# The Pulse of Live Streaming in China: Understanding the new Chinese lifestyle and

the business behind it



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## INTRODUCTION

What is the one business that has just started a new round of cash-burning in the world?

The answer is live streaming. East or West, tech moguls don't even bother trying to hide their interest in this uprising sector. Facebook, for instance, pinned the live stream button on the very front of its app this April, opening the originally celeb-only feature to everyone.

Facebook isn't the only one to take this business seriously. The live streaming industry in the Chinese market has advanced far ahead, only a year after Meerkat established the "go live" trend globally. Based on a rough count, at least 140 live video social apps exist in the Chinese app market as of August 2016, with even more scheduled to come. To some people's astonishment, in such a competitive environment, Chinese live streaming platforms are still managing to make millions through tip-based monetization models.

One of the cases familiar to western investors is Momo (NASDAQ: MOMO). This U.S.-listed social company runs a location-based social app often referred to as the Tinder of China. Its newly launched live video business produced revenue of USD 57.9 million in Q2 2016, tripling its growth in just one quarter. Momo's live video business was only launched in the fourth quarter last year and is currently the biggest revenue source for the company right now. And it's not alone.

Weibo, Tencent and even China's biggest e-commerce platform Taobao have managed to launch their own live streaming businesses. From sensational social buzz to a developed niche market, live streaming has already been everywhere in the Chinese tech world.

So how did this sector bud in China and develop to be what it is now? What's the status quo of the industry? What are the challenges and chances confronting the players in the field? And what lays ahead for this niche market?

The China Tech Insights team has collaborated with the data team from Tencent MyApp Big Data and big data service provider QuestMobile to offer readers a most accurate view of the live streaming industry in China today. Based on our surveys and in-depth interviews with professionals and experts in this sector, we are here to decode this multi-billion dollar market for you.

#### **About us**

China Tech Insights is an industry research project established by Tencent Online Media Group in 2016. We cover trending topics in China's tech sphere through investigative reporting, meticulous interviewing, surveys, and research, along with professional opinions provided by top-notch business insiders. See our State of Ethics at the end of the report.



# HOW HOT, EXACTLY, IS THE "LIVE" CRAZE IN CHINA?

Around RMB 300,000 (around USD 45,000) an hour with over 10 million viewers. This is not a superstar's concert hall but direct income from Fu Yuanhui's first live streaming show.

Fu, the recent darling of the Chinese internet, is a 20-year-old Chinese swimmer who became a social media sensation at the 2016 Rio Olympics. She was invited to a live talk on Inke, one of China's top live video apps, right after she became trendy online. Her live stream attracted more than 10 million viewers within an hour. These viewers spent over RMB 300,000 (around USD 45,000) on virtual gifts for Fu, two thirds of which went directly into the pockets of the platform

But what is more noteworthy is the traction live streaming shows have had as a social phenomenon and the public's high acceptance of live streaming as a new format of social participation. Public interest in live streaming is tremendous. Baidu's Search Index shows search queries for "live streaming" rose from barely 5,000 in 2011 to over 50,000 this year, with overall momentum still rising.

This attention has been transformed into solid media consumption. According to QuestMobile, monthly active users for all live streaming apps monitored have reached 129.2 million this July, a 182.7% increase from 45.7 million in the same period last year.

The vast user pool has brought in highly competent players. Along with hundreds of startups, premier tech companies Baidu, Alibaba and Tencent, often referred to as the BAT in China, have followed suit, with other established companies also following up closely, including Qihoo 360 and Xiaomi. Everyone seems eager for a slice of this rising business.

#### O Business-wise, how has this industry come to flourish in China?

The start of the trend can be traced to Meerkat's success at SXSW (South by Southwest) in March 2015, an event which made mobile live streaming a burgeoning phenomenon worldwide. Heavy coverage in the media brought the mobile live streaming buzz into the sights of Chinese entrepreneurs. The then aspiring star of Silicon Valley became the prototype for many in China to follow.

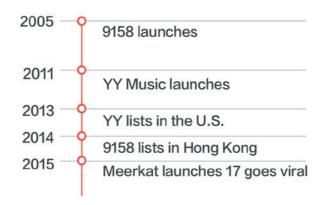
Live streaming per se isn't new in China. Web-based live streaming services, collectively referred to as the live entertainment show business, date back to 2005 when the earliest pioneer, 9158.com, began operations. Amateur singers, dancers and talk-show hosts live streamed performances on the platform through which viewers interacted with the entertainers by commenting and paying for virtual gifts.



However, live streaming service providers were not much under the spotlight until relatively recently. Communities of performers and viewers on these platforms were labeled as marginal subcultures that primarily focused on the needs (often of a sexual nature) of male lower-tier city dwellers. Streaming platforms also tend to keep a low profile to avoid publicity and most importantly attention from regulators.

Away from the public eye, head players in the field, had both been quietly generating surprisingly large amounts of revenue before going public in Hong Kong and New York. YY Live, then YY Music, already had a monthly active user population of 26.57 million and a revenue of USD 28.7 million by the first 9 months of 2012 before IPO

The tipping point came when new mobile streaming app '17' achieved worldwide notice. 17, introduced last June, topped Apple's App Store free app ranks in several regions including the U.S and China in just three months, before being allegedly removed for sexual content. 17 has been reinstated and its initial notoriety essentially put the entire live video business in China under the spotlight. After 17 was banned, several similar apps rose to the top, taking advantage of 17's popularity. Inke, perhaps the most notable of all, channeled a great amount of traffic, boosting its rank from below 250 to the top 10 among China's free social apps, as monitored by App Annie.







#### O A ready to boom market

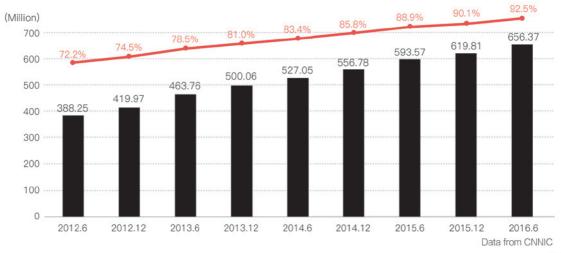
The sudden popularity of 17 was only just the trigger. Without the appropriate environment to sustain a booming market, it's unlikely hundreds of players will

be able to survive. The following factors have contributed to the current live streaming mania in China.

