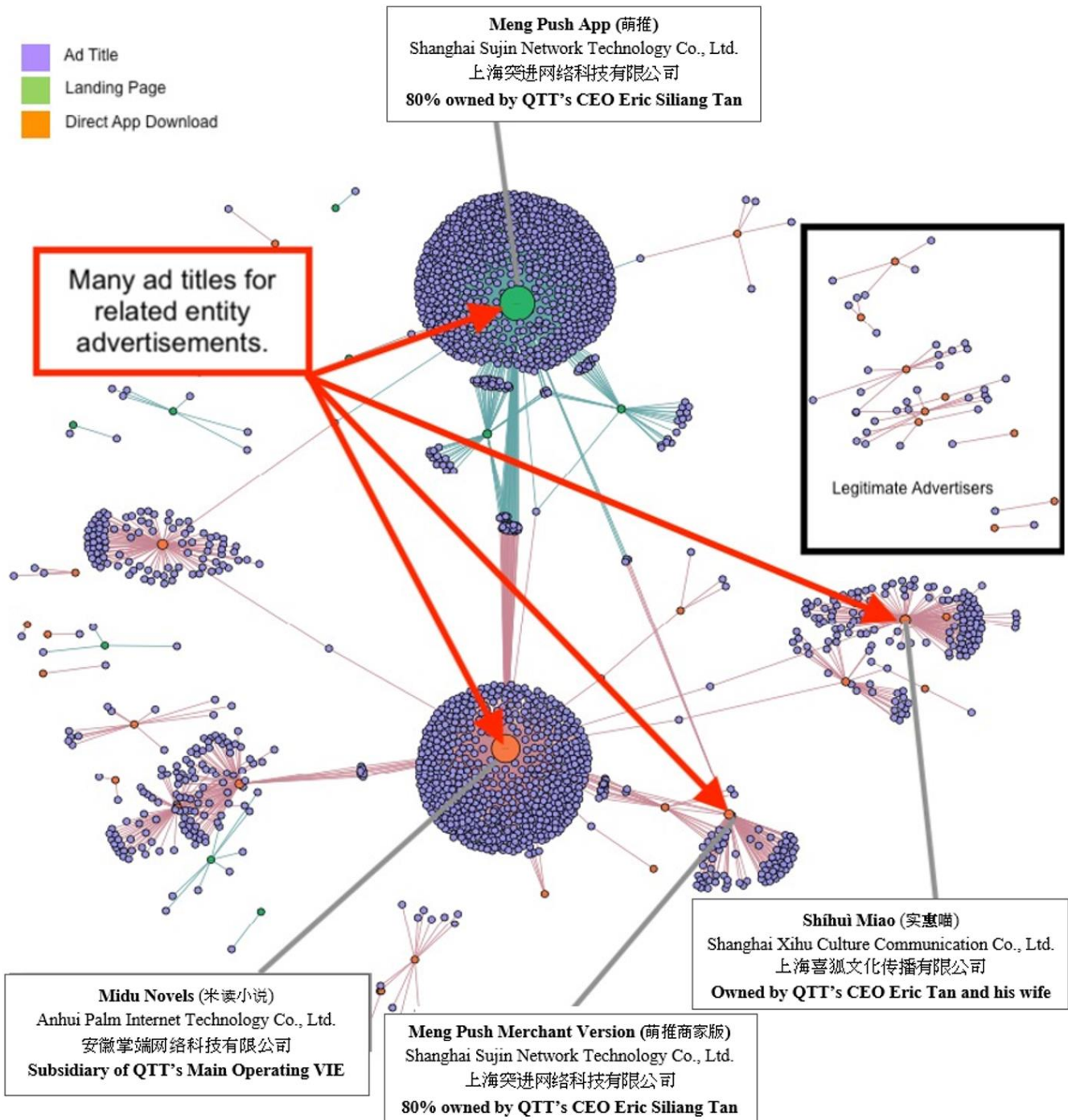


**Report Date:** December 10, 2019  
**Company:** Qutoutiao, Inc.  
**Ticker:** QTT US  
**Industry:** Interactive Media and Services  
**Stock Price (USD):** \$2.85  
**Market Cap (USD, Millions):** \$721.8



## QTT: Fake Revenue, Non-Existent Cash, Undisclosed Related Parties *“It’s like déjà vu all over again”*

A Visual Representation of the Ad Traffic on Qutoutiao’s App; The Low-Tech “China Hustle”



## Introduction

While investigating QTT, we are reminded of the great American poet, Yogi Berra, who once said, “*It's like déjà vu all over again*” and so, the China Hustle continues. Much has changed in the past 10 years, since the early days of the “China RTO frauds.” Of course, it’s still not illegal for a China based CEO to steal from American Citizens – no, that hasn’t changed – what’s changed is the anatomy of frauds coming out of China today.

Instead of fake factories that only run when foreign investors are in town or bogus claims of ownership, most frauds these days are more complex and have migrated to the internet or enhanced their financial engineering.

This brings us to Qutoutiao (“QTT”). QTT describes itself as an “*innovative and fast-growing mobile content platform company in China.*” – Whatever that’s supposed to mean. What we found is low-tech, cash incinerating malware distributor pretending to be a “*new generation of technology-driven content platforms.*”

For all of QTT’s buzzwords and claims, the reality of what we found is that the vast majority of QTT’s revenue is generated solely by the accounting department. Our analysis and on the ground due diligence indicate that ~74% of QTT’s revenue and ~77% of its reported cash balance is non-existent.

We conclude that QTT exists to enrich its Founder and CEO, Eric Tan, and promote his VC fund’s other ventures by creating its own in-house “advertising agent” in order to direct significant amounts of ad traffic to undisclosed related parties owned by Tan.

Since QTT pays users to click on ads, QTT’s shareholders appear to be unknowingly subsidizing the growth of Eric Tan’s other businesses as well as his net worth. If QTT was designed to be a cash incinerator, then QTT is a resounding success. Its current cash burn rate is over \$300 million per year. This “revolutionary” business model, as one might expect, has been a dismal failure for shareholders, but not for QTT’s CEO and his “*high-growth unicorn business matrix,*” as they call it at his VC fund, BigBase.

We have come to the conclusion that we are more likely to see an actual unicorn than to see QTT ever turn a profit.

## Summary

### 1. We Believe the Vast Majority of QTT's Revenue is Fake; And So is its Cash

- Our analysis and on the ground due diligence indicate that **~74% of QTT's 2018 revenues are fake and ~78% of its current cash balance is non-existent.**
- In its SEC filings, QTT claims revenues of ¥3.02 billion in 2018. We pulled the 2018 SAIC filings for all of QTT's subsidiaries and affiliated entities and found only ¥2.4 billion in aggregate revenue. After pulling detailed credit reports of QTT's main operating VIE and its in-house "advertising agent," **we conclude that QTT's real revenues only totaled approximately ¥798 million in 2018.**
- We believe QTT generated at least ¥1.29 billion of additional fake revenues in 2018 by recording non-existent "*advances from advertising customers*" on the books of its in-house advertising agent, Shanghai Dianguan, then paying them out to QTT's main operating VIE, Shanghai Jifen, as prepaid expenses. In doing so, QTT inflated the financials of both Jifen and Dianguan without any cash actually changing hands between the two.
- SAIC filings and credit reports indicate that fraudulent accounting artificially inflated Dianguan's assets by ¥1.29 billion, or 1,140%. The vast majority of what Dianguan claims to be advances were then shifted to Jifen, enabling Jifen to overstate its 2018 SAIC revenue by at least ¥1.29 billion.
- We believe these non-cash, revenue inflating accounting entries could have been hidden in QTT's 2018 20-F, when the company was flush with cash from its \$96.6 million (¥663.2 million) September 2018 IPO, in addition to the more than \$300 million (¥2.1 billion) the company raised via preferred stock issuance in the 12 months prior to its IPO.
- After the IPO, QTT raised another \$171.1 million (¥1.18 billion) from the convertible loan it issued in March 2019, another \$100 million (¥686.5 million) from its April 2019 secondary offering and another \$50 million (¥343.3 million) from issuance of preferred stock for "Fun Literature," the holding company of its Midu Novels app, in October 2019.
- These constant capital injections could not fill the ever-growing hole in QTT's balance sheet. QTT's business is a cash incinerator, whose burn apparently reached a breaking point during Q3 2019. During 3Q19, QTT claims to have moved ¥1.4 billion (i.e., more than 75% of its purported cash balance) into "short-term investments," which were disclosed in QTT's 2018 20-F to be China's infamous "*wealth management products*."<sup>1</sup>
- QTT filed a registration statement to raise **another** \$80 million through an at-the-market offering on November 19, 2019, when its ADSs closed at \$2.98 – a discount of more than 70% from its last public offering, just 7 months prior.

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<sup>1</sup> These are simply certificates issued by Chinese banks with a stated "value," although this value is not guaranteed: "*Clearly banks should not be responsible for non-guaranteed WMPs,*" said Chen Shujin, Chief Financial Analyst at Huatai Financial. - <https://www.scmp.com/business/banking-finance/article/2102341/chinas-28tr-yuan-wealth-management-products-under-mounting>

- QTT does not provide quarterly cash flow statements, but by our calculation the company's cash flow from operations was a staggering **negative ¥1.75 billion** in the first three quarters of 2019. After adding in QTT's ¥1.29 billion of what we believe to be non-existent revenues from 2018, it becomes clear to us that the ¥3.42 billion QTT has raised since its IPO last September is barely enough to keep the company solvent. We believe QTT only has approximately ¥459 million of cash left in the bank – at its current burn rate, this is barely enough to keep the lights on through the end of December.

## 2. Removing the Gatekeepers; The Low-Tech China Hustle

- We believe QTT enabled its “China Hustle” by removing independent third-party oversight of its advertising traffic and replacing it with its own in-house “advertising agent,” [Shanghai Dianguan](#), just 7 months prior to QTT's IPO. This transaction is the key element of what we have concluded to be QTT's systematic advertising fraud at the expense of its shareholders.
- Our analysis shows that, with the independent gatekeeper for QTT's advertising traffic replaced with Dianguan, QTT was able to begin directing advertising traffic wherever it wanted. Our analysis goes on to show that QTT wanted to direct traffic to undisclosed related parties owned by QTT's CEO, Eric Tan, to inflate their value.
- QTT paid 15 million RMB for Dianguan. The primary beneficiary of the sale was Dianguan's founder, Liang Xiang. Our on the ground due diligence indicated that Xiang is an employee of Eric Tan's Venture Capital Fund Manager, [Taiyun Capital](#), though we could find no disclosure of this by QTT.
- SAIC filings show that Shanghai Dianguan was incorporated 4 months before it was acquired by QTT and had zero invested capital. QTT appeared to be Dianguan's only customer before the acquisition.
- Dianguan should have substantial operations because it is replacing massive Baidu as QTT's advertising agent. Our on-the-ground due diligence showed Dianguan to be little more than a shell located within QTT's offices. We found no Dianguan staff ‘standing by and ready to take your ad orders’.
- This is shocking because QTT reported that Dianguan's revenues actually outpaced those earned from Baidu previously. But as we explain in Section 1, there are two wildly different sets of accounts in China for Dianguan in 2018. To us, this in itself, is hard evidence that Dianguan is a sham.
- We even attempted to become an advertising client of Dianguan, but there was no way for us to contact Dianguan directly, no contact information at all on their website or on QTT's apps.

- In an effort to locate anything about Dianguan’s ad-sales, we were reduced to just conducting internet searches for them. We eventually found the websites of two ad-agent companies that sell ads on QTT platforms. We spoke with both of them directly, and they each claimed to be “core” advertising agents for QTT, but not related to QTT or to Dianguan.
  - The two companies told us we would have to pay an up-front deposit of ¥5,000 or ¥10,000 RMB to open a QTT account. This would give the agents access to QTT’s ad platforms. Then we could pay another fee to work with either of the two ad-agents—**not with Dianguan**—to prepare the ads and have the ads placed on QTT apps.
  - In our conversations with outside ad agents, they indicated that Dianguan does not receive these deposits and does not take in ad-fees paid by outside customers. Dianguan provides no services, so it does not have any real revenue from ‘acting’ as advertising agent for QTT. Leading us to believe these payments only pass-through Dianguan and on to Jifen and QTT.
  - Our research indicates that Dianguan is not meaningfully an “advertising agent.” Dianguan does not sell ads, make ads or place ads on QTT’s apps. This work is done external to QTT by unrelated ad agents. These outside agents do not exercise the control that Baidu did, and they do not supervise ad-traffic or prevent it being directed to QTT’s related parties.
  - We conclude that Dianguan serves three purposes: to eliminate Baidu’s supervision of ad-traffic, to serve as a pass-through for advertising advance and placement fees, and to allow QTT to cook the books.
3. **Our Research Indicated that Nearly 50% of QTT’s Ads Came from Undisclosed Related Parties, or QTT Itself**
- We analyzed more than 50,000 ads on QTT’s platform, and the results were shocking. More than 25% of QTT’s ad traffic in our sample was directed to undisclosed related parties owned by QTT’s CEO, and 21% originated from QTT itself.
  - We conclude that QTT’s top 4 advertisers made up 69.7% of its advertising traffic: #1 is an undisclosed related party owned by QTT’s CEO, #2 is a subsidiary of QTT, #3 (QTT’s top non-related party advertiser) recently sued QTT for copyright infringement and #4 is going through an ugly Chapter 11 bankruptcy.
  - Despite the fact that we observed more than 35% of QTT’s advertising traffic being directed to related parties (both disclosed and undisclosed), QTT’s SEC filings indicate that revenues from related parties accounted for only 1.6% and 5.8% of its net revenues in 2018 and 1H19, respectively. This demonstrates to us another example of Eric Tan’s private companies benefitting at the direct expense of QTT’s shareholders.
  - QTT’s top two related party customers we found are [portfolio companies](#) of BigBase, a VC fund Eric Tan founded in 2015. This discovery leads us to believe that QTT’s shareholders are subsidizing the growth of Tan’s other ventures by paying users to click on ads from Eric Tan’s other apps, such as Meng Push.

- According to [BigBase's website](#), it operates from the same address as QTT's corporate headquarters at the Xingchuang Technology Center in Shanghai.
- We spoke to a former employee of one of the related party advertisers owned by Eric Tan, Shanghai Xihu Culture Communication Co., Ltd., who told us that Xihu shared offices with QTT, created content for QTT and even reported to the same boss as QTT. This is just one example of the observations we have made throughout our investigation that show us there is seemingly little difference between QTT and Eric Tan's other companies. Most of which share offices, management and resources, apparently paid for by QTT's shareholders.
- Our research shows that QTT's top advertising customer, an undisclosed related party called Meng Push, is attracting open criticism from the mainstream Chinese media for widespread complaints about [scam promotions](#) run on Meng's App.
- The mainstream [Chinese news media](#) has openly scrutinized the fact that QTT's CEO, Eric Tan, is the ultimate owner of Meng Push. Apparently QTT's auditors and underwriters don't read the news in China. Luckily for investors, we do.
- We conclude that 88.3% of QTT's overall advertising traffic originated with its top 10 advertisers. In our opinion, a legitimate advertising platform should never have such skewed traffic distribution, which we believe to be an indicator of ad fraud.

#### 4. [Our Review of QTT's App Indicated that it's a Malware \(Spyware\) Nightmare](#)

- Our review of QTT's application showed us that QTT has an absurd amount of access to and control over its users' private data. QTT's app can:
  - record audio without the user's knowledge.
  - access the camera without the user's knowledge.
  - initiate a phone call without the user's knowledge.
  - send text messages without the user's knowledge.
  - access, read and write to the user's calendar without the user's knowledge.
  - read and write from/to external storage without the user's knowledge.
- We believe this access is intentional; it is not an oversight or omission and so raises the question of why QTT wants this access to its users' lives. We note a [co-operation agreement](#) signed in 2018 between QTT and a subsidiary of Shanghai United Media Group, part of the [CCP's propaganda machine](#), which includes sharing of data and analytics, as well as content censorship.
- [Hybrid Analysis](#), a malware analysis site, gave the app an overall rating of "Malicious."
- [VirusTotal](#), another malware analysis site, indicated that three anti-virus vendors have flagged QTT's app as containing a malicious code library called IGexin, which was responsible for seeing 500 apps booted off the Google Play store in 2017.

- Our analysis showed us that QTT’s App updates are not delivered with even basic SSL encryption. Secure Sockets Layer (“SSL”) encrypts your web traffic and protects your data. This is particularly essential for mobile devices downloading application updates. QTT’s app didn’t use ANY encryption or secure communication channel when we tested it, meaning QTT’s users are vulnerable to interception, malware or spyware.
- We found the software code in QTT’s application is littered with profanity and shows little of the professionalism you’d normally expect of a professional software developer. Here is one of their engineers expressing their contempt for QTT’s code:

```
public static String TrimVersion(String str) {  
    if (str == null) {  
        Log.e("TrimVersion", "Fuck, what did you gives me!!!?");  
    }  
    try {
```

“Fuck, what did you gives me!!!?” is exactly what we should be asking Eric Tan and QTT.

