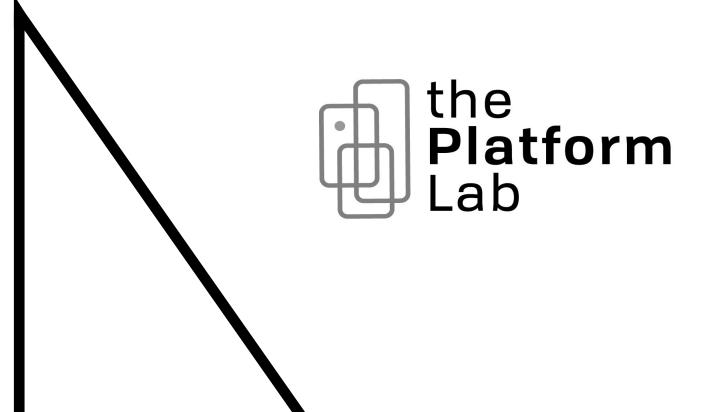


a Platform Lab report

edited by Jake Pitre



SUPER APPS: A PLATFORM LAB REPORT

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INTRODUCTION

Jake Pitre

What is a super app? As the platform economy has come to dominate markets on a global scale with ever-inflating (or deflating!) capitalization, tech companies of all sizes have sought to turn their products into essential intermediaries, developing and amending apps to provide a vast suite of services—to the point that everyday life has become unimaginable without them. Whether it's providing multiple functions within a single app or creating an "app family," these companies intend to capture users, as William Partin argues, within a cycle "in which the technical architecture of platforms evolves through the exploitation of power asymmetries between platform owners and dependents."

As Rahul Mukherjee, Aswin Punathambekar, and Platform Lab director Marc Steinberg put it in a *Media, Culture & Society* special issue on super apps, super apps are defined as "do-everything apps that bring together an expansive suite of services within a single interface." They go on to note that "Asia's super apps are large scale and dominant ventures that are highly dependent on massive, sprawling corporations whose heft allows them to build the crucial internal integration and external tie-ups that make their apps so *super*." Others have called this a "mega-platform."

This reference to Asia's super apps is key, as the model originates in the region through examples like WeChat (launched in China in 2011), LINE (launched in Japan in 2011), and KakaoTalk (launched in South Korea in 2010). As this report shows, platforms from around the world have taken inspiration from these successes, including Facebook (now Meta), but also more regionally specific apps like Jio and Paytm in India, or Gojek in Southeast Asia. While this recent history is crucial for situating the nascent theorization of super apps, this White Paper takes a global approach to the phenomenon, engaging with the three major originators, but also with Paytm in India, Gozem in West Africa, Magalu in Brazil, Pinduoduo in China, Grab in Southeast Asia, and Meta in the US. This approach, while nevertheless limited in scope, is intended to offer a comprehensive introduction to the super app in different parts of the world and at different scales. In doing so, it aims to sketch a robust overview of the digital economy while also suggesting gaps for future work to take on, by ourselves and other researchers interested in this growing categorisation of platform power.

In the West, the first decade of the super app era has often been seen as a race to catch up with Asia, as Silicon Valley companies have sought to add further functionalities and affordances, made easier given their quasi-monopoly positions from attaining the kind of power acquired through rapid adoption and aggressive advertising businesses. Banks, for instance, have become integral partners, despite some initial resistance, as broader trends of financialization intensifies Big Tech's involvement in fintech—financial technology.

A striking example of fintech's super app play is PayPal's relaunched app in late 2021. Earlier that year, CEO Dan Schulman specifically cited fintech powerhouses like China's Alipay and the influence of so-called innovations like Apple's Wallet (alongside Apple Pay and Card), and bemoaned the glut of options as reflecting a need for a truly singular super app. "What a super app wants to do is turn all of those separate apps into a connected ecosystem where you can streamline and control data and information between those apps," Schulman said. "And then you have this common platform and common data that allows machine learning and artificial intelligence to kick in and give personalized

recommendations to those consumers." The term "super app" itself has become a way for firms to advertise themselves. Independent of whether their product resembles one or not, calling oneself a super app is now a strategy for marketing and a way to signal (to users, to investors and shareholders, to competitors) corporate ambition.

Put simply, the dream of fintech is to take every online interaction as a monetizable piece of data and to locate all of this information within a single platform entity. Practically speaking, many super apps around the world put this into action by offering ride-hailing, food delivery, media distribution, social media and messaging, and shopping, but even more significant than bringing all these functions together are further financial capabilities, including sending and receiving money, setting up direct deposit or savings accounts, handling cryptocurrency, paying bills, receiving paychecks, and, increasingly, buy now pay later (BNPL) mechanisms.

One phrase for all of this is *platform enclosure*, a familiar concept of holding a user's attention for as long as possible (usually, used within what Shoshana Zuboff calls surveillance capitalist platforms like Facebook, to collect more data and ad dollars⁶), but applied here holistically, across functionality and affordance. The aim is not simply attention but, especially in geographies where informal economies dominate, to capture "large sectors of economic activity that previously operated in the informal economy." Again as Mukherjee, Punathambekar, and Steinberg explain, these platform companies "are particular, concrete corporate forms that occupy real estate, organize labour, deliver infrastructures, negotiate with states and other corporations, regulate the public sphere and shape the cultural environment." Over the past year, Platform Lab members have researched these interlocking practices, processes, organizations and the super app forms that unite them, taking specific focus on particular apps but always drawing on wider economic and cultural circumstances within the platform economy. What follows is the primary outcome of this research initiative.

The purpose of this report is to provide a general understanding of the super app form as it becomes a dominant global framework, and to consider platform capitalism's transformational shape. It's true enough that the rise of the super app is, in some ways and increasingly so, a campaign initiated by the platforms themselves. With this in mind, we make our positionality as clear as possible, as our critical perspectives inform how we see these apps and the rhetoric behind them. This rhetoric is a powerful thing, especially within the tech press, and we hope to add to this conversation in genuinely useful ways. The Platform Lab is committed to studying the political and cultural economies of platforms, and to analysis keyed into the ongoing development of the technologies that shape our working and leisure lives, and the nooks and crannies in between. The super app is a concept that we may hear a lot about, but like industry-led buzzwords like the metaverse or web3, there is little sense among the rest of us of what it actually is, and more importantly, what it means for the people using these technologies across the globe in their daily life. This report is for you.

TABLE OF CONTENTS

LINE 2

Marc Steinberg

LINE

5

Sneha Kumar

Paytm

8



Colin Crawford

10



Santino Ciarma

13



Jacqueline Ristola

16



Aurélie Petit

Gozem

20



Elena Altheman



Xin Zhou

Pinduoduo

22



Roslina Chai

28 **ENDNOTES**



Marc Steinberg

LINE is one of the original super apps: a chat app turned social media platform and do-everything app launched and dominant in Japan. Alongside its East Asian cohort of KakaoTalk (operated by Kakao Corporation and dominant in Korea, launched in 2010) and WeChat (operated by Tencent, most dominant in China, launched in 2011), LINE was released by Naver Japan (a Japanese subsidiary of Korean search giant and tech company Naver) in June 2011. Meant to be a chat app for texting and communicating in the wake of Japan's 3.11 earthquake-tsunami-nuclear disaster, when data communications became the only line to families as telephone lines were down, LINE quickly debuted its standout feature—stickers (large emoji, mostly bought in its sticker store)—and pivoted to being a super app as of July 2012. This was when it unveiled services (mostly free), contents (mostly paid), and its own currency of payment (LINE coins) less than a year after launch.⁹

The super app is a particular model of app that assumes most functions of the smartphone can be done within either a single app or a suite of apps—what some also call a "mega-platform". Texting, voice and video calling, digital payments, news aggregation, ride-hailing, food delivery—the list of things doable within the single app goes on. All of these feature in the Japanese version of LINE. That there is a particular East Asian lineage to this model is of note¹¹; that the super app has become a model for many companies—including Meta (Facebook) and others—is also of note¹²; finally, that the most successful recent super apps tend to be from South Asia (Jio) and Southeast Asia (Grab and Gojek) is no coincidence, as the models of WeChat-LINE-KakaoTalk are both inspirations for and often, via sources like SoftBank's Vision Fund, the source of their venture capital financing. In what follows I offer a brief account of LINE, noting its monetization strategies, its regional specificity, and its status as a tech giant in Japan. Japan.