#### > Developed IT infrastructure capable of serving the live streaming business

According to a report released by the China Internet Network Information Center (CNNIC), compared with June 2012, the four years since have witnessed an upsurge of 268 million internet users bringing total mobile internet users to 656 million as of June 2016, accounting for 92.5% of all users. Of the 36.6 million new mobile internet users, 64% are former desktop users.

# Chinese mobile internet user population & proportion of overall web users





At the same time, the popularity of smartphones in China has also lowered technical barriers to live streaming, especially for streamers. Before the emergence of mobile live streaming, full-time streamers wishing to improve stream quality would have to purchase devices including condenser microphones, high-end sound cards, hi-resolution webcams and

professional lighting sets and in-ear monitors, several thousand USD worth of equipment. In today's climate, high-resolution front cameras and in-app beautification features, have reduced the pre-investment for devices to merely a middle-range smartphone, which can be acquired with around RMB 3,000, about USD 450, in China.



China's optimized mobile network ensures watching livestreams is an enjoyable experience. On the consumer end, the fast construction of 4G and WiFi networks in China has made digital media consumption on mobile devices more affordable and available. According to the Ministry of Industry and Information Technology, 3G/4G users in China have grown by 133.3% from 352.5 million in May 2014 to 822.5 million in May 2016, with 584.5 million currently 4G users. The three major cellphone network operators in China have also jointly issued price cuts at the behest of the Chinese government from the first half of 2015 - this has also contributed to a greater consumption of multimedia content across mobile devices.

On top of that, improvements in network efficiency and the cloud business have lowered the entrance barrier for live streaming app developers. The breakthrough

of content delivery networks(CDNs) in the live streaming industry is another essential contributor in allowing genuine real-time interaction with shorter delays. Platforms backed by reliable CDNs guarantee the fluidity of live videos under weaker network connections, for instance, outdoor live streaming. The average delays of the sector have been reduced to under 3 seconds, and even lower for highly interactive lifestyle streams. On the other hand, a now prosperous cloud computing business in China makes investment in the maintenance of networks and bandwidth more cost-efficient. With developed back-end solutions particularly for live-streaming available on most cloud computing platforms, the research and development, time and financial investment required for live streaming apps is now more affordable for early-stage startups.

#### 

An essential reason that live streaming lures so many entrepreneurs and investors is that it has an established and proven monetization model. As mentioned before, the live streaming business in China has bred several publicly-listed companies.

YY is among the most well known. YY's online live performance platform, YY music, was launched in 2011, a year before the company proceeded to go public on

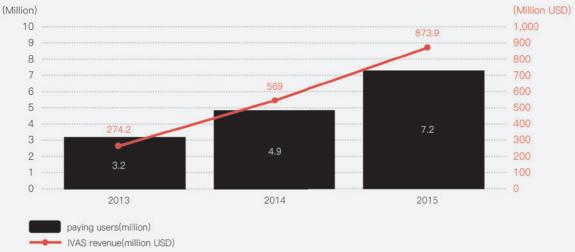
the Nasdaq in 2012. Based on YY's financial results, in 2015, the internet value-added services (IVAS) generated from its online music and entertainment service, or live streaming business as it's often referred to, totaled USD 512.5 million, accounting for 56.3% of total net revenue. Based on YY's annual reports, IVAS from its online music and entertainment service surpassed online games in 2013 to become its biggest revenue generator.



Moreover, YY also shows steady and strong growth for its paying user population. The company's paying user population grew from 3.2 million to 7.2 million between 2013 to 2015. As of first quarter 2016, YY reported 3.89 million paying users, year-on-year growth of 57.1%. Their annual average revenue per paying user (ARPU) for IVAS had reached RMB 783.3

(US\$120.9) by 2015. A comparison may better explain this extraordinary performance: according to Tencent\*, the quarterly ARPU of its mobile games was around RMB 150 to 165 in Q2 2016. Continuing growth and strong revenue indicate the sustainability of this business model.

#### YY's revenue and paying users



Date sourced from YY's 2015 financial reports



As a publicly-listed company, YY has proven the monetization model built on IVAS in online music and entertainment is profitable with its performance. With

these solid examples ahead, many have followed suit, attempting to build up businesses on top of their success.

#### > An expanded and diversified user group

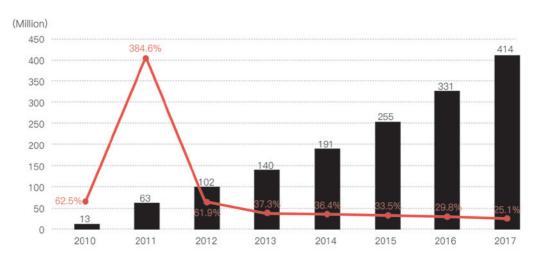
Another significant draw for the live streaming business is that it is still a growing market with great potential. According to a research report by China International Capital Corporation, the user base for

live social streaming in China is expected to grow to an estimated 414 million in 2017 with double-digit growth each year.

<sup>\*</sup>Disclosure: China Tech Insights is also part of Tencent Online Media Group. See our State of Ethics at the end of the report.



#### User Population & Growth Rate



Data from CICC



Apart from an increase in total users, the demographics of mobile live streaming has also diversified from desktop-based live streaming age. The gender ratio on 9158.com was believed to be extremely skewed at a ratio of 3 males to every female according to a report by iResearch in 2013. Geographically, according to the

pre-IPO prospectus of 9158.com, 59% of its users were from third and fourth-tier cities where entertainment options were relatively limited. A lack of quality offline entertainment gave online live performance a chance to sprout.

