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WeChat: A Global Platform?

The building at 661 Bryant Street in Palo Alto, California, was a distinctive architectural landmark featuring many tropical elements. A terra-cotta barrel-tile roof was set against a white stucco exterior and the high ceiling was topped by a circular dome. The building had served as the First Church of Christ, Scientist from 1916 until 2009. It currently housed Tencent America, a beachhead for one of China's most powerful Internet companies, whose empire included businesses as diverse as online games, chat services, and mobile payment.

In 2016, Tencent purchased the Finnish game developer Supercell, maker of *Clash of Clans*, for $8.6 billion,[1] making it the largest gaming company in the world. Tencent was also the owner of WeChat, a mobile text and messaging system that by 2017 had more than 938 million monthly active users, a number larger than the entire population of Europe.[2]

"The size of the user base doesn't tell the whole story. You need engagement too," argued Juliet Zhu, Head of Marketing at WeChat. WhatsApp, for one, had more than 1.2 billion users worldwide.[3] Facebook, WhatsApp's parent company since 2011, had over 2 billion users.[4] Yet WeChat had proven to be the most enticing. More than one-third of its users spent four hours or more per day on WeChat.[5] In contrast, users averaged 35 minutes on Facebook, 25 minutes on Snapchat, 15 minutes on Instagram, and 1 minute on Twitter.[6] How did WeChat capture so many eyeballs and such long stares from its users?

When Facebook bought WhatsApp for US$19 billion in 2014, Credit Lyonnais Securities Asia (CLSA) wrote, "If WhatsApp is worth $19B, then WeChat's worth at least $60B."[7] WeChat's parent company, Tencent, had surpassed Alibaba to become both China's and Asia's most valuable company. Its US$270 billion market capitalization put it in the same league as GE, IBM, and Intel. An early investor in Snapchat, Tencent also owned a 5% stake of Tesla, the Silicon Valley electric-vehicle maker.[8]

Behind Tencent's lofty valuation was the expectation of future growth. Could WeChat, the biggest social media platform in China and the most popular chat app among its millennials and Gen Z, accelerate its growth and break out from its home market, offering the rest of the world something that others could not?

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If Charles Darwin Looked at the Internet in China

The Beijing government had long blocked foreign websites it deemed suspicious. Widespread Internet policing and opaque censorship practices—collectively known as the Great Firewall[9]—meant Google, Twitter, YouTube, and Facebook were not accessible in China. In their place, a slew of apps that bore some early resemblance to their Western counterparts had evolved into entirely different species. Charles Darwin, the English naturalist known for his work on evolution, might have drawn parallels to an isolated continent where evolution took a very different path.

By 2013 China had more than 600 million Internet users, the most in the world. Eighty-three percent of users accessed the Internet via mobile devices and 81% via PCs. Most users used both, with the trend skewing toward mobile.[10] With an overall market penetration rate of less than 50%, the user base was expected to continue to grow 10% annually. Surveys showed that Chinese young people spent almost half their leisure time on the Internet.[11] This enormous user base turned China into the world's largest market for smartphones, e-commerce, and online games.

Unlike many other industries where Western multinationals tended to dominate the local market with superior technologies and broad product offerings, China's Internet industry was dominated by home-grown players, with their initial offerings directly imported from overseas. Baidu (China's largest search engine), Alibaba Group (China's largest e-commerce site), and Tencent (China's largest social media platform) were originally copies of Google, eBay, and ICQ, respectively. Domestic Internet companies found new ways to get consumers to pay, either by charging transaction fees or through in-app purchases, going far beyond the original models that they once emulated. Even if these applications shared the same initial ideas, they evolved quite differently.

David Wei, founder of Vision Knight Capital and former Group EVP for Alibaba's e-commerce business, explained the phenomenon:

> If you take a picture of the Walmart offline stores in China and compare it to the Walmart offline stores in the States, they are different. In China, very busy, very colorful, lots of promotional ads. In the U.S., very clean, very disciplined . . . The offline experience has mirrored the online experience.
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> When we were fighting with eBay, we listed ten things that eBay was doing in China and that we did 100% differently. For example, they charge a listing fee, we don't. The ranking orders of eBay are based on the auction base, which means the products that have been on there for the longest time will be on top. But in the retail model, you should put the freshest on top. eBay also stops people from talking to each other because it's an auction model, but in China we launched instant messenger encouraging people to talk to each other. The top-ten things eBay was doing, we completely changed in China. Their winning recipes in the U.S. actually became the poison killing their business in China.[12]

Similarly, WeChat had focused on ubiquitous connectivity, morphing what was once a stand-alone messaging platform into an indispensable mobile portal for making payments, booking doctor appointments, filing police reports, hailing taxis, accessing banking services, holding video conferences, playing games, and much more. In one official statement, WeChat said it aimed to "integrate social media, payments, and personal communication into a global platform" for China and beyond, blurring the distinction between online and offline businesses, and potentially rewriting the script for e-commerce.

Background on Tencent

Tencent (or *Teng Xun* in Chinese) was founded in 1998 by Pony Ma, Charles Chen, Daniel Xu, Zhang Zhidong, and Zeng Liqing in Shenzhen. Its first product was Open ICQ (OICQ), essentially a Chinese version of ICQ, the world's first instant messaging (IM) software designed for PCs by the Israeli company Mirabilis. ICQ was the first stand-alone IM service with centralized servers. Users who had accounts could chat, send SMS messages, or access other services. AOL acquired Mirabilis in 1998. In 2000 Tencent renamed its version QQ.