APPS INSIDE APPS

Much like WeChat and KakaoTalk, the LINE chat app aims to become the hub for all digital life, displacing the smartphone OS as the ground or interface upon which the smartphone experience is built. Distinct from the platformization of the web strategy that Facebook takes, where its aim is to track users across the web¹⁵, LINE aims to contain all the services a user needs within the LINE app itself. It also increasingly makes its payment system the default option in transactions on the app, as well as other online and in-store retail payments as well. The caveat here is that, unlike WeChat with its suite of mini-apps internal to the main app¹⁶, LINE features a number of associated apps from LINE Live (a popular live-streaming app both by individual users and more official news organizations) and numerous games that one must download separately, but that can be launched from within the main app. Like WeChat in China¹⁷, LINE has become part of the infrastructural conditions of everyday life, including for advertisers and business groups, but also for linking families across generations.¹⁸

REVENUE



One of LINE's chief sources of revenue from its earliest days has been its stickers. There are several varieties of stickers, the most significant being LINE IP; licensed stickers developed by in-house designers; amateur sticker creators for which there is a lively and much-hyped market¹⁹; and finally, promotional stickers used during ad campaigns or by particular "Official Accounts" (LINE's class of paid-for accounts for companies). 20 Stickers are sold in "packs" composed of 8 to 40 stickers each. They can be gifted and sent during chats, but cannot be downloaded or used outside the app, ensuring that the images remain within the LINE app, and attached to a single LINE account. Even as ad revenues and in-game purchases in LINE's freemium social games form an increasingly large part of the LINE revenue pie, its stickers and facilitation of communication between users via stickers are what maintain its status as Japan's premier social media app. These build on the long legacy of Japan's emoji and cute culture more generally.²¹ They also connect LINE's digital world to the physical world of character merchandise, with massive experiential retail stores selling merchandise and characterbased café experiences in major cities throughout Asia, from Tokyo through Seoul, Shanghai, and Bangkok. That these stores build potential fanbases even where the app doesn't operate—namely China—and through tie-ups with mega bands like BTS, makes the character-driven retail strategy all the more fascinating.

REGION

A notable quality of super apps across Asia is their tendency to mimic each other's interface, affordances, and offerings. This goes for KakaoTalk, LINE, and WeChat in particular. Mimicry, an ecology of copying and borrowing and mutual influence despite some marked differences— these characteristics mark the regional Asian super app ecology.²² KakaoTalk especially has built on LINE's character merchandising with their own boutiques that offer both character merchandise and retail as experience. While there's much to be critical of in terms of Asian regionalism, these are also markers of certain ties that bind, not only at the level of content so often foregrounded in accounts of regional media²³ but also at the level of platform.

This platform regionalism²⁴ is also signalled in LINE's particular history as an app founded by a South Korean Internet behemoth. More recently, former telecommunications giant and venture capital megafund operator SoftBank agreed with Naver to a complex merger of SoftBank's Yahoo Japan subsidiary with Naver's LINE, resulting in a company known as Z Holdings. While the impacts of this merger are beyond the remit of this overview, the Yahoo-LINE merger is framed in the language of defense against the encroachments of American tech giants known as GAFAM (Google, Amazon, Facebook, Apple, Microsoft). It is set to integrate their digital payment systems (LINE Pay and SoftBank's PayPay), among other strategic moves positioning LINE as the preeminent challenge to American big tech in Japan, and in Asian markets such as Taiwan, Thailand and Indonesia.²⁵ These invocations of US encroachment and what Dal Yong Jin has called "platform imperialism"²⁶ aside, the newly merged LINE-Yahoo promises to be a continued force in the Japanese and Southeast Asian context.

Compared to American tech behemoths, Z Holdings is something like a *small big tech* company with 10.5 billion USD revenue in 2020 compared to Alphabet's 182 billion USD—big tech, localized in a particular national context. That said, it still operates as a big tech company would, complete with its fintech plans and Al character-based smart devices ecology. Whether its "Clova" integrated smart devices²⁷ in fact displace Amazon's Alexa devices or not, its voice integration and Alpowered assistants do appear here to stay, deeply embedded in the Japanese tech milieux where LINE remains one of the largest regional tech giants. Its organizational chart²⁸ suggests directions to come, with fintech, Al, and Entertainment competing with its more traditionally app-focused Portal division. Finally, its December 2021 quarterly earnings Investor Relations report under the Z Holdings Corporation²⁹ banner suggests some of the reconfigurations of LINE alongside Yahoo Japan businesses. The Z Holdings note to shareholders reminds us that, "In addition to Yahoo! JAPAN



and LINE, the Group also operates ZOZO, ASKUL, PayPay, and other services designed specifically for convenience and user satisfaction."³⁰ That convenience is one of the rhetorical drivers of the tech industry (particularly in Japan, though also in the broader tech context) is notable and requires further investigation³¹; that convenience is formatted via experiences of the super app is without question.

LINE as super app tells a story of nationally located tech markets with their own large-scale corporations that exert monopoly power in their nations—and sometimes within regions such as East and Southeast Asia (see Mukherjee, Punathambekar and Steinberg, 2022). Where the super app goes from here remains to be seen. Whether the model really is taken up in North America and elsewhere remains a question. Yet if the third season of the HBO show *Succession* is any indication—wherein the fictional legacy media company 'Waystar Royco' at the centre of the narrative initiates a corporate battle to take over a super app, GoJo, to secure its place in the new media ecosystem—the super app has become a default goal for media companies and platform owners everywhere. As one of the pioneers of the super app movement, LINE remains a prescient and pertinent example to follow.



Sneha Kumar

HISTORY

The parent company of Paytm or Pay Through Mobile, One97 Communications, was established in 2000 by Vijay Shekhar Sharma in Noida, Uttar Pradesh (UP), India. Paytm was introduced as a digital platform in 2010 as an alternative payment infrastructure for mobile phone, DTH or Direct-to-Home and shopping bills. Initially valuated by SAP Ventures, now called Sapphire Ventures, at 300 million USD in 2011³², their aim at the time was to be a leading mobile internet marketing and commerce player as well as to expand their services in emerging mobile markets. In India, Uber and Paytm partnered up in 2014 and Uber integrated Paytm's digital wallet into its payment system, making it possible for customers to pay for their Uber using the digital wallet through two-factor authentication, meaning the customer would have to log into both their Uber account as well as their Paytm account for the payment to go through.³³ A year later, Ant Financial Services, an Alibaba Group Associate, invested in One97 Communications for a 40% stake with the understanding that Ant Financial would collaborate with Paytm on the technical side of things to make mobile banking easier for Indian customers.³⁴ Paytm expanded its services in 2015 to include payment of education fees, utility bills, and metro recharges.

Paytm became one of the biggest beneficiaries of demonetization in 2016, which involved the 500 and 1000 rupee notes ceasing to be legal tender. Demonetization was meant to act as a catalyst for the 'Digital India Initiative,' launched by Prime Minister Narendra Modi in 2015. The initiative aims at establishing homegrown digital infrastructure across India in order to platformize access to government, financial and labour services. SoftBank, a Japanese conglomerate, invested 1.4 Billion USD in Paytm through a mix of primary and secondary shares in 2017.³⁵ The same year, Paytm also became India's first fintech app to cross 10 crore or 100 million downloads, and also launched Paytm Gold³⁶, Paytm Payments Bank³⁷ and Inbox³⁸. In 2018, merchants were allowed to accept Paytm, Unified Payments Interface (UPI) and card payments directly into their bank accounts for 0% charge, and the Business with Paytm app (then called Paytm for Business) was also introduced and gave merchants the opportunity to track their daily transactions.³⁹ In 2019, Paytm launched its Paytm First Credit Card in partnership with Citibank along with a subscription-based loyalty program called Paytm First.⁴⁰

In the second COVID year of 2021, Paytm made history twice. It went public and raised 2.5 billion USD at a valuation of 20 billion USD, which was the largest ever Initial Public Offering (IPO) in India.⁴¹ On the 18th of November 2021, Paytm's shares opened at 1955 rupees on the national stock exchange and closed on the same day at 1560 rupees, which is the biggest drop on a listing day in Indian IPO history.⁴²

As Paytm was expanding its services, it was also investing in and acquiring a number of local platform companies. Possibly its biggest acquisition was that of Insiderin in July of 2017.⁴³ Insiderin is an online ticketing and events platform backed by event management company Only Much Louder (OML). This acquisition allowed Paytm to integrate events listed on Insiderin on the Paytm app and also use the ticketing platform for its own events, such as Paytm Wealth Academy masterclasses on how to grow wealth through investing.



PAYTM AND DEMONETIZATION

On 8th November 2016, Prime Minister Narendra Modi announced that India's most popular notes—500 and 1000 rupees—would cease to be legal tender as of that midnight. Two primary reasons were given for this decision: I) to flush out 'black money' that fed terrorist and other illegal activities, and 2) to catalyse financial inclusion to accelerate the country's shift toward a Digital India. The World Bank encourages financial inclusion as part of building economies that provide access to regular banking services to the most poor and marginal via multiple technologies.⁴⁴ The advertisement above for Paytm was on large hoardings and on the front page of newspapers the next day, proudly proclaiming their position within this 'cashless' revolution.

