

# The Paradox of Platform Monopoly between Tencent and Facebook: Theory, Practice and Governance

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**Abstract:** This paper focuses on the paradox of and platform monopoly by comparing the difference in definition, strategy and practice of platform openness between Facebook and Tencent over the past ten years. In this comparative study of platform historiography, we find that the two platform giants follow a common path of openness: based on social functions, and build infrastructure and platform ecology by providing tools for developers based on connecting users with data and flow. However, in the actual opening process, Tencent tends to make a convergence between other industries and deepen social functions in the way of industrial convergence while Facebook tends to connect individual life and promote social interaction by constructing various communities. In general, the essence of platform openness paradox is that convergence and community is the typical image of openness, they also blur the boundary of market segments in the Internet industry and the boundary between public and private in the Internet society respectively. This is not only the core symptom of platform economy, but also should be the theoretical starting point of platform governance.

**Keywords:** platform governance, platform monopoly, open strategy, Tencent, Facebook

## **Introduction: Matchmakers? Monopolists?**

The process of platformization in recent years has been regarded as the most profound social transformation after industrialization and electrification. To some degree, the growth and rise of platforms have not only built innovative cooperation networks among enterprises, but also broken the boundaries of the state, market and civil society, which were originally operating in isolation and distinctly. With the

trend of giant enterprises represented by GAFBA and BAT going vertically into the bottom layer of users and gradually becoming the infrastructure across various industries and departments, platforms have reshaped the form, structure, and ecology of interdependence among enterprises, audiences, and governments (van Dijck, 2020).

Further, the changes brought about by the platform society are realized through a process of platformization that integrates stakeholders horizontally, and a process of infrastructuralization which is vertically embedded in other industry markets. This also predicts that the growth of platform empires has always been dualistic: the lush growth of economic benefits on the one hand, and the continuous expansion of technological systems on the other hand (Helmond, Nieborg, & van der Vlist, 2019). Therefore, the competition based on platforms is no longer just about the struggle for value chains and profits, but how to achieve the internal unit reorganization of company through the internal platforms of the enterprise, coordinate the supply chain platform through distributors, and bring together market synergies through industry platforms to form its own ecosystem. (de Reuver, Sorensen, & Basole, 2018)

However, with the intensification of the growth of platform society worldwide, the process of platformization and infrastructureization has produced obvious and drastic paradox: Since 2007, the platform giants represented by Facebook and Tencent have been expanding their linking capabilities by building F8 open system and Tencent open platform respectively, to strengthen the platform concept of freedom and equality. From 2019 to 2021, the U.S. Department of Justice (DOJ) and Federal Trade Commission (FTC) have launched anti-monopoly accuse of Facebook's market share and platform blocking. In China, Tencent is even accused of suspected monopolistic behavior of restricting user access by competitors such as Qihoo 360 and ByteDance several times from 2010 to 2020. The doubts and allegations against the monopoly of Facebook and Tencent have not stopped until now. **Here, one issue becomes particularly important: under two completely different social contexts, the two platform giants established their open strategies at similar moments and encountered criticism of monopoly at similar moments. How did this paradox of openness and monopoly come about? More importantly, what localization of global platform development is hidden behind this highly globalized, synchronized and similar openness process, and how can we reflect on the meta-question of diverse platform governance background?**

This paper focus on the dualistic contradiction between platform openness and monopoly from the theoretical perspective of platform governance, and places the study under the coordinates of historical and globalization comparison. Through the method of platform historiography, the paper focuses on the strategy, discourse and controversy of platform openness in the platform history of Facebook and Tencent, and find the common issues of platform governance in the context of globalization by comparing Facebook and Tencent. In these discourse work on platforms, especially behind the discussion of some keywords, the criteria and logic by which we judge and define platform technologies and understand platform society are established (Gillespie, 2010). Specifically, this paper will analyze the development history and evolution of the contradiction between openness and monopoly of platform giants through the discourse practice of Facebook and Tencent on the core concept of platform openness in their platform openness conferences. More importantly, in different countries, different degrees of platformization and infrastructuralization have stimulated different trajectories of platform growth. Under the grand trend of platform openness, what kind of platform ecological possibilities have been deduced from different economic backgrounds?