#### Monthly Income **Education Level** College Extremely High 16.7% Primary School & Junior High High Income 15.3% Senior High Middle Income 43.8% Post-graduate & above 24.8% Low Income 20.0% 30.0% 40.0% 50.0%

Date source:Tencent MyApp Big Data

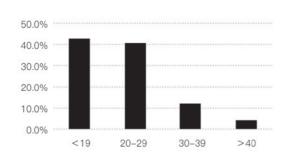




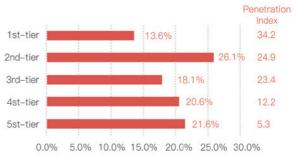
In a report released by Tencent MyApp Big Data in May 2016, female users accounted for more than 33.2% of total users, slightly better than things were in the desktop era. Income-wise, data tracked from a top Chinese live streaming app shows that 75% of users fall within the middle to high income range. This implies that the majority of users enjoy a salary higher than the International Labour Organization's 2015 estimate of the

average Chinese salary of USD 656. In terms of education, the same data set reveals that 56.46% of all interviewees surveyed had college or more significant education attainment, indicating a well-educated user group. The report from Tencent MyApp Big Data also demonstrates that though users from different tiers of cities are now relatively even with first-tier cities having the highest penetration index of all cities.

#### Age



#### User distribution by cities



Date source: Tencent MyApp Big Data



Besides, live streaming apps are also more widely embraced by the younger generation. 83.1% of live streaming users are under the age of 30, based on the report mentioned above, and it is worth mentioning that users under the age of 20 account for as much as 42.7%. The vigorous representation of the younger generation on mobile streaming platforms can also be converted into unique brand attractions for brands and advertisers.

In brief, these changes in user demographics show that, recognized by the mainstream, the industry is now removing the label of "marginalized" community stemming from the desktop era and is now expanding to users higher up the social stratum.

A diversity of streamers then enriches the type of content streamed over these platforms, extending the range from lifestyle to pan-entertainment. Chatting, outdoor sports, eating, shopping, pets, everything can now be sought out at a whim. In return, diversity of content keeps a wider group of users on the platform. This positive circle of diversified content production and consumption improves the dynamics of live streaming platforms making them a more favorable entertainment option for many.



# WHY LIVE STREAMING: BEHIND THE PHENOMENAL POPULARITY

In a Re/code feature on Meerkat's withdrawal from the live streaming business, Re/code described Meerkat's problem as having "trouble finding people willing to broadcast with any consistency". This is not a hardship shared with China's platforms as they have a clear business model to lure in streamers with cash rewards and even a well-organized system to train common people into qualified professionals. According to a survey by China Tech Insights in May, 31.2% of interviewees said they would consider becoming streamers or online broadcasters if they could earn cash rewards, the No.1 incentive for all respondents.

Though a consistent supply of content and qualified streamers is no longer a problem, there remains a question as yet unanswered: what incentivizes users to pay for content, and how much are they willing to pay? People may be willing to watch other people's lives and performances but they need to be more motivated to be willing to pay for what they see.

Before we answer this question, let's take a step back to see what users look for in a live stream. Based on the same survey mentioned above, 67.8% of users watch live streams because of boredom and 47% look for funny content online while only 29.8% care about the accuracy and professionality of the content streamed. User in-app trails also echo these results: a typical user normally starts from Interest and then subsequently other options. Thus, media consumption on live streaming platforms is highly fun-driven, in other words, it's primarily an entertainment business.

Considering this, it's easier to understand people's motives when watching live videos and actively engaging in the process.

The role of live streaming is, first of all, a time killer. It fills the fragmented manner in which users spend their spare time whereby viewers are still looking for companionship and interaction in a form that's closest to real-life communication. But compared with daily communication, viewer activities in streams are more passive, and also more purposeless. This sort of communication leans toward the backstage of people's social appearances and forms a relaxing escape from daily chores.

And judging by the quality of streams, random viewers can also be ably transformed into loyal fans. 23.5% of interviewees in the report said they had followed certain streamers for a long time while 37.8% stated that they were willing to be long-term followers if the stream was to their interest. Those loyal followers build up online communities centered around the streamers in which they're not only paying to sustain the streamers' income but also building up a well-organized network.

A moderator of a popular streamer on Momo said in the interview that, he would tip the streamer when he thought the streamer had been making progress. Loyal viewers like him look for more than casual companionship on live streaming channels. They are here to seek for mutual recognition and social



support. During the process of "nurturing" a successful streamer into a web star, they obtain a sense of belonging with other fans along with a sense of achievement for a shared course.

Thus, based on China Tech Insights' interviews and observations of these paying users, we summarize two primary reasons for consumption over live streaming apps:

#### Purchases as encouragement or appreciation

In a manner similar to the moderator above, some users make purchases in-app to show their appreciation for a particular performance or as encouragement for the streamer. This kind of purchase is similar to tipping: users pay to show gratitude or demonstrate satisfaction for the content generated.

It's also possible that users pay in response to streamers' requests. 12.2% of interviewees said in the survey that they're willing to donate or tip in response to streamers' requests if they enjoy a particular performance.

#### Purchases as a way to get attention

Because of the fancy presentation of virtual gifts in streams, purchases also become a way to get attention from both the streamer and other viewers in the same stream. Streamers usually address users by name one by one in the stream to show their gratitude when they receive virtual gifts.

Meanwhile, platforms also deliberately design special effects for pricey gifts in-stream. For some, it's a way to boost their presence in the app. By topping the tipping ranks in the stream and acquiring the accompanying privileges, they also achieve a sense of social recognition for their wealth. An extreme case goes that a well-off viewer made purchases of over RMB 100,000 within the space of an hour to support a streamer he liked in a competition organized by the live streaming platform.

On the other hand, it's also a way to market yourself. It's common to find unknown regional brands paying good sums of money in popular streams to get their brands seen by the hundreds of thousands of viewers in a stream. For them, paying several thousand RMB to get exposure at this level is much cheaper and easier than other types of advertisements.

Based on our summary of user motivations, is it possible for Twitch's prepaid subscription model to work in China? The answer is probably no. Firstly, users here are accustomed to the post-consumption payment format for live streaming. This consumption habit has been cultivated for years and has been working well. There doesn't seem to be a strong enough motive to change this habit. Secondly, Chinese live video apps are still fast expanding in a race to gain more market share. The pre-paid model may very likely set a barrier for users and drive them away to competitors. Considering this dilemma, the pre-charge

model likely wouldn't work well in China at this present moment.

One possible scenario is to precharge streams for celebrities. Prepaid in this sense would be similar to ticketing for an online gathering. In this sense, fan consumption and demand for content is comparatively high. However, live streaming by celebrities is mostly a marketing approach for apps to reach out to a wider audience right now, which means in the near future, there may likely be less attempts at this model.

