Build an Innovative Community of Shared Ecosystem and Foster New Drivers of Economic Growth

WeChat Economic and Social Impact Report 2017
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Scale up connection and create an innovative digital ecosystem

Wexin and WeChat consolidated monthly active users exceeded one billion. A total of 580,000 mini programs were put online, embracing 170 million active users. Enterprises registered at WeChat at Work surpassed 1.5 million with 30 million active users.

Uphold the mission and foster positive energy

In 2017, 97.6% of users believed that WeChat has fostered positive energy.

Stimulate information consumption and unleash domestic demand potential

In 2017, WeChat–driven information consumption reached RMB 209.7 billion, an average annual growth of over 30% from 2014 onwards, representing 4.7% of China’s total information consumption.

Increase traffic data consumption and facilitate faster and more affordable Internet connection

WeChat accounted for 34% of the total data traffic of users drove RMB 191.1 billion of traffic data consumption, a 2.2–fold growth from the 2014 level.

Extend consumption contexts and fuel consumption upgrading

WeChat drove RMB 333.9 billion traditional consumption, covering travel, food, shopping, hotel, tourism and etc, by integrating Internet, artificial intelligence, and big data technologies with the real economy.
Create job opportunities and support entrepreneurship and employment

WeChat contributed the employment of 20.3 million persons in 2017, more than doubled as compared with 2014, of which 4.96 million persons were employed directly and 15.34 million indirectly.

Encourage "going-out" to accelerate overseas deployment

WeChat Pay cross-border business has landed 20 overseas countries and regions and supported 12 foreign currencies for settling a wide range of services, such as shopping, hotel and food.

Popularize digital dividend to create a better life

Of users over 60 years of age, one-third spent more than 80% of the traffic on WeChat and nearly half on WeChat Pay. The average usage rate of WeChat Pay in major contexts exceeded 35%, about 20 percentage points higher as compared with 2016. The rate reached 76% and 53% respectively when it comes to supermarkets & convenience stores and food & beverage consumption.

Integrate with the real economy and facilitate industrial upgrading

Relying on a sound community of share digital ecosystem, WeChat integrates deeply with key industries, such as transportation, medical care, education, finance, e-commerce, retail, and manufacturing, to improve their operational efficiency and reduce operational costs.

Innovate governance measures to serve well-being services

88% of government agencies believed that WeChat strengthens policy publicity; 70.2% considered it beneficial for communication with the people; 69% thought that WeChat functions in public services benefiting the people. More than 27% of users have followed the official accounts of city services and even more prefer WeChat for access to government services, education and medical services. WeChat City Services encompass 9,930 specific services covering 362 cities in 31 provinces.
Support precision poverty alleviation and drive rural revitalization

A total of 5,559 villages in 16 provinces have signed onto WeCounty with 1.63 million of real-name registered villagers, presenting 1.5 million times of interactions.

Jointly safeguard cybersecurity to ensure a clean cyberspace

In 2017, the WeChat Rumor Rebuttal Center punished about 180,000 official accounts and published more than 40 lists of rumors on moments, which were cumulatively disseminated over 45 million times on the entire platform.

Muster charity resources to promote social welfare

In 2017, 40.3% of users donated for charity through WeChat, nearly a two-fold increase compared with 2015.
01

NEW ERA OF
WECHAT DIGITAL
ECONOMY
The 19th National Congress of the Communist Party of China (CPC) presented the guideline and blueprint for the development of socialism with Chinese characteristics for the new era. It proposed to build a cyber power, a digital China and a smart society by promoting further integration of the Internet, big data and artificial intelligence with the real economy, developing a digital economy and a sharing economy, and fostering new growth points and drivers.

China is entering a fast lane of digital economy development, said General Secretary Xi Jinping in his congratulatory message to the 4th World Internet Conference. As a new economic format, the digital economy is rising into an important driver of economic transformation and upgrading and the commanding height of the new round of global industrial competition. The Party and the state attach high importance to digital economy and continue to scale up policy support for its development. In 2016, China’s digital economy attained RMB 22.6 trillion, an increase of 18% year on year. It represented 30.3% of the gross domestic product (GDP) and contributed to 69.9% of the GDP growth, providing core driving force for economic growth.

WeChat, a national application with over one billion subscribers, integrates a wealth of services and contents for the large user base and exerts growing economic and social impact while jointly building the new era of digital economy.

1.1 Greatly stimulate information consumption

Information consumption serves as the source of force driving the rapid development of digital economy. Increasingly driven by information consumption, new models and formats, such as mobile payment and sharing economy, have emerged to lead the world trends. They give rise to an economic field of most innovation, fastest growth and widest radiation, and play an important role in stimulating domestic demand, supporting employment and guiding industrial upgrading.

In 2017, China’s information consumption totaled RMB 4.5 trillion, accounting for 10% of the final consumption expenditure. It is expected to expand to RMB 6 trillion in 2020 at an average annual rate of over 11%, driving RMB 15 trillion output in related fields.
Over the past seven years, the WeChat digital ecology has embraced innovative development and magnified information consumption through extensive connection with various targets and in-depth integration with various industries.

Estimates show that WeChat-driven direct information consumption reached RMB 209.7 billion in 2017, equivalent to 4.7% of China's total information consumption over the same period, and the average annual growth from 2014 onwards surpassed 30%, 12.8 percentage points higher than that of China's information consumption.

WeChat has injected an important impetus to data consumption. With the rapid penetration of smart phones and the continuous improvement of networking capabilities, digital content has rapidly fueled data consumption.

In 2017, the traffic data used via WeChat accounted for 34% of the total data traffic of users, which was obviously higher than that of similar foreign products. Statistics show that Facebook contributes 14.1% of the comprehensive data traffic in North America and 23.6% in Latin America.
WeChat has introduced innovative models for data business in recent years through in-depth cooperation with telecom operators. A series of initiatives launched under the framework, including customized data packages like Tencent King Card and diverse directed data packages, not only increase data consumption, but also facilitate faster and more affordable Internet connection.

It is estimated that WeChat-driven traffic data consumption registered RMB 191.1 billion in 2017, representing a 2.2-fold growth or average annual growth of over 30% from the 2014 level.

**2 Fuel traditional consumption**

In addition to information consumption, WeChat supports travel, food, shopping, hotel, tourism and other consumption contexts. By promoting the integration of the internet, artificial intelligence and big data with the real economy, the platform helps to upgrade traditional consumption and improves consumer experience featuring higher efficiency and lower cost.