As one of the first free IM services in China, QQ quickly attracted a large number of avid users among the young, thanks to its user-friendly interface. Unlike ICQ—where all user information was stored on the user's local desktop—all QQ contact information and chat histories were saved on Tencent's servers, making it popular with cyber cafés, where visitors spent hours using public computers to chat with their friends and play online video games. Users could access their QQ chat flows from any computer, making it particularly attractive to the Chinese at a time when few of them owned their own PCs. Critically, QQ was launched before ICQ released its Chinese version, which allowed QQ to quickly become the most popular IM service in the country. The exponential growth of the user base meant that Tencent had to constantly purchase new servers, which was extremely costly for a startup. During the time the company did not have a reliable revenue stream, Ma considered selling the company, but he couldn't find a receptive buyer.

The turning point came when Tencent started selling virtual goods, drawing its inspiration from a few Korean websites where items were purchased using Q coins. Users bought tokens with real money, and then used them to buy Tencent's products and services. Tencent also added new functionality like a chatroom for simultaneous conversations, online games, and personal avatars. Thanks to the sales of virtual goods, such as weapons used in video games and online accessories like outfits and hairstyles for avatars, Tencent became profitable in its fourth year.

With additional funding in 2001 from Naspers, a multinational media group headquartered in Cape Town, South Africa, QQ launched a new online game platform called QQ Game, which turned out to be an instant hit. Emoticons like outlandish smiley faces or humorous greeting messages proved to be irresistible to young people, and sales of virtual goods climbed rapidly. Capitalizing on its large user base, Tencent grew to become the country's largest online games platform and finally achieved profitability. It went public on the Hong Kong stock exchange in June 2004.

Tencent continued to expand in every domain conceivable. Between 2005 and 2011, the company launched Q-zone (similar to MySpace), QQ Mall (similar to Amazon), Soso (a search engine), QQ.com (similar to Yahoo! as a news portal), Paipai.com (similar to eBay), Tencent Microblog (similar to Twitter), and TenPay (similar to PayPal).

In 2013, Tencent was growing at about a 50% CAGR, reaching $9.9 billion in revenue with a net profit margin of 32%. Its market capitalization reached $156 billion, almost the same as Amazon ($158 billion), close to Facebook ($198 billion), and twice that of eBay ($68 billion) as of Q3'14.[13] It was the second most valuable Internet company in China, after Alibaba. For a long while, the question that every new startup in China heard when it met with a potential venture capital investor was, "Can you succeed if Tencent decides to enter your business?"

What Is WeChat?

When Apple's iPhone ushered in a new era of the mobile Internet, CEO Pony Ma knew that he had a problem. Although QQ had a mobile application called Mobile QQ on feature phones and had since developed a version for smartphones, the user interface was far from enough. Ma noted:

> Some say that mobile Internet just means adding "mobile" in front of Internet as an adjective: Internet has been around for decades, so mobile Internet is just an extension of Internet. My feeling was that it was much more than merely an extension. It was a revolution.

Around the same time, in October 2010, Allen Zhang, then general manager of Tencent's Guangzhou research center, observed the increasing popularity of text messaging. He concluded that in the future, China would have a dominant mobile IM application that could threaten QQ, despite its undisputed reign over the existing desktop environment. He suggested to Ma that Tencent must focus on such a mobile application.

There was already an in-house development team, however. Tencent's Mobile QQ team had been working to bring out the next generation of product in the pipeline. But Ma saw the urgency and gave Zhang the green light as well as complete product development freedom to come up with an alternative competitive product.[14] Ma believed that the best strategy for an uncertain future was to unleash internal competition across multiple teams, and then let the market pick the ultimate winner. Lake Zeng, Vice General Manager of the WeChat Open Platforms Division, recalled:

> We formed a team of about 20 engineers to develop WeChat. The majority were interns and young graduates. None of them had worked on a mobile product before. We simply got ourselves textbooks and tried to learn along the way.
>
> It was an unforgettable experience. The weather in Guangzhou was pretty hot, even in winter. The young team was motivated and worked day and night nonstop. If you had walked into the room, you would have been shocked by the stench and the topless engineers who wouldn't take time to go home and take a shower.

After two months of sleepless nights, the first version of WeChat was launched simultaneously on three operating systems: Apple iOS, Google Android, and Symbian for Nokia. Unfortunately, it was not the first product of its kind on the market. Xiaomi, a mobile phone startup based in Beijing, had launched a similar application called MiChat, which was fast gaining traction. Six months after launching WeChat, the team had little market momentum.

Zhang wasted no time. He pushed his team to develop more product features to leapfrog others. Features, in Zhang's mind, were king. The first breakthrough came after the team introduced an audio call function to WeChat. Later, three additional functions—"People Nearby," "Drift Bottle," and "Shake"—were introduced. Using the GPS functionality of the mobile phone, "People Nearby" allowed users to identify others in close physical proximity. "Drift Bottle" was a game of chance that allowed users to throw a virtual bottle into the sea, and when another user anywhere in the world picked it up, the two were then connected. "Shake" utilized the accelerometer and the GPS functionality so that when one user shook their phone, it would immediately identify the closest user who happened to also shake their phone, literally at the same second. All these functions were designed to facilitate social interactions among people who lived in the midst of the anonymity of crowded urban cities. Strangers could strike up a conversation and explore the complex social setting in a socially acceptable manner.

To spur growth, WeChat also made it easy for users to import their lists of friends directly from QQ, which, as mentioned earlier, commanded about 800 million monthly active users. With the direct infusion, WeChat gained another 50 million users within the next 10 months. Later in 2012, the company introduced "Moments," a function like Facebook's Timeline. Users flocked to publish their pictures and update self-descriptions, at a time when Facebook was still banned in China. The user base continued to grow and by the end of its second year, WeChat had attracted 300 million registered user accounts. Remarkably, a quarter of these users lived outside China.

Adult Supervision?