## 5. We Believe QTT’s “Loyalty Program” Creates Fake Ad Traffic and User Growth

- QTT’s “loyalty program” awards points to users on QTT’s apps which are redeemable for cash. Users are paid for referring new users to QTT’s apps (“user acquisition costs”) as well as for viewing content and clicking on ads (“user engagement costs”). That’s right, QTT actually has to pay users to use its app, and it’s not cheap – As of Q2 2019, trailing twelve-month (“TTM”) loyalty program expenses totaled \$701.8 million, or 100.2% of its SEC reported revenue.
- In our view, by directing more than 25% of QTT’s ad traffic to undisclosed related parties owned by Eric Tan and paying its users to click on advertisements, QTT effectively uses shareholders’ capital to subsidize the growth of Tan’s private businesses.
- QTT’s business model has attracted criticism from heavyweights in the Chinese media. Caixin, a leading news site in China, published an article in August 2019 titled, “[In Depth: The Fake Engagement Powering China’s Internet](#)” wherein it called out QTT as a “fake traffic generator.”
- QTT is reliant on buying new users and paying them for engagement because its content quality has fallen off a cliff since its Editor-in-Chief, Xiao Houjun, resigned in June 2019. In a September 2019 [Sina Technology article](#), an employee from QTT’s Content Center said “[Qutoutiao] was originally a healthy development... then Xiao went away, and the content system rout began.” Another QTT employee told Sina “[Qutoutiao’s] model is not suitable for use.”

## 6. Winners and Losers

- QTT IPO'd on the Nasdaq just 27 months after it began developing the Qutoutiao app in 2016, breaking a Chinese internet company [record](#) for the fastest start-up to public listing ever. After the first day of trading, QTT's market cap was over \$4.5 billion, making QTT's Co-Founder/CEO, Eric Siliang Tan, an [instant billionaire](#).
- On average, QTT's early investors paid the equivalent of ~\$4.21 per ADS for their preferred shares in the 12 months prior to QTT's IPO.<sup>2</sup> Those early investors who sold shares in QTT's secondary offering just 6 months later, in April 2019, at \$10 per ADS realized a net return of approximately 138%. Clearly, these are some of the winners.
- It's impossible for us to know exactly who the rest of the winners are. Upon IPO, QTT's CEO Eric Tan became an instant billionaire on paper. However, because QTT is a [foreign private issuer](#) ("FPI"), its insiders and principal shareholders are not required to disclose stock sales – so we have no idea how much stock Tan, or anyone else, has sold. Tan's recent exorbitant [spending spree](#) leads us to believe that he has at least cashed out some of his stock. However, he could have obtained liquidity through margin loans against his shares – we can't know this either, as FPIs also aren't required to file proxy statements.
- Unfortunately, the losers are almost always Mutual Funds, Pension Funds, and retail investors. This stock is included in 14 Fidelity U.S. Mutual Funds, 5 Vanguard U.S. Mutual Funds, 5 Vanguard ETFs, 4 BlackRock Mutual Funds, 5 BlackRock iShares ETFs and 4 State Street ETFs as well as Pension funds such as CalPERS and the Teachers Insurance & Annuity Association of America ("TIAA-CREF").<sup>3</sup>
- In the first three quarters of 2019, QTT repurchased 4,665,700 ADSs at an average price of \$4.44 per ADS. Then, on November 19, 2019, QTT filed a registration statement to raise \$80 million through an at-the-market offering with its ADSs trading at \$2.98. In our opinion, this shows that QTT's management is financially desperate.

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<sup>2</sup> QTT SEC Form F-1, filed March 29, 2019, p. II-2

<sup>3</sup> "QTT US Ownership Data" via Bloomberg, LP. Accessed November 21, 2019.



## 1. We Believe the Vast Majority of QTT's Revenue is Fake; And So is its Cash

Our analysis and on the ground due diligence indicates that ~74% of QTT's 2018 revenues are fake and ~78% of its current cash balance is non-existent. In its 2018 SEC filings, QTT claims revenues of ¥3.02 billion. We pulled the 2018 SAIC filings for all of QTT's subsidiaries and affiliated entities and found only ¥2.40 billion in aggregate revenue. After pulling detailed credit reports of QTT's main operating VIE and its in-house "advertising agent," **we conclude that QTT's legitimate revenues only totaled approximately ¥798 million in 2018.**

To be clear: the revenues QTT has reported to the SEC and U.S. investors are materially higher than those QTT booked in its SAIC filings in China. But we found evidence that QTT's Chinese filings are also materially overstated.

Our research concludes that at the center of this accounting fraud is QTT's in house "advertising agent", Shanghai Dianguan, and its core operating entity, Shanghai Jifen. In the next section of this report, we detail the findings that justify our belief that Dianguan is a complete fraud in its own right. We found very little evidence that Dianguan has any legitimate operation at all.

At the very highest level, the story of Dianguan's very inception and business is implausible: just 4 months after it was incorporated with zero invested capital, according to SAIC filings, Dianguan apparently replaced Baidu (one of the world's most powerful advertising machines) as the main operating engine of QTT's advertising platform. Following the acquisition of Dianguan, which took place just 7 months prior to QTT's IPO, QTT showed a massive *increase* in revenues. This story is so absurd at face value that we cannot possibly believe it to be true.

For 2018, we found two sets of financials for Dianguan in China. National credit reports in China showed assets, liabilities and revenues that were 5 to 12 times the size of those Dianguan reported to the local (SAIC) authorities. In our opinion, this speaks to the fraudulent nature of Dianguan.

It is in the balance sheets of Dianguan and Jifen that we can show how Jifen's (and therefore, QTT's) revenues were massively overstated. Our analysis concluded that fake accruals between Dianguan and Jifen have been used to fraudulently inflate Jifen's revenues, which, in turn, inflate QTT's revenues.

This would mean QTT generated at least ¥1.29 billion of additional fake revenues in 2018 by allowing its main operating VIE, Shanghai Jifen, to recognize revenue from non-cash "*advances from advertising customers*" from its in-house advertising agent, Shanghai Dianguan.

We found significant discrepancies between the numbers Dianguan reported to the SAIC and to China's national credit reporting agency. The fact that these numbers matched for Jifen but not Dianguan is further evidence to us that Dianguan is at the center of QTT's accounting fraud. The tables below show comparisons of the two sets of numbers for both Jifen and Dianguan for 2018:

Shanghai Jifen - 2018				
RMB, Thousands	SAIC	Credit Reports	Delta	% Delta
Revenue	1,972,480	1,972,481	1	0.00%
Net Profit	(1,457,120)	(1,457,120)	-	0.00%
Total Assets	357,960	357,962	2	0.00%
Total Liabilities	1,826,350	1,826,353	3	0.00%
Total Equity	(1,468,390)	(1,468,391)	(1)	0.00%

Shanghai Dianguan - 2018				
RMB, Thousands	SAIC	Credit Reports	Delta	% Delta
Revenue	308,010	1,920,215	1,612,205	523.4%
Net Profit	(2,220)	(2,222)	(2)	0.09%
Total Assets	112,470	1,394,570	1,282,100	1,140%
Total Liabilities	115,040	1,397,147	1,282,107	1,114%
Total Equity	(2,570)	(2,577)	(7)	0.27%

The biggest red flags in Dianguan’s financials were its revenues, assets and liabilities, as credit reports show that these line items were significantly overstated in comparison to SAIC filings in 2018. Dianguan’s balance sheet shows suspicious line items for “*prepaid account money*” (“prepaid expenses”) and “*advance account money*” (“advances”).

Prepaid expenses and advances accounted for 92.4% of total assets and 97.8% of total liabilities in 2018, respectively:

Shanghai Dianguan - Balance Sheet		% of Total
RMB, Thousands	12/31/2018	Assets/Liab.
<i>Current assets:</i>		
Money funds	37,811	2.7%
Measured at fair value and its changes	58,000	4.2%
Receivables account net funds	329	0.0%
Other receivables, net	9,410	0.7%
Prepaid account money	1,288,466	92.4%
<b>Total current assets</b>	<b>1,394,016</b>	<b>100.0%</b>
<i>Current liabilities:</i>		
Payable account money	23,877	1.7%
Advance account money	1,366,879	97.8%
Payable	799	0.1%
Tax payable	536	0.0%
Other payables	5,056	0.4%
<b>Total current liabilities</b>	<b>1,397,147</b>	<b>100.0%</b>

Given that both of the suspect line items are accruals, we calculated the balance sheet accruals ratio for Dianguan.<sup>4</sup> The result was one we had never seen before – Dianguan’s 2018 accruals ratio was **152.5%**.

In a normal situation, an accruals ratio greater than 10% would be considered a red flag. In our opinion, an accruals ratio greater than 100% is a crystal-clear indicator of accounting fraud – it is actually impossible without the cooperation of another entity: in this case, Shanghai Jifen.

<sup>4</sup> The balance sheet accruals ratio is a quality of earnings metric that determines the percentage of revenues attributable to accruals in a given period. For a more detailed explanation, see [this link](#).

Incredibly, Jifen’s 2018 accruals ratio was even higher than Dianguan’s – Jifen’s accruals ratio was **193.6%**. As we said above, in our opinion, this is an absolute crystal-clear indicator of accounting fraud. Reviewing Jifen’s balance sheet, we noted that Jifen has nearly ¥1.5 billion more liabilities than assets. Advances accounted for 96.2% of Jifen’s liabilities:

Shanghai Jifen - Balance Sheet		% of Total
RMB, Thousands	12/31/2018	Assets/Liab.
<i>Current assets:</i>		
Money funds	35,109	10.4%
Receivables account net funds	29,337	8.7%
Other receivables, net	265,669	78.6%
Prepaid account money	7,678	2.3%
Other current assets	-	0.0%
<b>Total current assets</b>	<b>337,793</b>	<b>100.0%</b>
<i>Current liabilities:</i>		
Payable account money	1,751	0.1%
<b>Advance account money</b>	<b>1,757,772</b>	<b>96.2%</b>
Accounts Payable	16,638	0.9%
Tax payable	26,775	1.5%
Other payables	23,417	1.3%
<b>Total current liabilities</b>	<b>1,826,353</b>	<b>100.0%</b>

Dianguan’s credit reports list Jifen as its sole supplier of advertising space – leading us to believe that Dianguan’s large prepayment balance represents prepayments made to Jifen, which show up on Jifen’s balance sheet as advances on the liabilities side and cash on the assets side.

However, due to the fact that SAIC filings show that Dianguan only had ¥4.4 million in total assets at the end of 2017, only generated ¥308 million in total revenues in 2018 and had only ¥112.5 million in total assets at the end of 2018, we conclude that no cash actually changed hands between Dianguan and Jifen in this transaction. This implies that the ¥1.29 billion prepayment that Dianguan made to Jifen simply allowed Jifen to show a ¥1.29 billion “cash” inflow. Without the “cash” from Dianguan’s purported ¥1.29 billion prepayment, Jifen could not reasonably have funded the expenses related to the ¥1.97 billion of revenues it booked in 2018. Hence, this “cash” is noticeably absent from Jifen’s balance sheet at the end of the year, despite the prepayment still appearing as an asset on Dianguan’s credit report balance sheet, and the advances still appearing as a liability on Jifen’s balance sheets at the end of 2018.

Thus, we conclude that at least ¥1.29 billion of Jifen’s ¥1.97 billion 2018 SAIC reported revenue is non-existent.

The balance sheets of both Dianguan and Jifen show balances recorded under “*advances from advertising customers*” equal to 8.5 and 10.7 months of the companies’ purported annual revenues, respectively. We believe these are clearly fraudulent balances, as QTT claims to reconcile these advances with its advertising customers on a monthly basis – which is standard practice in the industry.<sup>5</sup>

<sup>5</sup> QTT 2018 20-F, p. F-17

We analyzed the financial statements of three other advertising agencies in China and found that these companies' advances from advertising customers equated to between 2 weeks of revenues on the low end and just over 2 months of revenues on the high end. In our opinion, there is no benign explanation for the massive balances shown by Jifen and Dianguan.

Advance Balance Comps (RMB, Thousands)	One Month's Revenue	Advances from Customers	Months Rev In Advances
Shanghai Jifen	164,373	1,757,772	10.7
Shanghai Dianguan	160,018	1,366,879	8.5
Longyun (603729 CH) <sup>6</sup>	99,600	227,900	2.3
InlyMedia (603598 CH) <sup>7</sup>	262,300	307,500	1.2
Yunzhilian (云智联) <sup>8</sup>	4,100	2,200	0.5

These non-cash, revenue inflating accounting could have been hidden in QTT's 2018 20-F, the last time the company's financials were actually audited, because QTT was flush with cash from its \$96.6 million (¥663.2 million) September 2018 IPO, in addition to the more than \$300 million (¥2.1 billion) QTT raised via preferred stock issuance in the 12 months prior to its IPO. QTT's Chief Strategy Officer, "Oliver" Yucheng Chen, went as far as saying that QTT didn't IPO because it needed the money – the IPO was *"just for credibility."*<sup>9</sup>

However, QTT's actions in the months following its IPO directly contradict Oliver's statement. Just 6 months after the IPO, QTT raised another \$171.1 million (¥1.175 billion) through the issuance of a convertible loan. Literally 6 days after that, QTT raised another \$100 million (¥686.5 million) in a secondary offering, although \$67 million of the funds from this offering went to selling shareholders. 6 months later, in October 2019, the company raised another \$50 million (¥343.3 million) from issuance of preferred stock for "Fun Literature," the holding company of QTT's Midu Novels app, although QTT itself had to contribute \$50 million to get this deal done.<sup>10</sup> One month after that, on November 19, 2019, QTT filed a registration statement to raise another \$80 million (¥549.2 million) through an at-the-market offering with its ADSs trading at only \$2.98 – a discount of more than 70% from its last public offering, just 7 months prior.<sup>11</sup>

In total, QTT has raised nearly \$200 million (¥1.31 billion) so far in 2019 alone – we wonder if Oliver would claim all of this money was just for credibility too?

Nonetheless, even these constant capital injections could not fill the ever-growing hole in QTT's balance sheet. Making things worse, QTT's actual business is a cash incinerator, whose burn appears to have reached a breaking point during Q3 2019.

<sup>6</sup><http://data.eastmoney.com/notices/detail/603729/AN201904261322798048,JWU5JWJITk5JWU5JTImJWIIJWU4JTgyJWExJWU0JWJiJWJk.html>

<sup>7</sup><http://data.eastmoney.com/notices/detail/603598/AN201904111318473170,JUU1JUJDJTk1JUU1JThBJTICJU00JUJDJUEwJUU1JUFBJTky.html>

<sup>8</sup><http://xinsanban.eastmoney.com/Article/NoticeContent?id=AN201907081338074951>

<sup>9</sup><https://www.capitalwatch.com/article-2791-1.html>

<sup>10</sup> QTT 1H19 6-K, filed November 19, 2019, p. F-44

<sup>11</sup> QTT F-3, filed November 19, 2019

## We Conclude that Most of QTT's Reported Cash Balance is Non-Existent

At the end of 2018, QTT claimed to have ¥2.3 billion in cash and equivalents, 92% of which was held offshore in USD and only 5% (¥115.4 million) was held in “short-term investments,” which QTT discloses to be China’s infamous “*wealth management products*.”<sup>12</sup>

As of December 2018	Level 1	Level 2	Level 3	Balance at fair value
<b>Assets</b>				
Short-term investments — Wealth management products	—	115,436,080	—	115,436,080

The Group values its investments in wealth management products issued by certain banks using quoted subscription/redemption prices published by these banks, and accordingly, the Group classifies the valuation techniques that use these inputs as Level 2.

In QTT’s 2018 20-F, its cash and equivalents and short-term investments balances were presented as follows:

As of December 31, 2018	RMB
Cash and Equivalents	2,186,288,246
Short-term investments	115,436,080
<b>Total liquidity</b>	<b>2,301,724,326</b>

In QTT’s 1H19 report on form 6-K, its cash and equivalents and short-term investments balances were presented as follows:

As of June 30, 2019	RMB
Cash and Equivalents	2,103,479,913
Short-term investments	184,088,800
<b>Total liquidity</b>	<b>2,287,568,713</b>

The numbers above represent a decrease in total liquidity of less than 1% between December 31, 2018 and June 30, 2019. However, QTT claims to have converted the equivalent of ¥2.1 billion of USD into RMB during 1H19:<sup>13</sup>

	RMB			RMB equivalent (US\$)			RMB equivalent (HKD/SGD/IDR)			Total in RMB
	Overseas	China		Overseas	China		Overseas	China		
		Non VIE	VIE		Non VIE	VIE		Non VIE	VIE	
December 31, 2018	—	39,016,535	19,464,246	2,125,034,745	2,269,863	—	502,857	—	—	2,186,288,246
June 30, 2019	2,036,528,937	20,890,359	8,036,781	4,304,762	31,762,509	582	1,955,983	—	—	2,103,479,913

This also seems absurd – why would anyone do this when it is so difficult to convert RMB back to USD and the Yuan is pegging above 7? According to QTT, it decided this was a good time to convert 90% of its total liquidity into RMB, apparently.