### **Platform Openness: A Theoretical Map of Platform Governance**

In the context of the platform society, platform governance is understood as a set of legal, political, and economic relationships that construct the interactions between users, technology companies, governments, and other key stakeholders in the platform ecosystem. (Gorwa, 2019) As the core of coordinating stakeholder relationship, the concept of platform openness can be defined as the following three levels, establishing interaction, connection and cooperation with rival platforms, licensing other platform providers to access, and expanding the sponsorship of platforms. (Eisenmann, Parker, & Alstynne, 2009) In practice, platform publicity is the result of dynamic interaction between platforms, users, and public institutions and it is also desirable to allow the role of each stakeholder such as government, users, and advertisers to be effectively explored. (Helberger, Pierson, & Poell, 2018) At the

same time, platform openness fundamentally promotes the commercialization of the Internet. On the one hand, openness effectively facilitates the development of Internet infrastructure, and on the other hand, it profoundly promotes the structural transformation of commercial APP supply. (Greenstein, 2009) **In previous studies, studies on the classic concept of platform openness were specifically carried out from two dimensions: one is the horizontal granting of access rights to multi-platform users and partners, and the other is the vertical delegation of control to other stakeholders parasitic to the ecosystem.**

**In the process of realizing openness through granting access rights, platforms filter and organize user-generated content and manage the interaction between users instead of producing content themselves (Boudreau, 2010).** In this process, platforms play the combined role of search engines, Internet service providers (ISPs), and traditional media regulation (Gillespie, 2017). For platform giants, granting access to other users and collaborators is also achieved through legitimacy work with collaborators, such as Intel, which has shaped openness as a collective identity within the platform ecosystem by articulating the operating principles of the “new computer industry” with open standards. (Gawer & Phillips, 2013) Facebook also defines openness as the relationship between platform and users, juxtaposing the identity of users in the platform with the changing mission of the platform and the importance of commercial participants on an equal footing in order to bridge the power differential between the three aspects in its interpretation of openness. (Hoffmann, Proferes, & Zimmer, 2016) In this perspective, the essence of platform openness is communication, and it breaks down the clear definitions, fixed hierarchies, static roles, and empowerment processes of traditional commercial organizations by creating “community-driven” organizational forms and facilitating the creation, curation, and consumption of meaningful “content”. (Fenwick, McCahery, & Vermeulen, 2019)

**The core of openness through decentralizing control is to reconfigure the innovative structure of platform, allow third party companies to develop applications and add-ons within the existing framework by opening up its programmability, thus realizing the infrastructuralization of the platform. (Plantin & Punathambekar, 2019)** The nature of this openness is also a complementary innovation, where the platform provides the foundation for common

components and technologies in the industry, but more importantly, the platform should continuously design its own rules and strategies of openness, thus completing the innovation incentives within the platform innovation system. (Gawer & Cusumano, 2014) In the case of Facebook, the process of infrastructuralization and platformization is achieved by transforming from a social networking site to a multi-faceted platform for “social” application development, advertising development, and marketing development, and accumulating external dependencies in the process. (Helmond et al, 2019) In China, platforms also enhance the convergence of platform business and social infrastructure functions by continuously increasing their grayscale and business boundaries in the context of national industrial convergence. (Zhu & Mao, 2021) In this process, the platform not only focus on internal web growth, but it also acquires competitors and achieves infrastructure expansion by leveraging direct and indirect network effects and improving boundary resources. (Nieborg & Helmond, 2019)

**Therefore, platform openness is the product of platformization and infrastructuralization under the background of two historical processes.** This transformational revolution jointly owned by the world also contains the common worldwide challenges: on the one hand, the network effect constructed by the platform may lead to monopoly; on the other hand, the processing of user data by the digital platform may have a negative impact on competition through potential entry barriers. (Gawer, 2020) The previous studies above have been devoted to discussing how platform openness is realized among representative platform giants. **However, what has been neglected by previous studies is how platform openness is coupled with these different backgrounds in the process of different platformization and infrastructuralization around the world. More specifically, the question is whether the platform companies around the world are adhering to the same and true concept of platform openness as global platform monopolies are becoming more and more frequent. If not, what is the relationship between platform openness and monopoly in localization by different platform openness?**

*Methods: Platform Historiography*

Through the above analysis, the study focuses on the issue of openness and monopoly in platform governance, and the relationship between platforms and innovators. The growth of platforms is a long-lasting process and dynamic process. Take Facebook for example, it grows from a social media site to a social media platform step by step. (Helmond, 2015) Therefore, platform research needs to break the traditional static research perspective of studying platform business models and corporate strategies, and focus on the long-term growth trajectory of platforms through a dynamic dimension.

Helmond and other scholars consider that Platform Historiography aims to take different levels of subjects (platforms, operators, partner companies, consumers) into account through the analysis of platform experience materials while each of these levels shows different aspects of platform's history, thus surpassing the one-way platform research with end users, user-generated content, and user interactions. Those empirical materials consist of blog archives, technical reports, research publications, patent applications, developer conferences and meetings, webinars, earnings releases, court documents and filings, GitHub repositories, Twitter posts, public statements, and technology blogs. By using the method of platform historiography, it can capture the infrastructural presence and impact of social media on societies. (Helmond & Van der Vlist, 2019) Helmond et.al.(2019) use historical approach to summarize four stages in Facebook's long-term evolutionary dynamics, by using some boundary resource including application programming interfaces (APIs), software development kits (SDKs), and reference documentation, partnership programmes and related partner badges and certifications. Nieborg and Helmond(2019) combine 'boundary analysis' of platform documentation with 'document analysis' of financial and managerial data to explore the development of Facebook. They use documentations such as developer documentation, product documentation, financial disclosures and quarterly investor calls, which can be an archive that enables a reconstruction of a platform's evolution. (Nieborg & Helmond, 2019)

Besides, different countries have different backgrounds and development styles, so there may have differences in the evolution and development of platforms. The key

difference between cultural and technological companies in China and elsewhere may well be the intrusive role of the state. (de Kloet & Fung, 2017) Tencent and Facebook are well-known Internet companies in China and the United States, and both of them have open plans while they are constantly accused of monopoly at the same time. Thus it is meaningful to compare these two companies.