#### 11 The Pulse of Live Streaming in China:

Understanding the new Chinese lifestyle and the business behind it



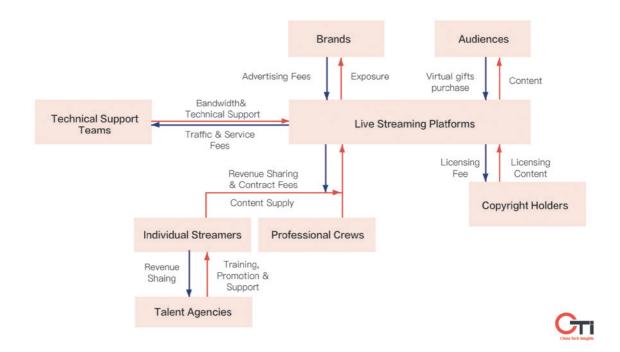
# HOW DOES THE LIVE STREAMING BUSINESS WORK: THE VALUE CHAIN AND BUSINESS MODEL TODAY

The outstanding financial success of several live streaming platforms has demonstrated the effectiveness of this business. How exactly does it work though? Discussion of this business model can primarily be separated into two parts: a well-organized value chain and a further developing business model.

#### O The value chain: an increasingly mature labor division

Similar to many other industries, with the development of the live streaming sector in China, we have seen an increasingly mature labor division between the different parties' involved and a strong trend toward professionalization.

The entire value chain of live streaming can be roughly divided into content providers and platform operators





#### > Content Providers '//

On the content provision end, live streaming platforms see two major types of supplier: grass-roots streamers with little performance experience and no professional crew. Non-professional streamers account for the majority of the group. They are regular people with some sort of talent, whether it be singing, dancing or comedy. To them, the biggest challenge involved is maintaining the quality of their shows and keeping a sense of freshness for their followers. Failure to meet these requirements results in a low retention rate for their respective channels.

Because of this, two types of organizations have joined the fray to assist with management: Unions and Talent agencies.

#### **Unions**

Unions are similar to MCN (Multi-channel Networks) on YouTube. They not only take care of a streamers' external business development, but also commit to the the operation of their streams. A typical Union will recruit new streamers and then help them to build up their popularity via methods including cross-channel promotion. They also help streamers to moderate their streams, and sometimes even make mass purchases in-stream acting as a form of bait to lure in more virtual gifts from unsuspecting users. Unions thus act as both a streamers' agent and moderator.

A Union is normally loosely managed, especially legally. Although partnerships between a streamer and a Union are normally exclusive and financial, rarely do unions form any kind of legal relationship, whether it be in the form of employment or as a kind of contracted service. Despite this, streamers willingly exchange a share of their income for assistance and resources from Unions. Top Unions have extensive networks on live streaming platforms - some are even tightly bound with the platform - which many streamers cannot afford to ignore.

#### **Talent agencies**

Agencies today are regarded as the Web 2.0 version of Unions with more organized systems. Unlike Unions, they mostly have evolved from regular talent agencies, with their primary role being to select and develop streamers for platforms - which sometimes involves fitting platform specific demands. In other words, their principal clients are normally live streaming platforms and not streamers.







Streamers trained via talent agencies contribute to the trend of switching from UGC to PGC on live streaming platforms. Some streamers attached to talent agencies receive training on how to sing, perform and even body shaping. Professional talent agencies also have strict selection schemes in which streamers that aren't able to reach a certain popularity in a given time frame will lose support from the agency.

This is also an approach used by grass-root streamers to deal with the impact of professional production teams. It's a rising trend, professional production teams and online video sites working together with live streaming apps to explore how to integrate the advantages of strong interactivity with a well-planned and organized entertainment program. Professional crews see the value of live streaming as a new entertainment format so that they are experimenting with

the possibilities and different ways of integrating their expertise into this new format to keep up with the times

However, so far, few have struck the right balance between interactivity and content quality. Live entertainment shows in the traditional television sphere are highly demanding. Because of the live element, normally programs are carefully rehearsed so as to minimize the chance for possible errors. Nevertheless, interaction with the audience increases the uncertainties of the show. Compared with individual broadcasters, professional crews have to make heavy investments in personnel and equipment. Without the luxury of post-production, it's challenging for professional production crews to produce content with significantly higher quality that really warrants the investment.

#### 

Live streaming platforms are supposed to be the pivot point of the entire business chain but now they are losing their say in the game because of fierce competition. Live streaming platforms used to take a majority of the revenue generated via IVAS on platforms but latecomers to the game have cut down their share to as low as 10% to attract more streamers, putting them at a disadvantageous position in the market. Meanwhile, profit margins have also been squeezed because of increasing bandwidth costs and content expenses paid to streamers.

Unlike YouTube, most existing live streaming platforms in China outsource to external technical teams

for R&D and maintenance, which cuts expenses and time investment in R&D to a great extent, but also establishes outsourcing as a considerable operational cost.

Meanwhile, maintaining high stream quality requires broad bandwidth. Considering its correlation with user popularity and image quality, bandwidth has become a considerable expense for live streaming platforms, especially for popular ones and during marketing campaigns. Gao Xiang, Vice President of Douyu, said in an interview with JMedia in June that bandwidth accounts for  $\frac{1}{3}$  of the platform's total expenses.



In terms of content, live streaming platforms are also in a tricky position. Despite live streaming platforms appearing to form a core role in this content-driven sector, the high visibility of the product has ushered in a loss of bargaining power for platforms to content providers. For Twitch-like game streaming platforms, the financial burden of contract fees paid to first-tier game streamers has already proved overwhelmingly big, dampening the capacity for profitability. Content expenses combined with bandwidth expenses, cut down platform profit margins.

To reverse this trend, live streaming companies have tended to act as more than just platform operators. A current trend sees some operators extending their operation to other parts of the value chain. A number of live streaming platforms have begun producing their own content and talent.

9158.com, an experienced live video platform in China, recently set up a film and entertainment production branch, through which it hopes to produce web-based movies and dramas starring popular streamers on its platform. By extending their partnerships with streamers beyond live streaming, 9158 is trying to increase their brand attraction to streamers and simultaneously increase the cohesion of the platform.