During 3Q19, QTT’s purported total liquidity only decreased by 7%, despite the company burning more cash in this one quarter than it did in all of 2018. However, the distribution of QTT’s liquidity changed significantly. QTT claims to have moved ¥1.4 billion (i.e., 75% of its purported total liquidity) into “short-term investments,” which were disclosed in QTT’s 1H19 6-K to be “*wealth management products*,” issued by a Chinese financial institution.<sup>14</sup> QTT’s total liquidity at the end of 3Q19 is presented as follows:

<sup>12</sup> QTT 2018 SEC Form 20-F, p. F-14

<sup>13</sup> QTT 1H19 6-K, filed November 19, 2019, p. F-27

<sup>14</sup> QTT Form 6-K filed November 19, 2019, p. F-14

As of September 30, 2019	RMB
Cash and Equivalents	525,393,392
Short-term investments	1,594,659,465
<b>Total liquidity</b>	<b>2,120,052,857</b>

We have seen this movie before. It appears that QTT is quickly running out of cash and new places to get it – with its first audit since year-end 2018 approaching, QTT knows it will need to convince its auditor that its cash balance is real. “*Wealth management products*” in China have been used in the past to fool an auditor; we have seen this in cases such as NQ Mobile.<sup>15</sup> By our calculation, **QTT only had approximately ¥458.8 million (\$66.8 million) of cash left at the end of 3Q19**. At QTT’s current burn rate, this cash would only last until early December, at best:

QTT Actual Liquidity	As of 3Q19
Liquidity as of 12/31/2018	2,301,724,326
2018 fake revenue	(1,288,466,000)
2019 YTD OCF	(1,751,474,000)
2019 YTD Cash from investing	(116,420,000)
2019 YTD Cash from financing	1,313,464,000
<b>Actual cash remaining</b>	<b>¥458,828,326</b>

QTT does not provide quarterly cash flow statements, but given the income statement and balance sheet, we were able to recreate QTT’s quarterly cash flow statements:

Color Code:	Black text = calculated	Blue text = estimated			
QTT Cash Flow (RMB, thousands)	1Q19	2Q19	3Q19	YTD 2019	
<i>Cash from Operating Activities:</i>					
Net Income	(688,031)	(561,311)	(888,409)	(2,137,751)	
Depreciation <sup>16</sup>	4,100	4,100	4,100	12,300	
Deferred Income Taxes	(601)	(601)	(601)	(1,802)	
Stock Based Compensation <sup>17</sup>	67,800	67,800	67,800	203,400	
Change in Accounts Payable	29,380	100,799	24,306	154,486	
Change in Users’ Loyalty Payable	(42,308)	(35,441)	(12,095)	(89,844)	
Change in Accounts Receivable	(60,650)	(145,695)	96,248	(110,097)	
Change in Prepaid Expenses	7,502	(29,646)	(96,869)	(119,012)	
Change in Accrued Expenses	87,995	20,386	96,323	204,704	
Change in Accrued Liabilities related to users loyalty	6,781	(4,660)	24,951	27,072	
Change in Income Taxes Payable (Receivable)	(25,381)	16,213	20,502	11,334	
Change in Advance from Advertising Customers	(22,413)	33,405	52,051	63,043	
Change in Accrued Compensation/Payroll Expense	10,280	20,200	16,088	46,568	
Amortization of Intangibles	2,403	(209)	2,614	4,808	
Change in Other Assets	(3,525)	(13,418)	(2,041)	(18,983)	
Change in Other Liabilities	(811)	(456)	(432)	(1,699)	
<b>Total Cash Flows from Operations</b>	<b>(627,479)</b>	<b>(528,534)</b>	<b>(595,462)</b>	<b>(1,751,474)</b>	

At its current burn rate, we conclude that QTT needed an immediate cash injection to keep the lights on through the first half of December. This would explain QTT’s \$80 million desperation raise near the end of November, through an at-the-market offering with its ADSs trading at under \$3.00.

<sup>15</sup> <https://www.muddywatersresearch.com/research/nq/you-cant-fool-all-of-the-people-all-of-the-time/>

<sup>16</sup> Estimate based on depreciation reported in QTT’s 2018 statement of cash flows

<sup>17</sup> Estimate based on disclosures in QTT’s 2018 20-F

Our belief that QTT is in the zone of insolvency is supported by recent reports from reputable sources in the Chinese media. On September 25, 2019, Sina Technology published an article detailing the internal turmoil at QTT – the article states that,

*“Recently, [QTT] employees broke the news to Sina Technology that the mid-level turnover is basically true, and it is a reorganization of the company, from business to personnel. At the same time, it is accompanied by layoffs.”<sup>18</sup>*

When Sina reached out to the company for further verification, they received the type of vague denial/non-statement that we would expect from a company like QTT:

*“In response, [QTT officials] still responded: “not true,” but did not answer specific questions.”*

The author goes on to say that,

*“Although [QTT] has been emphasizing the expansion of enrollment, it is an indisputable fact that many core business executives have left their posts amid turbulent personnel changes. Just a year after going public, [QTT], a young internet company, is exposing the distress and pressure faced by rapid expansion.”*

Sina confirms that QTT’s original CEO, Li Lei, resigned on May 21, 2019 and QTT’s Editor-in-Chief, Xiao Houjun, resigned just two weeks later. The heads of QTT’s content, technology and algorithms departments all resigned in the following months.

After discussing the decrease in payments (i.e., “subsidies”) for content creators on QTT’s platform, the author appears to come to the same conclusion as us:

*“Another reason for the reduction in subsidies **may be that they have no money.**”*

These are profoundly strong statements from a mainstream news source in China. The CCP does not like negative publicity about Chinese companies, and defamation can be prosecuted as a criminal offense in China.

Our analysis of SAIC filings and credit reports, reports from the Chinese news media, our on the ground due diligence in China and the massive volume of related party advertisements we observed on QTT’s platform all support our conclusion: QTT is engaging in accounting fraud; most of its revenues and purported cash balance are non-existent.

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<sup>18</sup> <https://tech.sina.com.cn/i/2019-09-25/doc-iicezzrq8239515.shtml>

## 2. Removing the Gatekeepers; The Low-Tech China Hustle

When QTT initially launched its business in 2016, it collaborated with various third-party advertising agents/platforms to place ads on its mobile applications. Baidu was QTT’s primary advertising agent, accounting for 69.9% and 43.7% of QTT’s net revenues in 2016 and 2017, respectively.<sup>19</sup>

With a well-known company like Baidu managing the majority of QTT’s advertising traffic, there was an independent third-party serving as a gatekeeper for the advertisements placed on QTT’s apps. QTT had little control over what ads ran on its platform when they were placed by and through third-party advertising agents like Baidu.<sup>20</sup> QTT terminated its agreements with “*other third-party advertising agents*” on December 31, 2017.<sup>21</sup>

Then, in February 2018, QTT acquired its own advertising agent, Shanghai Dianguan Network Technology Co., Ltd. (“Dianguan”). Based on SAIC filings, it appears that QTT was its only customer prior to the acquisition and Dianguan was formed with zero invested capital just over four months prior to the acquisition and had no registered intellectual property until after the acquisition was made.<sup>22</sup>

QTT paid Dianguan’s founder, Xiang “Sean” Liang, RMB 15 million for this four-month-old shell of a company. Turns out, Xiang works for Tan at Taiyun Capital, the fund manager of Shanghai Taiyun Investment Management Co., Ltd., a PE/VC Fund wholly owned by Eric Tan and his sister:<sup>23</sup>

 <b>Taiyun Capital</b>		<small>Year of establishment: 2014 Year : Shanghai</small>	
<small>Introduction: Taiyun Investment was established in 2014. It is a professional private equity investment fund management institution engaged in investment, equity investment and venture capital investment. It has 4 funds to support RMB and US dollars at home and abroad. Investment pr</small>			
2	 Tan Siliang	Business Consultant	Tan Siliang, Tai Yun Capital Business Consultant. Graduated from Tsinghua University and the Chir... <a href="#">More</a>
3	 Chen Yu	Business Consultant	Chen Hao, Tai Yun Capital Business Consultant. Graduated from the University of Michigan, Ann ... <a href="#">More</a>
4	 Liang Xiang	Domestic investment director	Liang Xiang Domestic Investment Director (Shanghai) graduated from Tongji University with a master's... <a href="#">More</a>

Xiang is also an investment director at Wofu Capital (aka WooFoo Capital),<sup>24</sup> whose largest investor is...you guessed it – Eric Tan.<sup>25</sup>

<sup>19</sup> 2018 20-F, p. 57

<sup>20</sup> Baidu and other independent third-party advertising agents only allow clients like QTT to give high-level categorical preferences on the types of ads displayed, not specific advertisers they want displayed in order to ensure compliance and the legitimacy of ads.

<sup>21</sup> 2018 20-F, p. F-17

<sup>22</sup> <https://www.tianyancha.com/company/3095343408>

<sup>23</sup> <https://www.tianyancha.com/organize/ba24d461>

<sup>24</sup> <http://www.woofocapital.com/>

<sup>25</sup> <https://www.tianyancha.com/company/2357799540>





QTT specifically said the motivation for this acquisition was to “reduce [QTT’s] reliance on third-party advertising platforms such as Baidu.”<sup>26</sup> Why would QTT want to “reduce its reliance” on Baidu’s advertising services just before its IPO?

Baidu had full control over the distribution of advertising traffic on their clients’ platforms, and Baidu uses algorithms which ensure legal compliance and provide oversight of their clients’ advertising business, per Baidu’s registration agreement.<sup>27</sup> And Baidu, like any other independent advertising agent, uses industry standard restrictions on “induced clicks”:<sup>28</sup>

### 31. Induced clicks

31.1 Using click-inducing words such as “exciting recommendations”, “relevant links” and “click here” to describe promotional content.

31.2 Using arrows, download icons or other icons to guide users to click.

31.3 Inserting pornographic pictures to the promotional content.

31.4 Using rewards to lure users to install, register and/or purchase.

31.5 Faking partners’ websites.

We believe QTT needed these restrictions removed in order to perpetrate the unmitigated ad fraud that we observed in our sample. The Dianguan acquisition appears to have served its purpose – Dianguan accounted for 78.2% of QTT’s revenue in the first six months of 2018, while Baidu only accounted for 4.2% of QTT’s revenue in 2018, a massive drop from its 43.7% contribution in the prior year.<sup>29,30</sup>

While Dianguan’s numbers appear to make up for the loss of Baidu revenue, there is a big catch. As we explained in Section 1, national credit reports for Dianguan differ from its SAIC filings. In our opinion, this alone is evidence that Dianguan is a fraudulent corporate entity.

With Dianguan in place and third-party oversight removed from QTT’s advertising platform, QTT was free to do whatever it wanted with its advertisements. Our analysis indicated that QTT wanted to direct ad traffic to Eric Tan’s private companies. In doing so, Tan appears to be using QTT to inflate the user metrics of his other ventures.

<sup>26</sup> QTT F-1 Prospectus, filed August 17, 2018, p. 83

<sup>27</sup> 2018 20-F, p. F-17

<sup>28</sup> Baidu Alliance Membership Registration Agreement, Section 31

<sup>29</sup> QTT F-1 Prospectus, filed August 17, 2018, p. 19 (Dianguan’s full year contribution to QTT’s 2018 revenue was never disclosed)

<sup>30</sup> 2018 20-F, p. 13

We wanted to know what QTT shareholders got for the ¥15 million that QTT paid to a related party for Dianguan. Through exhaustive on-the-ground due diligence, we found that Dianguan shares a registered address with 21 other QTT subsidiaries, VIEs and related-party entities. Here are just a few of them:

Company Name	Address
<b>QTT Subsidiaries/VIEs:</b>	
Shanghai Dianguan Network Technology Co., Ltd. 上海点冠网络科技有限公司	Room J3144, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Quyun Internet Technology Co., Ltd. 上海趣蕴网络科技有限公司	Room JT6668, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Zhicao Information Technology Co., Ltd. 上海纸草信息科技有限公司	Room JT7583, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Jifen Culture Communication Co., Ltd. 上海基分文化传播有限公司	Room JT6707, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Big Rhinoceros Horn Information Technology Co., Ltd. 上海大犀角信息科技有限公司	Room JT7450, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Xike Information Technology Service Co., Ltd. 上海溪客信息技术服务有限公司	Room JT6703, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Tuile Information Technology Co., Ltd. 上海推乐信息技术服务有限公司	Room J1407, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Heitu Internet Technology Co., Ltd. 上海黑兔网络科技有限公司	Room JT6664, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Zheyun Internet Technology Co., Ltd. 上海喆云网络科技有限公司	Room JT6663, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Rui Body Network Technology Co., Ltd. 上海睿体网络科技有限公司	Room JT10059, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
<b>Undisclosed Related Parties:</b>	
Shanghai Peg Information Technology Co., Ltd. 上海彼格信息科技有限公司	Room J1696, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Xihu Culture Communication Co., Ltd. 上海喜狐文化传播有限公司	Room J2805, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Bi Meng Information Technology Co., Ltd. 上海彼萌信息科技有限公司	Room J2870, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Sujin Network Technology Co., Ltd. 上海突进网络科技有限公司	Room JT6855, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Youyi Information Technology Co., Ltd. 上海游曦信息科技有限公司	Room J2806, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Youhui Network Technology Co., Ltd. 上海游卉网络科技有限公司	Room JT6652, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Youyi Network Technology Co., Ltd. 上海游车网络科技有限公司	Room JT6652, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Mengyu Network Technology Co., Ltd. 上海萌鱼网络科技有限公司	Room JT6653, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Mengjia Network Technology Co., Ltd. 上海萌家网络科技有限公司	Room JT6655, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Moshuang Network Technology Co., Ltd. 上海莫双网络科技有限公司	Room JT6656, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Hao Information Technology Co., Ltd. 上海昊炎信息科技有限公司	Room JT8288, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai
Shanghai Beigui Information Technology Co., Ltd. 上海北归信息科技有限公司	Room JT8296, Building 2, No. 4268 Zhennan Road, Jiading District, Shanghai

A woman we spoke with at the address told us that this location is mainly used for companies to register for tax advantages, but that companies do not generally conduct business there. There was no sign of Dianguan. As far as we could find, Dianguan has no stand-alone operations there or elsewhere, and evidently no meaningful separate existence from QTT.



We then looked on the internet and on QTT's apps, trying to find a way to contact Dianguan to talk about buying ads on QTT apps. We found nothing. No working website comes up for Dianguan as a point-of sale for ads on QTT apps. We eventually found a rudimentary website linked from QTT's apps but not named or identified as Dianguan, [adv.aiclk.com](http://adv.aiclk.com).

We attempted to use this site to become an advertising client of Dianguan and QTT. However, the site provided no direct contact information, and gave no phone number or email

address. Following the prompts, we could only provide our contact information and wait for a call or email back. No call or email ever came. Even when the website prompted us to contact the “customer service hotline,” no phone number was provided:



Out of desperation we started running internet searches trying to locate any other company that could sell us an ad on QTT. After many searches, we finally found two advertising agents in China that claimed to sell ads for placement on QTT’s apps. We contacted them directly, and spoke with their representatives at length. These two companies both told us that they could help us. More than that, they each claimed to be ‘core’ advertising agents for QTT.

Shanghai Jusou Info Tech Co.<sup>31</sup> and Hunan Jie Jisuan Computer Tech Company<sup>32</sup> told us that we would have to pay them an up-front deposit of 5,000 or 10,000 to open a QTT account.

The two agents then told us we would pay Jusou or Jie Jisuan a separate fee to have them design and place the ads into QTT’s system. Then, the fees for clicks and engagements would be charged against your deposit and remitted to QTT on a monthly basis. As we’ve already shown, Dianguan does not hold deposits for advertisers, so these deposits are held by Jusou and Jie Jisuan and advertising fees are remitted to Jifen and QTT as clicks are delivered. The individual we spoke with at Shanghai Jusou told us the following (translated/paraphrased):

*“As to Shanghai Dianguan, Shanghai Dianguan is another name for QTT and that it is a QTT company. Shanghai Dianguan will not actually assist in placing ads but rather passes any requests to its other partners. If a potential customer were to leave their contact details with them, an independent ad agent would deal with the request.”*

So, according to our due diligence, these are the “core” advertising agents for QTT—**not Dianguan**—that sell and prepare outside ads then place the ads directly onto QTT apps. QTT simply grants these agents back-end access to the QTT advertising platform. It’s clear to us that Dianguan is not using a highly effective, client-focused “artificial intelligence” system to

<sup>31</sup> Shanghai Jusou Info Tech Co. – In Chinese: 上海聚搜信息技术有限公司

<sup>32</sup> Hunan Jie Jisuan Computer Tech Company – In Chinese: 湖南皆计算网络科技有限公司

place outside ads onto QTT's apps, as QTT claims it does. The Jie Jisuan rep had this to say (translated and paraphrased):

*“Hunan Jiejisuan has professional advertisers that interface with the customers hoping to place ads. In terms of ad placement on QTT, their data analysts will look at the specific product and price point to recommend ad placements, optimization and bids. Ads can be placed anywhere on the QTT app. Each ad placement has a different price.”*

QTT acquired Dianguan to replace Baidu as its principal advertising agent. However, we found that Dianguan does not sell ads nor does it work with advertising clients to prepare ads. Outside ads are placed by outside agents onto QTT's apps. These two outside agents do not supervise and legitimately direct ad-traffic as Baidu did. The two agents merely deal with customers, and feed their ads directly onto QTT platforms.

So, to all evidence we found, Dianguan exists only as a name and a financial placeholder, not a real-world entity. The acquisition of Dianguan eliminated the ad-traffic supervision of Baidu, but did not replace any other function Baidu performed. QTT uses outside ad agents to sell, prepare and place ads for outside customers. These outside agents do not provide control over related-party ad traffic, and they cannot prevent induced clicks or other abuses the way that Baidu did. Dianguan appears to serve only as a pass-through to prevent full scrutiny of QTT's very limited amount of real advertising revenue.