The empirical texts used in the study are divided into two kinds of materials, including Tencent's and Facebook's corporate strategy of openness and expansion and industry's elaboration materials on Tencent's and Facebook's monopoly. Specifically, the former texts of Tencent includes speeches, open letters, and published Tencent white papers by Pony Ma Huateng and other Tencent partners at the Tencent Global Partner Conference and Developer Conference from 2010 to 2020. The former texts of Facebook includes speeches and open letters by Mark Zuckerberg, the interviews with Zuckerberg and keynote speeches at some conferences such as F8 developer conference and Facebook Connect conference. The latter texts of Tencent includes public texts of the monopoly dispute between Qihu360, ByteDance and Tencent, legal documents, public remarks of Tencent's core members on anti-monopoly incidents, Tencent-related industry research reports, and comments on monopoly incidents by well-known financial media in the industry. The latter texts of Facebook include public texts of some controversial events, such as the Cambridge Analytica affair and the Federal Trade Commission's lawsuit against Facebook, legal documents and the reports on Facebook by medias.

## **Opening Tencent and Facebook : A Comparative History of Platform Governance**

*Social Function, Digital Tools, Public Infrastructure: The Same Historical Routine of Platformization*

Facebook and Tencent started their open strategy around the same time. Facebook upgraded from a social network to an open platform in 2007. After the 3Q war, Tencent announced at the China Entrepreneur Summit on December 5, 2010 that Tencent would carry out a comprehensive strategic transformation: "The principle of

transformation is openness and sharing.” (Tencent Technology, 2010) Specifically, flow, technology, algorithms, socialization and ecology are the main elements of the open strategy of these two platforms. One of the key elements of openness is the API, which allows developers to step in and take advantage of the platform's flow to achieve rapid data growth. Facebook and Tencent both start from social networking sites, connecting through social software and APIs, providing developers with a port of entry. With a user base in hand, these two platforms begin developing tools to support the industry. On the basis of building tools, they gradually implement the infrastructure, especially Tencent. (Mao & Wen, 2021) To sum up, their opening is a gradual and progressive process, and this progression is a globally synchronized process.

### **(1) Laying the foundation of the platform with social functions**

Facebook and Tencent, as the representative Internet giants of U.S. and Chinese, start their business from social networking sites and gradually expand their mobile products. They promote openness through social networks to achieve the open strategy goal of “connecting” people.

Facebook and Tencent promoted open strategies at a similar time. In the early days of openness, APIs were the core resource they opened up, and entry and flow were key factors to attract developers. On May 24, 2007, Mark Zuckerberg unveiled Facebook Development Platform, “which allowed developers to build apps that integrated with Facebook” (Lapowsky, 2019) and announced the openness of APIs to all developers. “Social graph” is the basis of Facebook Platform and it has “built a framework that is completely optimized” for developers. (Facebook App, 2007a) Facebook provided developers with an entrance and flow base that allowed them to “develop social applications within Facebook’s environment” (Facebook App, 2007a) and “build their business”, while Facebook could expand their “social graph”. By doing so, more services were provided for users and they could “benefit from new choices in the applications available through Facebook”. On April 22, 2010, Facebook launched the “Open Graph” at the third F8 developer conference, which consisted of three technologies: Social Plugins, Open Graph Protocol and Graph API. All other Internet sites and applications can provide applications and services to users on the basis of this “Open Graph”. By using this “Open Graph”, the users can



“connect to anything they want in any way they want.” (F8 2011, 2011) In April 2011, Facebook launched the Open Compute Project to open the hardware designs, including data centers and custom servers. (TMTPOST App, 2019) At the diagnostic meeting held after the 3Q war, capital and flow were considered as Tencent's main capabilities. After announcing its openness in 2010, Tencent opened up its internal resources such as “open APIs, social components, marketing tools and QQ login” (Wu, 2017) to third-party partners for free. In its second major strategic upgrade in 2012, Tencent upgraded to “BG (Business Group) system” and “connected everything” through technology, being committed to “providing quality services to users” and “building an opening ecology”. (Tencent, 2018a) Tencent had “accumulated user resources through QQ and realized the profitability of user resources through an innovative profit model”. (Wu, 2017:4) its openness “stemed from the social relationship chain structure based on QQ and WeChat” (Tencent Open Platform, 2016), and the large user base of social software represented by QQ and WeChat enabled Tencent to have a large number of partners quickly after announcing the openness. By inviting small and medium-sized entrepreneurs(SMEs) to join in Tencent's platforms (e.g. Qzone), Tencent built new applications on its own social graph, connected applications in different fields together and “became a portal for users to find services or content”. (Ji, 2015)