It is estimated that in 2017, WeChat-driven traditional consumption, covering home services, entertainment, travel, attained RMB 333.9 billion, an increase of 22.2% year on year.
1.2 Support employment

Employment is pivotal to people's wellbeing. Relying on platform effect, WeChat creates employment opportunities indirectly through win-win cooperation in the ecosystem while continuing to provide more jobs directly. WeChat serves employment and entrepreneurship in new forms that encourage individuals to connect with the market through online platforms to realize their market value. This unleashes the enormous potential of entrepreneurship and innovation and drives the employment in the whole society.

Estimates show that WeChat contributed the employment of 20.3 million persons in 2017, more than doubled as compared with 2014, of which 4.96 million persons were employed directly and 15.34 million indirectly.

Mini Programs and WeChat at Work are powerful to drive employment growth. With the introduction of Mini Programs, the WeChat digital ecosystem has maintained its expansion by embracing fast-growing third-party developers.

According to estimates, Mini Programs created 1.04 million jobs in 2017, including 380,000 direct jobs. At the same time, WeChat at Work grew rapidly as more than 1.5 million enterprises from over 50 industries have been registered, providing more than 5.5 million jobs.
1.3 Improve digital ecosystem

Persisting in building strength in connection, WeChat continues to improve its services, such as Official Accounts, Mini Programs, WeChat Pay and WeChat at Work, and has evolved from a social communication tool to a digital ecosystem that connects people, services, organizations and devices.

WeChat connects a large number of subscribers and basically achieves full coverage of the age-appropriate population. The consolidated monthly active users of Wexin and WeChat exceeded one billion during the 2018 Spring Festival. It implies basic full coverage of age-appropriate population as the Chinese population aged from 15 to 64 approximately number one billion, according to China Statistical Yearbook 2017.

1 WeChat Pay: Full coverage of major smart life contexts

WeChat Pay touches industrial segments and supports all the major contexts of smart life. It provides various solutions for all walks of life through technological innovation and innovation, covering major contexts of smart life, such as retail, campus, food, travel and city.

Upholding an open ecosystem, WeChat Pay upgrades product capabilities, grows together with partners, and provides more energy and support to service providers. At present, the WeChat Pay ecosystem already encompasses more than 30,000 service providers covering more than 300 cities and serving millions of offline stores.

2 Mini Programs: Great innovation

Mini Programs were launched in 2017 to facilitate access to more services of diverse forms, realizing touchable application, exit after use, and low threshold for enterprises. By the end of December 2017, a total of 580,000 mini programs were put online, involving one million developers and 23 million third-party platforms and embracing 170 million daily active users.

Mini programs turn increasingly important through continuous development of new features. According to the survey, 64.4% of subscribers considered mini programs more convenient and 65.1% thought that mini programs can partially replace the corresponding applications on mobile phones. Mini programs contributed to over 10% of new subscriptions for 57.3% of the developers and helped to sales revenue for 72.8% and to reduce costs for 90%.
3 WeChat at Work: Enterprise-specific connector

WeChat at Work interoperates with WeChat to create an enterprise-specific connector that provides small and medium-sized enterprises (SMEs) and organizations with rich office applications and powerful management capabilities. In 2017, WeChat at Work integrated corporate official accounts in the 2.0 version, and gathered partners by opening WeChat’s native capabilities to build a win-win ecosystem. At the end of December 2017, WeChat at Work has over 1.5 million registered enterprises and 30 million active users from 50 industries.

4 Official Accounts: Efficient and low-cost operating platform

Since launch in July 2012, WeChat Official Accounts has developed into a mainstream online and offline interactive way for individual original content sharing, corporate marketing interaction and government policy advocacy. Currently, this platform brings together over 10 million official accounts and 200,000 third-party developers.

Official Accounts gathers individual providers of we-media information services and promotes high-quality content production. Social platforms represented by WeChat have become a major new channel for dissemination through media. Official Accounts offers a low-cost efficient communication tool for individual providers of we-media information services. According to the survey, over half of existing official accounts are operated by individuals. Official accounts are used as we-media by growing individual providers of information services. In recent years, individual we-media have gradually transformed into team-based, branded corporate operations with more diverse profit models.

Official Accounts helps micro, small and medium-sized enterprises to improve operating efficiency and trim operational costs. As Official Accounts positively responds to the needs of micro, small and medium-sized enterprises, a growing number of companies create official accounts and scale up capital investment in operation and development. According to the survey, 61.3% of operators have invested in secondary development, 16 percentage points higher compared with 2015. Official Accounts fuels the growth of enterprises by increasing income, improving efficiency, and cutting costs. Over 32% of operators have sold products via official accounts, about 40% offered customer services or public services, and nearly 34% cut costs by more than 30%. Up to 82.9% of operators were satisfied with the WeChat Official Accounts platform and more than 50% very willing to recommend to other organizations.
1.4 Accelerate overseas market layout

Relying on official accounts and cross-border payment capabilities, WeChat provides users with better payment experience for cross-border consumption and becomes a new way of connecting users with overseas businesses. According to the survey, more than 80% of overseas users have used WeChat Pay services and 90% believed that WeChat is more convenient for payments abroad.

In 2017, WeChat Pay continues to spread in Japan, Britain, France and Germany, as well as Hong Kong, forming the global layout of payment services. Currently, WeChat Pay cross-border business has landed 20 overseas countries and regions including Hong Kong, Macao, Taiwan, Japan and Korea, and supported 12 foreign currencies for settling a wide range of services, such as shopping, hotel and food. In Japan, for example, the number of brands and stores accessed by WeChat Pay in 2017 multiplied by 20 and 35 times respectively. The peak value of single-day transaction via WeChat Pay in the second half increased by 60 times from the level at the beginning of the year. WeChat Pay accounted for over 20% of payment services in typical brands.
02
WECHAT IMPACT MECHANISM
The Internet ecosystem evolves towards mutualistic win–win with the digitalization of economy and society. The Internet is accelerating the in-depth integration with various economic and social sectors. The expansion from online to offline has given rise to new models, services and formats that generate the primary engine for the development of digital economy, such as O2O commerce and sharing economy. The strategy of competition among Internet companies shifts from the "narrow platform" of zero-sum game to the "broad platform" of mutualistic win–win. This will continue to propel the vertical integration and cross-border integration of industries and open up new space for their development.

WeChat forms a community of shared digital ecosystem that features mutualistic win–win by forging extensive connections among people, services, organizations and devices. WeChat has been committed to "Connect Everything" since inception in 2011. It has continued to provide innovative features and capabilities and launched such features and platforms as Official Accounts, WeChat Pay, Mini Programs, WeChat at Work, Search, and Browse.