Like many successful Internet contemporaries, WeChat prided itself on creating a compelling user experience. To Eagle Yi, director of business development for U.S. WeChat marketing, the key to success was the singular focus given to product managers along with absolute decision power. He explained:

> Product managers at WeChat have a lot of say about the features, design, and business model of products. Every product has its influencer behind the scene. Our founder, Allen, had long decided that the platform was going to be distinctively simple. It was light, with no games [for the first two years] and no advertising. I guess this was consistent with the philosophy behind other products that he had previously designed.
>
> Although Allen is now head of WeChat, he is still a product manager at heart. He even defines pixels of pictures/icons. It's nice that Tencent doesn't really get involved in the decisions about product design. It trusts Allen and his team. That gives us a lot of autonomy.

Before joining Tencent, Allen Zhang had founded Foxmail. After Tencent acquired it in 2006, he went on to develop QQ Mail, making it the most popular mail system in China. Unlike competitors, QQ Mail was light, ad-free, and easy to use. Several years after its initial rollout, the interface remained clean and uncluttered, which was rare among Chinese Internet companies. Lake Zeng (General Manager, WeChat Open Platforms Divisions) saw the simplicity of WeChat as a reflection of Zhang's direct influence:

> Allen basically lays down the ground rules around product design principles at WeChat. Every member of the team has to accept these, and we make sure that every decision that we make is consistent with these principles. Of course, we can challenge them. We have debates. But if we want change, we have to convince Allen. Allen also tries to convince us.

These comments suggested that Zhang appeared to enjoy a deep respect from many of his direct reports. But Harvey Zhou, Vice President, WeChat Infrastructure, believed that Zhang's acumen stemmed from his wealth of experience and not because of some infallible quality as a leader:

> I don't think he is a genius, but he does a lot of deep thinking. Most people read and take the face value of information, but Allen goes beyond that. When he logged into an online forum and read user feedback, he would think of the deeper implications of those quotes. He thinks about the fundamentals. Going far deeper allows him to identify the root cause of certain user behaviors and begin thinking of an elegant solution.
>
> This doesn't mean he never makes mistakes. He does. But he has been here long enough and every mistake, at least to him, is an experiment. Over time, he can really understand how things work and has been able to pull the right levers when required.

Product Development: Getting It RightBy mid-2014 WeChat had grown to more than 1,000 employees (Tencent had approximately 26,000 employees). Its processes were remarkably straightforward. Until the second half of 2014, the product development team at WeChat did not make use of requirements documents or detailed specifications. Instead the focus was on rapid prototyping and parallel development. Genie Lin, WeChat Product Director, explained that the fast iteration was like a rotating sushi bar:

> A typical product development process includes product design, UI design, product development, testing, review, and launch. By "rotating sushi bar" we mean after testing the prototype, we usually adjust the product requirements and repeat the product design cycle. We do lots of iterations before launching a product. For example, for the "Moments" function, we created 50 or so demo versions over six months. Basically, we received the demo version in the evening, tried it out and discussed improvements overnight, and then sent suggestions to the engineers and designers by the morning. So when they come in the next morning, they can start working on the improvements and we'll receive a newer version in the evening and try it out again . . .

Zhou made a similar observation:

> Western technology companies often deploy a rigid process. It is almost like a waterfall. Once a product has entered the production pipeline, it is difficult to change it anymore. It goes from general managers to product managers and then to engineers. You try to freeze user requirements and so on. Here, we need to be much more flexible. We accept to go back and start from zero at any stage. We make hard trade-offs in terms of features, not with time. Allen, as the SVP, also goes directly to the engineers and asks them to make a change. He knows exactly which team—down to the individual programmers—is in charge of which feature and goes directly to the people responsible for it.
>
> This direct communication ensures minimum information loss in the communication, and product design consistency. And it allows us to gain speed when launching a product. It also reflects Allen's holistic thinking about WeChat as an integrated product. There will never be piecemeal patchwork that distorts the original product vision. We can freely oppose his ideas but in the end, either we have to convince him or he has to convince us so that we are on the same page. There is no halfway compromise in product development.

Rather than releasing many beta versions, the WeChat team tested every function in-house before releasing it to the public. The team tried out the products extensively themselves to achieve an optimal user experience. Calling himself and other colleagues de facto "lead users/hard-core fans" of WeChat products, Lake Zeng explained:

> Allen always says we have to forget we are the designers of the product and put ourselves into the shoes of the users of our products. Only then can our intuitions be confirmed. To do that, we often use the product in the middle of the night, alone, in a complete void, as a pure new user of the product. This would allow me to notice the details that are not perfect. We also observe how other people such as colleagues and family use the product.

Occasionally this could result in long development times. The "Moments" function was tested by internal users for almost six months before it was finally released. The team hunted down bugs rather than release a product that would require version updates later. Genie Lin noted:

> I really believe if we get the product right in the first place, we shouldn't need to go back again and again to tinker with the subsequent version. All products have a limited life cycle. When the time has come, we would rather develop something from the ground up again, rather than keep pushing our old offering to its limit. That also helps simplify our back-end support.

To fuel the rapid growth of users and new product features, WeChat's back-end infrastructure was kept as lean as possible. No user chat data was stored. Data analysis on customer behavior, based on chat content, was scant. To a casual observer, WeChat's approach might seem rudimentary, but Lake Zeng saw things differently, viewing the apparent shortcomings as deliberate choices that were fundamental to WeChat's basic tenets. He explained:

> We provide the platform and the pipe for the individual users and the organizations, and we do not control the content. We do offer manual temporary chat flow storage on the cloud for users who change their mobile phone but want to save the previous chat flows. By providing only the pipe, we protect user information to the maximum.

This may also have been a pragmatic choice in China. Local regulators frequently asked companies to hand over user information for investigation. Noncompliance could have resulted in various forms of subtle coercion, the outright suspension of an operating license, or worse. In 2010, Google withdrew its business from the Chinese market after an investigation found that the company's infrastructure was possibly being attacked by the Chinese government or intelligence services.[15] Not storing user information for data mining also protected the company and its users from potential entanglement with regulators.