With the advancement of openness, Facebook and Tencent allowed users to log in to third-party websites through their accounts, reducing the process for users to use other software and attracting developers to the platform with their user base. In 2008, Facebook launched “Facebook Connect”, which “allows user to ‘connect’ their Facebook identity, friends and privacy to any site” (Dave Morin, 2008) and “to log on to other websites with their Facebook username and password” (Lapowsky, 2019), making Facebook and other software better linked. In 2011, Tencent launched the “Q+ open platform”, which connected third-party applications, providing the users with “a unified account platform with one-click login” (Tencent Technology, 2011a) Through this access method, Facebook and Tencent provided developers with a large amount of user flow, and attracted developers to join them, thus extending their social graphs and providing users with a “unified Internet login account” (Kirkpatrick, 2010: 252) and increasing their user flow.

In the early stage of openness, the user flow of social software represented by “QQ and WeChat” and “Facebook” attracted a large number of developers, which became a necessary condition for the openness of Facebook and Tencent. They provided developers with an easy opportunity to enter, enabling them to build their businesses on the platforms and reduce the cost of failure, thus expanding their “social graph”. In this way, the platform provided “the integration and distribution” (Facebook App, 2007b) which enabled the developers to gain rapid user growth, and “developers provide the applications” (Facebook App, 2007b), making it easier for users to operate and “sharing more information and together we benefit” (Facebook App, 2007b). In the view of Hou Xiaonan, the general manager of Tencent Open Platform, this kind of openness was a way of “exchanging flow for shares”: the platform used resources for investment and entrepreneurs got resources from the platform, which was a two-way matching process. (Ji, 2015)

## **(2) Empowering developers by providing tools**

As openness evolving, Facebook and Tencent further expanded their openness programs. In the basis of providing entry and platform, they help developers build their businesses by building tools and providing services. The support of Facebook and Tencent for developers is not centered on their platforms, but rather focused on providing partners with the ability to do business independently.

Specifically, tools and services were the core resources that Facebook and Tencent opened up at this stage. After 2014, Facebook focused on building tools to help developers “monetize and build stable businesses”, thus “helping people connect in meaningful new ways.” (Zuckerberg, 2018) At the Developer conference on April 30, 2014, Zuckerberg announced that Facebook would “introduce a two-year stability guarantee for all of core APIs and platforms, including Log In and sharing”. (Zuckerberg, 2014) FbStart program was also launched which could provide “free tools and services” for developers to “get their app off the ground and running fast” (Zuckerberg, 2014). In general, The tools provided by Facebook including APIs, “log in tools”, “AppLinks”, “open source STKs” (Zuckerberg 2014), “React Native” “HHVM”, “Free Basics” and so on. They are open to the developers and the developers can build on top of them and “build, grow, and monetize new apps”. (Zuckerberg, 2016) At this stage, the tools and services provided by Tencent extended

from online to offline, and it started to open crowdsourcing spaces offline from 2015 and formed an “integrated online and offline incubator” (Ji, 2015) to support small and medium-sized entrepreneurs, forming “from resources to services, launching basic services, third-party service platforms, key services, and Tencent's platform-wide resources.” (Zhang & Ma, 2018: 122) In terms of online openness, Tencent provided application platform, content platform and capability platform. Tencent’s offline openness resources integrated various social resources, such as government, operators, venture capital institutions, industrial alliances and university institutions, (Tencent Open Platform, 2016) to “work with government and partners to accelerate support for entrepreneurs” (Huanqiu.com, 2016). The tools and services provided by Tencent mainly included Application treasure, QQ IoT, “public accounts, mini apps, mobile payment, online advertising, enterprise Wechat, security capabilities and big data, cloud computing and artificial intelligence technology”. (Tencent, 2018b)

This support for partners was a way to decentralize empowerment. “Facebook has never been able to design the best applications, but Zuckerberg has taken some of the burden off himself by (becoming) a platform and not having to do everything.” (Kirkpatrick, 2010) Tencent gave “many non-core businesses to partners to do” (Ma, 2014) by providing underlying services and becoming a “digital assistant” for various industries. Facebook and Tencent did not interfere with the development of partners, and the business and users developed by partners on the platform of Facebook and Tencent belonged to the partners. Facebook and Tencent only provided basic assistance to partners to help SMEs build and develop their businesses, and these SMEs could have the ability to grow independent. By building tools and providing services, Facebook and Tencent were positioning themselves as “toolboxes” to decentralize empowerment and help developers build and develop stable businesses. In the process of openness, “connection” is still the core of the open platform, “from the connection of people to people, to the connection of people to services, and then connect everything.” (Surging news, 2017)

### **(3) Establishing infrastructure system**

With the promotion of openness, Facebook and Tencent had further upgraded their open strategy and turned their attention to the construction of infrastructure systems and the build of open source ecology, attracting more developers to join the

open source system built by Facebook and Tencent, and promoting the prosperity of open source ecology.