The ruling party, the Bhartiya Janata Party (BJP), believed that by limiting the flow of cash, more people would be pressed to open bank accounts for salary payments thereby bringing a measure of regulation to India's vast and complex informal economies. In *Digital Emporiums: Platform Capitalism in India*, Adrian Athique argues that Paytm's expansion into multiple industries and services via private companies and educational and governmental institutions and demonetization were co-constitutive processes. While Paytm would collect transaction data and share it with the government, the government would continue to support Paytm's agenda of a cashless economy. The infrastructures Paytm put in place for its own expansion also benefits the government's imagination of a Digital India future. In light of demonetization, CEO Vijay Shekhar Sharma and his team were congratulating themselves for being the mobile wallet service that supposedly thousands of people turned to for a solution but millions of Indians stood in line for hours and hours on end (myself included) to return their now illegal notes and open bank accounts, resulting in increased violence and precarity.

Paytm may have cemented itself in the "fintech-philanthropy-development" complex when Google urged the US Federal Reserve to research India's success in digital payments after the country surpassed one billion digital payments in a month in 2020⁴⁸; however, there is no data that speaks to Paytm's role in the process of financial inclusion. Data on how many users have joined Paytm post-demonetization does not indicate whether these new users were already proficient in financial technologies and had bank accounts or if they were/are new to the process. Furthermore, both the government and Paytm have made it mandatory to link your Aadhar card to the app. Aadhar is a 12-digit number specific to an individual and assigned by the Unique Identification Authority of India (UIDAI), which is under the jurisdiction of the Ministry of Electronics and Information Technology. This unique number corresponds to a person's biometric and demographic data that is stored in servers owned by the Indian government. This data is verified every time a person applies for a passport, opens a bank account, or applies for welfare. It is marketed as optional for the Paytm wallet but linking your Aadhar details allows you to make transfers up to one lakh instead of the usual 20,000 rupees; whereas for the Paytm Payments Bank it is compulsory as it is for all other banks. This kind of integration that involves multiple layers of bureaucracy puts additional stress on migrant and marginal labour communities, possibly leading to further exclusion rather than inclusion.

PAYTM TODAY

As of February 2022, Paytm announced that it would be partnering with Scheduled Commercial Banks⁴⁹ and Non-Banking Financial Companies (NBFCs)⁵⁰ to provide collateral-free interest loans of up to five lakhs for small merchants.⁵¹ Twitter also recently announced a partnership with Paytm Payments Services Limited, a subsidiary of Paytm.⁵² They will be Twitter's payment partner for tipping creators and small business owners through the social media site via Paytm UPI, Paytm Wallet, Paytm Postpaid, debit and credit cards and netbanking.

Despite these strides, Paytm seems to be running at a loss. In February of 2022, Paytm's parent company, One97 Communications, reported a 45% increase in quarterly net loss and their share price hit an all-time low of 837.55 rupees after their market cap fell below 55,000 crores (7.4 billion USD) on the Bombay Stock Exchange.⁵³ Several speculations have been put forth as reasons for this

free fall, such as the resignation of top management officials and possible Reserve Bank of India (RBI) regulations regarding digital payments that could cap wallet charges.⁵⁴



Conclusion

Paytm's foray into Indian social life through gold, banking, ticketing, etc., reflects what other telecommunications/platform/logistics giants such as RelianceJio and Amazon are attempting to do in the country as well, which is to create an enclosed platform ecosystem whereby Paytm will be able to mediate and record every transaction made. Furthermore, it is also interesting to note that while Jio Money may be considered competition for Paytm, a customer can still pay for their Jio fiber connection using Paytm—speaking to a platform economy that is heavily interdependent and does not support a clean monopoly. Finally, it is important to dwell on the kinds of nationalist ideologies that encourage the expansion of Paytm's infrastructures and the implications of a 'Digital India'.



(Image from Business Standard)



Colin Crawford

In 2011, Chinese tech giant Tencent launched the instant messaging platform Weixin, branded internationally as WeChat, which has since expanded into a multipurpose super app hosting a vast range of other apps and platforms within it, becoming a ubiquitous, indeed unavoidable, part of everyday life throughout urban China. Beyond messaging, WeChat now offers hundreds of services such as electronic payment, money transferring, gaming, video streaming, file sharing, navigation, ride hailing, take-out ordering, appointment and flight booking, loan financing, video and conference calling, and public communications for corporations and government bodies, to name but a few.⁵⁵

HISTORY

Developed after another Tencent instant messaging superapp QQ-launched in 1999 and maintaining over 563 million active monthly users as of March 2022–WeChat has benefited from the deep wells of Tencent's capital, experience, and infrastructure to become the most dominant superapp in China. In QQ's wake, WeChat was designed to a) streamline ever more services into one app, b) appeal to a wider range of users, and c) avoid potential conflicts with government through integrating mobile payments with the People's Bank of China Range as sharing all user data collected in the superapp with government authorities. Notably, such data sharing arrangements with the state carry vastly uneven consequences in China, as certain racial, ethnic, and religious minority groups, particularly the Uyghur population, are overly surveilled, policed, and incarcerated in part due to the ways in which they use dominant, infrastructural platforms such as WeChat to circulate religious texts and teachings, communicate in the Uyghur language, or consume transnational media content deemed radical or objectionable by the state. Secondary of the state.

SCALE AND UBIQUITY

As Chen, Mao, and Qiu lay out in their 2018 book *Super-Sticky WeChat and Chinese Society*, WeChat has branded itself as "a lifestyle" or "way of life" which seeks primarily to meet the communication, entertainment, and payment needs of the growing urban working class in China, who comprise the vast majority of its user base. ⁶⁰ It is estimated that 90% of WeChat's users live in China, or 1.13 of its 1.26 billion active monthly users. ⁶¹ This massive user base (the largest of any single Chinese platform) sends an average of 45 billion messages a day, and more interestingly and importantly, transacts over 1 billion payments a day with an annual yield of 1.6 trillion RMB (USD 251.4 billion) flowing through the app and its many mini-programs. ⁶² Central to such transactions are WeChat Pay and WeChat Wallet which allow digital payments and transfers to take place quickly and conveniently through mini-programs. WeChat QR codes have become ubiquitous in urban life in China, linking together a vast ecosystem of payment and information services, from restaurants to shopping centres, street food vendors, and job fairs. ⁶³

"ONE STOP INTERNET SERVICE SOLUTIONS"



In light of these overlapping uses and interests, communication scholars Ying Huang and Weishan Miao describe WeChat as "a mega platform in which the market, the state, and culture merge and compete". Alongside its capacity for large scale e-commerce, media scholarship has also drawn attention to what they call "microcommerce," social-commercial transactions between familiar, known, and/or local contacts as a crucial role WeChat plays in local communities. Bridging the communicational and commercial affordances of the app, WeChat is now an integral facilitator—and intermediary—of local networks of trust and exchange, such as sending money to a friend or buying fruit from a neighbour through the app. In efforts to integrate more small businesses into their ecosystem, the company is offering "subsidies worth more than RMB 10 billion (USD 1.57 billion) to independent merchants in the next three years to improve their digital infrastructure," and further expand the network effects of WeChat's communication and payment services.

While WeChat is still organized around its primary functions of private and group messaging among the close ties of family, friends, and coworkers, as well as photo and video posting via the app's 'Moments' and 'Channels' social feeds, the convenience of the integration of various other services—to the tune of 3.2 million "mini-programs" nested within the app—has led to its dominance and "stickiness," as users have ever fewer reasons to leave the application if they can find—and efficiently pay for—whatever else they may need in it already.⁶⁷ Such a strategy represents Tencent's desire to provide "one stop internet service solutions that cover the whole value chain".⁶⁸ Notably, Tencent derives the majority of its revenues (53%) from paid value-added services such as stickers, service subscriptions, and in-app gaming purchases, followed by fintech and business services (30%), and lastly advertising (16%)—contrary to domestic competitor ByteDance (Douyin/TikTok), which currently relies on advertising for 73% of its revenue.⁶⁹

COMPETITION

While WeChat remains the dominant super app in China, it is rivalled by a range of other Chinese tech companies, from Alibaba and its Alipay e-wallet and fintech services, to ByteDance's short video platform Douyin (the Chinese sibling-app of the burgeoning global platform TikTok) which is expanding its functionalities in China to include e-commerce, gaming, take-out ordering, money transferring, hotel booking, instant messaging, and many other super app features resembling those found on WeChat.⁷⁰ Douyin has also recently begun to beat out WeChat for total screen time usage in China, winning the battle for attention, especially among younger users, leading WeChat to expand its efforts in short video and entertainment—namely its Moments and Channels features—to keep users within its platform ecosystem.⁷¹

Conclusion

In the Fall of 2021, the Ministry of Industry and Information Technology summoned China's biggest tech companies—Tencent, Alibaba, Douyin, Baidu, NetEase, Huawei, and Xiaomi—to commit to a new era of interoperability (functionality of use *across* devices, apps, and operating systems) between these platforms, in efforts to break down the increasingly monopolistic dynamics emerging in China's tech industry due to these companies' relatively closed ecosystems of products and services, particularly prevalent among the super apps WeChat and Alibaba's Alipay.⁷² While WeChat remains integral to everyday life in urban China, these two factors of increased regulation and competition for attention and engagement will be crucial to the future of Tencent's flagship super app.