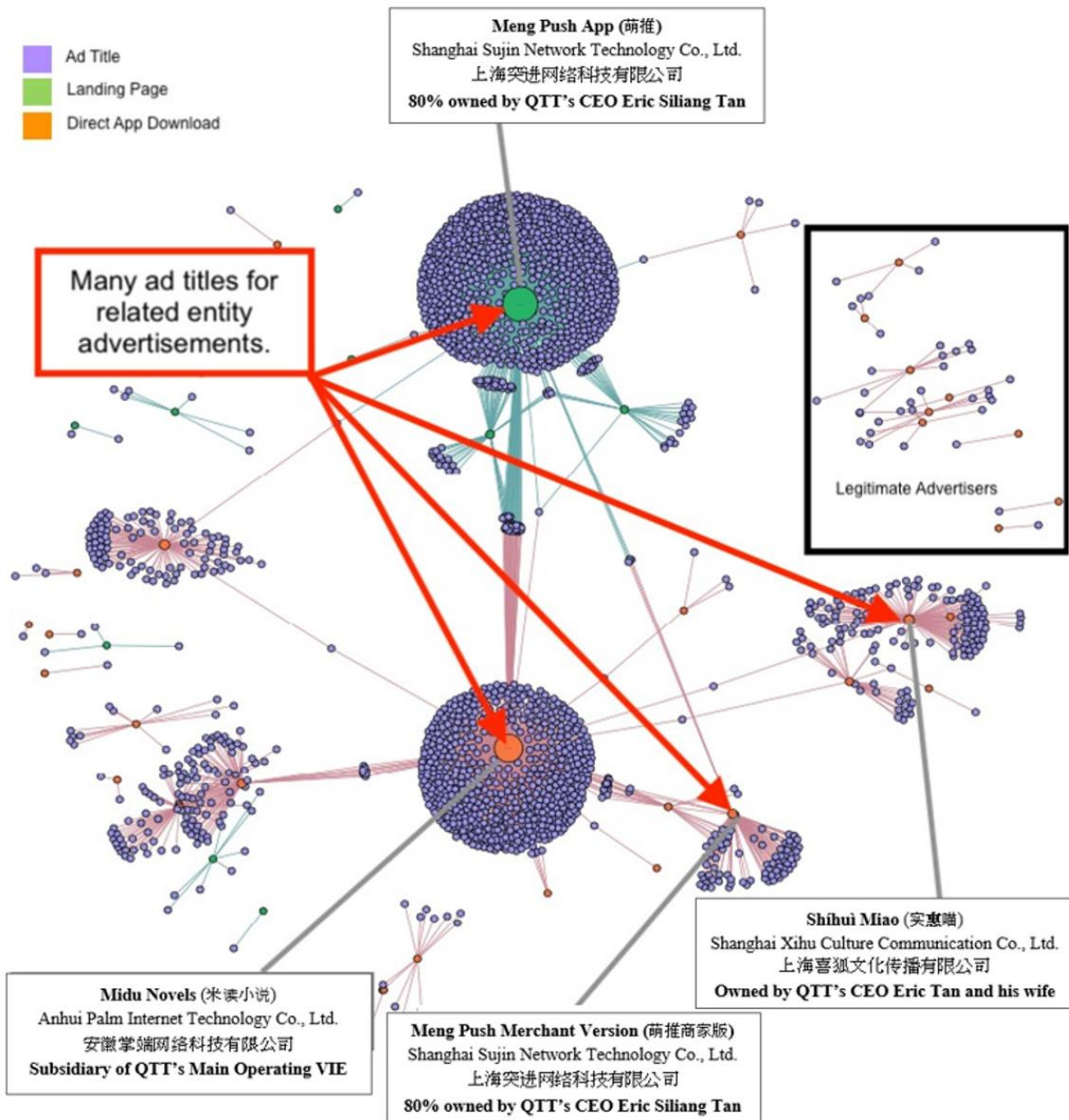
Our analysis concludes existence of Dianguan allows QTT to direct ad traffic to Eric Tan's BigBase portfolio-company apps. Additionally, based on our analysis of its dual accounts and massive accruals, Dianguan allows QTT to cook its books, and massively overstate its revenues. From that perspective, we suppose it might well be worth the ~\$2 million QTT paid Liang Xiang for it after all. However, it does not appear to be a “market leading advertising agent” – it seems that part of its functionality has yet to be built.

### **3. Our Research Indicated that Nearly 50% of QTT's Ads Came from Undisclosed Related Parties, or QTT Itself**

We analyzed more than 50,000 ads from QTT's platform and what we found was shocking.<sup>33</sup> Our analysis indicated that more than 25% of the advertising traffic originated with undisclosed related parties ultimately owned or controlled personally by QTT's Founder/CEO, Eric Siliang Tan and his family. Another 21% of the ad traffic originated from QTT's subsidiaries. Below is a visual representation of the highly concentrated ad traffic on QTT's platform:

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<sup>33</sup> We collected these ads using a variety of methodologies. When an advertising request is sent to QTT's ad servers, the application sends various pieces of information about the user's device, the location of the user, and other identifiers. We retrieved advertisements by sending requests both from within China, and by sending requests via several other countries. Additionally, we ran these tests by both sending the same device identifiers, and by randomizing the device information being sent to the QTT servers.



In a normal advertising ecosystem, we would expect the ad traffic to be dispersed the way they are in the highlighted black box. In our sample, the density of advertising traffic on QTT’s platform is absurdly higher than that of a normal advertising ecosystem – the top ten advertisers accounted for 88% of QTT’s advertising traffic. This abnormal distribution was consistent over 12 separate samples over a recent two-week period.

The large clusters represent a huge number of ad titles leading back to the same URL. The orange dots are “direct app download” URLs, meaning a click on any of the ads connected to that URL automatically initiates a download of the related app. The green dots represent “landing pages,” which are standalone web pages created specifically for a marketing or advertising campaign. We found that these large clusters formed around undisclosed related parties owned by Eric Tan or QTT subsidiaries.

The quantitative results of our sample are summarized in the table below.<sup>34</sup>

#	Advertiser URL/App	Count	%	Description	Publisher
1	f.mengtuiapp.com	11,736	23.44	Undisclosed related party	Shanghai Sujin Network Technology Co. Ltd
2	com.lechuan.mdwz	9,534	19.04	QTT/Subsidiary	Anhui Palm Network Technology Co., Ltd.
3	com.kuaishou.nebula	8,028	16.03	Unrelated	Beijing Fast Hand Technology Co., Ltd.
4	Amoy App	5,602	11.19	Unrelated	Shanghai Huanwu Industry Co., Ltd.
5	render.alipay.com	2,728	5.45	Unrelated	Alipay.com
6	com.xihu.shihuimiao	1,501	3.00	Disclosed related party	Shanghai Xihu Culture Communication Co., Ltd
7	com.mengtuiapp.mall	1,366	2.73	Undisclosed related party	Shanghai Sujin Network Technology Co. Ltd
8	com.alibaba.wireless	1,303	2.60	Disclosed related party	Taobao (China) Co., Ltd.
9	com.xmiles.idd	1,263	2.52	Unrelated	Guangzhou Xiaomai Network Technology Co. Ltd
10	淘宝	1,147	2.29	Disclosed related party	Taobao (China) Software CO.,LTD
11	com.xmiles.vipgift.all	1,051	2.10	Unrelated	Guangzhou Jumai Software Technology Co., Ltd.
12	com.taobao.taobao	591	1.18	Disclosed related party	Taobao (China) Software CO.,LTD
13	com.tencent.weishi	501	1.00	Disclosed related party	Tencent Technology (Shenzhen) Co., Ltd.
14	game-qutuiwa.qutoutiao.net	384	0.77	QTT/Subsidiary	Qutoutiao, Inc.
15	com.jifen.qukan	351	0.70	QTT/Subsidiary	Shanghai Jifen Culture Communication Co., Ltd.
16	ad-npm-static.cpc-static-	265	0.53	QTT/Subsidiary	Qutoutiao, Inc.
17	com.suning.mobile.ebuy	245	0.49	Unrelated	Nanjing Suning E-commerce Co., Ltd
18	com.achievo.vipshop	162	0.32	Unrelated	Guangzhou Vipshop Electronic Commerce Co.,
19	scdn.chitu104.com	156	0.31	Undisclosed related party	Shanghai Fangce Network Technology Co., Ltd.
20	com.ss.android.ugc.livelite	149	0.30	Unrelated	Beijing Micro Broadcasting Vision Technology

Of all 50,000 advertisements in our sample:

- 88.3% originated with the top 10 advertisers, which is a highly unusual skew in itself
- 26.7% originated with undisclosed related parties (red)
- 21.0% originated with QTT’s own subsidiaries (yellow)
- 10.1% originated with disclosed related parties (blue)<sup>35</sup>

A normal ad server would analyze where requests are coming from, along with various pieces of information about the user requesting an ad and return ads that are tailored for the user. QTT’s ad server did not do this and instead heavily skews the advertisements towards related parties regardless of location or user information.

The fact that we (or anyone else) can actually receive ads in response to “naked ad requests”<sup>36</sup> shows us that, if there is any analysis being done at all, calling it “unsophisticated” would be generous.

As if QTT subsidiaries and related parties accounting for over 50% of the advertising traffic isn’t bad enough, our analysis showed that QTT’s third largest advertiser overall and its largest non-related party advertiser by percentage of ad traffic, Beijing Fast Hand Technology Co., Ltd.,<sup>37</sup> recently sued Shanghai Jifen, QTT’s Chinese VIE that operates the Qutoutiao app.<sup>38</sup>

<sup>34</sup> The 50,000-ad sample that we refer to in this report is the most recent sample, taken during a period of approximately four hours on September 12, 2019.

<sup>35</sup> Disclosed related parties include entities ultimately owned by Tencent, Alibaba and Shanghai Xihu. Xihu is disclosed only as a 19.8% shareholder of Jifen and is ultimately owned by Eric Tan.

<sup>36</sup> <https://www.slideshare.net/augustinefou/august-2017-naked-ad-calls-study>

<sup>37</sup> Beijing Fast Hand Technology Co., Ltd. 北京快手科技有限公司.

<sup>38</sup> <https://www.qixin.com/risk/d27a20dd-8114-420d-924e-bdd1e083ee2e>

We wish we could say this was QTT’s only legal problem, but that’s not even close. You can see all **67 lawsuits** that have been filed against Jifen in 2019 in [Appendix A](#) to this report.

So, of QTT’s top 4 advertisers by percentage of total ad traffic, our analysis shows:

- The first, which accounts for more than 25% of ad traffic, is an undisclosed related party ultimately owned by QTT’s CEO.
- The second, Anhui Palm Network Technology, is a subsidiary of QTT.<sup>39</sup>
- The third recently sued Shanghai Jifen, QTT’s main operating VIE.
- And the fourth, Amoy Collection, is currently going through an ugly bankruptcy.<sup>40</sup>

These 4 companies alone represented **69.7%** of the advertising traffic in our sample. Below are pictures of (now former) Amoy Collection customers protesting outside of its corporate headquarters, in hopes of collecting some of the millions of dollars owed to them by Amoy. *How much do you think Amoy can afford to pay QTT for advertising?*<sup>41</sup>



## Quid Pro Quo

On a typical advertising platform, we would expect to see many advertisers displaying a variety of advertisements, and only a relatively small number of the ads should lead back to the same advertiser. However, on QTT’s platform we found that most ads lead back to the same handful of advertisers. While this was already suspicious, when we realized most roads lead back to QTT’s undisclosed related parties, it became apparent to us that this was more than just incompetence – this was, in our opinion, purposeful manipulation of ad traffic by QTT. Below, we will talk about the major related party advertisers in detail.

<sup>39</sup> <https://www.qixin.com/company/9c656204-d43e-401a-8e76-e546b5274c30>

<sup>40</sup> <https://www.ww01.net/en/archives/20836>

<sup>41</sup> Amoy accounted for 11.19% of QTT’s total advertising traffic in our 50,000 ad sample.

## Meng Push 萌推:

Of the 50,000 ads we collected from QTT’s platform, 26.2% of them originated with the Meng Push App.<sup>42</sup> As you can see in the download page below, Meng Push is published by a company called Shanghai Sujin Network Technology Co., Ltd.<sup>43</sup> (“Shanghai Sujin”), which is ultimately majority owned by Eric Tan and his wife, He Yuning (何雨凝).<sup>44</sup>



- Shanghai Sujin is owned 80% owned by Shanghai Bi Meng Information Technology Co., Ltd.<sup>45</sup> (“Bi Meng”).<sup>46</sup>
- Bi Meng is wholly owned by Shanghai Peg Information Technology Co., Ltd.<sup>47</sup> (“Shanghai Peg”).<sup>48</sup>
- Shanghai Peg is 99% owned by Eric Tan, while the other 1% is owned by his wife, He Yuning.<sup>49</sup>

Thus, QTT’s CEO ultimately owns an 80% stake in QTT’s largest advertiser by traffic. The diagram below is a visual representation of this complicated corporate structure:<sup>50</sup>

<sup>42</sup> Meng Push 萌推, also known as “Mengtulia”

<sup>43</sup> Shanghai Sujin Network Technology Co., Ltd – in Chinese: 上海突进网络科技有限公司

<sup>44</sup> <http://app.mi.com/details?id=com.mengtuiapp.mall>

<sup>45</sup> Shanghai Bi Meng Information Technology Co., Ltd. – in Chinese: 上海彼萌信息科技有限公司

<sup>46</sup> <https://www.qixin.com/company/3550bca9-5867-48c1-a6d1-db47d2ab9953>

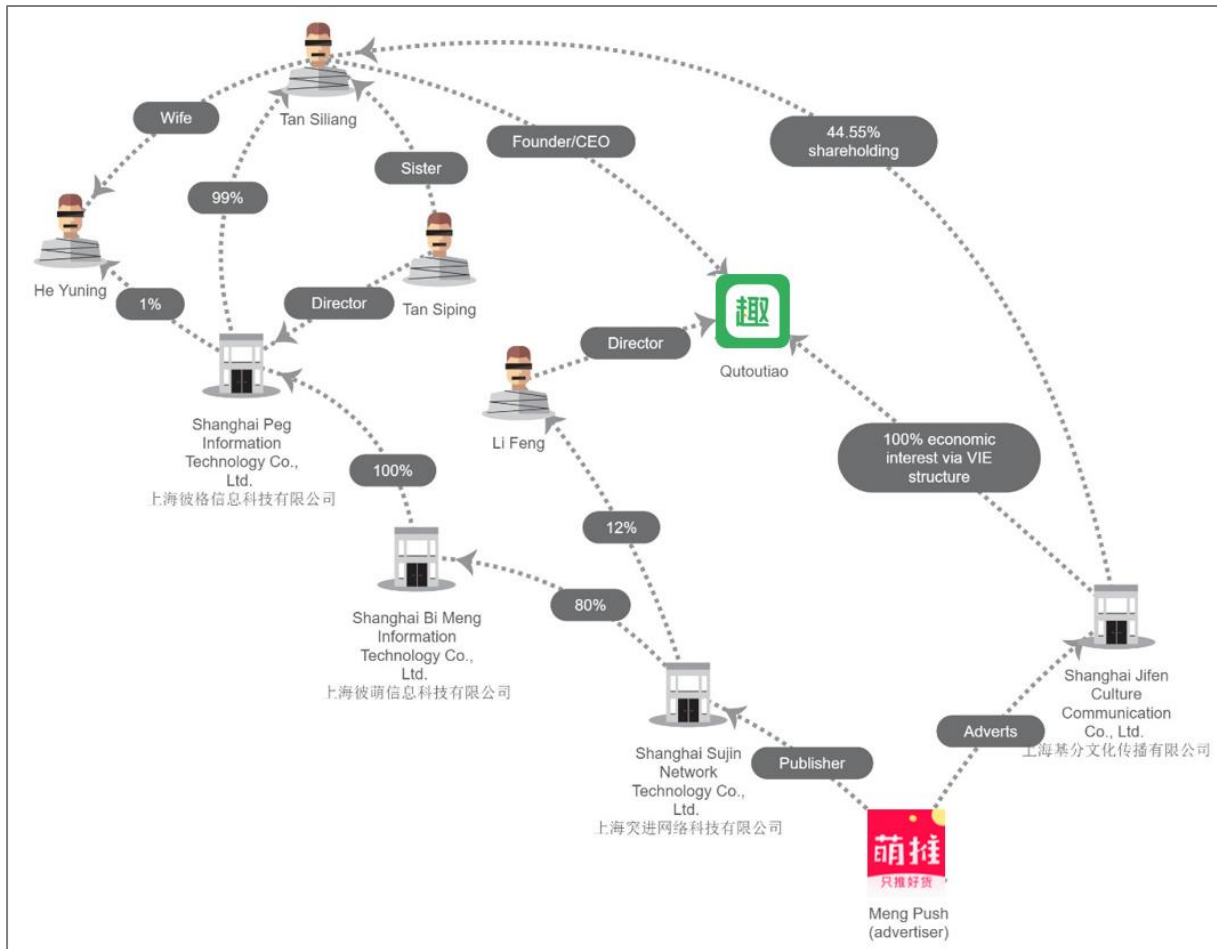
<sup>47</sup> Shanghai Peg Information Technology Co., Ltd. – in Chinese: 上海彼格信息科技有限公司

<sup>48</sup> <https://www.qixin.com/company/79147b9f-7f4e-4f81-9fc5-6547793ca557>

<sup>49</sup> <https://www.qixin.com/company/4f391a5a-84ae-4a32-9098-a9f053085a30>

<sup>50</sup> Eric Siliang Tan and Shanghai Xihu are “nominee shareholders” of Shanghai Jifen. QTT has 100% economic interest in Jifen through contractual agreements which make up the VIE structure.