WeChat's product features rarely varied for different local markets. Genie Lin explained:

> While there are indeed cultural differences when it comes to user experience, we believe some basic needs are universal. People worldwide have communication and social needs, as well as privacy concerns. For example, even though technically possible, we decided not to add the functionalities of "read" or "delivered" in WeChat,[16] because we think it can add an additional burden on the receiver, who might feel the obligation to reply because the sender would know that the message had been read. Therefore, we didn't do much adaptation for overseas customers because we believe the foundation of these needs is the same.

From Instant Messenger to Multifunctional Platform

We have WeChat logon, Open Platform, the Official Account Platform, Hardware Platform, and Smart Platform open to the public. All third-party developers can get access to our services and user base through open API. By doing this, the whole Internet society and traditional industry can tailor their services to suit our user base. Meanwhile, WeChat extends their influence to every aspect of people's lives. By building an open and fair "ecosystem" we believe we can continuously bring values to users in a sustaining model.

— Ying Zhang, Vice President, WeChat Pay

Official Accounts

Beginning in late 2012, WeChat began to experiment with a set of new initiatives, using a team of 17 people. The team developed the concept of "official accounts," with the goal of targeting companies and corporations. By that point, WeChat's core messaging protocol had emerged to be distinctively lightweight, meaning it employed sparse and efficient program codes that ran quickly and did not use a lot of system resources like memory. It could provide basic services like login and user connections through its application programming interface (API), and thus could easily transform into a communications pipe for other products and services that would sit on top. As Lake Zeng explained:

> In the past, WeChat had successfully connected people, but we were not clear how companies could also leverage WeChat to connect, communicate, and make exchanges with their customers. We needed a vehicle to achieve this goal and we thought official accounts could be that vehicle.

None of the team members were entirely sure what functionality to provide, however, let alone what back-end infrastructure and data management were needed. WeChat's first official account was China Merchants Bank (CMB), which came to WeChat long before the infrastructure was fully developed. For WeChat, the project goal with CMB was simple: go wherever the customers wanted to. Lake Zeng recalled:

> At the time, our idea about official accounts was rudimentary. We just had a few demo ideas. We thought that any traditional offline companies may want to send messages to their customers to cultivate an online relationship [like a simple CRM system]. We thought they might want to send notifications to promote sales. Most of our ideas were basically "broadcasting" functions. But further conversations with CMB clarified, enriched, and refined our ideas. We were also able to test a lot of our commercial and technical hypotheses on CMB as small experiments.

The team eventually developed an application that allowed merchants to connect directly to the WeChat interface while maintaining complete control over any back-end operations (see **Exhibit 1** for a screenshot of the official account of China Merchants Bank). WeChat not only provided a user interface that many existing users were already familiar with, but also allowed merchants to create an unlimited number of new functions for customers. Lake Zeng explained:

> Banks have lots of data security IT issues and they have to keep this data on their own servers. If we wanted this to work, we had to provide an open connection. From then on, we positioned WeChat as the "connector" or the "pipe." We connect the information that is on the servers of organizations and companies with WeChat customers through our pipe.

China Southern Airlines, China's largest airline in terms of fleet size, also launched a WeChat official account to allow its users to inquire about or book flights (either by typing or using a voice recognition function). For example, if a user said, "Guangzhou to Shanghai, tomorrow," all the flight information fitting that criterion would be displayed on WeChat. Clicking on a selected flight would take the user to a server hosted by Southern China Airlines where they could perform further actions, including booking and paying for the flight. Although all the data transactions happened on the server of the airline company, users would have the impression that they were operating entirely via WeChat (see **Exhibit 2** for an information flowchart).

By October 2014, WeChat had three categories of official accounts: subscription accounts (for media and individuals), service accounts (for airlines, banks, merchants, etc.), and enterprise accounts (for corporate communication with employees). Each category had its own set of templates and examples to showcase best practices and results achieved on WeChat. By the end of 2014, 8 million users were connected with China Merchant Bank through its WeChat official account. Starbucks was one of the first Western companies to open an official account on WeChat in 2012. Beijing-based mobile startup Xiaomi reportedly sold 150,000 of its latest phone models in 10 minutes via its WeChat official account. And Mercedes-Benz sold 6,777 limited-edition Smart cars in just a few hours. See **Exhibit 3** for an example of the Trip Advisor Official Account.

WeChat Pay

WeChat wanted to take things further. As Lake Zeng observed:

> Payment was the most basic function in an ecosystem. So one of our first projects linked to "commercializing" WeChat beyond a social platform was to develop our own mobile payment system. Gaming, obviously, can help monetize services, and it has always been an important profit generator for Tencent. We had some of that, but payment services were the real key.

Technically, the payment function was structured as a simple add-on to the WeChat platform, just like an official account. It was lightweight and easily removable. After linking a bank account to their WeChat pay account, users could perform online and offline transactions. This ability to make payments using WeChat was the final link to close the commercial loop. Jared Wu, former General Manager of WeChat Pay, explained the logic behind the strategic initiative:

> In WeChat's strategy of connecting everything—hospitals, schools, shopping malls, and others—payment is a critical stage. Without the possibility to make payments, WeChat would just be an advertisement platform. It wouldn't be a complete commercial activity.
>
> At the beginning, we were not sure what kind of platform we wanted to be, open or closed. If open, how open should it be? Apple's open or Facebook's open? Once these questions were answered, the role of payments became clear.

After initial experimentation with a taxi service application (similar to the smartphone application used by Uber in the U.S. to connect drivers and passengers) and a few initiatives that involved partnering with restaurant chains to test offline payments, the real breakthrough came with its online Red Envelope campaign, which gave the team the confidence to position WeChat Pay uniquely.