During this period, Facebook and Tencent had undergone their major strategic upgrades and focused on developing social infrastructure and building open source ecosystem through product development, restructuring and open source. In 2017, Facebook shifted their focus from “connecting friends and families” to “developing the social infrastructure for community” (Zuckerberg, 2017) in order to “support the diversity of communities” (Zuckerberg, 2021) and “connect more of us with groups” (Zuckerberg, 2017). The infrastructuralisation of Facebook could be expressed as being everywhere “by embedding itself in other markets and industries to render technical and business operations more widely and immediately available.” (Helmond, Nieborg, & van der Vlist, 2019) In 2018, Facebook was reorganized into three major divisions, New platforms and infrastructure which “cover AI, AR/VR, blockchain and engineering teams” (Matney, 2018), Central product services which include “which includes all of the shared features that operate across multiple products or apps such as ads, security and growth” (Wagner, 2018), and Family of apps which includes “the core and consumer-facing smartphone apps that Facebook offers” (Price, 2018). In 2019, Facebook announced its new open source hardware project at the Open Compute Project (OCP) Summit, making its first clear gesture of transition from consumer hardware to infrastructure. (TMTPOST APP, 2019) In the same year, Facebook announced that WhatsApp, Instagram and Facebook Messenger would be integrated into one platform to “creating an integrated platform for user convenience” (Kalyanpur, 2021). By “rebuilding the underlying infrastructure” (Lyons, 2020), “users who were on only one of its apps” could “communicate with others within their ecosystem”. (Kelly, 2019) Pony Ma summed up Tencent's strategy as “two and a half”: “instant messaging and social networking”, “digital content platform” and “Internet plus”. “Half” emphasized Tencent's reliance on “other partners in the ecosystem”, and Tencent provided Internet infrastructure for partners, “not competing with them, supporting them and empowering them.” (Pinwan, 2017) The open source model of Tencent had evolved into a collaborative development model that combined “bottom-up” and “top-down”, promoting the openness of more fundamental and heavyweight technologies to the public on the basis of internal collaborative building, closely participating in open source, improving open source

governance, and creating an ecology for developers to build together.” (Tencent Cloud, 2019b) In 2019, Tencent released Internet of Things (IoT) infrastructure such as IoT platform, IoT operating system, and small program portal, forming the Tencent Cloud IoT base. They also launched the “Qianfan Plan”, including “one cloud, one end and three projects”, which were Tencent Cloud, providing stable infrastructure and underlying technical support for SaaS enterprises, Enterprise WeChat, providing C2B connectivity for SaaS enterprises, and SaaS Accelerator, SaaS Technology Alliance and SaaS Selection, providing sales, technology, capital and training services for vendors. In 2020, the plan was upgraded to “one cloud and multiple ends”, which fully connected C-terminal platforms, such as WeChat, QQ, Tencent Meeting, on the basis of Tencent Cloud and Enterprise WeChat to help enterprises transform and upgrade. At the Tencent Techo Developer Conference on November 7, 2019, Tencent officially open-sourced the core resource management platform TKE and the distributed database TBase, and “completed the full open source of Tencent's core big data capabilities”, promoting the industry to build a prosperous open source ecology. (Tencent Cloud, 2019a)

**Facebook and Tencent were deeply concerned about the importance of data security and privacy as they built their infrastructure systems.** Facebook focused on “how to build a privacy focused social platform” at F8 conference in 2019 and “supported this privacy vision” by “building out a lot of deep technical infrastructure”. (Zuckerberg, 2019) Similarly, Pony Ma also put emphasis on “data security and privacy protection” and “continued to invest in security to ensure the safety of user data.” (Surging news, 2017)

**By building infrastructure systems, Facebook and Tencent provided their partners with complete underlying services. “The ability to reach users, basic technical capabilities and the ability to integrate resources” (Tencent Industrial Internet, 2017) are the prerequisites for their ability to build infrastructure. Building open source systems can attract more developers to join the platforms of Facebook and Tencent, “facilitating closer communication between developers, developers and open source communities, and developers and enterprises” (Tencent Cloud, 2019b). At the same time, an expanding and thriving open source ecosystem can “make open source more perfect, thus supporting the business development of the platform” (Tencent Cloud, 2019a).**

*Convergence or Community: Disparate Platform Ecosystem Practice*

Even though they have continued to open up their platforms over a similar period of time, the two Internet giants that have grown up in different social contexts still differ greatly in their actual “opening-up” process, especially in their definition of platform openness. This not only determines the philosophy and trend of the platforms’ own growth, but also influences the specific way and content of their alleged monopoly. Specifically, both Tencent and Facebook open up by building open platforms, sharing APIs and encouraging other innovators and partners to form a platform ecosystem. Tencent follows an openness that promotes industry convergence, building on its own data and users to link to broader social functions. Facebook, on the other hand, tends to open up in a communitarian way, taking the lives of individual users as a clue to connect to a wider range of social relationships and enabling more effective interaction between online and offline community life through virtual augmentation and other technologies.