#### O Business model: a push for variety

"Everyone gets into the live video business to cash in on their traffic," a product manager of a live streaming platform said in an interview with China Tech Insights.

We've mentioned earlier that mature monetization is

the key to the fast growth of the live streaming business in China. But how exactly does this work? This is largely divided into two parts: virtual gift selling (i.e. IVAS) and advertising.

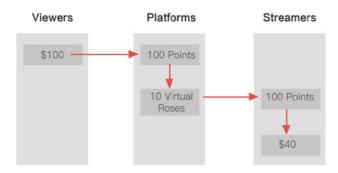
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Virtual gifting is now the dominant revenue driver for all independent live streaming platforms in China. Virtual gifts on Chinese live streaming platforms were first introduced by 9158 in 2005. Gifting performs similarly to tipping on Twitch but user and streamer psychology on Chinese platforms is very different.

For virtual gifting, normally it starts with users purchasing points or tickets in-app. These points can be converted into virtual gifts in-stream. Users gifting relatively larger amounts can have certain privileges in-stream such as special medals or higher positions in the ranking table for the stream.



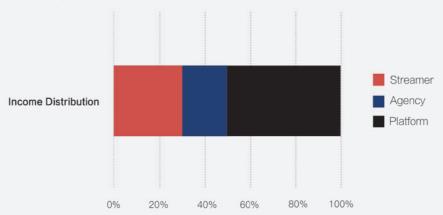
#### Flow of virtual gift purchase on platforms





Gifts accrued by streamers then become a streamers' virtual assets, which can be cashed out based on the specific conversion rates set by live streaming platforms. The conversion rate for virtual gifts to cash is normally 50-60% of the initial price paid in real currency. Platforms typically take their share from streamer cash-outs during the process.

Through this way, income generated by selling virtual gifts is distributed between the platform and streamers. With regard to Union- or agency-contracted streamers, the income distribution will further involve additional parties.

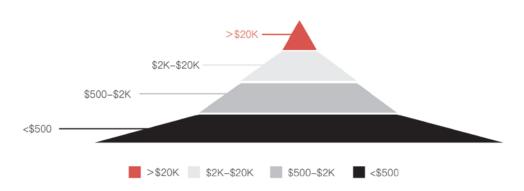


Considering the time and resources invested in the training of streamers, agencies normally charge more than traditional Unions. Despite this, full-time streamers can

still earn several thousand USD each month on average, while top streamers are able to contract out their services for millions of USD each year.



#### Income distribution of streamers



Full-time streamers can normally earn monthly incomes of about USD 500 with few able to make more than USD 2,000 a month. As live streaming becomes increasingly popular, some streamers also have begun to act as affiliates and sell commodities in their channel taking juicy commissions for their services. Only top-notch streamers, normally game streamers, produce incomes over USD 20,000, a month, part of which can be attributed to their contract fee with live streaming platforms. According to our interviews, the top 10% of streamers contribute 30% to 40% of the total revenue on a platform, which explains the whopping offers provided by live streaming platforms.

In this business model, streamers act as salespeople for virtual gifts on platforms -- the more gifts they receive, the higher their income and the platform's revenue -- the 'total amount of gifts received' has become one of the primary KPIs for professional streamers as well as a major incentive for amateur and upcoming streamers. Tipping on Twitch, in comparison, is

the additional value attained for partnered streamers aside from their subscription fees.

In this model, streamers can monetize from their streams from very early stage. Tangible income -- however trivial it may be at the beginning -- allows streamers the early possibility of monetizing, giving them a strong motivation to keep producing contents.

#### 

As more traffic is driven to live video streaming platforms, the advertising value of these platforms begins to soar. Live video streaming also has some natural advantages as a new form of interactive advertising: real-time promotions with direct communication bridges the information gulf between streamers and an audience, assuring skeptical consumers and converting potentially more customers.



According to Chen Lei, the person responsible for Taobao Live, every one million views on Taobao Live leads to 320,000 items added to cart, which is a conversion rate of 32%. Alibaba's CEO Daniel Zhang also mentioned in a conference call with analysts that entertainment content like live streaming is attracting users to the e-commerce platform; and, "the more frequently users come to Taobao, the more possible

they'll buy stuff on the platform, and the more possible for Alibaba to earn a commision, which is the primary reason for the accelerating growth of Taobao's GMV."

Recent records for significant live streaming promotions on Taobao and other e-commerce platforms have supported the commercial value of live streaming as a marketing tool for brands:

#### Major marketing campaigns on live streaming platforms

Merchants & Brands	Means of marketing	Duration	Sales performance
Baby product maker Wyeth Illuma	Pop star live streaming	60 min	RMB 1.2 million (USD 180,000)
Cosmetics brand Maybelline	Actresses and web stars live streaming	120 min	RMB1.4 million (USD 210,000)
Fashion magazine Elle	Actor live streaming	15 min	7,000 prints sold
Web star Zhang Dayi's Taobao shop	Web celebrity live streaming	120 min	RMB 20 million in GMV (USD 3 million)

E-commerce is now the most promising sector for live streaming apart from online entertainment. China has an even greater opportunity in this field, not only because China has a flourishing e-commerce industry, but also because consumers here still have a strong distrust of e-commerce brands. This distrust can be dissolved by sufficient and comprehensive information via

live streaming. For example, web celebrity Zhang Dayi live streamed her clothing factory and invited staff to explain the process of manufacturing at her factory. The very live show resulted in millions of purchases in a span of two hours. It's more than likely that live streaming will become a standard feature of all e-commerce platforms in China in the close future.

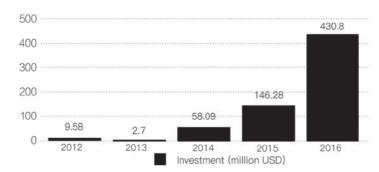


## CONFIDENCE FROM THE CAPITAL MARKET

Without doubt, the response from investors and the market shows how much confidence the tech sphere has had in live video streaming over the past several months. China International Capital Corporation estimated in

a report in March that the live video streaming market of China in 2015 had reached a market size of RMB 10 to 15 billion (USD 1.5 billion to 2.25 billion).