Santino Ciarma

HISTORY

Prior to the development of Kakao, founder Kim Beom-soo (Brian Kim⁷³), having left his position at Samsung in 1999, developed the country's first Internet gaming portal: Hangame. The popularity of internet cafés allowed this start up to rapidly accumulate over 10 million subscribers in just 5 months. This rapid success drew the attention of South Korea's top web portal and search engine, Naver, ultimately merging to form a joint entity known as NHN. Recognizing that the joint company's focus shifted towards the growing revenue generated from the keyword-based search advertisements of Naver, Kim left as co-CEO in 2006 to establish IWILAB with partner JB Lee. Their numerous attempted web social networking services (SNS) failed due to the established dominance of existing platforms such as MySpace, Facebook, and Cyworld in South Korea.

WINNER TAKES ALL

Apple's iPhone launch in 2008 prompted IWILAB to shift its entire development focus onto mobilebased software, clearly hoping to pioneer in this new smartphone frontier as Kim had previously successfully innovated with Hangame. David Nieborg and Thomas Poell remark that platforms can achieve strong winner-take-all effects under a number of optimal conditions, such as: launching at the right time, affordability, and accessible infrastructure. 76 Noting the explosive growth of mobile messengers like WhatsApp as smartphones penetrated global markets, a team of developers quickly built the KakaoTalk messaging platform, launching it on March 18, 2010, only four months after the arrival of the iPhone in South Korea. Eunjeong Choi suggests that the breakneck pace of mobile app development globally prompted Kakao to develop its "4-2 Principle" where project teams consisting of 4 members have only 2 months to make substantial progress on a project/idea or it is scrapped. 77 KakaoTalk's prompt development and release drew immediate interest in the South Korean market, attracting 5 million users in the app's first 9 months. 78 In terms of pricing, unlike WhatsApp that had charged a fee until 2014, KakaoTalk's messaging system was completely free to download from its inception and continues to be. Finally, to Nieborg and Poell's final point, not only was the KakaoTalk platform accessible across smartphones, it immediately paired friends through users' contact lists.⁷⁹ Additionally, Choi remarks that since the app's launch, customers became "co-generator[s] of value" through a coordinated "100 improvements project" encouraging users to voice concerns or share ideas for improvements. This increased co-development of the app led to over 60,000 ideas, ranging from design accessibility improvements to the launch of larger projects such as KakaoStory in 2012 a mobile SNS that focuses on photo and video sharing most comparable to Instagram.⁸⁰

KAKAO'S APP ECOSYSTEM

KakaoTalk's monthly active users remain largely domestic, currently composed of 90% of the South Korean population or roughly over 47 million users, with an additional 6.4 million users internationally.⁸¹ Despite fluctuating figures, a 2016 study illustrates that a large majority of international users consists of the Korean diaspora who rely on Kakao to connect with family and



friends back home, as well as other diasporic Koreans. These users have described it as facilitating and maintaining a sense of 'intimacy' and 'closeness' while abroad which other platforms fail to evoke. 82 Kakao has captured a nationally engaged user base through its initial mobile messaging platform, allowing them to pursue diverse revenue models in expanded services and products. These have included webtoons, music streaming, shopping, gifting, video streaming, loan financing, personal banking, cloud computing, ride hailing, navigation, and gaming to name just a few. However, Kakao's platform model is distinct from super apps such as China's WeChat since Kakao has explicitly chosen not to bundle its variety of services and products within the same app. Instead, Kakao's platform model has been likened to a constellation model where users have multiple entry points to the Kakao 'universe' such as through KakaoTalk's chat function, KakaoStory's photo-based social networking, or even gaming—and are able to freely migrate across products and services that are uniquely useful to them.⁸³ In addition, user access is simplified by the ability to use KakaoTalk credentials across apps. This approach appeals to Kakao's accessibility values in keeping services simple and appealing to different user preferences, while also allowing Kakao to experiment and test new features and markets at a distance. By "reducing the degree of dependency between the additional platforms and the main platform," Kakao minimizes the risk of failure jeopardizing "the health of the entire platform constellation."84

Kakao's revenue model is broken down into a number of sections, most notably its platform services, and its content offerings. Within its platform services, Kakao generates revenue through targeted advertising on apps such as KakaoTalk, KakaoStory, KakaoStyle, and KakaoPage. Additional revenue is also generated by facilitating commerce through the features such as KakaoGift, where users have the ability to shop and gift items to each other from partnered businesses all within the KakaoTalk app. The sale of stickers and emoticons featuring KakaoFriends merchandising characters as well as original creations by a community of sticker creators provides additional revenue streams. Finally, transaction fees are accrued from KakaoPay's mobile wallet, Kakao's business solutions for commercial transactions, and its KakaoMobility services for taxi-hailing, among other transactions the platform facilitates. In 2021, these services generated total revenue of 3.24 trillion KRW (USD 2.7 billion).85 Its content revenue is largely driven by surge success around mobile gaming. Kakao launched its game publishing arm in 2012, allowing developers to publish and distribute games within the app's ecosystem, therefore engaging the millions of users already using the chat app. Gamers migrate from the KakaoTalk app to send game invites and organize competition with friends. Recently, the MMORPG Odin achieved similar breakthrough success contributing to Kakao's 2021 gaming revenue of 998 billion KRW (USD 836 million).86 Additionally, music distribution, concert revenue, and the Kakao Melon music streaming platform also contribute to the growth in content revenue (772 billion KRW or USD 646 million), along with increased interest and success in webtoons both in South Korea and Japan, including the potential to leverage intellectual properties into transmedia content (791 billion KRW or USD 662 million).87

GROWTH PROSPECTS

While KakaoTalk's initial launch in South Korea had all the makings of a *winner-takes-all* success, its expansion strategies into Japan were stifled by rival company Naver whose own messaging platform LINE achieved market dominance. Globally, Dal Yong Jin has noted the presence of hurdles due to US platform imperialism in hardware (Google, Apple), software (Android, iOS), and integrated app stores (Google Play, Apple app store). Furthermore, WhatsApp has already secured a large number of global smartphone users.⁸⁸ Kakao's expansion as a messaging app remains fairly restricted to its quick capture of the South Korean population, where KakaoTalk and its subsidiaries have proven to be indispensable and have fostered national loyalty. Kakao outlines in its Investor Relations that its growth strategy as a super app is between a split focus of strengthening domestic services and global expansion through content. Domestically, its KakaoPay fintech services continue to grow to include brokerage, personal mortgage and business loans, and business-to-business (B2B) payments; along with expanding its KakaoEnterprise services including cloud storage, integrated enterprise



platforms, and Al assistants for businesses. Globally, Kakao intends to expand its footprint mainly through content, where every game published by KakaoGames receives a global release⁸⁹, while also expanding into metaverse technology⁹⁰ and NFTs⁹¹. Global expansion is also planned around webtoons where Kakao has actively been acquiring established regional webtoon and web novel platforms such as Tapas and Radish⁹² in order to establish a global Kakao Webtoon platform. As South Korean content continues to grow in global popularity with K-Pop, E-Sports, film and television, Kakao's expansionary shortcomings geographically as a mobile messaging platform might be vindicated through its multiple ventures in gaming, music, comics, film, and television.

the Platform Lab SUPER APPS 12



Jacqueline Ristola

If one buzzword dominated 2021, it was "metaverse." Facebook rebranded to Meta, and with it came a new company vision on the future of connectivity, one that has permeated contemporary tech and media strategies and discourses. Soon after, Sony invested \$1 billion in metaverse builders Epic Games, while Disney touted their metaverse plans as tech and media industries reoriented to align with the growing futurist trend. This section discusses Meta's corporate branding and vision of the metaverse, and how it serves as a useful contrast to super apps in how each product envisions an all-in-one service of convenience. Whereas super apps are located on your phone, the metaverse is envisioned as an immersive VR experience that mediates all aspects of your life as the next evolution of the internet itself. If super apps are the epitome of Web 2.0, the metaverse is the highly speculative (and thus volatile) future of Web3.