The WeChat community of shared digital ecosystem consists of the Base Layer and the Connection Layer. The Base Layer outputs tools and capabilities, such as artificial intelligence, communication chat and WeChat Pay.
The Connection Layer, the core of the WeChat ecosystem, connects different objects, including people, services, organizations, and devices through rich features, such as Subscription Accounts, Service Accounts, WeChat at Work, and Mini Programs. WeChat continues to expand connectivity by opening interface to more partners, and in turn, partners beef up WeChat in connectivity, contents and contexts. The mutualistic win-win situation leads to a community of shared digital ecosystem.

WeChat fosters new drivers of digital economy, making positive contribution to the overall digitization. WeChat exerts economic and social impact mainly by building a digital life for users, facilitating industrial transformation and upgrading, assisting the government in wellbeing services, and fulfilling corporate social responsibility.
BUILD A DIGITAL LIFE FOR USERS
In the new era of socialism with Chinese characteristics, the principal social contradiction in China has transformed into the contradiction between unbalanced and inadequate development and the people's ever-growing needs for a better life. Since digital technology serves as the means and media for all kinds of interactive activities of mankind, the level of digitization will greatly influence their better life experience. WeChat contributes to popularizing digital dividend, advocating sharing philosophy, and promoting smart life, so that science and technology can truly serve for a better life.

As high as 93.8% of users in the survey believed that WeChat has brought convenience to life.

3.1 Popularize digital dividend

WeChat has deeply penetrated into the daily lives of people. In 2017, it was the most frequently used application on mobile phones among 87.6% of users and used more than one hour a day among 81.5% of users.

The age distribution of WeChat users gradually extends to both ends. The user structure becomes more balanced as silver-haired users (over 60) and young users (under 18) take up increasing proportions year by year.
WeChat helps to bridge age-related digital divide by meeting the communication and daily needs of more silver-haired people. According to the survey, 33.3% of silver-haired users spent more than 80% of data traffic on WeChat, ranking first among all age groups.

WeChat Pay benefits more population by enabling users to enjoy the dividends of digital technology. In 2017, WeChat Pay users increased significantly, noticeably young people and silver-haired people. According to the survey, the WeChat Pay penetration rate approached 100% among users under 18 years of age and registered 46.7% among users over 60 years of age, an increase of 13% compared to 2015.
3.2 Promote smart life

WeChat continues to open its core capabilities, including WeChat Pay, Official Accounts, and Mini Programs, and collaborates with partners to provide users with a complete set of smart life solutions covering different contexts. The achievements facilitate a convenient and quality life, echoing with the people’s pursuit and longing for a better life.

Bring convenience to life in various contexts. Based on the advantage of fast and convenient payment, WeChat Pay quickly penetrates into every aspect of life and production in typical life contexts, including online & offline shopping, food & beverage consumption, and travel. At the same time, WeChat Pay strengthens collaboration with partners to gradually develop third-party services, such as bike sharing, performance and sports. In 2017, the average usage rate of WeChat Pay in major contexts exceeded 35%, nearly 20 percentage points higher as compared with 2016. The rate reached 76% and 53% when it comes to supermarkets & convenience stores and food & beverage consumption respectively. About 40% of users pay over RMB 500 monthly, 17 percentage points higher than the 2016 level.

![Usage of WeChat Pay in various life contexts](Source: CAICT)

Official Accounts offers an important means of access to information and services. Users can subscribe to official accounts of different types and fields according to their preferences and needs, so as to obtain the required information at the first time. Among them, corporate official accounts support various online convenient services, such as preferential information, take-away and shopping. There was a general rise in the subscription of official accounts in 2017, with the subscription rate of official accounts on news and hobbies approaching 40 percent.
Guide healthy habits and hobbies for higher-quality life. With social thinking, WeChat encourages users to read and run by means of rankings, likes and comments, and guides users to find friends of same hobbies and enhance mutual understanding. The conversion of reading time to reading coin and the donation of steps run for public service further stimulate the enthusiasm of users. In 2017, WeRead and WeRun users have doubled compared to two years ago. 24.2% of WeRun users paid more attention to health and 57.5% of WeRead users spent more time on reading.

3.3 Deepen sharing philosophy

Efficient and low-cost connection is crucial to the sharing economy. WeChat, as a connector of the mobile Internet era, has played an important role in promoting the development of sharing economy and deepening the philosophy of sharing life.
**Encourage knowledge sharing.** WeChat serves as a content output platform for many we-media. Users can obtain knowledge and ask questions through subscribed official accounts and paid answers. In addition, WeChat Pay and WeChat Reward provide convenient methods that effectively simplify the traditional tedious content payment, cultivating the habit of content payments among users.

**Boost the sharing economy.** Multiple sharing economy platforms, such as bike sharing, house leasing, and sharing platforms, have been integrated into WeChat to provide services as the latter brings new traffic to its partners based on its huge user advantage. According to the survey, 34.6% of users have hailed taxi and 11.9% ridden bikes via WeChat.

In addition, users can share vouchers and cards in a variety of ways, such as Group Chat and Moments, setting off the normal of "red packet before take-away". The idea of sharing has further filtered into the minds of people in the process of sharing cards, vouchers, red packets and discount information.
04
FACILITATE INDUSTRIAL TRANSFORMATION AND UPGRADE
China's economy has been transitioning from a phase of rapid growth to a stage of high-quality development. This is a pivotal stage for transforming the growth model, improving the economic structure, and fostering new drivers of growth. Based on a well-established community of shared digital ecosystem, WeChat integrates deeply with key industries, such as transportation, medical care, education, finance, e-commerce, retail, and manufacturing. This facilitates industrial transformation and upgrading by improving operational efficiency and trimming operational costs.

4.1 Build smart transportation

Recognizing the role of transportation industry in driving the national economy, the 19th CPC National Congress explicitly proposed the grand goal of building strength in transportation. The historical transformation to a strong transportation sector should start from technological innovation.

Introduce innovative technologies and models and create an ecosystem of smart transportation. Based on massive user groups and self-developed capabilities, WeChat has produced an ecosystem of smart transportation through innovation in technologies and models. While meeting the demand of users, smart transportation improves the efficiency and quality of public transportation with a view to efficient, green and intelligent public transportation. According to the survey, 50.6% of users have used the WeChat features on transportation.