In Tencent’s openness process, the momentum of linking up with other industries and social functions has already started since the first Tencent Global Partner Conference in 2011. Pony Ma Huateng first suggested that Tencent was “building an all-round service platform, a chain of account relationships, flow, and a payment system”(Tencent Technology, 2011b). This opening up of the industry is reflected in Tencent’s corporate structure through the establishment of business groups to build a user platform. But on the other hand, it is also necessary to cultivate the industry chain so that partners can better find win-win points. By forming a series of more focused business groups, the spirit of a “small company” can be brought into full play within the company. (Tencent Open Platform, 2012) In China's local entrepreneurial climate, Tencent has continued its concept of openness as “product interconnection, business sharing, multi-network interaction or content cross-licensing” (Ma, 2013). Ultimately, this connection based on industry convergence aims to break down the boundaries between users, employees and partners (Tencent Open Platform, 2015). This industrial convergence is reflected in Tencent's actions in its “Internet Plus” strategy.

*Tencent can become an Internet connector, connecting partners on one end and users on the other end, creating a healthy and active Internet ecosystem that connects everything. But the mobile Internet is the real Internet, where connections and extensions will be made from point to point and amplified. The “Internet Plus” continues to emerge with innovation, and the “Plus” refers to various traditional industries. “Plus communication industry” is the most direct, “plus media” has already begun to disrupt, and the future is “plus online games, retail industry”. (Tencent Open Platform, 2014)*

Within this system, Tencent has not only supported Internet platforms such as Jingdong and Drip that are not based on social functions, but has also transformed the definition and form of openness from “touching the Internet” to “going to the cloud”, with the intention to place the whole process of operation and the control and decision-making mechanism of public service departments, educational and research institutions, public welfare institutions and cultural and creative organizations on top of Tencent's flowing real-time data, so as to completely realize the establishment of an industrial Internet.

Facebook, on the other hand, has always relied heavily on the social function of its Internet products from its growth to its formal emergence, and the connection of individuals in a community is seen by Facebook as a fundamental element of its open platform. This approach is centred on the social graph and the individual user, and the process of iteration and derivation of the product revolves around the socialisation of the individual. (Zuckerberg, 2010) The data network itself, on which the platform is based, is realized through a network of isolated individual connections. (F8 2011, 2011) In the 2011 revamp of Facebook, the timeline function was introduced so that the specific life of an individual was effectively cut and quantified into three dimensions, which effectively operationalised the complex concept of the individual.

*“Timeline is the story of your life, and it has three pieces; all your stories, all your apps, and a new way to express who you are. stories, all your apps and a new way to express who you are.” (F8 2011, 2011)*

In its relationship with its partners and the people that platform connects to, Facebook positions itself as a function of “help partners build, grow and monetize their apps” and concretizes the concept of openness by “providing identity and sharing, push notifications, app installs, ad networks”. (Zuckerberg, 2014) In this

dimension, Facebook places more emphasis on the importance of ICT technologies, especially their impact on increasing global connectivity. Facebook specifies infrastructure as the ability to provide a network of links and proposes to “making data cheaper to building completely new technologies, like drones, and satellites, and laser communication systems” to ensure that more citizens have access to the internet. (Zuckerberg, 2016)

Ultimately, Facebook defines the openness of the platform as a community that connects individuals in both virtual and physical spaces. Connectivity in a community is not only about “bringing people together, for giving all people a voice, for free flow of ideas and culture across nations” (Zuckerberg, 2016). This openness is reinforced by the maintenance of social relationships online and fed back into the formation of communities offline, especially at the level of fostering the public functions of society.

Facebook take “keep the global community safe” as its mission of openness. It is not only to “prevent disasters, help during crises, and rebuild afterwards” in major global public disasters, but also to improve offline social facilities in public society.

*“The first encourages engagement in existing political processes: voting, engaging with issues and representatives, speaking out, and sometimes organizing. Only through dramatically greater engagement can we ensure these political processes reflect our values.*

*The second is establishing a new process for citizens worldwide to participate in collective decision-making. As the largest global community, Facebook can explore examples of how community governance might work at scale. work at scale.”* (Zuckerberg, 2017)

So in general, Facebook is committed to making itself and its social software become “digital equivalents of the town square”. (Zuckerberg, 2019) The communication and interaction based on social relationship constitute the main way to connect. Unlike Tencent, which integrates the power of openness horizontally with multiple industries, blends existing market boundaries and expands the platform's multiple roles, Facebook extends openness to a vertical dimension, shaping the communal nature of the community by incorporating a broader community and shaping more detailed connections.