HISTORY

Metaverse was first coined by science fiction author Neal Stephenson in his 1992 novel *Snow Crash*, a dystopian vision of technocapitalism run amok. The term gained traction in the mid-2000s in relation to *Second Life* (2003), the online multimedia platform developed by American tech company Linden Lab. While the Meta rebrand has attracted significant attention to the concept, many tech companies were already making the shift into metaverse elements. Microsoft and Match Group (owner of many dating apps, including OK Cupid) are actively investing in metaverse technologies. Games like *Fortnite* (Epic Games, 2017), *Roblox* (Roblox Corporation, 2006,), and *Minecraft* (Mojang Studios, 2011) have expanded their platforms for event experiences such as concerts, repositioning their game worlds as virtual worlds for live interactivity. Aside from Meta, Epic Games is the biggest metaverse investor in Silicon Valley, with ambitions to transform *Fortnite* into a metaverse platform, framing itself not only as a game, but as a platform for social connection.⁹⁴

Meta's dramatic public shift into the metaverse occurred in summer 2021, with CEO Mark Zuckerberg asserting in interviews and investor relations that Facebook is no longer a social media company, but a metaverse company. Alongside this PR blitz came Horizon Workrooms and later Horizon Worlds, new VR apps from Facebook that enable workers to design their own avatars and interact in virtual office spaces using Oculus headsets, following Zuckerberg's vision of the metaverse as "embodied internet that you're inside of rather than just looking at." Meta's rebrand was a spectacle in and of itself, pushing the metaverse concept from obtuse to unmissable. This rebrand aims to monopolize emerging metaverse hype, while also distancing the company from mountains of bad press, including antitrust concerns and a recent whistleblower alleging Facebook put profits over people, including ignoring serious issues around hate speech and criminal behaviour. It's also a means of pivoting the company into new growth areas of VR and gaming.

METAVERSE: BEYOND THE MOBILE INTERNET

Central to the metaverse is that it functions as an evolution of the mobile internet, of which the super app is a key player. Zuckerberg, for example, believes that the metaverse "is going to be the



successor to the mobile Internet." In theory, the metaverse is similar to super apps in that they both offer a plethora of services and activities available through one single access point (I super app vs. the metaverse). Its technological difference, however, is that the metaverse is tied to Virtual Reality (VR) headsets as the point of access and experience, rather than mobile phones. In contrast to apps, Zuckerberg frames the metaverse as oriented towards greater sociality and connectivity:

People aren't meant to navigate things in terms of a grid of apps. I think we interact much more naturally when we think about being present with other people. We orient ourselves and think about the world through people and the interactions we have with people and what we do with them. 99

This technological difference is also a difference of conceptualizing the internet itself. While super apps still run on the Web 2.0, otherwise known as the Mobile Internet, the metaverse is framed by Zuckerberg and other tech evangelists as Web3, where the internet is structured around decentralized blockchain technology. 100

Facebook's super app ambitions date back to the early 2010s. In 2013, the company announced a super app reconfiguration of Facebook for mobile users. The next year, Facebook bought WhatsApp, which has continually evolved into a super app through in-app services such as money transfers. Facebook again attempted to replicate the super app experience by pivoting towards private messaging in 2019. Tech reporters likened this shift to Facebook trying to become like WeChat, another super app. ¹⁰¹ Scott Galloway argues that Meta's metaverse pivot is another attempt at super app status, whereas prior attempts failed due to Google and Apple, the "hegemonic mobile-OS providers, which are investing billions to prevent a super-app from inserting itself between them and their users."

Meta isn't the only one to pivot to the metaverse in the face of Google and Apple's mobile monopolies; through publicly released emails merging from the 2021 Epic vs. Apple lawsuit, it was revealed that Epic Games was inspired by super app Tencent in how it bypassed the Google Play Store to release games and content on its own ecosystem, the WeChat app. "The sooner we can free ourselves from the App Store distribution monopolies," Epic Games CEO Tim Sweeney wrote, "the better." It appears Meta is following a similar playbook; while Google and Apple's app stores stand in the way of superapp dominance, moving to the metaverse is a means of achieving the benefits of the super app in another form.

While Meta has yet to achieve super app status, it still dominates the U.S. mobile marketplace. As I write this, my phone is beside me with a deactivated Facebook app on it that I cannot permanently delete from my phone—not an uncommon occurrence. ¹⁰⁴ Additionally, over 80% of users worldwide only access Facebook through a mobile phone. ¹⁰⁵ So why the sudden shift towards prioritizing new technology instead of mobile phones? The key drivers here are gaming and growth.

Oculus and Gaming: Switching Strategies

The central device to Meta's strategy is the Oculus headset. The Oculus division has seen consistent growth, as has the gaming industry in general. By pivoting to the metaverse, Meta is seeking to merge separate businesses, social media platforms and gaming, channelling Oculus's growth into Facebook's arena, where global growth has slowed. In January 2022, Meta stock took a tumble by 26% when it announced Facebook did not meet earnings expectations, including a slight decrease in global Daily Active Users (DAUs), with 1.93 billion DAUs versus the 1.95 expected. Two key reasons for Facebook's stagnation is its aging user base in North America, and the fact that the company has run out of new countries to expand into Additionally, Apple changed its privacy features, which resulted in a huge blow to Facebook's advertising business, in another illustration of Apple's impactful hegemonic status as an OS and app store provider. The oculous heads of the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to merge seeking to the metaverse, Meta is seeking to t

By contrast, Oculus continues to grow. In 2021 alone, the global market for AR/VR technology grew 92.1% over 2020, of which Oculus made 78% percent of new AR/VR units sold. 108 Beyond the Oculus



and the AR/VR market, the global games industry is bigger than the film, television, and music industries combined, and is on track to earn \$200 billion by 2023. ¹⁰⁹ As a *Variety* media analyst notes, "The video game as we know it is morphing from a self-contained experience into something like the social media platform of the future." ¹¹⁰ Gaming is not only a major threat to entertainment industries; they are also a key way people are connecting *socially*. Pivoting to the metaverse, where all aspects of life—including play—dissolve into the ether, is Meta's way of maintaining growth by repositioning their portfolio into a new industry, one that does not yet truly exist. Gaming is growing, and it's expanding into a social space. The metaverse shakes off bad press, builds hype, and leverages Facebook's resources together for a new means of data extraction and advertisements.¹¹¹

Meta has refashioned Oculus over the past few years to combine its technology (VR headsets) with Meta's social networking (Facebook accounts). Oculus users can no longer use an Oculus account to use the device, as these are being phased out by 2023. Instead, the Oculus user experience has shifted to something akin to the super app, where user interactivity and data collection occur at one point. The presumed appeal for the consumer is that there is one app or technology where your most-used services are centralized for ease of use. For tech developers, there is the ease of transaction, and an ever greater collection of data. Meta's shift into the metaverse is thus arguably in part aimed to capitalize on this data extraction.

While Meta introduced Horizons as a workspace alternative aimed at the current, rising demands of remote work due to the pandemic, Horizons has since been largely overshadowed by Horizon Worlds, which is framed more as a game space. Horizon Worlds envisions Zuckerberg's metaverse vision, advertising endless worlds of possibility that offer "completely new experiences that don't really fit how we think about computers or phones today." By pivoting to a technology of the future, Meta pushes beyond current markets, particularly mobile phones, into a kind of technological colonialism¹¹⁴, one that aims to dazzle investors with the promise of new frontiers, while capitalizing on contemporary shifts in gaming and capital.

Facebook generates enough cash and has enough users that it can bully its way into new markets. We have already seen a similar version of this through Facebook's technique of "copy, acquire, kill" to neutralize its competition, Instagram being one prominent example of this. Heta has enough momentum and capital—at least for now—to make this concerted push into the metaverse. Such a push is rather like putting the cart before the horse, inventing the marketplace in order to dominate it from the start. The metaverse does not exist. This is a particularly salient point, given that the majority of people in the U.S. and elsewhere don't have capable internet access to support demanding VR technologies. Meta, however, would rather say that the metaverse does not exist...yet.

Conclusion

The metaverse is a way to do both social media and connected gaming at the same time, while also attracting investor hype. But as writer Gian Volpicelli points out, the metaverse is ultimately a "crisis technology." The metaverses of Ready Player One and Snow Crash are alternatives to the darker reality, one of squalor and vast economic inequality. The current turn towards metaverses is fuelled even more by the COVID-19 pandemic, which has restricted people to their homes for over two years.

For a true metaverse to exist, there would need to be seamless connectivity within one ecosystem. While Meta has given lip service to the idea that they would embrace decentralization and interoperability and literally not monopolize the space, the reality is that all these companies are working on a model of winner-takes-all. But until that metaverse actually appears, it looks like our everyday life will continue to be imbricated within dozens of platforms. Perhaps Meta realizes this as well—its holding company's full name is in fact "Meta Platforms, Inc.". We may be reaching a point where to fully participate in society requires the platformization of everyday life. Just like Meta, it's platforms all the way down.