In terms of intercity travel, Railway 12306 has access to WeChat Pay and Official Accounts and Mini Programs have been introduced to enable users to check ticket information and receive ticket notifications.
In terms of city transportation, the mini program Tencent Ride Code has been launched and innovative technologies that support payments between offline parties applied. This shortens the time spent on buying tickets and thereby greatly improves transportation efficiency and experience.

In terms of community transportation, third-party operators such as Mobike and OfO, are integrated, so that users can unlock bike through WeChat for green and low-carbon transportation.

As to driving, the mini program ETC Assistant has been developed, which significantly improves highway traffic efficiency by creating a closed loop of online application, real-name authentication, WeChat Pay access, online activation, password-free payment, smart pass, and e-invoice.

Case: The Bus Steward mini program makes travel more convenient and efficient

Bus Steward, a partner of the China Road Transport Association, was among the first to launch its mini program for passenger transportation, covering stations of 13 cities in Jiangsu Province. The mini program enables users to purchase ticket or even check in by scanning QR code without downloading the application. This bids farewell to the queuing troubles, making the travel more convenient and efficient.

By the end of 2017, the Bus Steward mini program has served 11 million person-times, offering smart travel options for passengers in 1,315 stations.
**4.2 Develop smart healthcare**

Health is essential to the all-round development of people, and healthcare is an issue of importance that practically affects the health of people. WeChat integrates healthcare services and transforms all aspects of medical diagnosis and treatment by means of the mobile Internet. It helps hospitals improve the patient experience and efficiency of medical services, optimize the allocation of medical resources, and reduce operational costs, which will contribute to a more quality and efficient medical service system.

Optimize medical procedures to solve the problem of "three longs and one short" (long time spent on queuing, waiting for consultation and taking drugs while short time on consultation). Hospitals build a WeChat-based mobile medical service system that covers the whole process of medical services, such as appointed registration, medical card top-up, appointed medical treatment, medical information query, and medical expense payment. The system streamlines medical procedures, improves medical experience and efficiency, and reduces the time costs of patients, or in other words, provides an effective solution to the problem of "three longs and one short" in traditional medical services. On average, the WeChat usage rate has reached 40% in medical institutions that support WeChat-based smart services.

Introduce e-card and one-click check for social security. WeChat Social Security E-card provides users with queue-free conveniences at one click, such as enquiry, payment, and search of available local online services. WeChat Pay also supports medical insurance payments without changing the habits of most users, which greatly improves medical treatment efficiency for patients. Pilot experience shows that the feature shortens the waiting time by 43.6 minutes on average. By the end of 2017, WeChat medical insurance payments has been networked with the social security departments of 27 provinces and cities.

Put online commercial health insurance and simplify claims. WeChat smart commercial health insurance platform enables "fast claims" through WeChat because patients are no longer required to provide paper proof materials such as medical bills and medical records. This greatly improves the efficiency of collaboration between hospitals and insurance companies.
Case: The 301 Hospital official account opens a green channel of medical care for patients

The 301 Hospital, a top-level medical institution in China, has about 4.6 million outpatient and emergency visits annually and receives 18,000 people daily on average, of which more than half are not local. Given the large number of patients and strong demand for non-local registration, it is particularly important to increase the efficiency and accuracy of registration.

Now, patients can directly make an appointment for registration through the WeChat official account "PLA General Hospital/301 Hospital". The approach frees patients from leg-work and effectively alleviates the congestion of queue for registration at the hospital. In addition, the official account gives an introduction to department features and expert specialty to help patients with reasonable registration.

Through WeChat official accounts, Beijing users covered by medical insurance can make appointments for registration within ten days; those not covered by medical insurance and those not from local places can complete payments online, in addition to registration. The system will automatically generate electronic barcodes. By scanning such codes, patients directly wait for consultation in the corresponding departments, which indirectly saves time and costs for non-local patients.
4.3 Promote smart education

Great changes have taken place in the way of learning and teaching in the field of education as science and technology advance rapidly. General Secretary Xi Jinping called for education reform and innovation in response to the development of information technology. WeChat pushes forward the integration of information technology with education, which leads to innovative models of education supply and wider access to quality educational resources. This contributes to the formation of a networked personalized e-learning system and a learning environment where everyone can learn anywhere and anytime.

Propel education informationization. Tencent WeSchool, based on the WeChat platform, provide schools with mobile integrated solutions that upgrade teaching management, optimize campus services, and enrich campus life in the contexts of application according to the needs of schools, teachers, students, and parents.

Drive innovation in education supply. WeChat has changed the traditional way of supply to enable more convenient access to educational resources, in which WeChat Official Accounts serves as a major channel. According to the survey, culture, sports and education accounted for 11.3% of the official accounts and 3.9% of the mini programs.

Diversify the access to educational services for in-situ learning. According to the survey, 8.6% of users have conducted online learning or bought educational products, such as books, training programs and lectures, through WeChat channels, including Group Chat, Live Broadcast Platform, and Official Accounts. WeChat-based knowledge dissemination has, to a certain extent, eased the regional disparity of educational resources. Data show that users in central and western regions make more frequent use of WeChat for learning purpose. Among them, Ningxia topped with a percentage of 23.5%, followed by Hunan (19.4%), and Guangxi, Guizhou and Heilongjiang represented about 14% each.

Case: The School of Software & Microelectronics of Peking University launches the WeChat Campus Card

The WeChat Campus Card launched by the School of Software and Microelectronics of Peking University integrates lightweight and convenient applications.
such as classroom interaction and teaching management. With this, teachers can interact in real time in the classroom and carry out the teaching work easily; students can be informed about academic status in a timely manner. Nearly 70% of teachers and students have activated the card through online card claim.

The WeChat Campus Card continues to introduce more practical services for such campus contexts as entrance management, class attendance, canteens, and dormitories in different periods, including back-to-school season, exam season, and graduation season. For example, the intelligent system for pre-class attendance management, which integrates multiple identification technologies (scanning/card attendance, photo taking and face recognition) and information technologies (big data and artificial intelligence) improves the authenticity and effectiveness of class attendance and provides data basis and early warning support for student management. Laboratory and dormitory access control systems increase facilitation for students to independently conduct experiments and select and return dormitories, while improving safety management and personalized management of laboratories and dormitories. The entrance management system realizes online mobile intelligent management of admission notice issuance, entrance sign-up, and dormitory selection. The payment system has also been transformed to support mobile payment for food, water, electricity, and other consumption in the campus.