The fact that Meng Push is ultimately owned by Eric Tan has even drawn scrutiny from the Chinese media. Sina Finance, one of the most reputable consumer finance media sources in China, published a critical article about Tan’s ownership of both Qutoutiao and Meng Push in August 2019.

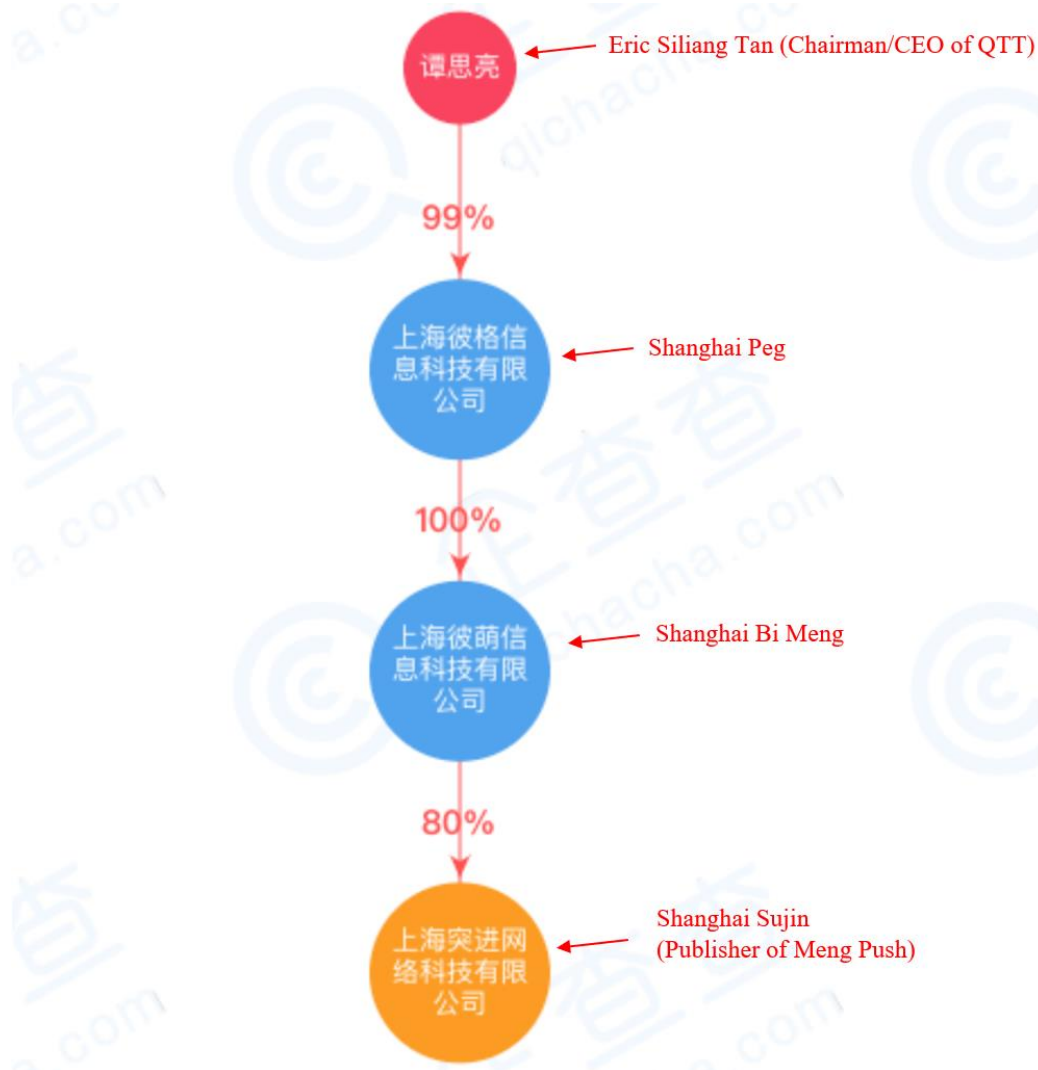
In that article, the author states:

*“Meng’s main business is Shanghai Sujin Network Technology Co., Ltd. (hereinafter referred to as the “Sudden Network”). On the surface, there is no connection between Shanghai Jifen Culture Communication Co., Ltd. (hereinafter referred to as the “Base Culture”), which is the main body of the business connection. But if we trace the roots, we will find that the ultimate boss of Meng Push is named Tan Siliang. Tan Siliang is also the Founder and Chairman of the Fun Headline (Qutoutiao)”<sup>51</sup>*

The author of this Chinese article confirms, as a matter of fact, that QTT’s CEO, Eric Tan, is the ultimate owner of Meng Push. The Chinese government generally doesn’t like negative coverage of Chinese companies. In China, defamation is not just a civil matter, but can be criminal.<sup>52</sup>

<sup>51</sup> <https://finance.sina.cn/stock/relnews/us/2019-08-23/detail-ihytcern2952293.d.html> (quote translated from Chinese)

<sup>52</sup> See more news coverage of QTT in [Appendix C](#)



The article also highlighted a series of consumer complaints indicating mis-selling on the part of Meng Push. The complaints suggested that Meng Push had tricked the consumers into buying fake products through the site, with offers of “coins” found to be less valuable than expected.

Meng Push also drew the attention of e-commerce experts in China when it appeared in the top 5 most downloaded shopping apps on the Chinese Apple App Store in May 2019.

Yibang Power Network (亿邦动力网) published an article titled “[\*Mysterious social e-commerce actually rushed to the top five shopping apps?\*](#)” on May 31, 2019. The author of this article points to Meng’s rapid rise to #5 on Apple’s app store rankings by number of downloads (with the 4 ahead of it being very popular apps from Alibaba or JD) with clear disbelief and skepticism.<sup>53</sup>

<sup>53</sup> [\*Mysterious social e-commerce actually rushed to the top five shopping apps\*](#)



The problem is, nobody seemed to have heard of Meng Push:

*“Billion State Power also made random consultations with six e-commerce heavy users. They all said that they “have no idea about [the Meng App]” and “do not understand.””*

How could Meng Push be downloaded so many times without industry experts in China even hearing about it? We understand the experts’ confusion – they likely did not even consider the possibility that QTT had gotten rid of legitimate third-party ad agents and the additional scrutiny that comes with them, in order to direct traffic to undisclosed related parties, such as Meng Push.

It would be incredible for us to believe that Meng’s rapid rise on the app store charts wasn’t directly related to the massive advertising traffic directed to it by QTT – one out of every four ads shown to QTT’s users originated from Meng Push. Considering that QTT pays its users to click on ads, Tan is effectively using QTT shareholders’ money to promote another venture of his. This appears to be his ultimate scheme – using investors’ capital to artificially inflate his other businesses and eventually take them public, further enriching himself. Rinse and repeat.

Although QTT’s auditors apparently don’t keep up with Chinese media coverage of QTT’s Meng Push shenanigans, Eric Tan clearly does – QTT added some disclosures about its advertising business to the 6-K it filed on November 19, 2019, although it still omits the most important details. We could not find a single mention of QTT’s most significant related party advertiser, Shanghai Sujin or Meng Push, in any of its SEC filings.

Despite the fact that we observed more than 35% of QTT’s advertising traffic being directed to related parties (both disclosed and undisclosed), QTT claims that revenues from related

parties accounted for only 1.6% and 5.8% of its net revenues in 2018 and 1H19, respectively.<sup>54</sup> If these related party advertisers are actually paying QTT at all, they must be receiving an enormous discount for this disclosure to be true. In either case, we believe this is yet another example of Eric Tan’s private companies benefitting at the direct expense of QTT’s shareholders.

1H19 6-K (RMB, millions)	2018	1H19
SEC Reported Net Revenues (RMB)	¥ 3,022.1	¥ 2,504.7
Advertising and marketing service provided to related parties	¥ 47.0	¥ 144.5
% of revenue	1.6%	5.8%

### Shíhuì Miao 实惠喵:

Shíhuì Miao (“Miao”) is published by Shanghai Xihu Culture Communication Co., Ltd. (“Xihu”)<sup>55</sup>, another related party ultimately owned by QTT’s CEO, Eric Tan. Unlike Shanghai Sujin, Xihu’s name actually does appear in some of QTT’s SEC filings – it is disclosed only for its 19.8% equity stake in QTT’s main operating VIE, Shanghai Jifen.

So, while it is technically a “disclosed” related party, we could find no disclosure of the significant **business relationship** between QTT and Xihu. Xihu’s app, Shihui Miao, accounted for 3% of the advertising traffic in our sample. Below is a download page for Miao, which clearly shows that it is developed by Xihu:<sup>56</sup>



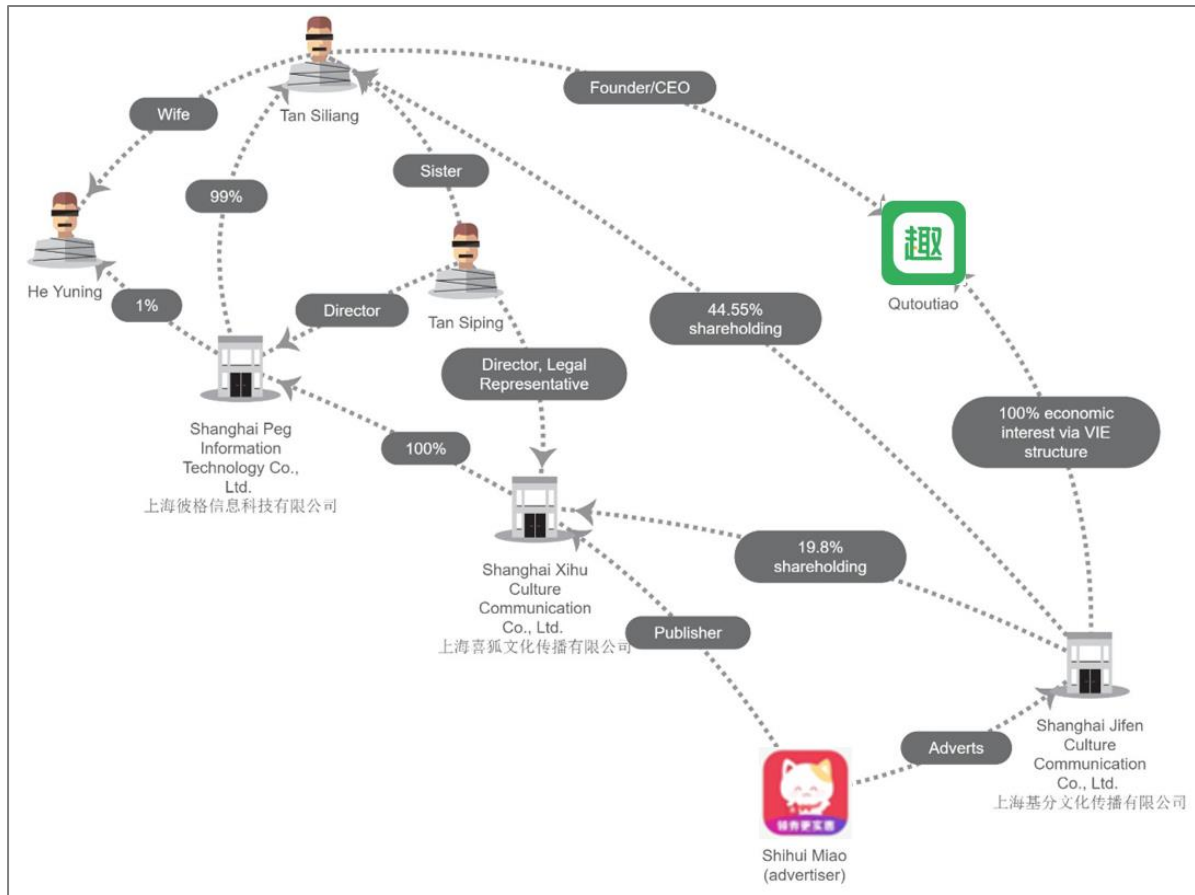
Shanghai Xihu is wholly owned by Shanghai Peg, which as we showed earlier, is wholly owned by Eric Tan and his wife. In addition, Eric’s sister, Tan Siping, is the legal representative and a director of Xihu. It appears that Mr. Tan takes the term “related party” quite literally.

Below is a visual representation of Shanghai Xihu’s relationship with QTT:

<sup>54</sup> QTT 1H19 6-K, p. F-42

<sup>55</sup> Shanghai Xihu Culture Communication Co., Ltd. 上海喜狐文化传播有限公司

<sup>56</sup> <https://apps.apple.com/cn/app/实惠喵-领券买-更便宜/id1434682230>



According to Qixin, Shanghai Peg only has one domain name registered to it: *bigbaser.com*.<sup>57</sup> Apparently the name of this website was changed from “Big Base” to “Peg Information” on June 6, 2019. This drew our attention – what exactly is “BigBase”?

#### Domain information 2

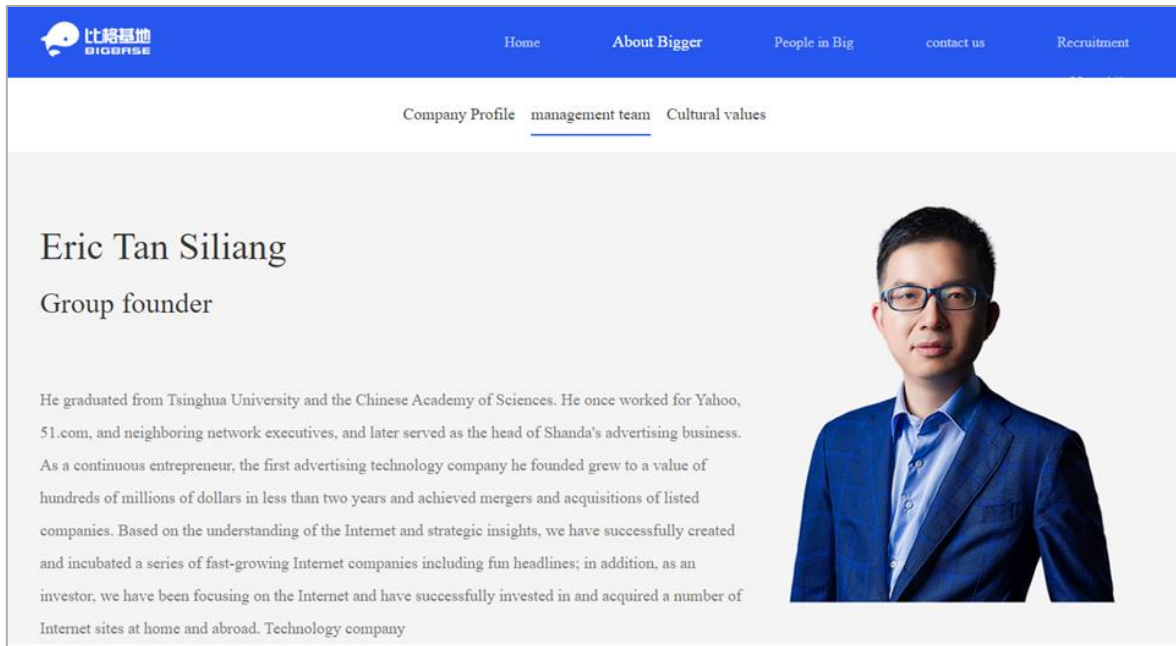


Serial number	URL name	domain name	URL	Website registration license number	Review time
1	Peg Information	Bigbaser.com	<a href="http://www.bigbaser.com">www.bigbaser.com</a>	沪ICP备19019383号-1	2019-06-08
2	Big base	Bigbaser.com	<a href="http://www.bigbaser.com">www.bigbaser.com</a>	沪ICP备17024806号-1	2017-10-23

#### BigBase 比格基地:

We visited [bigbaser.com](http://bigbaser.com) and found what appears to be a VC firm called BigBase. In the management team section of the website, we found that QTT’s CEO, Eric Tan, is listed as the “Group Founder”:

<sup>57</sup> <https://www.qixin.com/ability/4f391a5a-84ae-4a32-9098-a9f053085a30?section=domain>



It appears that Shanghai Peg is effectively the holding company for BigBase’s portfolio – All of which are ultimately owned by Eric Tan. The “company profile” section of this website boasts about BigBase’s portfolio of products: The top two? **Meng Push 萌推** and **Shihui Miao 实惠喵**:<sup>58</sup>



Simply put, it appears that Tan is using QTT’s investors’ capital to subsidize the growth of his VC fund’s portfolio companies, many of which share offices, supervisors, legal representatives, managers and directors, according to SAIC filings and our on the ground due diligence. In many cases, one or more of these positions are filled by Tan’s wife and sister.

On its website, BigBase lists the same address as QTT’s corporate headquarters – although BigBase does not include a unit number in its address:<sup>59</sup>

*Xingchuang Technology Plaza, No. 5005 Zhenjiang Road, Pudong New Area, Shanghai*

<sup>58</sup> <http://www.bigbaser.com/#/about/company>

<sup>59</sup> <http://www.bigbaser.com/#/address>

We thought it was interesting that both QTT and BigBase list the same office address, so we paid them a visit.



It turns out that QTT has four floors at Xingchuang Technology Plaza. A manager there told us that QTT has over 2,000 employees, mainly at this location. However, based on analysis of 2018 SAIC disclosures, QTT entities only employed 859 people in Shanghai – 707 of which were employed by QTT’s main operating entity, Shanghai Jifen. This begs the question: what entity actually employs the other ~1,100 people supposedly working for QTT at this location?

