

Scan and pay

In smartphone-saturated urban China, hardly anyone is using cash anymore. By **Paul Mozur** in Shanghai

• There is an audacious economic experiment happening in China.

It has nothing to do with debt, infrastructure spending or the other major economic topics of the day. It has to do with cash — specifically, how China is systematically and rapidly doing away with paper money and coins.

Almost everyone in major Chinese cities is using a smartphone to pay for just about everything. At restaurants, a waiter will ask if you want to use WeChat or Alipay — the two smartphone payment options — before bringing up cash as a third, remote possibility.

Just as startling is how quickly the transition has happened. Only three years ago there would be no question at all, because everyone was still using cash.

“From a tech standpoint, this is probably one of the single most important innovations that has happened first in China, and at the moment it’s only in China,” said Richard Lim, managing director of the venture capital firm GSR Ventures.

There are certain parts of the Chinese internet that have to be seen to be believed. Coming from outside the country, it’s hard to comprehend that Facebook or Google can be completely blocked until you are forced to do without them. It’s tough to fathom how critical WeChat is for everyday life until the sixth person of the day asks to scan your QR code to connect the two of you.

What’s happening with cash in China is similar. For the past three years, I have been outside mainland China covering Asian technology from Hong Kong, which has a very different internet culture from the mainland. I knew that smartphone payments were taking over in China, as the statistics were stark: In 2016, mobile payments in China were worth US\$5.5 trillion, roughly 50 times the size of America’s \$112-billion market, according to the consulting firm iResearch.

Even so, the attendant cultural shift was graspable only in person. I recently moved to Shanghai and felt the change with cash acutely because my first few weeks in the metropolis of more than 20 million were spent cut out of the system. Because of a problem with my bank, I couldn’t immediately link my account to WeChat, which has become a virtual wallet for so many.

That meant I had to navigate China the way I would have had three years ago: with a stack of red 100-renminbi notes.

At coffee shops and restaurants, I held up lines as I fumbled out my wallet and peeled off the bills to give the cashier. If I was hungry I had to go outside and find a restaurant, while bowls of noodles, groceries and coffee materialised at our office, ordered by my colleagues and paid for with their phones. If I had to get somewhere, I couldn’t use my phone to unlock one of the ubiquitous bicycles that are a part of the local bike-sharing craze.

Even the buskers were ahead of me. Enterprising musicians playing on the streets of a number of Chinese cities have put up boards with QR codes so that passers-by can simply transfer them tips directly.

“It has become the default way of life now,” said Shiv Putcha, an analyst with the research firm IDC. “Literally every business and brand in China is plugged into this ecosystem.”

Some Scandinavian countries have also weaned themselves from cash but still use cards frequently. In China, the change has been to phones. One friend didn’t realise how reliant she had become on mobile payments until her bank called her. She had left her ATM card



A taxi driver holds up his QR code to receive a payment for a trip in Shanghai.



A customer scans a QR code to pay for breakfast in Shanghai.

in a machine three weeks earlier and had not noticed its absence.

In practical terms, this means that two Chinese companies — Tencent, which runs WeChat, and Alibaba, whose financial affiliate, Ant Financial, runs Alipay — are sitting atop a gold mine of staggering proportions. Both companies can make money off the transactions,

charge other companies to use their payment platforms and all the while collect the payment data to be used in everything from new credit systems to advertising.

Lim said that according to recent data, Ant Financial and Tencent were set to surpass the likes of Visa and MasterCard in total transactions per day in the coming year. The key is that both companies are able to provide payments on the cheap, partly by allowing smaller vendors to make use of a simple printout of a QR code or their phones, instead of an expensive card reader. A back-end system that stores a record of user accounts, instead of having to communicate with a bank, also keeps costs down.

While Tencent does not break out what it makes from mobile payments, in the fourth quarter of 2016 the “other services” item in its earnings almost tripled from a year earlier to 6.4 billion renminbi (\$940 million) driven largely by mobile payments.

There are some potential future problems with China’s sweeping embrace of online payments. As the country builds its entire consumer economy around two private smartphone payment platforms, it is slowly locking out people

unable to get onto those networks, and locking itself into those companies.

At the simplest level, that makes life difficult for tourists and business travellers who are unlikely to open a bank account in China and so will find it hard to turn their phones into wallets.

More broadly, it means things could get harder for foreign and local businesses alike. Foreign companies hoping to sell to Chinese consumers now must deal with Alibaba and Tencent or risk being unable to take payments. Likewise, Chinese companies reliant on Alibaba and Tencent have to build separate structures to deal with the world of Facebook, Google and credit cards that still dominate elsewhere.

There is a corollary for what could happen here. In Japan in the early 2000s, flip phones could do everything from stream cable TV to pay at stores. But because the phones were so advanced, Japan was slow to adopt smartphones, and it went from tech giant to tech laggard in 15 years.

Now in Japan those flip phones, which are still being used, are called Galapagos phones because they evolved perfectly for an isolated environment.

No doubt aware of this, Alibaba and Tencent are pushing to expand beyond China to ensure their newest innovation doesn’t go the way of the dinosaurs. Still, competition is most likely looming.

“The million-dollar question is: Will Western firms decide to build a system and compete?” Lim said. “The answer is probably yes.”

Until then, new arrivals like me have to deal with being locked out of China’s online payments infrastructure.

