’s will. In the information era, the Internet is making the international community into a community of shared future and giving rise to new challenges to national sovereignty, security, and development interests. How to govern the Internet and make good use of it is a common problem faced with the international community. Xi has proposed “four principles” for promoting the global Internet governance system reform and “five proposals” for constructing a community of shared future in cyberspace, both having won more and more international recognitions. Internet cyber governance should involve all sides and all parties, including governments, international organizations, Internet businesses, technical communities, civil organizations, and individual citizens. We should take the security of all countries into consideration, expand cooperation, and innovate the ways of cooperation to jointly promote development, protect security, and participate in governance and share achievements. In particular, we should take the construction of the Belt and Road as a good opportunity to strengthen developing countries’ cooperation in network infrastructure construction, digital economy, and cyber security, so that we can build the Digital Silk Road of the 21st century.

General Secretary Xi Jinping points out that the Internet development must be oriented to benefit the people, started from and aimed for the people’s well-being, so that they will have more sense of gain, happiness, and safety in enjoying the benefits of Internet development. Since its access to the Internet, China has been taking the benefit of its population of 1.3 billion as the most important and trying to enable all the people to enjoy the Internet development achievements. Thanks to the people’s participation and support, the Internet of the country has witnessed permanent healthy development and prosperity; owing to their increasing expectation and demand, the Internet of China has got its direction and goal of development. To make the Internet better serve the people, we should speed up the popularization of informatized services and reduce the use cost, so that all can afford to use the Internet and then have the chance to use it and use it well. We should adopt the