#### Total amount of investments in live streaming since 2012



Date compiled from TalkingData,IT Juzi and public information. Only investments occuring between January to August in 2016 have been represented.



Most recently, leading Chinese live streaming service provider Douyu TV completed an RMB 1.5 billion (USD 225 million) C-series funding led by Tencent\* and Phoenix Capital on August 15th, adding more fuel to the already burning-hot fire. Based on publicly available information, the total amount raised in the live streaming sector between June and August 2016 amounted to at least RMB 1.7 billion(USD 254 million).

The market holds such confidence for a reason. As of July 2016, 324.76 million Chinese web users had used

a live broadcasting service of some form, accounting for 45.8% of the total population of netizens in China. In July 2016, QuestMobile reported a monthly active user population of 129.2 million with 292.4 million hours spent on live streaming.

As always, capital will flow to its most profitable use, along with talent and management attracted by the potential for high profits. Live video streaming sites backed by tech giants and venture capital firms are now engaging in a fully blown war for eyeballs.

<sup>\*</sup>Disclosure: China Tech Insights is also part of Tencent Online Media Group. See our State of Ethics at the end of the report.



#### Major fundraising cases in live streaming since Jan. 2015

Time	Company	Investor	Financing Round	Amount
2015.03	Huya	YY		700M RMB(USD 105M)
2015.03	6Rooms	Songcheng	Acquired	2.6B RMB(USD 390M)
2015.01	Imba TV	Zijin Cultural / Development Fund / Prometheus Capital / Innovation Works / Wang Sicong		100M RMB(USD 15M)
2015.11	Inke	SAIF Partners China / GSR Ventures / Buttonwood Capital	Series A	>10M RMB(USD 1.5M)
	Longzhu TV	9You / Tencent	Series B	100M RMB(USD 15M)
2015.12	Huomao	Youku Tudou	Series A	>10M RMB(USD 1.5M)
2016.01	Inke	Kunlun	Series A+	80M RMB(USD 12M)
2016.03	Easy Live		Series A	60M RMB(USD 9M)
	Douyu TV	Tencent / Sequoia Capital / Nanshan Capital	Series B	100M USD
2016.05	Yema Live	Ming Capital	Series A	>10M RMB(USD 1.5M)
	17	LeSports Venture / WM Partners		150M RMB(USD 22.5M)
2016.07	My Hug	Meridian Capital China Tencent / GGV Capital Shunwei Capital / K2VC	Series B+	100M RMB(USD 15M)
2016.08	Mudu TV	Aliyun	Strategic Investment	Not disclosed
	Douyu TV	Phoenix Capital / Tencent / Sequoia Capital / Nanshan Capital	Series C	1.5B RMB

Data compiled from public informtion



## WINNERS HAVE YET TO TAKE ALL

Existing platforms fall into four major categories, namely Showroom, Lifestyle, Gaming and Sport. Showroom platforms feature real-time singing and dancing and are the most popular type of platform at present. Lifestyle, or Pan-entertainment, in comparison, has a greater variety of content, with the most popular subcategories including outdoor activities

and social eating. Gaming is a category with relatively high viewer loyalty but a lower sense of engagement. Sport is a subcategory of PGC that includes live streaming of professional games aired over online channels, not a primary focus of this report. Major players in each category are listed in the chart below:





To date, winner takes all has almost been the rule of thumb for the Chinese tech world. In the live streaming sector this is more than likely to result: considering the high homogeneity of products and content, users tend to skim and skip through streams until they find a particular one to their interest. The more diverse a platform can be, the more likely it will be able to retain a larger userbase on its app. For streamers, only

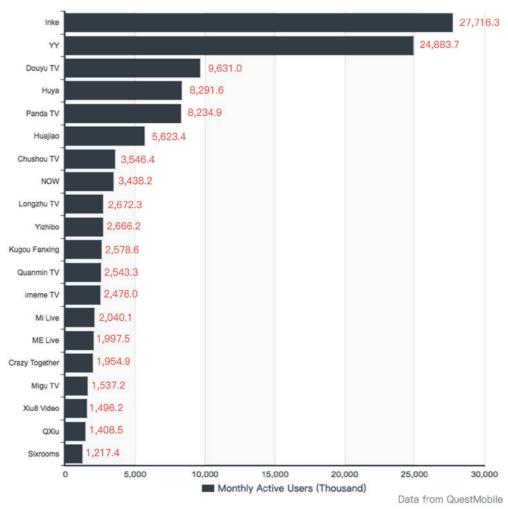
an app with significant traffic can provide sufficient income and commercial value. Thus, both users and streamers tend to congregate around leading platforms with big volumes.

Have we already reached a winner takes all situation in the Chinese live video streaming market? Not yet. Top-notch players are still at each other's throats vying for the top spot.

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Understanding the new Chinese lifestyle and the business behind it







According to Quest Mobile, both in terms of active users and in terms of time spent, Inke, YY Live, Douyu TV, Huya, and Panda TV are the most popular live video streaming apps in China as of July 2016. Due largely in part to its heavy investment in marketing, including commercials placed on China Central Television and active engagement of celebrities such as Fu Yuanhui, Inke has a distinct market advantage compared with its competitors. Though facing accusations of having its statistics faked, Inke's leading position in the industry at the moment is still widely acknowledged.

One significant reason that these five platforms stand out among the other 140 live streaming apps is the emphasis they place on heavy investment into bandwidth and popular streamers with support from topclass investors. YY, for example, as the owner of both Huya and YY Live, began its live streaming business as early as 2012 and invested over RMB 700 million (USD 105M) in Huya in early 2015.

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Douyu, in comparison, just completed an RMB 1.5 billion(USD 225 million) Series C funding with participation from Tencent\*. This strategic investment from Tencent is also significant because Tencent is one of the biggest game developers in the world and is also now the parent company of Riot Games, the developer of League of Legends, the world's most popular game. The strategic bond between Tencent and Douyu mitigates the risk of violating copyrights while live game streaming. In contrast, for other platforms with a similar positioning to Douyu, the copyright issue will always be a pending concern.

Though heavy investment can't guarantee a winning position in the game, it does separate these apps from the crowd by allowing for higher streaming quality and popular streamers.