## **Discussion :The Paradox of Platform Monopoly in Two images**

Since Facebook first initiated platform openness in 2007, the opening process of platform giants has continued for more than ten years despite the differences in their growth environment and open strategies. But similarly and paradoxically, both Tencent and Facebook have been accused of monopoly by industry competitors, the Chinese government and the FTC while maintaining openness. The accusations of monopoly against the two major platforms are mainly related to the following themes. First, the monopolistic market structure occupied by the platforms, which is specifically reflected in the market share, the number of users they attract and the duration of users' use. As of June 2021, Facebook reached DAUs of 1.91 billion and MAUs of 2.90 billion, while in Q1 2021 (SEC, 2021), Tencent WeChat also reached MAUs of 1.241 billion (199IT, 2021), both of which are extremely dominant worldwide. Second, monopolistic market behaviors owned by the platform, such as restricting the sharing of links and acquiring competitors. The common challenge faced by Facebook and Tencent is the use of illegal buy-or-bury scheme to maintain its dominance, thus squeezing the survival space of other competitors in the industry.(FTC, 2021; Rong, 2020) During the 3Q war in 2010, Tencent Group issued an official statement "A Letter from Tencent to QQ users", stating that "we have decided to stop running QQ software on computers with 360 software" because 360 had coerced users to install the "QQ Bodyguard" plug-in that restricted the implementation of QQ functions. (Tencent, 2010) In 2021, ByteDance sued Tencent again and declared that "Tencent blocked TikTok and other related products for three years, involving hundreds of millions of users. The initial reason for the ban of WeChat was 'short video regulation', but during the regulation period, Tencent launched more than a dozen short video products." (TikTok, 2021) The FTC sued "Facebook for its systematic strategy, including the acquisition of up-and-coming competitor Instagram in 2012 and the acquisition of mobile messaging app WhatsApp in 2014". (FTC, 2020) Third, the platform's monopoly of Access to Data leads to the infringement of users' privacy. This allegation is most typical of Facebook, where the FTC has repeatedly used deceptive disclosures and settings to undermine users'

privacy preferences. These tactics allowed the company to share users' personal information with third-party applications downloaded by their Facebook "friends". (FTC, 2019)

The above topics lead to an interesting question: how do we view this paradox between openness and monopoly under two different images? The first thing that needs to be made clear is that even in different social contexts and cultures, platforms have the characteristics of hybrid entities that use networked and data-driven communication capabilities and mix platform attributes with infrastructure properties (J. C. Plantin, 2018), which means that platforms are continuously strengthening their horizontal linking properties while also increasing their vertical social integration capabilities. Meanwhile, previous research has argued that the growth environment of Chinese platforms, represented by WeChat, is shaped by a combination of techno-nationalist media regulation and an increasingly overt online sovereignty agenda, which defines the main differences between the growth of Chinese platforms and other countries (Plantin & de Seta, 2019). This paper takes this paradox a step further by analyzing it at the medium level of companies and firms, in particular how the two companies position openness in their own platform governance, and finds that while both platforms basically follow the core cues of data and flow, strengthening connectivity through social features, and then completing the platform ecosystem by expanding into infrastructure, they have a different approach between vertical convergence and horizontal integration in the openness. Further, this paradox of platform openness and monopoly points to the relationship between convergence and market boundaries, and the relationship between community and user privacy.

In Tencent's case, its openness is centered on extensive links to other industries, and it is committed to incubating startups and other industrial facilities through the platform and its own data. However, whether it is the Gray Routine which is with "demand, speed, flexibility, redundancy, openness and collaboration, innovation, and evolution" (Tencent Open Platform, 2012) as the core content raised by Tencent after the 3Q war, or the "Internet Plus" strategy proposed around 2016, the essence is to the originally clear boundaries of platform enterprises in content creation, product design and innovation networks are blurred during the integration, and the platform logic and Tencent's operation rules can go beyond the original social function setting and spill over into economic life and cultural regulation. On the one hand, Tencent easily

completes the function links of social functions, content creation, public service and other industries with its “rapid iteration” product strategy and its existing user data advantages. But on the other hand, Tencent also obviously masters the entrance to the user data and flow it possesses. Once Tencent controls the sharing links of other competitors, it can generate support or block other products. So even after a decade of blocking controversy, Tencent is again accused of blocking the products of ByteDance in 2020 and 2021. Especially after Tencent products represented by WeChat penetrated into the film and culture industry, online shopping and other industries, Tencent's platform acted as a clue to vertically promote the convergence of different industries. This phenomenon appears to be a creative move by Tencent to open up its support to other industries, but at the same time it is also a hidden worry about its ability to monopolize other products.