4.4 Expand inclusive finance

Inclusive finance is designed to allow ordinary people to enjoy more financial services, so as to better support the development of real economy. WeChat, with focus on payment, continuously extends Internet financial services to innovative contexts. It provides users with more diversified and quality services and provides third-party operators with efficient and convenient access and accurate data.
Make full use of the platform to actively expand financial services. Easy Money (lingqiantong) removes barriers between payment and wealth management. With the characteristics of low threshold and risk, easy operation, flexibility and simplicity, the feature inspires users to wealth management and broadens the channels for users in the long tail. Wealth (licaitong) provides a variety of wealth management products, including currency funds, index funds, and insurance, to meet the diverse needs of users according to their financial foundations and risk preferences.

Improve credit rating system and risk management & control capacity. Based on bank credit information and WeChat, QQ, and other Internet data, big data and machine learning are employed to analyze user data in multiple dimensions, such as shopping and social networking, so as to improve the credit rating system and move risks forward. Cash Loan (weilidai) adopts a credit-based official white list for WeChat and QQ users to judge the willingness and ability to repay the loan in advance, so as to better meet the micro-credit demand of credit-worthy users.

Introduce an innovative business model with customized access to banks. The WeChat platform support most of the services available at physical branches of banks, such as Bank of China and China Merchants, including balance inquiry, bill check, card repayment, and business consultation. In this way, banks are free from time and place constraints to provide users with more efficient and convenient financial services, which effectively reduces the cost of access to financial services.

4.5 Cultivate social e-commerce

An increasing number of e-commerce companies are diverting their attention to social e-commerce, in view of the continued rise in centralized e-commerce traffic and customer acquisition costs. Social e-commerce will lead the new era of e-commerce by meeting people’s shopping needs featuring context, fragmentation, and acquaintance-based trust.

Nurture social e-commerce to boost innovative e-commerce development. In conformity to changes in people’s shopping needs, WeChat leverages the advantages in content, technology and users to innovate e-commerce operating models to help e-commerce platforms gain more traffic. Mini Programs further taps the WeChat-end e-commerce market with a large number of users. As of September 2017, e-commerce businesses ranked second among mini programs in views. By early 2018, more than 95% of e-commerce platforms have been networked with mini programs.
Provide personalized e-commerce services to stimulate online and offline consumption. By fostering online-offline connection, WeChat meets the personalized needs and improves the shopping experience of users. The contextual consumption model raises the frequency of consumption. Public data show that in September 2017, the number of WeChat online and offline payments increased by 23% and 280% year on year respectively. At the same time, an innovative marketing method launched by WeChat, Cash Off, helps to increase product exposure and form fissile marketing closed-loop.

Case: Mogujie nails down social e-commerce

Mogujie publishes a lot of high-quality content that conforms to the tone of brands on its official account, and inserts a mini program card of the corresponding products therein. Users can jump directly to the mini program for order, making shopping easier. The convenient access and shopping guide quickly adds users of the mini program.

The daily average conversion rate in the mini program doubles that of its application. The way of sharing among users leads to exponential traffic growth. Group Buying contributed more than 70% of new purchasers in the mini program, and Cash Off brought 500,000 new users within 12 days from its launch, of which 18% purchased later.
As consumption structure upgrades and consumption habits change constantly, the traditional retail model becomes unable to meet people's requirements for retail experience and quality, due to deficiencies in data circulation, context penetration, and information synchronization. Upholding the people-centered philosophy, WeChat leverages mobile Internet and new technologies, such as big data and artificial intelligence, to help stores with digital upgrades that optimize product structure, increase sales rates, reduce management costs, and enhance user experience, thus contributing to better performance of retail companies.

Enable digital connection of retail companies. WeChat connects all kinds of contexts through payments by means of vouchers and cards, official accounts, location-based services (LBS), and QR codes. It helps retailers to build capacities in membership services, code-based purchases, and home services, and assists offline stores in data and intelligent management. This makes possible the digital connections across contexts among consumers, products, and businesses.

Smooth precision marketing of retail companies. WeChat continues to introduce new features. Among them, WeChat Pay and Mini Programs link online and offline shopping information; WeChat Pay and Membership link membership status with real transaction records, creating a more sophisticated membership system; WeChat Pay and Products identify the brand products of businesses and the actual purchase behaviors and consumption dynamics of users. Based on this, WeChat applies big data to user and membership analysis, which will help businesses to get closer to consumers and develop precision marketing and customized services.

Facilitate smart operation of retail companies. Mini Programs forges a linkage among WeChat services, including payments, vouchers and cards, official accounts, code-based purchase, and sharing, and realizes the smart connection between services and "people, goods and markets" in the retail industry. WeChat at Work helps retail companies to connect information systems, upstream and downstream companies, and customers. With this, companies can conduct real-time data collection and multi-channel analysis and forecasting that will contribute to smoothing information flows, promoting transactions and deals, and improving operational efficiency.
Case: Mini Programs raises Yonghui Superstores user digitization rate to over 87%

The Yonghui Life mini program integrates code-based purchases, payments, and online orders in stores and at home to provide small-scale convenient consumer experience. Users can directly order through the "Delivery to Home" service in the mini program, and receive the products ordered in 30 minutes or more.

The official account that connects offline stores and users transforms the purely business–customer relationship to brand–fan relationship. It not only sends order information to users, but also pushes more personalized and valuable information for different consumers.

With the help of the mini program, Yonghui smart retail has made initial progress from unclear customer traffic to statistically identified users. The user digitization rate rose from 30% to 87% three months after the mini program went online.
Facilitate industrial transformation and upgrading

4.7 Boost collaborative manufacturing

Manufacturing is the main battlefield for the development of digital economy. For China, the largest manufacturer in the world, manufacturing transformation and upgrading is crucial to securing a leading position in the era of digital economy. WeChat devotes itself to the integration of mobile Internet and manufacturing by providing basic spare parts and connection capabilities. Subscription Accounts, Service Accounts, WeChat at Work, and Mini Programs serve as tools of production to connect the information networks, sales networks, and supply chains of enterprises, injecting an impetus to the transformation and upgrading of traditional manufacturing.

Gather users and realize information exchange and data flow between companies and users. Targeting at specific business contexts of manufacturing industry, WeChat at Work opens application programming interfaces (APIs) and more third-party application platforms, including identify authentication, contact management, customer relationship management (CRM), application access, and message access. These moves involving mobile office, team building, and objective relations will enable efficient and diversified office experience, link supply chain management, order management and work collaboration, and facilitate mobile, streamlined, and digital sales management.