During the Lunar New Year, Chinese traditionally gifted red envelopes containing money to children and young people. In January 2014 WeChat launched an electronic Red Envelope, which allowed users to send money to family and friends through WeChat or to put up a defined amount of cash that would then be distributed randomly among a specified group of friends. For instance, a user might send 3,000 yuan to 30 friends, but some would receive much more than others, "leading to grins and cringes all around."[17] It was part social networking, part gaming, and part casual gambling.

The feature went viral. Within two days, WeChat users had sent out 20 million virtual red envelopes[18] and the company had acquired 5 million WeChat Pay users. In 2015, the Red Envelope campaign was even more successful, with 1 billion red envelopes sent on Lunar New Year's Eve alone.

Following this success, Wu considered other scenarios where people could make payments. He realized that WeChat Pay's selling point was that it allowed users to perform transactions without having to add all their bank account details each time. But he realized it could be much more than that, explaining:

> Payment transactions are always embedded in social contexts. The only difference is that some are deeper social connections, some are shallower. Payment transactions between family members are deep social activities while payment transactions between merchants and buyers are shallow social activities. Vice versa, all social activities involve payment transactions at one point of time. Payment and social are interconnected. Or at a higher level, payment is actually social. Social comes before, during, and after payment.

Theoretically, by connecting people to all the services, WeChat Pay could support any payment scenario on mobile devices. Offline payments could also be made, in at least two ways. For example, in the first method, waiters in restaurants could take orders using iPads and, instead of presenting customers with a paper bill, they would present the iPad showing a QR code, which customers could scan with their smartphone and pay via WeChat Pay. The system would then generate an electronic receipt on WeChat. Hai Di Lao, a popular Chinese hotpot restaurant chain, was an early adopter of the WeChat Pay system. The second method was even simpler. It involved generating a QR code for the WeChat Pay accounts of individuals, who then presented the code to a machine (supplied by a third party), which read the code and asked the user to enter their password. The amount was then debited from the customer's WeChat Pay account. (See **Exhibit 4** for an example of a QR code reader, and **Exhibit 5** for the illustration of the two offline payment systems.)

WeChat Pay remained an underdog. Alipay still commanded 53.7% market share against Tencent's (mostly WeChat Pay's) 39.5%, according to Analysis International's 1Q'17 report.[19] But in the midst of the ongoing payment battle, China saw mobile transactions surge to $235 billion in 2016, surpassing the U.S. for the first time.

The Next Growth Frontier

In the fight for future growth, money mattered. At WeChat, financial key performance indicators (KPIs) were tracked at the department head level. Interestingly, they were not cascaded or even communicated down to the engineer level. Profitability, revenue, and cost were rarely considered by engineers. Genie Lin observed:

> We are not working *for* the data. We are working to create value for WeChat and its users. KPIs will certainly be achieved as long as you have created value for customers. We fix the KPIs among department heads, but we actually do not communicate those numbers to the engineers. So they are not aware of the KPIs officially. The only messages they receive every day are whether what they do creates value or not.

If anything, managers were more obsessed with new market opportunities, trying to extend WeChat beyond online services for big banks, major airlines, and large utility companies with a radical value proposition: to bring brick-and-mortar stores of all kinds online, giving small business proprietors a digital facelift. Jared Wu explained:

> A lot of offline small businesses do not have the necessary IT capabilities. We are able to lower the entry barrier using the WeChat platform to such an extent that we believe our impact on driving the digitization of traditional businesses is huge.

> The online payment market is quite mature. Both merchants and users have formed their habits. We could gain some market share, yet there is a ceiling. Offline and social are the real future of the mobile Internet. Although offline merchants are very fragmented and they require a lot of resources to develop, we see no ceiling in this space.

A retail flower shop provides a good example. Traditional selling did not allow the shop owner to implement any customer-relationship management, nor inform loyal customers about upcoming promotions. WeChat allowed the shop owner to open an official account on WeChat at no cost, and to benefit from free back-end content-management tools. WeChat generated a QR code for the official account, which the shop owner could expose on any visible surface in the shop. A customer could scan the QR code and become a fan, and whenever the flower shop announced promotions, a message would appear on the fan's WeChat account. The shop owner could also integrate WeChat Pays into its official account, allowing mobile payments in the shop, and use third-party analytical tools to better understand customers.

From 2012 to 2014, WeChat held hundreds of conferences and meetings with small and medium enterprises (SMEs)—from restaurants and government agencies to flower shops—to show them how their businesses could remain in closer contact with their customers and provide better services using the WeChat platform. WeChat clearly defined the boundaries of its service. Lake Zeng recalled:

> We talked to *all* the banks and airline companies in China, the government agencies as well as street restaurants. My job was to extract the fundamental needs from these different industries and decide what we wanted to offer. It became clear that we only wanted to provide the information channel infrastructure. We did not want to engage in content creation, nor help organizations or businesses manage their official account. Third-party service providers would do that.

Convincing millions of shop owners to open their own official accounts represented an enormous business development effort for WeChat. The team thus initially focused on large chain stores and set up successful examples, in the hope that smaller independent shop owners would follow.

This strategy seemed to work. By the end of 2014, WeChat had over 8 million official accounts, online and offline businesses combined. It estimated that there were about 10,000 businesses that operated only on the WeChat platform and 100,000 IT developers that offered IT services to these businesses, like helping less Internet-savvy shop owners to open their WeChat official accounts. Lake Zeng believed that WeChat had truly created a social and commercial ecosystem (see **Exhibit 6**). He explained:

> WeChat's job, at the center of this ecosystem, was to maintain the healthy development of this ecosystem and make sure that every party involved benefited from it . . . If you can build an ecosystem with a large user base connecting different parties, monetizing it is quite easy.