At the same time, live streaming is no longer only a game for startups. The BAT tech magnate group is actively engaging in the market, not only through investments, but also through direct participation.

#### Tencent: Building a live streaming matrix

Tencent alone, after investing in Douyu and Longzhu, has launched four live streaming apps including Tencent Live, Penguin Live, Huyang Live and its most recent entrant 'NOW', which targets the millennial group similar to what YouNow does in the U.S.

#### Weibo: Enhancing the cohesion of celebrities

Weibo, still one of the most prominent social platforms in China, is now connected to a live streaming platform named Yizhibo, or Always Live in English. At a recent conference call for Weibo's latest quarterly report, CEO Wang Gaofei also stressed live streaming as an approach to increase the company's revenue and profit for the future.

#### Taobao Live: The television ad in a new format

Alibaba is also experimenting with how to integrate live streaming into its online marketplace Taobao. It officially launched its embedded live broadcasting channel in May. The channel isn't open to all and has a strict screening scheme for advanced features including direct links to commodities inside stream.

Early pioneers haved proved the profitability of live video in the Chinese market and current pacesetters are charging forward at high speed through massive investment. The past two years have witnessed mega mergers and acquisitions in the Chinese tech arena as the race has entered the cash-burning stage in earnest. It will not be surprising to see a new round of convergence and collaboration between top players soon starting in live video streaming. The question is just when.

<sup>\*</sup>Disclosure: China Tech Insights is also part of Tencent Online Media Group. See our State of Ethics at the end of the report.



# WHAT'S NEXT FOR LIVE STREAMING?

Based on our research into the market, we also make some projections about the opportunities and challenges for live streaming platforms in the near future.

#### • The market will see a new round of mergers and acquisitions

This round of growth of live streaming apps will be primarily fueled by Chinese web users'overall transition from personal computers to mobile devices. Before the transition, YY, 9158 and 6Rooms were established as top players in the field. The mobile transition brought in new opportunities for newly emerged startups.

However, according to market research company IDC, China's smartphone market growth has dropped to 2.5%. The cap of the smartphone market overall seems to be pretty close. As for live streaming services, the number of devices installing live streaming apps has increased by 87.8% to 186 million according to market research firm TalkingData. If the market grows at the same pace for another year, it'll reach the current population of live streaming users (324.76 million) in 12 months. Thus, for current competitors in the market, there isn't much time left to ascend the throne.

Meanwhile, because of the great similarities between live video products, the only way for platforms to stand out is to have more popular streamers than the competition. If the whopping contract fee paid to top streamers, up to RMB 20 million per year, wasn't

unbearable enough, the reduced share of income from average streamers is now causing platforms to lose their bargaining power and shift gears into a price war with the competition.

At the same time, high marketing expenses, including TV advertisements on China Central Television, and soaring bandwidth expenses are eating up platform profits. This is the time when capital gets involved and accelerates the competition.

Investments function like a catalyst for the market. As mass capital floods into the market, the live streaming industry in China will see a new round of mergers and acquisitions happen in the market.

Will there be any other companies joining in? Active leading tech companies in the field include: Tencent\*, Alibaba, Weibo, Xiaomi, Momo and Qihoo 360. It seems probable likely candidates are already engaged in the field. Possible next moves will more likely include merging with or acquiring second-tier competitors in the field - or waiting for the lesser sized competitors to evaporate amidst the increasingly fierce competition involved in the next stage.

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#### O A further exploration of business models and products is needed

The current major business models for the live streaming platforms, i.e. virtual gifting and advertising, are strong cash drivers and are pretty stable. But for platforms, it means, to a great extent, handing over the power to sustain a platform to streamers rather than keep it for themselves. An over reliance on streamers can pose a possible threat to future development. Thus, a further exploration of new business models is

one of the biggest concerns right now for platforms.

To answer this question, the live streaming businesses need to think about another question as well: what will live streaming platforms be like in the future? Will they be content-oriented media platforms or new live video-based social tools? Either pathway will lead these platforms to very different business strategies.

#### 

If live streaming platforms stick to media and entertainment, the relationship between streamers and potential audiences in stream will be more like interactive broadcasting with the streamer in the center of the communication and end users as, primarily receivers. In this model, the interaction between streamers and users will be relatively limited as the streamers will still be the center of attention. They hold the right to highlight or mitigate the attention attributed to other participants in the stream.

Meanwhile, streamers and their fan bases will be the center of the online community, which gives streamers a higher standing in negotiations with platforms. Thus, the relationship between streamers and platforms will be not only be of reciprocity but also a kind

of client-service-provider partnership. Platforms are now offering streamers a one-stop service including the building up their fame and becoming a web celeb with production support.

This will also prove to be a challenge for streamers regarding what kind of content they should offer to maintain a mostly daily livestream. Most daily shows on traditional television are supported by an entire team of skillful veterans to ensure the quality of a show and its continuing appeal with audiences. It's unlikely that most streamers will be able to afford such a lavish outlay and so how to maintain the popularity of a stream will be a harsh question continually confronting swiftly rising new stars.

#### 

In a SNS model for live streaming, people go live as a way to share their lives realtime. An extreme case of this model is Facebook Live with several streams having been watched several million times. In a more daily context, content people share with their contacts is primarily significant life events like births, weddings and anniversaries. All these significant fragments of people's lives have created a need for virtual proximity and a sense of engagement that might eventually

lead to the creation of social networks where people share to create more interactions.

In this mode, live streams are only there for certain groups of people, whether it be family, friends or other select groups of people. Because of that, the commercial value of content shared is limited -- audience groups are too narrow. Even for some content that's valuable in certain aspects, such as wedding



photography ads in a live wedding stream, it can still be tricky as to how much people will tolerate an advertisement superimposed during the live streaming of their significant moments.

A current existing variant for live streaming as a social tool that doesn't repel commercial interests is the private live streaming channel. There is no host streamer in this channel. The entire user experience is more akin to watching television together with a group of friends, but instead you are watching online via live streaming. Tencent's sport live streaming channel is now adopting this model to broadcast games such as the NBA\*. Viewers can have strong interactions within the channel and

are building up a more exclusive interest-based community compared with public channels. The interest-driven nature of these channels make them a potential target for high-quality native ads.