Earlier this month, though, I lucked out using cash. As I was trying to get a pile of stuff from Ikea back to my new apartment, a cabdriver looked sceptically at the huge rolled-up mattress pad I was planning to load into the back of his car.

“I’m not sure I can take you,” he said to me. “I can only take cash.”

“That’s all I have,” I said to my fellow Luddite, who grumpily agreed to ferry me home.

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Hari Sivan is the CEO of SoCash, an app that allows users to withdraw cash without having to visit an ATM.

• Continued from page 1

PLANET OF THE APPS

of apps has transformed the marketplace because now everybody can become a buyer or seller. By commercialising their assets, business operations have become “borderless”, she pointed out.

DIGITAL DANGERS

Although smartphone apps are becoming indispensable for millions of people, there are many dangers that come with living digitally, particularly with data collection and privacy as well as an unhealthy reliance on the same apps that make life easier.

Toto Lozano, a presidential staff officer at the Presidential Photographers Division in the Philippines, views apps as a positive technological development that he hopes people will use responsibly.

“I remember when a fibre-optic cable of a telecommunication network was cut off, it made us feel like we had time-warped to the pre-internet era,” he said.

“[But] if you become too dependent on these apps, chances are your life revolves around it, and when things start crashing that’s one hell of a disaster.”

Mr Lozano isn’t alone in his concerns. In light of recent large-scale ransomware attacks around the world, many believe personal data and privacy are at greater risk than ever.

According to Ms Ploi from KPMG, consumers tend to overshare details on social media about their location and activities, with numerous negative consequences.

“It’s always important to be aware that this information can be used against you. One should always consider what they post online,” she said.

But privacy remains an issue.

Ms Siranya from Baker McKenzie says information shared without authorisation and the ability to keep sensitive data private are just a few of the problems she has seen her technology clients face.

“Many businesses in Thailand are not regulated. There are currently some bills under consideration to make data collection safer, but they have been reviewed and considered for over 10 years,” she told *Asia Focus*.

Because of the growing use of technology in businesses and consumer lifestyles, there is a greater need for laws that regulate certain industries. “If the law can become more supportive toward the rise of apps, it would generate even better apps and boost the economy too,” she noted.

Despite many security concerns and other drawbacks, app culture continues to grow. Convenience, the ability to access a limitless amount of information, as well as using sophisticated forms of communication are all factors that ensure smartphones are here to stay. So what can app users do to protect themselves?

“When you’re giving out personally identifiable information and doing online transactions, always make sure that it is with a reputable source with the proper IT security in place,” advises Ms Ploi from KPMG. “Think before you share.”



Columbaa Kalidhar (foreground), a nurse turned social activist in India, also uses Facebook to advance social causes.

How one app is making social ripples

By Saniya More

• We live in the era of the smartphone, a time when a small screen and a digital presence are keys to survival. Leaving the house every morning with just a mobile phone could be enough to go about one’s daily life without the need for cash or any ID documents.

We use our phones to share our lives with those around us, manage money, communicate with people halfway across the world, and even to monitor our health and fitness habits. There are now applications for thousands of different functions.

This has paved the way for the emergence of a new kind of app — one that aims to create social change.

Solve Education is a non-profit organisation that aims to provide a non-traditional yet high-quality education to children around the world. The organisation has worked with education and technology experts worldwide to create a self-learning educational game app.

Talitha Amalia, manager at Solve Education, believes self-learning is the best way to reach the estimated 263 million children who do not attend school.

“We try to provide an opportunity for them to receive a good-quality education. Our goal is to make education accessible, scalable, fun and free, especially for those from low-income backgrounds,” Ms Amalia told *Asia Focus*.

The Solve Education team has designed Dawn of Civilization, an Android educational app that allows players to build their own city, earn cash to further develop it, and connect with other users. Besides offering online and offline access, the game also includes TOEFL-certified trivia in order to progress forward.

“Why a game app? Why not build schools, train teachers, or develop teaching materials? We see that that approach has been attempted by many non-profits, governments and local communities but isn’t scalable enough to approach the issue,” Ms Amalia said.

During a trip to Myanmar in 2016, Solve Education observed that children on the streets who had jobs would spend their first salaries on mobile phones. Technology was prioritised over food and other basic supplies.

Instead of working against this trend, the organisation decided to use it to bring education to the children. Hence, ensuring the app could work both online and offline was a priority.

More than 100 children are currently testing the beta version of Dawn of Civilization in the Philippines, Vietnam and Myanmar. Solve Education plans to officially launch the app in August.

Developing an educational app certainly has its challenges, like making sure it has a

small enough storage size and can incorporate multiple features on a single platform.

“Technology is not as mighty as it seems,” Ms Amalia said. “But our team consists of many creative, dedicated game and web developers as well as curriculum designers and educators.”

Solve Education has also designed a website for Dawn of Civilization with detailed information about specific features in the app, registration and more, all in order to help those using the app better understand how it works. Users have to be 13 or older to play the game.

When users reach the last level of the app, they will be directed to a job portal, where they can compete to get “micro-tasks” or entry-level jobs, and earn money. This combination of game mechanics, artificial intelligence and incentives will help Solve Education reach its target audience of children from low-income backgrounds, she explained.

According to Ms Amalia, collaboration is a must when it comes to improving access to education.

“We never see other companies and organisations as our competitors,” she said. “We want to engage them all and work with them because our goal is to address and solve this issue.”



Dawn of Civilization, available for Android devices, is aimed at the estimated 263 million young people worldwide who do not attend school.