From the Messaging App to the Super App

Internet companies were like the fruit flies of the business world; they had short life cycles and had to evolve rapidly. There was little room for strategic mistakes, as misreading the market and failing to adapt could quickly lead to extinction. During the intervening years, the nature of the Internet had also changed.

In 1965, Intel cofounder Gordon Moore observed that the number of transistors that could be fit on an integrated circuit roughly doubled every two years.[20] Since transistor density correlated with computing power, computing power tracked it and doubled every two years. Intel delivered on that promise, and Moore's observation was immortalized as Moore's Law. Network speed grew at a similar pace.[21] In the early 2000s, wireless ran at about 5–10 kilobits per second (Kbps), dial-up modems ran at 30–56 Kbps, and the typical office local area network (LAN) ran at 10 megabits per second (Mbps). By the mid-2000s, wireless technology routinely delivered 100 Kbps through cellular networks, and a home wireless LAN with DSL or cable broadband access was at 1 or 2 Mbps. The typical wire-line LAN reached 100 Mbps. By 2017, wireless could deliver up to 5–10 Mbps, Wi-Fi up to 50–100 Mbps, and an office line could connect routinely at 1 gigabit per second.

This bandwidth growth transformed how digital content was consumed. Movie streaming wasn't practical on a home desktop machine in the early 2000s; most people needed to download the entire movie file to watch it in real time. But by the late 2000s, many could already stream movies with standard resolution to a laptop at a coffee shop. By 2017, people commonly watched high-definition videos on their smartphones using a 4G network.

Mini Programs

In January 2017, WeChat rolled out its "Mini Program," which allowed users to experience many mobile apps without having to download or install anything. (See **Exhibit 7** for a QR code that will take you to the WeChat mini program for this case.) In less than 24 hours, headlines such as "Super App WeChat Plans to Lock Out Foreign App Stores," "WeChat beats Google to the punch," and "Tencent takes on the App Store" began to circulate on the web.[22] However Juliet Zhu, Head of Marketing at WeChat, disagreed:

> We are not trying to compete with iOS and Android. You can't even find any centralized marketplace where these mini programs are ranked and distributed. It's funny people thought we were going to build it as a new app store.

Smartphone users tended to use only a handful of apps each day, despite the fact that most had dozens on their devices. Data analytics firm Localytics found that typically one in four people abandoned a new app after just one session.[23] Retaining a trial user base and enticing consumers to repeated usage turned out to be challenging. For example, despite heavy endorsement by Apple and extensive promotion by Nintendo, Super Mario Run only managed to retain the top spot in the iTunes store briefly and quickly saw its user base dwindle after a week or so.

Zhu argued that the big idea at WeChat was to help reduce the burden of downloading an app for consumers, and reduce the maintenance cost for app developers:

> If you develop an app from the ground up, you might be spending 70% or more of your effort sorting out the back-end programming, operations that end users don't see or even notice. We think developers should dedicate the majority of their efforts [to] thinking about content and services they are trying to provide to customers. Right now, it can cost an app developer up to $100,000 to build a generic iOS or Android app prototype. I think we could do better and faster for developers as an additional choice for quick deployment.

According to *Forbes*, "Like Apple's iOS app ecosystem, mini programs are developed using a propriety language: WXML and WXSS—similar to but incompatible with commonly used HTML5 and CSS."[24] By packaging common user-interface components—like swiping, jumping to next, or drop-down menus—into standard modules, developers could focus on building content.

As with any simple-to-use standard, advanced developers might scoff at these constraints, arguing that they limited creativity. Yet that was exactly the value proposition of the mini program: to lower the barrier to entry for small businesses to jumpstart their digitization strategy. Chale Chen, Product Manager from the Mini Program team, Open Platform recalled:

> We had one engineer from an FM broadcaster who decided to try to build out a mini program. He basically spent one weekend learning how to code and launch the new application the following Monday. That's exactly what we try to achieve: to tear down obstacles for entrepreneurs to launch their own services.

Like many inventions at WeChat, the development of mini programs was also driven by market feedback. Among business users of WeChat, the most popular was the subscription account where business owners sent media content such as promotional offerings or discount vouchers to end consumers. Service accounts, which provided consumers the ability to directly transact with businesses online, languished. Chen continued:

> In our previous official account setting, we built the system around conventional HTML5. Essentially, our direct API pumps data in and out. In China, however, connectivity can be unsteady at times; latency and wait times can be long. Online transactions at times may get lost because of time outs. This represents a challenge to our user experience.
>
> So a team of a dozen programmers essentially rethought how WeChat could re-architect the official account. And soon enough, the idea of the mini program emerged.

Not all mini programs got approved. Like iOS or Android, WeChat vetted the work submitted by developers. Games and live broadcasting were forbidden in mini programs. Although developers could provide services such as booking a hotel and then charge customers for them, they were not allowed to sell virtual goods like screen savers or emojis, or top up their game account. All mini programs were required to be free to access. Zhu explained:

> [The] Mini program is not born to be a monetizing vehicle. The idea is to help service providers to become more effective in serving their own customers, by making their services more accessible when the purchasing occasions naturally arise.
>
> That's also why the function of a mini program doesn't appear on one's WeChat interface until it is used the first time. We don't want to confuse our users with any new rollouts. The default user interface should be kept clean. If mini program is not something consumers use, the button has no place to show up.

On the eve of the Mini Program launch, WeChat had already gathered 1,000 apps, a number that continued to grow.

Going Global

To outsiders, WeChat was probably one of the few Chinese companies that aspired to be a global player from the outset. Beside its Silicon Valley offshoot, the English version of the app had long been available, coming to market only nine months after the launch of the Chinese version. Within two years, WeChat was offered in more than 20 different languages. In 2013, the company disclosed that it had budgeted $200 million for overseas marketing. It also signed up Lionel Messi to endorse WeChat internationally in the summer of 2013.