In general, the commercial value for live streaming as a social tool hasn't been well explored and no clear monetization model has been established. At the moment, social live streaming platforms may see difficulties operating as individual platforms. Meerkat's dilemma after having been cut off from Twitter and Periscope serves as an example of this scenario. SNSbased live streaming platforms, like Hani by Momo, will enjoy a value-add privilege compared with others.

#### The challenge of illegitimate content and crime facilitated by platforms

The issues discussed above may still be solved with delicate strategies employed in the long term but the problem of monitoring and prohibiting hazardous content streamed live is now one of the biggest headaches for many in day to day operations.

Gambling, pornography, violence, and many other kinds of negative content often serve as short-term stimuli for traffic stats but ultimately prove to be highly damaging to a platform's branding and order in the long term. At the same time, this sort of content is strictly prohibited by app stores and local regulators in China, which has led to temporary in-store suspensions in the past and even complete takedowns from the internet

In July, China's Ministry of Culture castigated 26 live streaming platforms by shutting down 4,313 streams and punishing 16,881 streamers, blacklisting some of them from all live streaming platforms permanently.

The challenges of regulating live streaming reside in the following aspects: technical inadequacy, cross-platform illegal activities, and ineffective verification.

Existing technology is not able to recognize all hazardous content with image recognition. The current model is to have selective scans of random or regular snapshots of streams assisted by manual examination. Considering some illegitimate activities only last seconds, the mission of 24/7 monitoring can be very demanding, especially for platforms with limited regulatory capacity. User submitted reports are widely acted upon but the effect is questionable considering that audience attitudes toward illegitimate content can vary.

Moreover, cross-platform illegal activities are often hard to spot and avoid. Some scam cases involve communications and transactions performed on certain platforms with promotions and announcements



taking place on separate live streaming platforms. It is almost impossible for platform operators to follow from this sliver of information what is being undertaken on their platform. Live streaming platforms are not made responsible in these cases but are judged harshly in the public domain for tolerating the promotion of criminal activity - all of which is significantly damaging to company branding.

Also, though most live streaming platforms request streamers to have real-name verification with photo ID before they go live, this verification method and the blacklist scheme can be ineffective. Photo ID is primarily requested for the sake of record keeping rather than a de facto checking and screening. This leaves a loophole for ill-behaved users with fake IDs or multiple accounts. As a flow on effect, the proliferation of live streaming platforms may very well increase the volume in the illegal identity trade to evade screenings.

A further pitfall for live streaming platforms concerns potential for the violation of copyright. A recent

case concluded in May, forced Douyu to compensate MarsTV with RMB 1.1 million(USD 164,800) for the unauthorized live streaming of a DoTA 2 championship match organized by MarsTV. The sentence found Douyu liable for unfair competition but not copyright violation. The verdict notably skirted the issue of intellectual property rights, implying that developers may have the final say on copyright violations and not competition organizers.

To cope with these severe challenges, over 20 live streaming platforms have banded together to launch *Beijing Live Streaming Platforms Self-Discipline Treaty*, which has requested members organize 24/7 monitoring teams and share blacklists. Before legislators follow up and launch new regulations applicable to live streaming as an increasingly impactful social and media outlet, these self-regulatory measures can better serve platforms' self interest by establishing a healthy online community and preventing the occurrence of crime on platforms.



## CONCLUSION

Live streaming has rid itself of the marginalized lowend entertainment source label to become a mainstream lifestyle digital consumption habit in China today. It's likely that one day it'll replace television and become the number one medium in our everyday life.

No matter what, this is already a multi-billion dollar market in China which is still pacing ahead at an astounding speed, presenting all sorts of possibilities. The industry may even see acceleration in integration and reorganization throughout the rest of this year. But before long, it will become a standard social and online marketing approach, and may possibly get into more fields in the future

We never imagined how daily communication would be reshaped in China before the emergence of WeChat and QQ. Nobody really considered the possibility of a cashless society before the widespread popularity of mobile payments. What then will our lives be reconstructed into with the ubiquity of live streaming?

Tiny changes usher in enormous impacts when scaled up 1.4 billion times. How will live streaming change China at the next stage? It'll be a question that's worth your attention and it'll be a topic we'll continue to keep an eye on.



## ABOUT CHINA TECH INSIGHTS

China Tech Insights is Tencent Online Media Group's newly launched research project.

The Chinese internet industry is drawing increasing attention from the rest of the world. Not only is it a fast rising entity in the tech sphere globally, but it also offers unparalleled opportunity as a huge market unto itself. Curious observers however, likely find it challenging given the limited availability of high-quality insight into the Chinese tech industry, especially in the English language. The cultural barrier serves as yet another hindrance that stops outsiders from further understanding this market.

China Tech Insights was launched in 2016 with an aim to share the most accurate and precise interpretations and analyses of the Chinese tech industry, with input from overseas investors, entrepreneurs and fellow analysts.

Our articles are investigative reports based on meticulous interviewing, surveys and research, fueled by professional opinion from business insiders. This is where we decode the truth of the Chinese tech industry bit by bit.

#### Disclosure

Tencent Online Media Group, a division of Tencent Holdings established in 2003, hosts China's biggest online news portal and publishes one of the most popular mobile news apps in China. With a team of over 40 media professionals from Tencent Online Media Group, some of whom have decades of journalistic experience, this project aims to tap the most brilliant minds in the industry.

#### Statement of Ethics

Though part of the Tencent Holdings group, projects undertaken by Tencent Online Media Group, China Tech Insights in particular, operate independently from the company's other businesses. Information pertinent to Tencent is treated on an equal footing with that of any other company.

At the same time, views and insights presented here are solely those of the China Tech Insights team, based on independent research and analysis, and do not in any way represent the views of Tencent.

As a leading tech company in China, Tencent will inevitably be involved in some of our future analyses. We pledge to clearly label where this may pose a conflict of interest and hereby solemnly swear this will not interfere with our editorial process.

Data utilized for this project is primarily collected from Tencent Online Media Group's consumer survey system. Other data channels used include those provided by our partner institutes, top-notch financial organizations and research units. Only verified data from credible sources will be included in our data sets.

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