Provide direct data access for intelligent hardware, reducing corporate R&D burden. By way of WeChat, intelligent hardware realizes interaction with users and information flow, which greatly reduces the access difficulty and R&D burden of hardware manufacturers, especially small and micro-sized manufacturers. Enterprises can collect usage data and feedback through official accounts, and advance product improvement and production planning based on user needs and habits, rendering effective collaboration.
05
ASSIST THE GOVERNMENT IN WELLBEING SERVICES
Social conflicts and problems are intertwined under the new normal. The government and administrators need to serve, in approach and content aspects, in a data-based and network-friendly way that more conforms to popular habits and social trends. By providing ways of connection, WeChat helps the government to build up the capacity of public services, including rendering government services, supporting precision poverty alleviation, and jointly safeguarding cybersecurity.

5.1 Render government services

WeChat leverages its digital ecosystem advantage to actively promote the development of smart cities. It has built a WeChat platform for government services—WeChat City Services, to push forward "Internet + government".

WeChat City Services have rapidly expanded to cover over 400 million users. In 2017, the cumulative users of WeChat City Services numbered 4.2 billion, an increase of 91.3% from the 2016 level, of which over 70 million came from Guangdong Province, ranking first in the country. The city services encompass 9,930 specific services in 30 categories, involving public security, human resources & social security, housing provident fund, transportation, taxation, justice, education, and civil affairs. Among them, weather, public transportation, education, and refueling services have covered 362 cities in 31 provinces. The cumulative users of services concerning traffic violation, weather, human resources & social security, and utilities have surpassed 30 million.

![Figure 5-1 Cumulative users of WeChat city services from 2016 to 2017](Source: 41st Statistical Report on Internet Development in China, CNNIC)
WeChat in Government become the new media publishing government information, new platform providing public services, and new channel for government–citizen interaction. WeChat in Government provides the government with new channel for interaction with citizens, which features authority, wide coverage and strong pertinence. According to the 2017 Annual Report on Development of New Media of Shanghai Government, there were 73 government WeChat accounts of municipality-level new media, publishing 20,000 texts that were read more than 200 million times and liked by over 1.65 million users. According to the 2017 Integrated Impact Report on New Media of Tianjin Government, government WeChat accounts published 23 articles which received over 100,000 views. The overall publication and dissemination via WeChat increased by 65.8% and 48.9% year on year respectively. WeChat in Government plays a great role in innovating social management, disclosing government information disclosure, guiding public opinions, listening to public voices, and establishing a government image, which helps the government to improve service efficiency.

According to the survey, 88.1% of government agencies believed that information pushed through WeChat official accounts strengthens policy publicity, and 70.2% considered it beneficial for the communication with the people; 59.5% believed that the official accounts can guide public opinions in a timely manner and effectively respond to emergencies; 69% thought that they function in public services benefiting the people.

Case: The River Chief Office of Guangdong Province applies WeChat at Work to efficient river management

The Department of Water Resources and the River Chief Office of Guangdong Province has developed a unique approach to governance by embracing the "Internet +" philosophy. Based on WeChat's strong ecosystem, the platform "Smart River Chief in Guangdong" has been created on WeChat at Work, establishing a government service system with clearly defined responsibilities and efficient information flow. Complaints received through the official account are imported into the platform for task decomposition and transfer, and the results are fed back to the public through the official account. The practice fundamentally improves the efficiency of government work and builds a province-wide water governance circle.

Utilizing the powerful APIs of WeChat at Work, the platform "Smart River Chief in Guangdong" supports river and lake information inquiries, river patrols, business collaboration, hotspots, statistical analysis, to-do items, and instant messaging services, forming an intelligent and efficient system. In the next step,
WeChat helps ensure and improve people's wellbeing to benefit the masses. Social undertakings, such as education, medical care, elder care, and social security, are closely related to the vital interests of the people and therefore prioritized when ensuring people's wellbeing. WeChat assists in solution to the "last mile" problem by providing easier access for ordinary people to government services and education, medical care, and public transportation services, so that Internet technology achievements can benefit more people. According to the survey, over 27% of users have followed official accounts of public services, 10 percentage points higher than that of last year. Among users who have obtained educational services through WeChat, over 50% purchased educational products and programs and over 30% learnt directly. Among users who have received medical services through WeChat, 76% made appointments for registration; over 30% paid for medical expenses; and nearly 20% consulted experts online. In addition, the mini program for government services, launched in 2017, enables users to finish a variety of affairs on mobile phones.
Case: WeChat's face recognition and authentication capability provides support for government services

In order to better help various industries with "Internet +" services, WeChat develops the face recognition and authentication capability based on Tencent and WeChat's biometric technology, with reference to the trusted standards for "Internet +" identity authentication service platforms released by the Ministry of Public Security. WeChat verifies the real-name information and personal operation of users through face recognition and comparison with the public security system. The capability will be provided to qualified business partners for use in appropriate business contexts, including online government services, such as housing provident fund inquiry and tax returns, and real-name authentication required occasions, such as medical registration, train ticket purchase, passenger ticket purchase, and hotel check-in.

Since the pilot in 2017, WeChat has conducted real-name authentication for public security, courts, housing provident fund, taxation, medical care, and financial sectors. Among them, Guangzhou traffic police used WeChat's capability to rapidly complete the E-member registration and set up a mini program for handling traffic violations. The registered traffic police numbered 255,000 in 60 days from the launch, and the traffic violations of Guangzhou-registered vehicles in the country have been handled.
5.2 Support precision poverty alleviation

Issues relating to agriculture and rural areas are fundamental to China as they directly concern our country’s stability and our people’s wellbeing. The Report to the 19th CPC National Congress proposed to firmly pursue the rural revitalization strategy and demanded that we should mobilize the energies of our whole Party, our whole country, and our whole society to implement targeted poverty reduction and alleviation measures. In response to the call, WeChat leverages the WeCounty platform to popularize mobile Internet applications in rural poverty-stricken areas and help integrated villages to formulate appropriate development plans in favor of poverty alleviation.

Coordinate internal and external resources for scientific production. WeChat has extensively brought together expert resources within Tencent and beyond to provide technical guidance and assistance in crop planting and pest control. Through Moments, villagers can seek help on agricultural technology and get scientific answers from industry experts, which leaves behind farming based on favorable weather and experience. Through Official Accounts, many agricultural authorities establish touch with farmers and provide agricultural technical guidance for farmers and ocean state information for fishers.