CEO Pony Ma had once stated publicly that WeChat was the only chance he got in his life to take his company global. The company enjoyed considerable success in Southeast Asia, yet he viewed Europe as too challenging. Consumers there were conservative; their main communication mode still relied on e-mail. Zhu also noted that the cultural barriers across country markets could be substantial:

> We hear feedback that Western clients do not want complicated functionality. They only need basic functions such as sending text and photos. Do we simply give them what they want or should we try to educate them? We believe that in terms of business model commercialization, China's mobile habits are a couple of years ahead of the many of those Western countries.

Indeed, the speed of the Chinese Internet evolution seemed to be pulling away from the rest of world, which raised the question of whether the rapid development at WeChat would hamper the readiness among Western countries to adopt the new mobile behaviors it pioneered. Zhu continued:

> We are facing a cultural divide. It goes back to the basic cultural differences in the West and in the East. In the West, work and family, as well as colleagues and friends, are clearly separated. Chinese culture is inclusive. The boundary between work and life, or colleagues and friends is vague. It's easily mixed.

Genie Lin echoed:

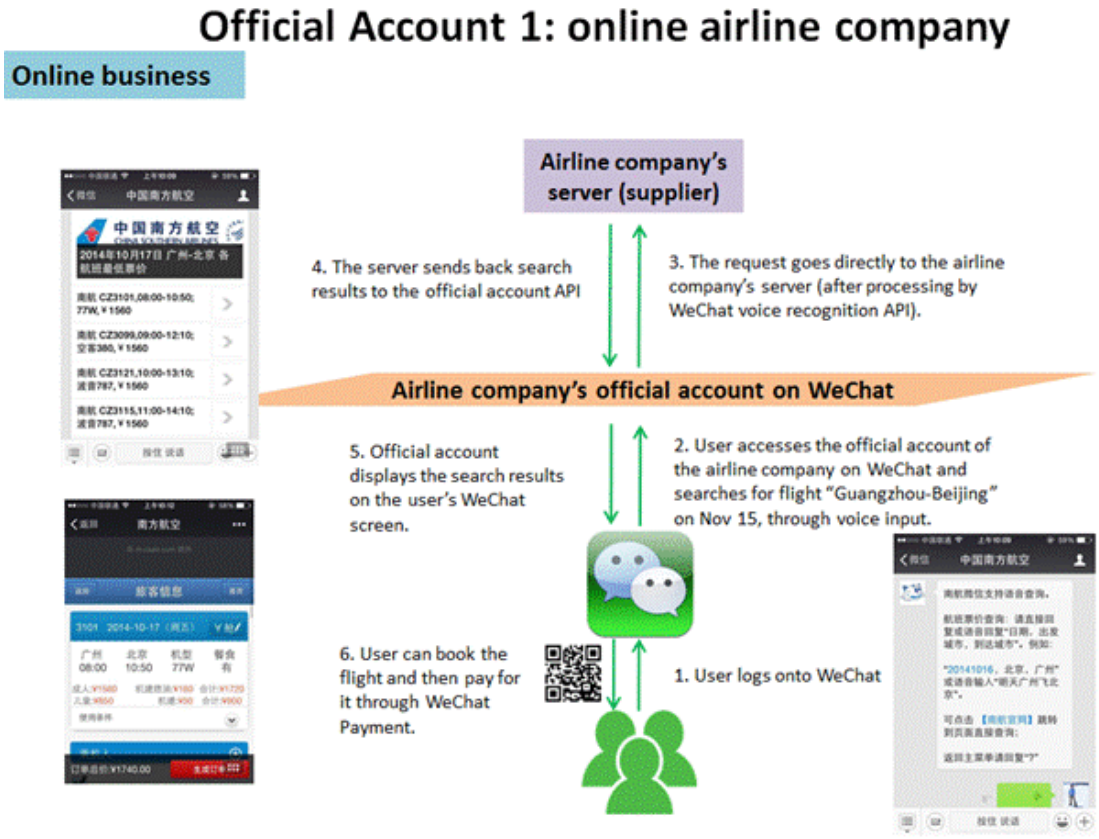
> WeChat was first a communication tool between friends. Then it also became one for communicating with strangers. "Moments" allowed us to share our lives beyond chatting. Then official accounts allowed users to communicate with third-party enterprises. At first, it was media and enterprises. Finally, open platforms tried to connect people with any third-party service.

In many respects, WeChat was Facebook, Twitter, WhatsApp, Zynga, Instagram, and Apple Pay all wrapped up into one. But would the rest of the world embrace WeChat's pioneering business model, or would it reject WeChat's offering even when it had been proven inside China? Did WeChat currently represent a technology road map for Snapchat, Facebook, and the like? Or were the skeptics who downplayed the potential influence of the emerging technology giant correct?