We naturally wondered if this discrepancy was related to the shared address of BigBase and QTT. So, we spoke to former employees of these companies.

A former Shanghai Xihu employee confirmed that Xihu was operating from the same office space as QTT, creating content for QTT and even reporting to the same boss as QTT’s employees. In effect, Shanghai Xihu operated like a subsidiary of QTT, even though it is ultimately owned by Eric Tan and only mentioned in SEC filings for its 19.8% ownership of Shanghai Jifen.

We also visited the registered address that is shared by at least 10 of QTT’s subsidiaries as well as many of the undisclosed related parties ultimately owned by Tan, including Shanghai Xihu, Shanghai Sujin and Shanghai Peg: *4268 Zhennan Road, Jiading District, Shanghai*

We found no real business operations for any of these companies here – just a dilapidated looking old building:

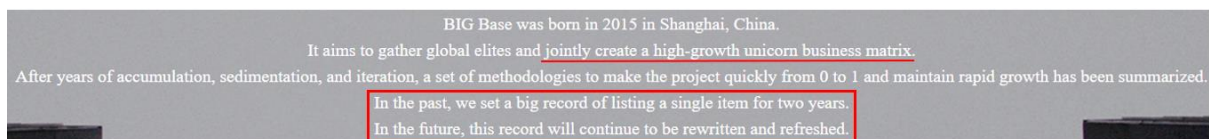


Four more of Tan’s companies in Shanghai used the registered address 88 *Chenxiang Road, Jiading District, Shanghai*, so we visited there, too. This turned out to be just an empty warehouse.<sup>60</sup>



It appears that Tan’s only real place of business in Shanghai is QTT’s headquarters at Xingchuang Technology Plaza. These findings added credibility to the statements of the former Shanghai Xihu employee we spoke to.

The results of our investigation in Shanghai lead us to believe that the undisclosed related party advertisers owned by Tan and claimed by BigBase also share offices with QTT at the Xingchuang Technology Plaza. It appears that QTT’s shareholders are unknowingly helping build Tan’s other businesses. BigBase’s website even says it aims to “*jointly create a high-growth unicorn business matrix*,” which Tan will soon use to further enrich himself through another quick IPO. BigBase’s company profile page makes this scheme very clear:<sup>61</sup>



<sup>60</sup> SAIC filings reveal that this empty warehouse at 88 Chenxiang Road was Shanghai Jifen’s registered address until March 2018 – the same month that QTT filed its first draft registration statement with the SEC.

<sup>61</sup> <http://www.bigbaser.com/#/about/company> - Have you ever seen a more ridiculous collection of buzz words?



#### 4. Our Review of QTT’s App Indicated that it’s a Malware (Spyware) Nightmare

For a fun little app that just “pays you to read the news” the Qutoutiao app has the ability to know more about us and do a lot more to us, than just see what we are reading, such as:<sup>62</sup>




- Allows an application to record audio.
- Required to be able to access the camera device.
- Allows an application to initiate a phone call without going through the Dialer user interface for the user to confirm the call.
- Allows an application to send SMS messages.
- Allows an application to read the user's calendar data.
- Allows an application to write the user's calendar data.
- Allows an application to read from external storage.
- Allows an application to write to external storage.

These are not your typical scratch your head to try and decide whether you want to share your contacts with this app requests, but some real deep-state spyware, such as making recordings or accessing your camera and taking pictures and videos without your knowledge, and of course our personal nightmare favorite, **“initiate a phone call without going through the Dialer user interface for the user to confirm the call”**. Yes – it appears that QTT’s app can make calls from your phone without you ever knowing it.

To get this analysis, we submitted the Qutoutiao Android application to a malware analysis website, Hybrid Analysis, to determine an overall threat score for the application. Hybrid analysis returned alarming results, indicating that their overall rating for QTT’s app was “Malicious”.<sup>63</sup>

A secondary submission to another malware analysis website, Virustotal, also indicated that three anti-virus vendors flagged Qutoutiao’s app as having a malicious code library included in it.<sup>64</sup> The malicious code library in question is IGexin. This library was responsible for Google pulling 500 applications that used it from the Google Play store in 2017. This passage provides some background:<sup>65</sup>

By Adam Bauer, Christoph Hebeisen

The Lookout Security Intelligence team has discovered an advertising software development kit (SDK) called Igexin that had the capability of spying on victims through otherwise benign apps by downloading malicious plugins. Over 500 apps available on Google Play used the Igexin ad SDK. While not all of these applications have been confirmed to download the malicious spying capability, Igexin could have introduced that functionality at their convenience. Apps containing the affected SDK were downloaded over 100 million times across the Android ecosystem.

<sup>62</sup> [Hybrid Analysis Sample – File Permissions Section](#)

<sup>63</sup> <https://www.hybrid-analysis.com/sample/568fadbe5aa7a3e87f9df9a44b74f2685afa4cecf1da3776127d27d5de4e8cef/5d72d879038838a5477ec99f>

<sup>64</sup> <https://www.virustotal.com/gui/file/568fadbe5aa7a3e87f9df9a44b74f2685afa4cecf1da3776127d27d5de4e8cef/detection>

<sup>65</sup> <https://blog.lookout.com/igexin-malicious-sdk>

The IGexin library might have some legitimate functionality, but it is always going to be flagged as a malicious library on the big app stores, like Google Play. We spoke to a cybersecurity professional who told us that any professional app developer should know of this problem and would therefore never use the IGexin library. We should note here that Qutoutiao’s app is not distributed to Android phones through the Google Play store, but rather through Qutoutiao’s website directly, or as a download from other third-party Chinese application stores.<sup>66, 67</sup> We go into some depth in [Appendix B](#) describing the security omissions on the QTT technology platform that leave its users unprotected.

What we describe above – the excessive access QTT has to its users’ lives and the inclusion of a “malicious” library – are not, in our opinion accidental security omissions. These appear to be intentional inclusions. Why?

In August 2018, QTT penned a deal with “the Paper,” a subsidiary of Shanghai United Media Group, a major part of the CCP’s propaganda network.<sup>68</sup> The terms of this deal hint at the potential motive behind QTT’s determined access to its users’ lives:<sup>69</sup>

*“The Parties will share content distribution, **data collection and analysis**, content and advertising personalization, targeted recommendation and other relevant technologies...”<sup>70</sup>*

The terms of that agreement go on, revealing more about this new relationship:

*“Party A will appoint a professional team of **content management** to provide Party B with consultative services. Such team will provide Party B with professional guidance in terms of **content censorship**, perfect Party B’s **content censorship** system, enhance the compliance and give directions to the positive orientation of contents on Party B’s platforms.”<sup>71</sup>*

Party B is QTT’s primary operating subsidiary. Party A is a “the Paper.”<sup>72</sup>

The CCP controls the Chinese media. QTT is part of the Chinese media. And our analysis indicates that QTT’s application has absurd access to the lives of its users.’ In our opinion, by owning stocks like this, we are lending financial support to this behavior.

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<sup>66</sup> [https://www.theregister.co.uk/2017/08/23/adware\\_api\\_phones\\_home\\_to\\_chinese\\_company/](https://www.theregister.co.uk/2017/08/23/adware_api_phones_home_to_chinese_company/)

<sup>67</sup> <https://qutoutiao.net/>

<sup>68</sup> <https://www.nytimes.com/2016/04/06/business/international/china-media-the-paper-english.html>

<sup>69</sup> <https://www.sec.gov/Archives/edgar/data/1733298/000119312518270752/d545022dex1022.htm>

<sup>70</sup> <https://www.sec.gov/Archives/edgar/data/1733298/000119312518270752/d545022dex1022.htm>, p. 2

<sup>71</sup> <https://www.sec.gov/Archives/edgar/data/1733298/000119312518270752/d545022dex1022.htm>, p. 3

<sup>72</sup> QTT 424B4, p. 17: “We are in the process of preparing an application for an Internet news license and have agreed to introduce The Paper as a state-owned shareholder.”

## 5. We Believe QTT’s “Loyalty Program” Creates Fake Ad Traffic and User Growth

QTT’s “loyalty program” awards points to users on QTT’s apps which are redeemable for cash. Users are paid for referring new users to QTT’s apps (“user acquisition costs”) as well as for viewing content and clicking on ads (“user engagement costs”).

In pioneering this “business model,” QTT has made a profound discovery – convincing people to consume garbage is *extremely* expensive; as of Q2 2019, trailing twelve-month (“TTM”) loyalty program expenses totaled \$701.8 million, or 100.2% of its SEC reported revenue.<sup>73</sup>

QTT has been conducting this revolutionary test of human nature for more than three years now. The results have been clear: people will use a shitty product if you pay them enough, but this is does not appear to be a sustainable business model. Eventually, growth becomes impossibly expensive, because your existing customers aren’t loyal customers – they’re only in it for the money.

QTT’s business model has attracted criticism from heavyweights in the Chinese media. An August 2019 article by Caixin, one of the most highly regarded news sources in China, presents damning evidence of how apps like QTT are buying fake user engagement, and tells of the growing regulatory scrutiny:<sup>74</sup>

*“Regulators have already begun tightening their grip on **fake traffic generators like Qutoutiao and copycat apps.** On June 18, Shanghai’s municipal market regulator summoned executives from Qutoutiao, Huitoutiao and other content aggregation apps for a meeting at which they were admonished for failing to properly manage their platforms and **for allowing illegal advertisements.**”*

Interestingly, this article also addresses QTT’s relationship with Baidu:

*“Officially, Baidu prohibits its traffic alliance members from obtaining traffic through automatic clicks, forced clicks and automatic refreshes, but Qutoutiao’s model of incentivizing engagement with cash gets around this rule while arguably **still faking genuine engagement.**”*

Increased regulatory scrutiny of fake advertising traffic generators may have caused Baidu to crack down on QTT’s blatant violation of its Baidu’s registration agreement’s rules against “induced clicks,” as we described earlier in this report. This reinforces our belief that the sham acquisition of Dianguan was motivated by QTT’s desire to remove third-party oversight from its advertising platform (i.e., removing the adult from the room).

QTT’s loyalty program has two distinct parts, “user engagement” and “user acquisition,” which have very different economics. The value of the points is skewed very heavily toward user acquisition (i.e., referrals for new users).

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<sup>73</sup> All figures from QTT’s Q2 2019 6-K, conversion rate used was US\$1.00 = RMB 6.8632 representing the index rate stipulated by the People’s Bank of China as of December 31, 2018, as disclosed on page F-13 of QTT’s 2018 20-F and confirmed by CNYMUSD Index historical data, accessed via Bloomberg, LP on November 15, 2019.

<sup>74</sup> <https://www.caixinglobal.com/2019-08-05/in-depth-the-fake-engagement-powering-chinas-internet-101447356.html>

User engagement points are awarded to users for a variety of activities within QTT’s apps such as viewing, sharing and commenting on content. They are awarded on a “per minute viewed” basis. We calculated the average engagement cost per minute to be \$0.00036 during the first half of 2019.<sup>75</sup>

User acquisition points are awarded to registered users who refer new users to download QTT’s “*relevant applications*,” although we were never able to find a definition for “*relevant applications*” in SEC filings. Using the Company’s user acquisition costs and disclosed new installed user numbers, we calculated the average referral award to be \$0.97 during the first half of 2019.<sup>76</sup>

Based on the above calculations, one referral earns users the same amount of money as 46 hours of viewing content. In our opinion, this is a terrible business model, but it works for Eric Tan; it appears that by directing more than 25% of QTT’s ad traffic to undisclosed related parties owned by Tan and paying its users to click on advertisements, he can effectively use QTT shareholders’ capital to subsidize the growth of his other businesses.

An IPO is normally considered the beginning for a public company. However, according to QTT’s Chief Strategy Officer, “Oliver” Yucheng Chen, management considered QTT’s IPO a “*happy ending*” for them.<sup>77</sup>

**CapitalWatch: Now that Qutoutiao is a public company, how do you feel?**

**Oliver Chen:** It was a very long process, and **all of us are happy with this happy ending.**

## On to the Next One

It appears that Tan and the rest of QTT’s management team has shifted its focus to the next IPO. Although QTT has made no explicit public statement regarding a potential spin-off of its Midu Novels app (“Midu” or “Fun Literature”), the terms of Midu’s recent \$100 million capital raise lead us to two conclusions: a Midu spin-off is already being planned and the outlook for QTT’s future has deteriorated significantly since Midu’s series A raise in March 2019.<sup>78</sup>

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<sup>75</sup> \$152M engagement costs in 1H19 / (Average minutes per day per DAU x combined average DAUs x 181 days)

<sup>76</sup> This number assumes that QTT paid a referral reward for all 222.4 million new users in 1H 2019. If any of these users joined without a referral award being paid out, the average reward would be higher than we calculated.

<sup>77</sup> <https://www.capitalwatch.com/article-2791-1.html>

<sup>78</sup> <https://www.globenewswire.com/news-release/2019/10/16/1930845/0/en/Outoutiao-Announces-Completion-of-100-Million-Financing-for-Midu.html>

The series A purchase agreement from March already had the following redemption right, in addition to standard breach of contract and material adverse event protections:

*“The Fun preferred shareholders have the right to require Fun literature to purchase all the shares from the Fun preferred shareholders within five years after the closing of the issuance by the holders in the event that a qualified initial public offering has not occurred”<sup>79</sup>*

The Series B purchase agreement has the same preferential rights as Series A, but adds the following protections:

*“(1) a conversion price adjustment to US\$4.31 if certain user engagement metrics are not met by July 2020 and (2) a Series B put option to Fun Literature’s parent company, Qutoutiao Inc., to purchase at the initial investment plus any declared or accrued but unpaid dividends in the event that a certain business license is not obtained by June 30, 2020. Additionally, as part of the issuance, all Series A and Series B preferred shareholders are entitled to a preferred put option, whereas they have the right to require Fun Literature’s parent company, Qutoutiao Inc., to purchase all the shares from the Fun shareholders upon (i) an unsuccessful IPO within 5 years or (ii) any material adverse effect caused by Fun Literature Limited or [Qutoutiao].”<sup>80</sup>*

Whereas the Series A agreement could require Fun Literature Limited to repurchase the preferred shares if Midu has not had an IPO in five years, the Series B agreement includes a put option to Qutoutiao, Inc. if Midu doesn’t IPO within five years or a “certain business license” is not obtained by June 30, 2020, as well as a -25% adjustment to the conversion price if “certain user engagement metrics” aren’t met by July 2020.

Furthermore, QTT actually invested *half* of the \$100 million raised by its Midu subsidiary, Fun Literature. While the purpose of this investment is not entirely clear, this subsidiary is not wholly owned, leading us to believe that QTT shareholders may not have a claim to all of that \$50 million in a bankruptcy or liquidation.

Midu received the second most advertising traffic in our sample, accounting for nearly 20% of all of QTT’s ad traffic. Which makes sense now that we understand that Tan seems to be under pressure to meet at least two hurdles in the next year and IPO Midu within the next 5 years.

## 6. Winners and Losers

So, who are the winners and who are the losers here?

The most obvious winner is QTT’s Co-Founder/Chairman/CEO Eric Siliang Tan – QTT IPO’d on the Nasdaq at \$7.00 per ADS (or \$28 per common share) on September 14, 2018. When the lockup expired on March 13, 2019, the stock was trading at \$13.36 per ADS (\$53.44 per common share). At that price, Tan’s stake in the company was worth nearly \$1.5 billion.<sup>81</sup>

<sup>79</sup> QTT 6-K filed November 19, 2019, p. F-40

<sup>80</sup> QTT 6-K filed November 19, 2019, p. F-44

<sup>81</sup> [“China Mobile Content Aggregator Qutoutiao's IPO Mints New Billionaire”](#) via Forbes

# China Mobile Content Aggregator Qutoutiao's IPO Mints New Billionaire



Eric Tan of Qutoutiao gives the thumbs up outside Nasdaq MarketSite after ringing the closing bell on Sept. 14, 2018

To the surprise of no one, QTT's stock has declined continuously since the lockup expired. In response to a Bloomberg email about QTT's lockup expiration, in what may be the understatement of the century, Keybank Capital Markets analyst Hans Chung said the following:

*"We might see some pressure from that event given ~100 million American depositary shares will be unlocked"*<sup>82</sup>

Just two weeks later, on April 3, 2019, QTT filed for a secondary offering – selling 6,672,132 ADSs at \$10.00 per ADS (1,668,033 common shares at \$40.00 per common share) on behalf of some of its early investors, for total proceeds of **\$66,721,320**:<sup>83</sup>

QTT Insider Sales (4/5/19 424B4)			
Shareholder	Shares sold	Price	Proceeds
Mr. Ruigang Li	449,269	\$40.00	\$17,970,760
Mr. Jason Jiang and Ms. Rose Jiang	508,139	\$40.00	\$20,325,560
Mr. Gang Shao	261,769	\$40.00	\$10,470,760
Ms. Huili Jia	281,594	\$40.00	\$11,263,760
Membrane Star, LLC <sup>84</sup>	103,745	\$40.00	\$4,149,800
Mr. Chao Ling	63,517	\$40.00	\$2,540,680
<b>Total</b>	<b>1,668,033</b>	<b>\$40.00</b>	<b>\$66,721,320</b>

<sup>82</sup> <https://blinks.bloomberg.com/news/stories/PO9TBZSYF01T>

<sup>83</sup> QTT 424B4, filed April 3, 2019, p. 153

<sup>84</sup> Cayman Islands Entity, ownership not disclosed.