Case: Haid Group uses WeChat at Work to improve management and achieve win-win cooperation with farmers

Haid Group is a leading enterprise with more than 4,000 business personnel in China’s feed industry. It provides feed and breeding technology services for 1.3 million farmers. Paying close attention to the general trend of "Internet + Agriculture", Haid Group has introduced WeChat at Work into management to address difficulties in individual customers and build trust of rural customers, and finally embarked on the road of digital and intelligent upgrades. As WeChat at Work provides consistent operating experience with WeChat, the 10,000-odd employees can master the tool at once, over 89% of whom choose to work on the mobile terminal, a more efficient way no longer limited to desk.

Using WeChat at Work, Haid Group provides reliable and stable feed sources and sales channels to dealers and science-based advanced aquaculture technology and treatment assistance to livestock raisers, which truly realizes the win-win cooperation between the enterprise and its customers.
Propel agricultural upgrading and regeneration capability. WeCounty caters development plan to villages and integrates packaging, publicity and promotion resources to build sound and exclusive product and village brands with good stories, thereby turning agricultural products into commodities and turning farmers into product stakeholders. Villagers can promote and sell agricultural products through WeCounty and WeStore, and the linkage between production and marketing leads blocked villages to a path to sustainable wealth. As of December 2017, a total of 5,559 villages in 16 provinces signed onto WeCounty with 1.63 million of real-name registered villagers, presenting 1.5 million times of interactions.

**Case: Shuwangzhuang Village makes innovative use of WeCounty**

The official account of Shuwangzhuang Village, Juye County, Shandong Province was created on April 18, 2017 and climbed to the top five by May 1. It makes full use of the platform features to timely update village developments and constantly promote good products. As more people get to know the village, special agricultural products, such as cherry, black-bone chicken, Gongbi painting and pressurizing tank, are well sold, increasing farmers' income.

The sophisticated bird cage made by Mr. Hou Xuewen from this village is well known. Village cadres creatively presented a live video on cage assembly on the WeCounty platform, which was watched by more than 12,000 people and...
Create a model of agricultural public welfare. Public welfare projects of agricultural products and agricultural science & technology are spread through Tencent Charity, to mobilize social decentralized resources to solve substantive issues that need addressing urgently, covering agricultural product sales, agricultural science & technology, and rural infrastructure, and further lift the rural population out of poverty.

5.3 Jointly safeguard cybersecurity

Cybersecurity threats and risks become increasingly prominent with the rapid development of new technologies and new services. It is imperative to provide more and better online content and establish a system for integrated Internet management to ensure a clean cyberspace. Attaching great importance to cybersecurity, WeChat puts user information security in the first place and has built a multi-party co-governance model to provide users and enterprises with safer and more secure services.

Optimize the security mechanism and establish a scientific and effective system for information security management. After years of technological and mechanism development, WeChat and related products and services have
made positive progress in application security and protection against cyber attack and virus, and been certified in the ISO27001:2013 standards, which are authoritative, strict, and widely accepted and applied worldwide in the field of information security.

Set up a Rumor Rebuttal Center, launch Rumor Rebuttal Assistant and Rumor Filter, and adopt a multi-pronged approach to combating rumors, including proactive interception, capability access, and knowledge dissemination. Up to present, more than 800 third-party authoritative agencies have joined the ranks to refute rumors, with total reads reaching 800 million times. They have intercepted rumors over 500 million times, published over 40 rumor lists, supported more than 1.2 million inquiries, and penalized about 180,000 official accounts. In addition, the mini program Rumor Rebuttal Assistant also discloses the latest information to refute rumors. As of December 2017, it was used by more than 19.7 million subscribers and enabled over 300,000 times daily on average and it issued a total of more than 37 million reminders.

Upgrade the Guardian Plan to combat cyber fraud and illegal industry chain on all fronts. WeChat acts as a connector to help upgrade the Guardian Plan and build a social co-governance model. It participates in the fight against cyber fraud and illegal industry chain on all fronts, so as to provide the public with a comprehensive range of cyber security protection and reduce their exposure to cybercrime. In 2017, the Guardian Plan assisted the public security authorities in cracking 160 cases of Internet crimes and arresting more than 3,800 criminal suspects. These cases involved RMB 3.2 billion in the illegal acquisition of more than 10 billion pieces of citizen information.

Case: WeChat cooperated to investigate and crack the first case of Trojans increasing traffic for WeChat official accounts

In May 2017, WeChat got involved in the action of Jiangsu Pizhou police deployed in Beijing, Shenzhen, Shandong and Nanchang to crack the first case of Trojans increasing traffic for WeChat official accounts. Multiple criminal gangs that have developed and operated Trojans have been dismantled and 22 suspects arrested. Trojans were deliberately developed with the functions of increasing readers, likes, voters, and followers of official accounts, implanted into common Android Package Kits (APKs) on the market, and then spread with repackaged APKs through multiple channels including reinstallation. BTghost was silently installed at the backdoor of APKs to create an order acceptance platform for increasing readers, and further, illegally control other mobile phones through Trojans. This generated high illegal interests given a price of RMB 20 to 30 for each 1,000 readers increased.
As there are many factors affecting cybersecurity, sharing and co-governance are needed to build a concentric circle of cybersecurity. WeChat as a platform-oriented application still urgently need improvement. According to the survey, 53.2% of users stated that WeChat performs generally in the protection of personal information security and privacy and faces potential risks of personal privacy and information security.
FULFILL CORPORATE SOCIAL RESPONSIBILITY
A larger enterprise should bear greater responsibility. In the context of economic globalization, social responsibility has become an important measure of the economic and social impact of enterprises. WeChat, a major part of the Tencent ecosystem, has been active in pursuing social responsibility and taken practical actions to give back to society, including innovating forms and synthesizing forces for public welfare, exploring and improving the legal service model of the Internet plus intellectual property, and protecting intellectual property rights (IPRs). In 2017, 97.6% of users believed that WeChat has fostered positive energy, 2.1 percentage points higher as compared with the previous year.

### 6.1 Foster positive energy

We should vigorously inspire positive energy that provides spiritual power for the realization of China Dream, said General Secretary Xi Jinping. While the state and the society are undergoing a transition in all respects, contradictions and problems that have emerged since the reform and opening-up gradually stand out, and people become more free in minds with richer and stronger Internet content communication. Bolstering cultural confidence and fostering positive energy, which is conducive to greater power of the Chinese nation to unite, will be of vital significance for developing a great socialist culture in China.