Exhibit 1 China Merchants Bank Official Account Screen

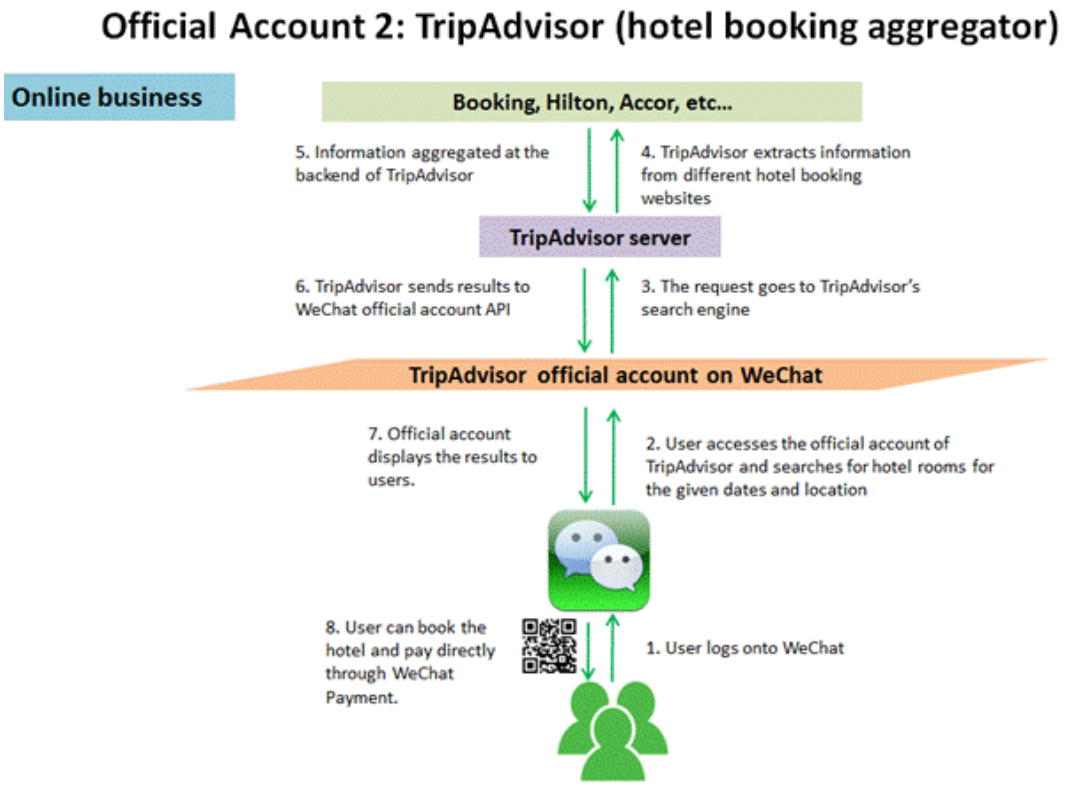
Source: Company documents.

Exhibit 2 China Southern Airlines Official Account Information Flow



Source: Compiled by casewriters from company documents.

Exhibit 3 TripAdvisor Official Account on WeChat



Source: Compiled by casewriters from company documents.

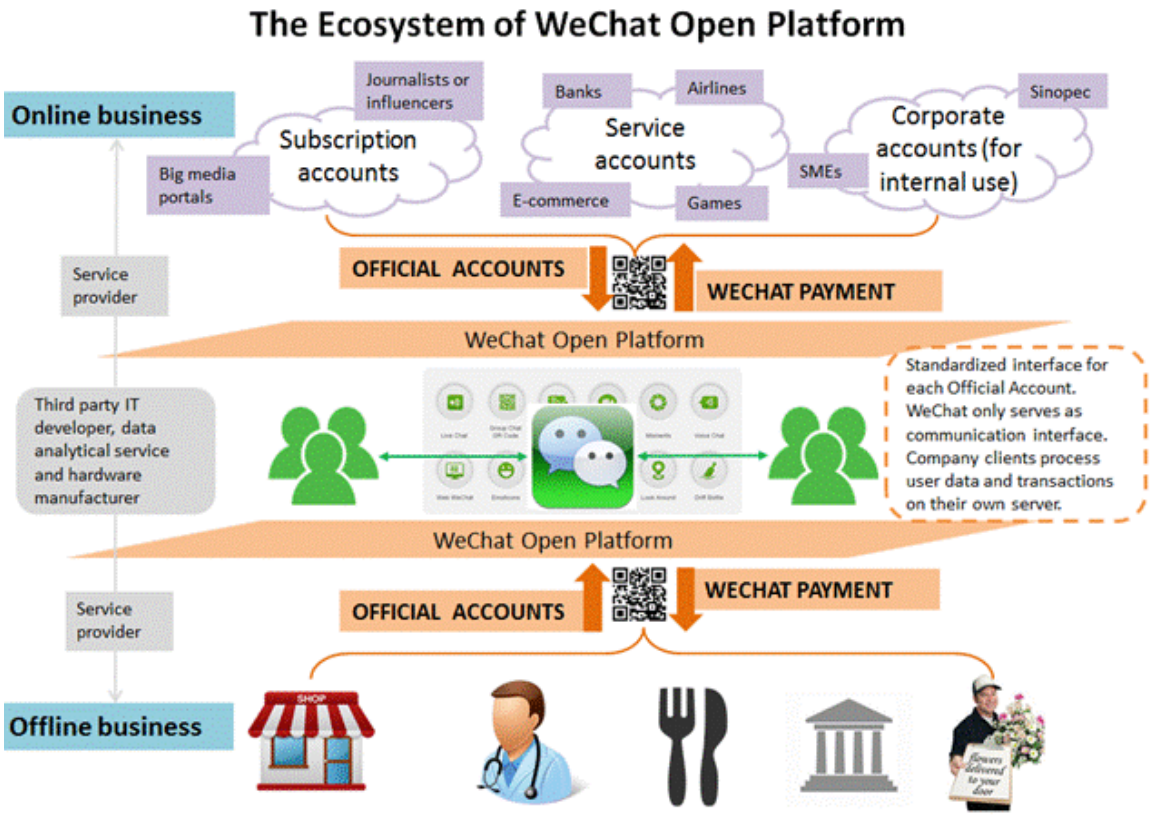
Exhibit 4 QR Code Reader for Offline Payment

Source: Casewriters.

Exhibit 5 Two Offline Payment Systems

Source: Compiled by casewriters from company documents.

Exhibit 6 WeChat Ecosystem



Source: Compiled by casewriters from company documents.

Exhibit 7 QR Code for HBS Case No. 615-049 Mini Program

Source: Provided by company.

Note: Scan this QR code from the WeChat app on your Apple iOS or Android mobile phone to see the WeChat mini program associated with this case.

Endnotes

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