Aurelie Petit

Started in Togo in 2018, the Togo-and Singapore-based app Gozem is described by its co-creators, Swiss Raphael Dana and Gregory Costamagna and Nigerian Emeka Ajene, as Western and Central Africa's "first super-app". Available on iOS and Android, Gozem is inspired by both Southeast Asian super apps Grab and Gojek, and the Benian industry of motorcycle-hailing, "zémidjan" or "zem". At first, the app concentrated on offering direct transport, but it later added car and tricycle transportation. In mid-2019, the pan-African start-up expanded to Benin, reporting 400,000 new registered accounts and 2,000 drivers, called "champions" on the app, between the two countries. After acquiring local Togolese meal delivery company Delivroum in October 2020, "I7 Gozem added food and groceries delivery to its services, encouraged by the new needs for convenience resulting from the COVID-19 pandemic. Now, it plans to soon provide digital banking and lending services directly via the app. As of May 2022, Gozem is available in Togo, Benin, Cameroon and Gabon, and will soon be available in Democratic Republic of Congo, Burkina Faso, Ivory Coast, Mali and Senegal, strengthening its role not only as an essential actor to Francophone Africa's transportation and delivery industry, but also as a developing fintech service.

LOCAL ANSWERS TO INFRASTRUCTURAL ISSUES

Gozem's strategic business choices need to be situated within the local context of many Western and Central African infrastructures. As explained by Gozem Benin director Lionel Mobi, the app developers had to navigate problems related to urban mobility (road conditions, typical bargaining tradition between drivers and users), digital services (lack of democratized Internet access), and difficult bureaucracy, while simultaneously working towards making sure these issues would not limit Gozem's usage. 118 For example, as Mobi explains, they got around urban mobility challenges by reducing and uniformizing the transportation offer; they reduce the risk of inaccessibility of low mobile data service by making deals with telecommunications companies to save data for in-app uses; and they were able to circle around bureaucratic corruption by relying on digital administrations. Furthermore, Gozem has demonstrated its understanding of the importance of both zémidjan transportation over cars, and of mobile money and cash over card payment. By working with local agents to solve local challenges, Gozem was able to provide an overall convenient user experience, tailored to its audience. Moreover, Gozem can be considered a pan-African tool towards native communities' autonomization from Western and European digital apps. For example, as a response to complaints regarding the absence of Uber in Cameroon during the 2021 Africa Cup of Nations, social media users argued that other taxi and carpooling service providers were available, including Gozem 119

FINTECH AND MOBILE MONEY

As mentioned above, to ensure transactions, Gozem is using not only cash payment, but also mobile money technology. The app's long-term plan involves developing money loans, thereby functioning as a digital bank for its users. In December 2021, Gozem announced that they received USD 5 million (3 billion FCFA) following a Series A funding round. The investments came from AAIC, Thunes



(TransferTo), CMC Ventures (National Express), Momentum Ventures (SMRT), Innoport Ventures (Schulte Group), and Liil Ventures (Mobility ADO). Before that, the company had received USD 7 million from Plug and Play Ventures, Launch Africa, BANSEA and Virtual Network, rendering its total investment funding at the time of 2021 at USD 12 million. Such financial support must be perceived as innovative, considering most outsider funding in Africa has tended to go towards supporting Nigerian, Ghanaian, South African and Egyptian companies, countries with a strong anglophone tradition because of colonial heritage from the British Empire. One of Gozem's creators, Raphael Dana, explained in March 2022 that, by the end of the year, the company was aiming to raise a USD 10 million post-Series B funding round, as well as a Series B funding round of USD 50 million in equity and a USD 30 million debt facility. The funding previously received by Gozem is an indication of its trajectory towards implementation in anglophone countries, which typically have higher-cost investments and depreciating currencies opposite to the FCFA, like Nigeria and Ghana, which Dana explains as, "We were ready to make a \$1 mistake in Togo and not a \$1m one in Nigeria."

This total investment is used to fortify Gozem's role as a super app, therefore, to push for its inapp wallet technology, the "Gozem wallet" ("portefeuille Gozem") on which users can add funds, a similar in-app banking model to the one available on Ugandan motorcycle-hailing app SafeBoda. To recharge their Gozem wallet, users can use mobile money, a popular non-taxable payment transfers system that does not rely on formal banks, for which the African continent accounts for 70% of its global transactions. 122 The established popularity of mobile money is helping Gozem to incorporate an in-app wallet: users already have a habit of using their mobile to pay for businesses (B2B) and individuals (P2P). Gregory Costamagna, one of the app founders, explains that the Gozem wallet differentiates itself by going beyond being an autonomous wallet as offered on other platforms, but rather a single payment system for every in-app service. 123 In the case of Gozem, offering an alternative payment system does not represent a break but rather a continuity in established user experiences, demonstrating again the company's understanding of its local audience. Within its own banking offer, Gozem is also offering loans to "champions" to pay for the mandatory safety equipment and smartphones, which is soon planned to be expanded to vehicle financing loans, with the risk for independent drivers to financially rely on their employers for the tools necessary to produce labour, while staying liable because of the loans structure.

Conclusion

The super app Gozem offers services that are tailored to its local users, effectively answering regional needs, and countering challenging infrastructure. It will be important to follow Gozem's development as it relates to its working force, the champion. While the app has proven to be innovative, securing international funding and a database of users across many countries, it is crucial for such an unprecedented app to continue answering local needs without risking reproducing the labour issues that have been centred in international public discourses regarding similar transportation and delivery apps. 124



Elena Altheman

Popular discourse on super apps started to gain more traction in Brazilian media in 2020, 125 amidst one of the worst social, political, and economic crises the country has ever experienced. Advancing narratives of job maintenance and user convenience predicated upon the uncertainty of times during the COVID-19 pandemic, the publicly celebrated turn towards a Brazilian super app ecology repeatedly emphasized three companies as its most prominent candidates to become, indeed, a leading super app in the country: Rappi, Banco Inter and Magazine Luiza, now known as Magalu. 126 Notably, most accounts attempt to explain to the public what a super app is by using the Chinese case of Weixin/WeChat, as do these aforementioned companies' executives, who also mention China's extremely popular super app as their source of inspiration and business model. 127 However, it should be pointed out that most of these super apps operating in Brazil (Rappi is a Colombian company) did not start off as social media platforms or messaging apps like WeChat, South Korean Kakao or Japanese LINE did; Magalu made its transition from a brick-and-mortar retail store to one of Brazil's biggest e-commerce companies, and it is widely considered one of the country's most successful stories of entrepreneurship and digital transformation. This report presents a brief account of Magalu's history, its business model and acquisition strategies, focusing on the popular narrative constructed around Magalu (its branding, in a sense), which emphasizes the emotional appeal of its chairperson's trajectory, Brazil's wealthiest woman, billionaire Luiza Helena Trajano, 128 and a rhetoric of diversity, inclusion and fighting inequality, even if this is recurrently framed mainly as opportunities for investors and revenue-making. It is always of the utmost importance to consider how these companies elaborate and construct their public image through the employment of this rhetoric of social justice and participation, and this discussion is made even more pressing in our current times of work precarization, especially in a "Global South" context.

HISTORY

Magazine Luiza began in 1957 as a gift shop in southeastern Brazil's countryside, owned by Luiza Trajano and her husband—a small family business. In 1991, with the country buried in an economic crisis, Luiza Helena Trajano, the original owner's niece, assumed the company's leadership. Magazine Luiza was already a chain of stores in several cities, selling electronics and home appliances, and Luiza Helena had ambitious plans to expand it even more. 129 In 2000, Magazine Luiza launched its e-commerce service, and in 2011 it announced its IPO and was listed on B3 - Brazil Stock Exchange and Over-the-Counter Market (formerly known as BM&FBOVESPA), São Paulo's stock exchange, raising USD 586 million. 130 It launched its new mobile app in 2015, and in 2018 it became Magalu. [31] It was also in 2018 that Frederico Trajano, Luiza Helena's son 132 and Magalu's current CEO, travelled to China and was impressed by a "modern, digital country, where Chinese people use technology to aid their daily lives" and the companies Tencent (owner of WeChat) and Alibaba's business models. In Magalu's Q4 2018 earning statement, he affirmed that Magalu is "not only building an app, but rather a 'superapp': a digital environment where customers can go shopping, pay bills, top up their mobile phones, hire transportation services, buy lunch". 134 Magalu's 2021 Q3 industrial report claims that it is now the largest "buy and sell ecosystem" in Brazil with both its physical and online stores, and that its super app has almost 38 million active users monthly. In August 2021, Magalu's e-commerce represented 72% of their total sales. 136

TRANSITION TO SUPER APP



Under the initiative called "Partner Magalu", launched in April 2020—the early days of the pandemic—Magalu developed an "intuitive app" designed to aid striving companies in creating their online stores within Magalu's ecosystem, and selling their own merchandise in a marketplace supported by the app. This initiative was pivotal to Magalu's positioning as a super app in Brazil, as it expanded its services and client-user base, relying heavily on a rhetoric of deep support for small businesses especially during the pandemic. Magalu's 2020 management report states that "Magalu declared war on COVID-19" and that "without Partner Magalu, many of these businesses would have closed permanently. This is a movement that the pandemic catalyzed, but which will accelerate even as COVID-19 subsides". Magalu's marketplace currently features more than 120,000 sellers and represents 35% of the company's online sales. Magalus of the company's online sales.