**Develop content ecosystem.** It provides more support for all kinds of accounts that uphold positive energy, including convenient channels for major publicity organs and mainstream media to disseminate positive information and guide public opinions. Meanwhile, WeChat strengthens the censoring and monitoring of user-issued content and information to help create a clear cyberspace. According to the Impact Ranking of WeChat Official Accounts of Retired Cadres of National Government Organs and Public Institutions released by the Public Opinion Monitoring Office of the People Net, most accounts have total reads stand in the ranges of 5000–10000 and 10000–100000, and "China's Veteran Cadres," "Fujian Retired Cadres," "Xi'an Public Security Retirement Office," "Liaoning Veteran Cadre University" and "Jintai Changwan" have total reads exceed 100,000 each. These official accounts have actively published the Party and the government's guidelines and policies on the work concerning veteran cadres and the perceptions and experiences of veteran cadres, which has given a boost to positive energy and cultural confidence.
6.2 Promote social welfare charity

WeChat supports charity by mustering resources and reforming models to make charity decentralized, diversified and normalized in daily life. More transparent public welfare projects and individual donations will attract more users to participate in charity. In 2017, 40.3% of users donated for charity through WeChat, which was almost twice that of 2015.

1 Muster charity resources

Connect people to charity with extensive coverage of charity information. Giving full play to its influence and platform, WeChat mobilizes stars, celebrities, corporate groups, and hundreds of millions of users to diverse public welfare projects and information. It encourages more users to engage in charity by establishing a linkage between people in need of help and people and groups that can provide help. As of 2017, WeChat opened windows for information and donations for nearly 38,000 Tencent public welfare projects, covering diseases relief, poverty relief, education, environmental protection, animal protection, and care for special groups.

Launch the Creativity Plan to build multi-stakeholder platform. Initially RMB 2 billion advertising resources have been pooled to build a platform that encompasses charitable organizations and projects, creative groups, creative advertising agencies, and the general public. The platform will inspire multiple parties to produce high-quality communication results through full interactions and to help public welfare organizations and projects to improve capabilities of displaying creative public welfare.

2 Reform charity models

Explore multiple contexts, innovative models, and new forms of charity, relying on Official Accounts and WeChat Pay. An endless stream of contextual charity, such as reading for the blind and storytelling for left-behind children, makes activities more interesting and extends donations beyond money. From August 9 to September 9, 2017, WeChat Pay and Tencent Charity launched the Charity Coin donation campaign, in which users can obtain Charity Coins through WeChat payments at offline stores and later donate them to involved public welfare projects. Including shopping and running, WeChat Charity continues to innovate forms and expand boundaries to integrate charity into lifestyle.
Protect intellectual property rights

A large number of intellectual property issues come with the gathering of massive users. By integrating the Internet with legal services, WeChat continues to explore and improve the Internet + IPR model and form a set of effective IPR protection system for copyrights and brands.

Launch an efficient intelligent protection system to resist infringement. The IPR infringement complaint system covers official accounts and personal accounts. Users can initiate online complaints in accordance with guidelines on the page, and WeChat will delete, block, or clear the infringing content after verification, and give penalty to the corresponding accounts, such as warning, restriction, ban and cancelation. The brand IPR protection platform relies on the masses of the people, and sends counterfeit product clues reported by users to the brand side. With the identification results of the brand side, WeChat will make a permanent seal on accounts selling counterfeit products, to protect the IPRs of brands.

Case: "Fun + Technology" charity boom

In the 99 Public Welfare Day of 2017, Tencent teamed up with external high-quality ecological companies and caring partners in an attempt of "Fun + Technology" contextual charity, covering catering, clothing, housing, and transportation, in addition to public donations, Tencent donations, and corporate donations as the previous year.

During the event, users can easily join the ranks and offer their love in the most common contexts, such as shopping, logistics, live broadcast, sports, second-hand transactions, and financial investment.

Innovative interactions in various fields, including shopping, logistics, recycling, circulation, sports, art, and wealth management, have broken through the boundaries of traditional charity. This makes the public more deeply aware of the close relationship between charity and life, so as to mainstream charity into the new normal of life.
Develop a proactive IPR protection strategy to support originality. The WeChat user agreement specifies the provisions on IPR protection. Authenticated official accounts shall be brought under unified management in accordance with the principles of "protection of registered trademarks" and "unique authenticated name" to achieve effective trademark protection of brands. The operators of official accounts initiatively declare the originality of their work, and the WeChat platform will automatically add the logo of "originality" after smart comparison and indicate the source when the work is forwarded, so as to effectively eliminate plagiarism and redistribution.

WeChat connects people with people and services in the era of digital economy, transforming people's lives and fostering smart lifestyles;

WeChat serves the digital economy by reshaping traditional operating models and driving innovation and upgrades based on data, information and sharing.

WeChat boosts the digital economy by integrating resources and opening capabilities. While pursuing its own development, it supports micro, small and medium-sized enterprises and creates new opportunities.

In the era of digital economy, WeChat will play a greater role in promoting quality economic and social development in response to the pursuit of a better life.
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Appendix: survey method

1. Individual users

1. Survey coverage: Mobile phone owners over 6 years of age with permanent residency in mainland China.

2. Survey time: From November to December 2017.

3. Sample size: 1,102 samples. The survey adopts stratified random sampling and calculates the sample size using the formula \( n = \frac{P(1-P)}{e^2 + \frac{P(1-P)}{N}} \). [Note]

   The margin of error is limited below 5% when the survey results have a 95% confidence level.

   [Note]: \( n \) is the sample size; \( N \) is the population size; \( e \) represents the relative sampling error, \( t \) the overall standard deviation, and \( P \) the measure of sample dispersion.


5. Sampling method: In a stratified sampling approach, users in mainland China are divided into 31 groups for independent sampling according to provinces, municipalities directly under the Central Government, and autonomous regions. Each group takes into account the users of the three major operators, namely China Mobile, China Unicom and China Telecom. The number pool is formed by extracting authority identity number plus randomly generated mantissa, and users in the number pool are randomly sampled.

2. Official accounts

1. Survey coverage: All operators of official accounts.

2. Survey time: From November to December 2017.

3. Sample size: 3,342 samples.

4. Survey method: Questionnaires are sent to companies, institutions, organizations and individuals that operate small programs to collect valid feedback.
3. Mini programs

1. Survey coverage: All operators of mini programs.
2. Survey time: From November to December 2017.
3. Sample size: 1,483 samples.
4. Survey method: Questionnaires are sent to companies, institutions, organizations and individuals that operate small programs to collect valid feedback.