These early investors paid an average of \$16.85 per common share (~\$4.21 per ADS) before the IPO. The April 2019 offering price of \$40.00 per common share (\$10.00 per ADS) represents a net return of 137% in less than one year for most of these investors. You can see these calculations in the chart below:

QTT Preferred Share Issuance				
Date	Buyer	Shares	Consideration	Per Share
9/29/2017	CW_toutiao Limited	3,296,703	\$21,600,000	\$6.55
9/29/2017	ACE Redpoint Ventures China I, LP	1,539,560	\$10,087,200	\$6.55
9/29/2017	ACE Redpoint Associates China I, LP	87,363	\$572,400	\$6.55
9/29/2017	ACE Redpoint China Strategic I, LP	21,429	\$140,400	\$6.55
11/14/2017	CMC Queen Holdings Limited	1,373,626	\$10,000,000	\$7.28
3/8/2018	Image Flag Investment (HK) Limited	5,420,144	\$105,000,000	\$19.37
3/12/2018	Long Range LP	1,371,974	\$32,400,000	\$23.62
3/12/2018	People Better Limited	342,993	\$8,100,000	\$23.62
3/12/2018	Shunwei Growth III Limited	342,993	\$8,100,000	\$23.62
3/12/2018	Double Excel Investment Limited	716,145	\$16,912,196	\$23.62
3/12/2018	Lighthouse Capital International, Inc.	127,035	\$3,000,000	\$23.62
3/12/2018	CMC Queen Holdings Limited	423,449	\$10,000,000	\$23.62
3/12/2018	ACE Redpoint Ventures China I, LP	335,693	\$7,927,605	\$23.62
3/12/2018	ACE Redpoint Associates China I, LP	19,049	\$449,855	\$23.62
3/12/2018	ACE Redpoint China Strategic I, LP	4,673	\$110,344	\$23.61
4/27/2018	Shanghai ChuangVest Venture Investment Partnership	211,724	\$5,000,000	\$23.62
4/27/2018	Hundreds ANTA Fund Limited Partnership	962,384	\$25,000,000	\$25.98
4/27/2018	Harvest Ceres Fund, LP	654,421	\$17,000,000	\$25.98
4/27/2018	Vision Global Capital, Ltd.	134,734	\$3,500,000	\$25.98
8/17/2018	CG Partners Opportunity Fund SP	290,104	\$9,999,885	\$34.47
8/17/2018	Shimmering Investment (BVI) Ltd.	145,052	\$5,400,000	\$37.23
<b>Total</b>		<b>17,821,248</b>	<b>\$300,299,885</b>	<b>\$16.85</b>

While not all the early investors/insiders sold in this offering, QTT is not required to file change of ownership documents for insider sales (e.g., form 4s, proxy statements), meaning that the rest of the insiders could have sold as much stock as the market would take, whenever they wanted, no disclosure required. This is because QTT is a “foreign private issuer”, and thus (ridiculously) exempt from Section 16(b) of the Securities Act:<sup>85</sup>

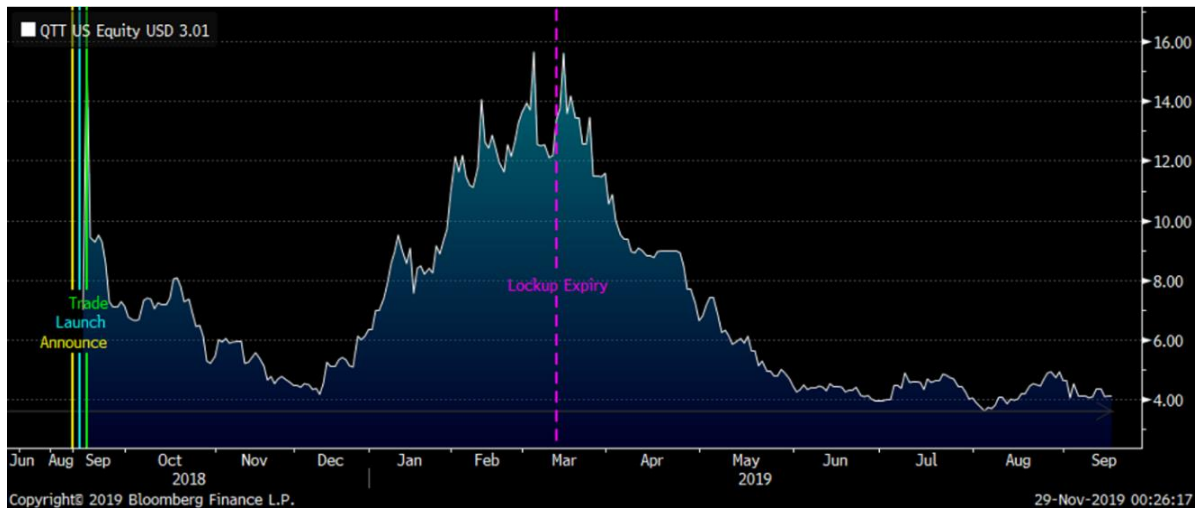
As a foreign private issuer, we are exempt under the Exchange Act from, among other things, the rules prescribing the furnishing and content of proxy statements, and our executive officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we will not be required under the Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act. However, we intend to furnish the depositary with our annual reports, which will include a review of operations and annual audited consolidated combined financial statements prepared in conformity with U.S. GAAP, and all notices of shareholders’ meeting and other reports and communications that are made generally available to our shareholders. The depositary will make such notices, reports and communications available to holders of ADSs and will mail to all record holders of ADSs the information contained in any notice of a shareholders’ meeting received by the depositary from us.

Just a month after this offering, QTT’s original CEO, Lei Li, left the company for “personal reasons.” Just two weeks after that, QTT’s Editor-in-Chief, Xiao Houjun, resigned for “personal reasons” as well.<sup>86</sup> Xiao’s replacement, Wu Da, left the company in September. According to a damning September [Sina Technology article](#), numerous employees confirmed that QTT began a “reorganization of the company” in August of this year, which included layoffs and mass resignations of middle management. The article states that managers in charge of QTT’s “content, technology and algorithms” divisions have all resigned recently.

<sup>85</sup> QTT 2018 20-F, p. 120

<sup>86</sup> <http://column.iresearch.cn/b/201906/865028.shtml>

The stock has fallen ~75% from its April 2019 highs and the F-3 filed on November 19, 2019 did not disclose the current holdings of its principal shareholders – leading us to believe that the early investors and insiders have likely already bailed. The following chart pretty much speaks for itself:



Here’s a picture full of winners – QTT at the Nasdaq Market Site in New York on September 14, 2018:



While we can’t know for sure how many shares Eric Tan has sold or pledged for loans, his recent \$37 million real estate purchase (pictured below) as well as the \$16 million mansion he owns in San Francisco and the \$18.5 million mansion he owns on Pebble Beach’s famous “17 Mile Drive” show that Mr. Tan lives anything but a modest lifestyle. We can’t help but question whether these extravagant purchases were at least partially funded by QTT’s listing on an American Stock Exchange.<sup>87</sup>

<sup>87</sup> <https://variety.com/2019/dirt/moguls/chinese-tech-billionaire-buys-37-million-newport-harbor-mansion-1203388732/>





Who else were winners here? The fee collectors, of course.

The following investment banks have collected fees for underwriting at least one offering for QTT:

- Citigroup
- Deutsche Bank Securities
- UBS Investment Bank
- Keybank Capital Markets
- China Merchants Securities (HK)
- CLSA, Ltd. (HK)

We can't forget about the auditor, either: PricewaterhouseCoopers Zhong Tian LLP received \$2.08 million in fees from QTT in 2018 alone.<sup>88</sup>

We bet these guys are very proud of their work.

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<sup>88</sup> QTT 2018 20-F, p. 126

***Who are the losers in this?***

Obviously, anyone left holding this bag of shit are the losers.

Unfortunately, the losers in schemes like this are almost always Mutual Funds, Pension Funds, and retail investors. Below is a list of the Mutual funds and Pension funds holding this stock:<sup>89</sup>

QTT ADS Holders as of 11/21/2019				
Fund	ADSs Owned	Avg. Cost	\$ Gain (Loss) <sup>90</sup>	% Gain (Loss)
Fidelity Management (FMR, LLC) <sup>91</sup>	3,811,655	\$6.83	(\$14,636,755)	(56.2%)
The Vanguard Group, Inc. <sup>92</sup>	3,309,345	\$4.27	(\$4,235,962)	(30.0%)
BlackRock, Inc. <sup>93</sup>	533,042	\$6.85	(\$2,057,542)	(56.4%)
State Street Corp. <sup>94</sup>	270,011	\$5.48	(\$672,327)	(45.4%)
CalPERS <sup>95</sup>	231,486	\$4.26	(\$293,987)	(29.8%)
Fidelity International (FIL, Ltd.)	190,173	\$6.85	(\$734,068)	(56.4%)
Invesco, Ltd.	88,676	\$4.26	(\$112,619)	(29.8%)
Morgan Stanley	65,544	\$7.01	(\$263,487)	(57.3%)
Teachers Insurance & Annuity (TIAA)	55,200	\$6.62	(\$200,376)	(54.8%)
Ohio Public Employees Retirement	15,100	\$6.85	(\$58,286)	(56.4%)

The table above only includes the top institutional holders as of November 21, 2019 and does not include realized losses. For example, Morgan Stanley sold 2,116,947 ADSs during Q3 2019.

Using the Q3 2019 Volume Weighted Average Price (“VWAP”) of \$4.24, this would represent a realized loss of \$5,863,943 for Morgan Stanley’s clients that is not captured in the table above.

Noticeably absent from this group: All of the investment banks that collected fees for bringing this garbage to the U.S. Markets.

Also not captured in the table above are the losses undoubtedly incurred by American retail investors, who tend to get sucked into pump-and-dump stocks near their highs – often due to recommendations from stock “research” websites and sell-side analysts. See the chart below for a few relevant examples:<sup>96, 97, 98, 99</sup>

<sup>89</sup> “QTT US – Ownership Data” via Bloomberg, LP, accessed on November 21, 2019.

<sup>90</sup> Based on the closing price of QTT US on November 20, 2019 (\$2.99)

<sup>91</sup> Aggregate ownership among 14 Fidelity U.S. Mutual Funds

<sup>92</sup> Aggregate ownership among 5 Vanguard U.S. Mutual Funds and 5 Vanguard ETFs

<sup>93</sup> Aggregate ownership among 4 BlackRock Mutual Funds and 5 BlackRock iShares ETFs.

<sup>94</sup> Aggregate ownership among 4 State Street ETFs

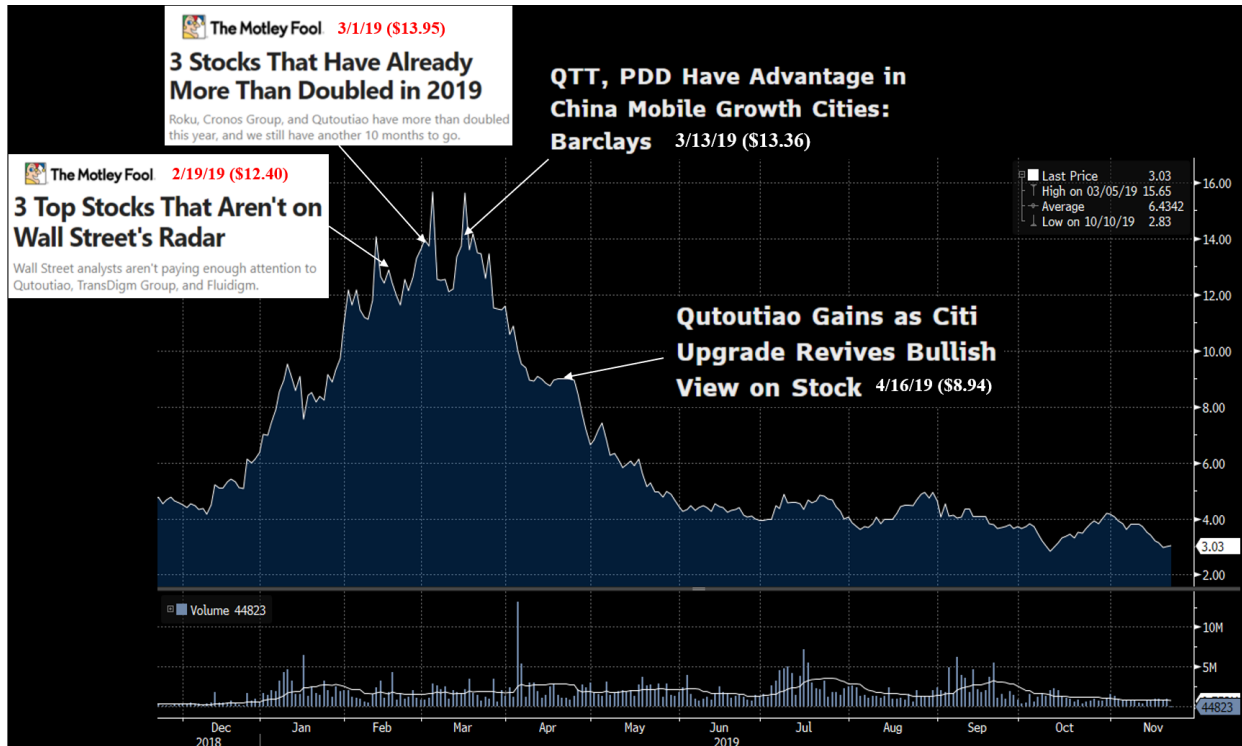
<sup>95</sup> CalPERS: California Public Employees’ Retirement System

<sup>96</sup> <https://www.fool.com/investing/2019/02/19/3-top-stocks-that-arent-on-wall-streets-radar.aspx>

<sup>97</sup> <https://www.fool.com/investing/2019/03/01/3-stocks-that-have-already-more-than-doubled-in-20.aspx>

<sup>98</sup> <https://blinks.bloomberg.com/news/stories/POBH1DSYF01S>

<sup>99</sup> <https://blinks.bloomberg.com/news/stories/PQ1X04SYF01V>



### Why does this matter?

While these are relatively small losses for massive firms like Fidelity and Vanguard, it's "Mom & Pop" Mutual fund investors, Teachers and Retirees that actually pay for the losses from companies like QTT that, in our opinion, never should have been listed on U.S. Exchanges in the first place.

These "small" losses add up quickly. We've seen *at least* \$50 billion of dollars of investor capital destroyed by China-based frauds in the last decade, and this is the most brazen "China Hustle" we have seen in years.

Investors who thought the China RTO scandal was over must now face the realization the JOBS Act or "Reg A+" IPO listing apply to China based companies and has become the latest craze in how to back your way onto the US markets (in record time). Combine this with private foreign issuer status and the lack of disclosures that come with it, and we almost have a perfect storm...almost.

The only missing ingredient is if the executive's financial crimes were beyond the United States' jurisdiction of prosecution. This would be a perfect storm of deregulation gone very bad. This would bring us QTT.

We can't know exactly how much money investors have lost in this stock, but we do know that QTT had a market cap of nearly **\$5 billion** at its peak. Today, QTT's market cap is down to just **~\$750 million**.

In our opinion, that is still ~\$750 million too high.

## Appendix A: Shanghai Jifen Lawsuits

The table below includes recent lawsuits filed or in process in China against QTT's principal operating VIE, Shanghai Jifen.

Number	Court date	Case	Plaintiff or appellant	
1	2020-03-09 09:00:00	Intellectual property rights infringement dispute	Zeli (Guangzhou) Information Technology Co., Ltd.	<a href="#">Details</a>
2	2020-01-15 15:30:00	Intellectual property rights infringement dispute	Zeli (Guangzhou) Information Technology Co., Ltd.	<a href="#">Details</a>
3	2019-07-29 15:30:00	Intellectual property rights infringement dispute	Guangzhou Original Bao Culture Communication Co., Ltd.	<a href="#">Details</a>
4	2019-07-25 16:45:00	Intellectual property rights infringement dispute	Shanghai Minzhi Culture Communication Co., Ltd.	<a href="#">Details</a>
5	2019-07-25 16:15:00	Intellectual property rights infringement dispute	Shanghai Minzhi Culture Communication Co., Ltd.	<a href="#">Details</a>
6	2019-07-25 15:45:00	Intellectual property rights infringement dispute	Shanghai Minzhi Culture Communication Co., Ltd.	<a href="#">Details</a>
7	2019-07-25 15:15:00	Intellectual property rights infringement dispute	Shanghai Minzhi Culture Communication Co., Ltd.	<a href="#">Details</a>
8	2019-07-25 14:45:00	Intellectual property rights infringement dispute	Shanghai Minzhi Culture Communication Co., Ltd.	<a href="#">Details</a>
9	2019-07-25 14:15:00	Intellectual property rights infringement dispute	Shanghai Minzhi Culture Communication Co., Ltd.	<a href="#">Details</a>
10	2019-07-18 15:00:00	Tort liability dispute	Yang Bin	<a href="#">Details</a>
11	2019-07-18 15:00:00	Tort liability dispute	Yang Bin	<a href="#">Details</a>
12	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
13	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
14	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
15	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
16	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
17	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>

Number	Court date	Case	Plaintiff or appellant	
18	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
19	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
20	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
21	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
22	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
23	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
24	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
25	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
26	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
27	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
28	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
29	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
30	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
31	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
32	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
33	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
34	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
35	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
36	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
37	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
38	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
39	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>

Number	Court date	Case	Plaintiff or appellant	
40	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
41	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
42	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
43	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
44	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
45	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
46	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
47	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
48	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
49	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
50	2019-06-26 15:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
51	2019-06-05 08:45:00	other	Guangzhou Hongkang Health Management Co., Ltd.	<a href="#">Details</a>
52	2019-06-05 08:45:00	other	Guangzhou Hongkang Health Management Co., Ltd.	<a href="#">Details</a>
53	2019-05-28 10:30:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
54	2019-05-28 10:30:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
55	2019-05-28 10:30:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
56	2019-05-28 09:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
57	2019-05-28 09:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
58	2019-05-28 09:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
59	2019-05-28 09:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
60	2019-05-28 --:- -:--	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
61	2019-05-28 --:- -:--	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>

Number	Court date	Case	Plaintiff or appellant	
62	2019-05-28 --:- -:--	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
63	2019-05-28 --:- -:--	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
64	2019-04-30 10:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
65	2019-04-30 10:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
66	2019-04-30 10:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
67	2019-04-30 10:00:00	other	Beijing Baidu Netcom Technology Co., Ltd.	<a href="#">Details</a>
68	2019-02-21 14:10:00	other	Guangzhou Hongkang Health Management Co., Ltd.	<a href="#">Details</a>
69	2018-09-13 09:00:00	Intellectual property rights infringement dispute	Shanghai Yingmai Culture Communication Co., Ltd.	<a href="#">Details</a>

## Appendix B: Software Engineer's Opinion on QTT's Application

For the foregoing sections of this report, we were able to carry out all our analysis of the QTT platform without signing *any* QTT user agreement and without running into *any* security whatsoever. While we found this initial lack of security concerning, what followed was a security nightmare the likes of which we have never seen in any mainstream app, much less from a so-called world-class app developer. In order to analyze advertising traffic, we used a “*naked ad request*”. In effect, we politely asked the QTT server for an ad... and it responded with one, no questions asked. This was because QTT did not protect a lot of their traffic with SSL or TLS encryption; more on this later.