Notably, Magalu has been aggressively acquiring new companies from diverse areas in order to expand its super app features and offerings. In mid-2021, it raised USD 765.3 million in a share offering aimed at financing the acquisition of game retailer Kabum! in an effort to enter the games market. As a super app, Magalu offers its marketplace of partner sellers and its own products, with an emphasis on the fashion and beauty industry (from recent acquisitions such as Netshoes and Steal the Look companies), as well as supermarket products and its own logistics resources and (a self-proclaimed super fast) delivery infrastructure; a food-delivery service geared towards smaller towns, which has seen a steep increase with the departure of Uber Eats from Brazil; If intech initiatives such as Magalu Pay, a digital account which offers prepaid cards, credit cards, loans to individuals and companies, insurance and cashback for Magalu's customers, marketplace sellers and ecosystem partners; games, mainly produced nationally; original content, through the acquisition of Jovem Nerd and Canaltech; restaurant management resources, book-selling platforms, amongst others. With the 2021 acquisition of Hub Fintech, Magalu's financial services got enough regulatory and technological support to develop the services offered even further. Magalu's fintech currently has 4 million MagaluPay accounts, has emitted 6.6 million credit cards and has more than R\$ 15 billion in its credit portfolio.

Conclusion

In a country deeply moved by personal narratives of success, of the few who "made it," Luiza Helena Trajano is definitively someone who is always in the public discourse, be it through her story of transforming a small family business into one of Brazil's largest and most successful companies or her polemic positionings. 144 Magalu asserts itself as a household name in Brazil through its bold market expansion and participation in the form of services offered through its super app, its fairly progressive stance towards small businesses, workplace equality and inclusion, ¹⁴⁵ values which are consistently reinforced by its executives, and cohesive branding. In 2020, for example, in a move widely reverberated on social media, Magalu launched a trainee program exclusively for black Brazilians, with the goal of tackling structural racism, a problem acknowledged by Luiza Trajano. This was positively received by the market, and at the time Magalu's stocks were up by 2,67%. When this program was announced, Francisco, her son and current CEO, stated that "We want to see more black Brazilians in leadership positions. Diversity will transform us into a better company, one that is able to generate more revenue for its investors". 146 It is important to point out the rhetoric employed by Magalu's CEO and how these inclusion and diversity measures are framed by companies: always as an opportunity for its investors, stocks, and revenue-making. With the goal of diversifying and strengthening its digital presence in other areas and expanding into content creation, Magalu has created and invested heavily in a virtual influencer, Lu da Magalu, now a Brazilian celebrity, star of campaigns for brands such as Adidas, and featured on Vogue Brasil's cover in February 2022¹⁴⁷ and one of the reasons Magalu became the first retail store to achieve more than I million subscribers on its YouTube channel (named Lu's channel). Magalu's aggressive acquisitions policy and extensive range of services concentrated and offered in its super app are a reflection of the company's general view on its operational and business model, and a direction to which its executives have been eagerly pushing toward, in order to, in Frederico Trajano's words, "do [in Brazil] what Tencent and Alibaba are doing there [in China]...no more barrier between digital and physical". 148



Xin Zhou

As an e-commerce platform that was initially targeted at the economy beyond the fifth ring, ¹⁴⁹ the meteoric rise of Pinduoduo 拼多多's (Nasdaq: PDD) is exceptional in an era when the clash of e-commerce platforms in Mainland China was believed to be over. Huang Zheng 黄峥 founded PDD in 2015 as a social e-commerce platform. With its headquarters in Shanghai and operations throughout Mainland China, this mobile-only app rose to the red ocean¹⁵⁰ of the e-commerce platform ecosystem in just three years, falling just behind Alibaba (Taobao and TMall) and JD.com, and the firm was listed on the Nasdaq in 2018.

By Q3 2021, PDD had 741.5 million monthly active users. Is More than 60% of users were from China's third and fourth-tier cities. The enormous potential of the sinking market (下沉市场, a Chinese term referring to the market in third-tier cities or lower) was a critical reason for Pinduoduo's success. This platform app was once reviled by the brand-conscious middle class and upper-middle-class in the first-tier urban metropoles (Beijing, Shanghai, Guangzhou and Shenzhen), who believed that the fight for Mainland China's e-commerce platforms had entered the mature phase of the business cycle. PDD effectively rebutted this negative sentiment, recasting its disadvantage of entering "into a market already saturated with established power players" as an advantage, and establishing the app as a must-have in the Chinese smartphone ecosphere. PDD created an annual revenue of 60 billion yuan (9.2 billion USD) in the preceding twelve months as of the fourth quarter of 2021 compared to JD's 746 billion yuan (114 billion USD) of the same period.

Huang Zheng stated in an interview that he is solely concerned about two indicators for the PDD app: daily active users and gross merchandise value. He stressed to his staff that "I hope our team wakes up feeling anxious every day, never because of share price volatilities, but because of their constant fear of users departing if we are unable to anticipate and meet users' changing needs." Huang's perspective closely echoed what media industry scholar Adrian Athique noticed about India's platform capitalism: "the aggregation of population, not capital, is the guiding principle of the platform economy." The sheer influx of capital investment is not sufficient to guarantee the success (or monopoly) of a platform company. Once the user base (population) is secured, the users' consumerist actions on the platform guarantees the income and revenue, thus providing the expected growth of its market value.

PDD's e-commerce siblings have laid the groundwork for its success in three critical channels. For one, digital payment apps like Alipay and WeChat Pay have become the de facto standard mode of digital transaction and are now the official way of Chinese living. Huang Zheng highlighted the Chinese New Year in 2015 when PDD was in its first year, and messaging and mobile payment super app WeChat launched its digital "Red Envelope" feature, which enabled users to give monetary gifts within the WeChat-sphere. With additional cash in their mobile wallets, a large portion of the digital payment system's cash flow went to e-commerce platforms like PDD which uses WeChat Pay as its default payment method. The already established digital payment method made possible by Tencent, the parent company of WeChat, who owns 15.6% of Pinduoduo, 155 paved the way for PDD's rise but also restricts PDD's user base, as only those who are accustomed to online shopping with WeChat Pay will be able access to the products on the PDD platform.

The second material prerequisite that fosters PDD growth is Mainland China's fully developed logistics infrastructure, specifically the second-day delivery service. If the delivery address is close to the coastal provinces, a small item costing less than 1 USD can be delivered with the merchant covering the shipping costs. Even the "last mile" delivery service faces stiff competition from a number of delivery companies such as SF Express, Cainiao, and YTO Express. Consumers are spoiled by mature logistical infrastructure, which was made possible by the existing platform giants' exploitation of migrant labour since the mid-2010s. In its early days, the allure of PDD to its price-conscious users/consumers made efficient use of the low economic costs of shipping to acquire a large portion of data/user traffic, making it more appealing to investors on the financial market who are primarily concerned with the numbers in the quarterly financial reports of the stock.



A third factor, I shall argue, that contributes to PDD's success is the material abundance of small commodities 小商品 made available in Mainland China. This manufacturing nation, or as Silvia Lindtner refers to it, the prototype nation, ¹⁵⁷ has produced far too many items, ranging from knockoffs of knockoff footwear, OEM electronics, and agricultural products to pharmaceuticals and toys, and the list goes on. If one has ever visited Yiwu, the symbolic capital and trading centre of light industry commodities in Mainland China, or Huagiangbei, the Silicon Valley of hardware, one will understand that these things need a platform. I would argue that at every developmental stage—and the internet business logic does operate within a developmentalist logic and helps the spread of commodities—the platform economy is a mirror that reflects both the real economy 实 体经济 and the financial derivative economy of the locale where this platform and its globalized scale are situated. It functions and seeks to thrive within the entangled ecosystem that comprises the centralized logic of the internet (Web I.0 through 2.0 to 3.0), the real economy, and financial derivatives. It may look like a counter-platform in its initial stage, but its venture capital nature and the company's responsibility to shareholders prevent its growth into something other than a monopoly of either the mainstream or the niche market. In essence, PDD's rapid growth is the result of the double-edged nature of super apps like WeChat, which made the latecomer's entry into the financial market appear effortless, but did so in a structured manner, thereby ensuring the super apps' position at the top of the platform pyramid in Mainland China's platform ecosystem, whose ultimate goal is to become "too big to fail."