In contrast, in the case of Facebook, the institutional environment in which the platform is located will not shape the broad industrial convergence in the form of “Internet Plus”, but breaks the boundary between public and private to the maximum extent in the process of openness. If Tencent uses industry to connect the world, then Facebook uses individuals to connect social networks. The core of Facebook’s open strategy is to maximize the connection of the social openness graph through the timeline of individuals’ lives, and to feed the formation of offline communities and public life with a perfect online relationship network. In this place, the boundaries between users, commercial actors and Facebook become blurred, with the “real” individuals at the heart of the Zuckerberg’s cosmology to drive user engagement and increase the formation of advertising impression processes. (Hoffmann, Proferes, & Zimmer, 2016) There are other products joining the Facebook system in the form of plug-ins, and virtual reality technology which promotes the integration of online and offline communities. But the paradox of the platform monopoly in this process is that when user data becomes the most critical cue in the operation of the platform, it can easily be used as a core resource for a few to discipline the behavior of competitors and profit by selling. In order to expand the social network in different forms and channels, and build a more comprehensive, extensive and multiform interactive community, Facebook also integrates similar social products into the Facebook system as much as possible, which objectively forms an infringement on the reasonable market structure.

Through the above analysis, we can find that under the joint processes of infrastructuralization and platformization, the essence of the paradox brought about by platform openness is the mutual game of the two processes, the contradiction between horizontal connection and vertical integration. The two cases selected in this paper have similar openness process and growth timeline, but they are biased to one side in the dualistic struggle of openness model respectively. In particular, the economic functions of platform are constantly transforming into public functions and the beneficiaries of platform services are spreading from consumers to citizens in the process of continuous public, and the dynamic structure of the relationship between platform organizations is deepening as the site of the platform itself is in the process of platform companies constantly evolving into platform ecosystems. (van Dijck, Nieborg, & Poell, 2019) In the process of industrial convergence, the process of industrial convergence blurs the boundary between segments between Internet platforms and the professional gap between different industries. In the process of building social connection networks, the construction of virtual communities blurs the boundary between public and private, the distinction between physical relationships and virtual social networks, and even the role boundary between enterprises and organizers of public life. In this paradox context, the more open the platform is, the more risk and possibility of monopoly will be.

### **Conclusion: Platform Governance in a Boundaries-blurred Age**

This paper focuses on the paradox between platform openness and monopoly by comparing the difference in definition, strategy and practice of platform openness between Facebook and Tencent over the past ten years. In this comparative study of platform history, we find that the two platform giants follow a common path of openness. They start the openness based on social functions, and build infrastructure and platform ecology by providing tools for developers based on connecting users with data and flow. However, in the actual opening process, Tencent tends to integrate other industries and deepen social functions in the way of industrial convergence, which has been accused of blurring market boundaries and interfering in

market competition. Facebook tends to connect individual life and promote social interaction by constructing community, but it is also criticized for monopolizing user privacy and overly dominating the social software market. In general, the essence of the paradox between platform openness and monopoly is that convergence and community blur the boundary of market segments in the Internet industry and the boundary between public and private in the Internet society respectively. This is not only the core symptom of platform economy, but also the theoretical starting point of platform governance.

The theoretical field of traditional platform governance mostly discusses the restrictions on commercial platforms from the perspective of social regulations, especially the definition of monopoly behavior. Such government-initiated supervision not only needs to develop alternative commercial platforms, but also involves the intervention of online infrastructure. (Poell, 2020) In this paper, the main theoretical contribution is to positioning the topic of platform monopoly in the dimension of platform companies and conduct a comparative study of them from the perspective of combing the concept of platform openness and policy history, to point out that convergence and the ablation of industrial boundary is the industrial background that platform anti-monopoly must face By exploring the causes of paradox. The study finds that in different social contexts, even though they follow the same stage of platform openness, the same openness is reflected in different dimensions. It is difficult for platform enterprises in the United States and China to replicate the user resource acquisition ability and the integration ability of social public facilities of both sides, and this comparison just improves our theoretical cognition of the two classic scenarios of platform governance.

Platform monopoly is the core problem facing the world at present, and the paradox this paper focuses on is only one side of the many complex causes of platform monopoly. In the future, there are two directions for the study of this topic. First, the role structure of “government-platform-innovators” should be further explored to discuss the relationship between platform and innovator in the process of openness and monopoly from the micro-perspective of innovators within the platform. Secondly, we should continue to expand the topic of platform monopoly and focus on how platform governance against monopoly should be carried out in the context of boundary dissolution, especially the definition of market share and relevant market.

However, it is worth noting that the deep coupling between platform organizations and social organizations, and the overlap between the media logic of online connection and the logic of economic operation will always be the classic platform social proposition, as well as the opportunity and challenge that must be faced in the journey of platform governance.

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