There is no good reason that an outside third-party should be able to make naked ad requests to the QTT ad server. A naked ad request is a term coined by advertising fraud expert [Augustine Fou](#), whereby a request for an advertisement can be made without the request originating from a legitimate application or website.

If you wish to carry out the same analysis, you will need some basic programming or network analysis skills, and you will need to use an intercepting proxy.<sup>100</sup> Look for traffic to the following address, the advertising server for QTT.

<http://api.aicl.com/v4/json>

(notice there is no “s” at the end of “http” – more on that in the next section)

You will find that it is not protected by SSL/TLS, which in and of itself is an appalling omission. You’ll see that the QTT application sends an HTTP POST with a JSON body that contains information about the device, location, type of ad requested, and the ad slot requested. From this, you will be able to categorize the advertising traffic by where it is directing the user.

It is highly unusual for a client (the QTT application) to decide which ad slot is requested. Normally this is handled server-side in order to protect the integrity of ad distribution. There is a principle in cybersecurity: never trust the client (i.e., the app).

Any critical business logic should only be performed on the server side, where a bad actor cannot modify or influence any critical process. This is another example of something a legitimate third-party advertising agent should never allow to happen. By way of analogy, you can use your phone for mobile banking, but you can’t just tell the bank you have more in your account than you do. It’s all handled centrally on the bank’s servers – this does not appear to be the case with QTT’s app.

QTT derives its revenue from advertising sales, and thus the selection and rotation of ads should not be performed on its app. Instead, it should all be performed by the advertising server, to prevent gaming of the system.<sup>101</sup>

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<sup>100</sup> Basic explanation of what an intercepting proxy is:

<https://security.stackexchange.com/questions/140156/intercepting-proxies-and-web-traffic-interception>

<sup>101</sup> Oger, Mustafa, Isa Olmez, Erinc Inci, Serkan Küçükbay, and Fatih Emekci. “Privacy Preserving Secure Online Advertising.” *Procedia - Social and Behavioral Sciences* 195 (2015): 1840–45.

<https://doi.org/10.1016/j.sbspro.2015.06.405>.



### ***QTT's App Updates Didn't Download Securely***

Online security is crucial in this age of internet fraud, identity theft, and rampant privacy violations. There are all sorts of mobile-phone and internet-security protections happening all around us, albeit generally unnoticed. These shield us from a global industry of fraudsters eager to steal our data and drain our finances. QTT's platform failed to offer many of the most common and basic protections to its users.

When we browse our bank's website or troll our in-laws on Facebook, the communication between us and that website is secured using Secure Sockets Layer ("SSL") or a similar technology. SSL encrypts your traffic and prevents outsiders from eavesdropping on our browsing session. It stops bad actors from stealing information that is precious to us. It also prevents them from modifying content that is transmitted back to our browser. Without these protections, a criminal could have our devices under their nefarious control and do so without our knowledge.

When we see "<https://>" in our browser, that "s" indicates that our browsing is secured with an encryption technology. On the other hand, when we see "<http://>" it means there is no encryption between you and the website with which you are communicating.

This is particularly important when mobile applications provide users with updates. When a mobile application requests a new update, it is imperative that this update is delivered over a secured connection (using SSL or similar technologies). Without that protection, an attacker, government agent, or criminal can send back malicious code in the place of the application update. The malicious code could then nullify any security on the device and leave the user completely unprotected.<sup>102</sup>

During our analysis, QTT didn't use ANY encryption or secure communication channel when requesting or downloading updates. The application first sends a request to this website:

<http://api.1sapp.com/app/updateV2>

The site responds with instructions on where to download an update, if one is available. This first step is not encrypted, so an attacker could intercept this message and modify it. Instead of downloading an app update file from QTT, our phone could be instructed to download and install an application from *wherever the attacker chooses*.<sup>103</sup>

The following is an example of a response from [api.1sapp.com](http://api.1sapp.com) for an application update:

```
{ "code":0,"message":"成功", "showErr":0,"currentTime":1568316545,"data":{ "update":1,"id":2543,"title":"版本升级","desc":"1.提升内容加载速度\n2.横竖屏适配优化\n3.修复bug, 优化体验", "force":0,"wifi":1,"smallVersion":"3.9.42.000.0911.0031","version":30942000,"url":":\"http://apk.1sapp.com/qukan.3.9.42.000.0911.0031001.908.apk\", \"size\":\"14.40M\", \"displayMode\":1,\"preload\":[], \"md5\":\"vN2GNKhYByaVZxnaHc5InyYpqQNodcvvuFSGuxbnB58PHd7suvITufzk+dWH6gdy\" } }
```

<sup>102</sup> <https://aboutssl.org/ssl-certificate-importance-in-mobile-applications/>

<sup>103</sup> <https://aboutssl.org/why-you-need-code-signing-certificate-for-android-app/>

The application update was downloaded from the following address (in red above):

<http://apk.1sapp.com/qukan.3.9.42.000.0911.0031001.908.apk>

Using this delivery mechanism means that an attacker could send back malware, surveillance software, or any number of other bad applications. Any one of these could threaten the personal security of a Qutoutiao user, especially if that user is in a country or location where the threat of local government surveillance is high. And let's face it, there are no longer any territorial lines when it comes to extra-territorial surveillance, so we are all at risk.<sup>104</sup>

There are several areas in the Qutoutiao application that do not leverage secured channels when communicating with QTT's infrastructure. This appears to be a systemic security-failure sprinkled throughout the application.

Considering the fact that QTT claims to be a world class app developer whose long-term vision is "to create a leading global online content ecosystem,"<sup>105</sup> these security omissions are so elementary and grossly incompetent that it is impossible for us to believe them to be accidental.

### ***QTT's App Uses Profane and Unprofessional Code***

The QTT application looked to us like a college programming-project gone awry, with disjointed and redundant spaghetti-code strewn throughout. This is not at all typical of a professionally developed application.

Android applications are written in a programming language called Java, whereas a native library can be written in a number of programming languages and then deployed alongside the normal Java application. The developer can then use Java to load the native library, and then use functionality from it. Think of the libraries like plugins, but for an application. QTT loads external native libraries that are bizarrely named, such as *libNativeExample.so* and *libcocklogic-1.1.3.so*.

In particular, *libNativeExample.so* appears as though QTT's developers had been consulting an online coding tutorial, or developing a test-project that eventually just shipped with the production version of the Qutoutiao app. Below is a file listing from an Android phone running Qutoutiao's app that shows these libraries:

---

<sup>104</sup> <https://www.forbes.com/sites/zakdoffman/2019/05/02/xinjiang-how-china-uses-a-spying-smartphone-app-to-automate-citizen-oppression/#3b21888f1ef4>

<sup>105</sup> QTT SEC Form F-1, filed August 17, 2018, p. 121

```
vbox86p:/data/user/0/com.jifen.qukan/lib # ls -al
total 1904
drwxr-xr-x 2 system system 4096 2019-09-30 16:18 .
drwxr-xr-x 3 system system 4096 2019-09-30 16:18 ..
-rwxr-xr-x 1 system system 144964 2019-08-28 18:08 libBugly.so
-rwxr-xr-x 1 system system 128540 2019-08-28 18:08 libInnoSecure.so
-rwxr-xr-x 1 system system 251520 2019-08-28 18:08 libInnoSo.so
-rwxr-xr-x 1 system system 17688 2019-08-28 18:08 libMMASignature.so
-rwxr-xr-x 1 system system 17888 2019-08-28 18:08 libNativeExample.so
-rwxr-xr-x 1 system system 393048 2019-08-28 18:08 libRongIMLib.so
-rwxr-xr-x 1 system system 13644 2019-08-28 18:08 libTmsdk-2.0.8-dual-mfr.so
-rwxr-xr-x 1 system system 46560 2019-08-28 18:08 libalog.so
-rwxr-xr-x 1 system system 25824 2019-08-28 18:08 libcocklogic-1.1.3.so
-rwxr-xr-x 1 system system 13460 2019-08-28 18:08 libdaemon_api20.so
-rwxr-xr-x 1 system system 13460 2019-08-28 18:08 libdaemon_api21.so
-rwxr-xr-x 1 system system 139832 2019-08-28 18:08 libdu.so
-rwxr-xr-x 1 system system 42364 2019-08-28 18:08 libgetuiext3.so
-rwxr-xr-x 1 system system 9584 2019-08-28 18:08 libqtt_plugin_mark.so
-rwxr-xr-x 1 system system 332580 2019-08-28 18:08 libsqlite.so
-rwxr-xr-x 1 system system 278888 2019-08-28 18:08 libtnet-3.1.11.so
-rwxr-xr-x 1 system system 25848 2019-08-28 18:08 libweibosdkcore.so
```

There were a handful of references online for libcocklogic; a few Chinese developers posted code to [GitHub](#) that referenced this library, but there was little information available about it.

We found other evidence of unprofessional programming. Although it is not uncommon for software engineers to include notes and messages within the code of an application, particularly while it is under development. However, professional application developers and their management teams generally remove these notes from the final production version of the application.

QTT, however, seems completely unconcerned about this:

```
try {
    _setup_reflect(DexChosen);
} catch (ClassNotFoundException e5) {
    e5.printStackTrace();
    Log.e("_bootstrap", "Bad dex file \"" + DexChosen + "\" ! Delete this fucking library and try built-in instead.");
    file2.delete();
    DexChosen = DEX_LOCAL_FILENAME;
```

The frustrated developer who wrote this note had obviously encountered the same unnecessary loading of external libraries that we found. This is exactly why the industry best practice is to remove these notes. The above is evidence to us that QTT was aware of its low-quality engineering, and simply did nothing about it. Under the right circumstances, this could be the difference between a customer complaint and a criminal negligence suit.

Below is another comment embedded in the code of QTT's app that we believe effectively summarizes how this company's application was developed:

```
public static String TrimVersion(String str) {
    if (str == null) {
        Log.e("TrimVersion", "Fuck, what did you gives me!!!?");
    }
    try {
```

### *Unnecessary Permissions*

In discussing security measures and the overall trustworthiness of QTT's principal app, we highlighted a few of the most obviously troubling user-permissions that it requests. Below is a full table of what the user must allow the Qutoutiao App to access and to do. This list was compiled from an evaluation performed by the website of the security evaluation firm Hybrid Analysis.

Permission	Description
android.permission.FLASHLIGHT	Allows access to the flashlight.
android.permission.VIBRATE	Allows access to the vibrator.
android.permission.ACCESS_COARSE_LOCATION	Allows an app to access approximate location.
android.permission.ACCESS_FINE_LOCATION	Allows an app to access precise location.
android.permission.SYSTEM_ALERT_WINDOW	Allows an app to create windows using the type TYPE_SYSTEM_ALERT, shown on top of all other apps.
android.permission.ACCESS_LOCATION_EXTRA_COMMANDS	Allows an application to access extra location provider commands.
android.permission.REORDER_TASKS	Allows an application to change the Z-order of tasks.
android.permission.EXPAND_STATUS_BAR	Allows an application to expand or collapse the status bar.
android.permission.CALL_PHONE	Allows an application to initiate a phone call without going through the Dialer user interface for the user to confirm the call.
com.android.launcher.permission.INSTALL_SHORTCUT	Allows an application to install a shortcut in Launcher.
android.permission.READ_EXTERNAL_STORAGE	Allows an application to read from external storage.
android.permission.WRITE_SETTINGS	Allows an application to read or write the system settings.
android.permission.READ_LOGS	Allows an application to read the low-level system log files.
android.permission.READ_CALENDAR	Allows an application to read the user's calendar data.
android.permission.READ_CONTACTS	Allows an application to read the user's contacts data.
android.permission.RECEIVE_BOOT_COMPLETED	Allows an application to receive the ACTION_BOOT_COMPLETED that is broadcast after the system finishes booting.
android.permission.RECORD_AUDIO	Allows an application to record audio.

Permission	Description
android.permission.REQUEST_INSTALL_PACKAGES	Allows an application to request installing packages.
android.permission.SEND_SMS	Allows an application to send SMS messages.
com.android.launcher.permission.UNINSTALL_SHORTCUT	Allows an application to uninstall a shortcut in Launcher.
android.permission.WRITE_CALENDAR	Allows an application to write the user's calendar data.
android.permission.WRITE_EXTERNAL_STORAGE	Allows an application to write to external storage.
android.permission.ACCESS_NETWORK_STATE	Allows applications to access information about networks.
android.permission.ACCESS_WIFI_STATE	Allows applications to access information about Wi-Fi networks.
android.permission.CHANGE_NETWORK_STATE	Allows applications to change network connectivity state.
android.permission.CHANGE_WIFI_STATE	Allows applications to change Wi-Fi connectivity state.
android.permission.BLUETOOTH	Allows applications to connect to paired bluetooth devices.
android.permission.DISABLE_KEYGUARD	Allows applications to disable the keyguard if it is not secure.
android.permission.BLUETOOTH_ADMIN	Allows applications to discover and pair bluetooth devices.
android.permission.CHANGE_WIFI_MULTICAST_STATE	Allows applications to enter Wi-Fi Multicast mode.
android.permission.INTERNET	Allows applications to open network sockets.
android.permission.WRITE_SYNC_SETTINGS	Allows applications to write the sync settings.
android.permission.MOUNT_UNMOUNT_FILESYSTEMS	Allows mounting and unmounting file systems for removable storage.
android.permission.READ_PHONE_STATE	Allows read only access to phone state.
android.permission.WAKE_LOCK	Allows using PowerManager WakeLocks to keep processor from sleeping or screen from dimming.
android.permission.REQUEST_IGNORE_BATTERY_OPTIMIZATIONS	Permission an application must hold in order to use ACTION_REQUEST_IGNORE_BATTERY_OPTIMIZATIONS.
android.permission.CAMERA	Required to be able to access the camera device.

## Appendix C: QTT in the News

- **Sohu (12/9/2019):** “[Interesting headlines continue to lose money, and the "earning online" mode that makes money from walking and sleeping can no longer be played](#)” (趣头条持续亏损，走路、睡觉都能赚钱的“网赚”模式快玩不下去了)
- **Sohu (12/5/2019):** “[Fun headlines: Burning money is not a long-term solution](#)” (趣头条的困境：烧钱模式不是长久之计)
- **Variety.com (10/30/2019):** “[Chinese Tech Billionaire Buys \\$37 Million Newport Harbor Mansion](#)”
- **Sycaijing (10/14/2019):** “[Amoy collection arrears merchants payment: seeking restructuring and repayment of debt, 80% after listing](#)”
- **Sohu (10/9/2019):** “[Interesting headline: Midu Fiction is still a subsidiary, and there is no divestiture](#)” (趣头条：米读小说仍是旗下子公司，不存在被剥离情况)
- **Tech Planet (10/8/2019):** “[Exclusive | interesting headlines "self-help", research and development of two short video douyin quick hand](#)” (独家 | 趣头条「自救」，研发两款短视频对标抖音快手)
- **Sina Technology (9/25/2019):** “[Behind the Personnel Shake-up: Interesting Headlines Enter an Extraordinary Moment](#)” (人事大换血背后：趣头条进入非常时刻)
- **Sina Finance (8/23/2019):** “[Meng's Routine is as Deep as His Brother's \[Qutoutiao\]](#)” (萌推的套路，和它的兄弟公司趣头条一样深)
- **Caixin (8/5/2019):** “[In Depth: The Fake Engagement Powering China's Internet](#)”
- **TechNode (7/16/2019):** “[Regulators suspend three reading platforms for lowbrow content](#)”
- **Shejiaochina.com (5/31/2019):** “[Mysterious social e-commerce rushed to the top five of shopping apps?](#)” (神秘社交电商 竟冲到购物app前五?)

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