Roslina Chai

Co-founded in 2012 by Harvard schoolmates Anthony Tan (charismatic scion of one of Malaysia's most prominent industrialist families) and Tan Hooi-Ling (enigmatic ex-McKinsey consultant) in Kuala Lumpur (Malaysia) as a single-use taxi hailing app, Grab has today become "an all-in-one platform making everyday better, [f]rom essential services to earning opportunities." At the time of writing, Grab operates in more than 400 cities across 8 Southeast Asian (SEA) countries, and was in 2021 the region's market leader for online food delivery (49%), 159 ride-hailing (72%), and e-wallet (23%). With SEA already leading globally in mobile connections (132% of total population in 2021), 161 and with its digital economy forecasted to reach 1 trillion USD in 2030, 162 Grab is well poised to capture a significant portion of the total addressable market.

In the city-state of Singapore where Grab is headquartered, Grab has long since been a verb, being both a feature, and a fixture, of how many Singapore residents commute, eat, work, shop, and show care. Beyond the 12 consumer offline-to-online service categories, each with its respective sub-categories (e.g. 24 options available under 'Transport'), consumers may also 1) use GrabPay to transact and earn Grab loyalty points (which may be transferred amongst participating banking and airline partners), 2) chat with friends, and 3) regardless of which country they are in, send food, gifts, grocery, parcels, and cars, to contacts in Malaysia, Indonesia, Philippines, Singapore, and Thailand. All of these services may be seamlessly accessed via one single app interface, even with 3G.

Corporate accounts are also available for transport, food, mart, gifts, and last-mile-delivery. For food and beverage (F&B) merchant partners, Grab offers cloud kitchen facilities, catering options, dark delivery hubs, centralised bulk purchasing systems, POS systems, and loan options. The idea is to democratise access to the extent that even an unbanked one-person-operated F&B stall can participate in the digital economy. For driver and delivery partners, Grab offers tailored insurance plans, tailored financial products, and job-specific training programs. Additionally, in partnership with Singtel (Singapore's national telecommunication provider), Grab was awarded one of four digital full bank licences by the Monetary Authority in Singapore in December 2020, with operations slated to begin early 2022. With the confirmation that it is bidding for a banking license in Malaysia, 164 industry analysts expect Grab to be in contention for other banking licences in the SEA region. 165

Grab boasts an investor roster that reads like the who's who list of the on-demand industry, ¹⁶⁶ and is widely considered Southeast Asia's most valuable startup, having debuted on Nasdaq in December 2021 at a valuation of 40 billion USD, ¹⁶⁷ making it the largest U.S. listing by a Southeast Asian firm and as well the world's largest ever by a blank-check company. ¹⁶⁸ Blank-check is because Grab went public using a *special purpose acquisition company* (SPAC), which are shell companies set up for the sole purpose of merging with a private firm to take a company public, and is considered by many to be a controversial financial innovation. ¹⁶⁹ Notably, SPAC critics opine that the loosely-regulated going-public process, which bypasses the more time-consuming and rigorous traditional IPO process, not only fuels bullish financial projections, but seems engineered to attract fraud. ¹⁷⁰ Given that Grab was, up until a few months ago, a privately owned company, very little is known about how it operates, and its impact on the ecosystem of stakeholders and society writ large.

ALGORITHMIC (SELF) GOVERNANCE OVERSIGHT?

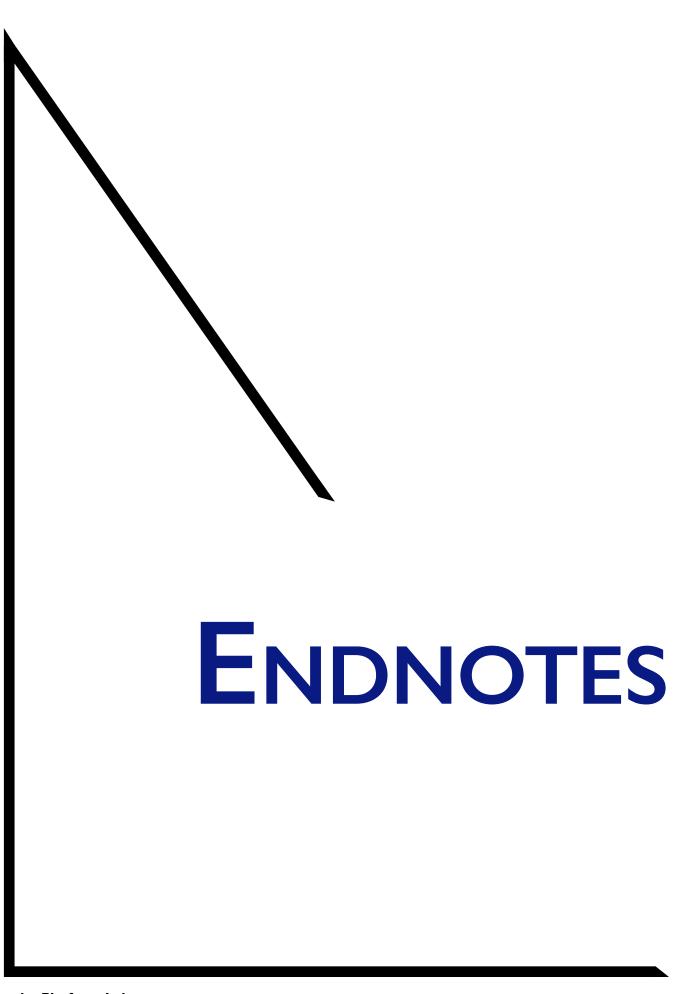


Whilst there can be no doubt that Grab has greatly facilitated the convenience of living and earning in densely populated SEA cities—especially those struggling with infrastructural challenges of traffic, banking, and digital penetration—much remains wanting vis-à-vis questions of accountability and responsibility in situations such as, in Singapore, I) payment scams targeting the more digitally illiterate of Grab's F&B merchants, ¹⁷¹ 2) sexual harassment incidences instigated by Grab drivers, ¹⁷² 3) recordings of passengers harassing Grab drivers, ¹⁷³ 4) user data privacy violations, ¹⁷⁴ 5) questionings about absent detailed safety records, ¹⁷⁵ 6) violations of competition law, ¹⁷⁶ 7) allegations of phantom bookings on competitor apps, ¹⁷⁷ 8) outcry over Grab's exorbitant commission for food-delivery being borne by merchants, ¹⁷⁸ and 9) complaints about Grab's opaque surge pricing. ¹⁷⁹

Beyond Singapore, protracted and tense engagements with regulators on questions of legitimacy and fair competition, skirmishes with unions (where they exist) and/or locally organised labour organisations regarding fair labour practices and value distribution, and disputes with its own driver and delivery partners over commission and incentives pay-outs, continue to stir public imaginaries. While the introduction of new laws had been one consequence in some of these situations, Grab continues to operate in extra-regulatory cracks in others, e.g. food delivery safety and hygiene especially where delivery delays lead to spoilage; the ethics of algorithmic opacity vis-à-vis resource allocation during peak hours; and equitable treatment of independent driver and delivery partners for whom Grab is their livelihood. Considering absent industry guardrails on issues such as cross-border data transfer, discriminatory pricing, and source code protection, how is Grab's self-governance, and governance-by-algorithmic-design, being held accountable?

Conclusion

The cumulative impact of Grab's I.) high profile CEO, 2.) ubiquity in SEA cities, 3.) regional market dominance, 4.) continued speed of expansion into other industry verticals, 5.) operations in liminal spaces beyond traditional regulatory frameworks, 6.) technocentric tendencies, and 7.) algorithmic opacity, is the reconfiguration of SEA cities' socio-legal (labour rights of its partners), -political (income equality), -economic (sustainability of small F&B businesses), -cultural (public perception of sexual harassment), and -environmental (carbon footprint of on-demand convenience) landscape. Amidst this sea change, the many undesirable externalities could arguably be regarded as inevitable growing pains, and perhaps even justifiable in the grand scheme of all the 'good' that Grab has made possible, but for Grab's self-proclaimed desire to be "a company that would be a force for good for Southeast Asia, the place we call home." For, interestingly, in Grab's haste to technosolution SEA's many urban challenges, the maxim "first do no harm" seems to have fallen by the wayside, begging urgent questions about the superapp-city-urbanite interface. The responsibility of engaging in constructive questionings, before Grab becomes so invisible that it is practically invincible, rest equally with consumers, regulators, industrialists, journalists, academics, public intellectuals, and Grab.



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