

# PRESCIENCE POINT RESEARCH GROUP

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## Cheetah Mobile, Inc. | NYSE: CMCM Price Target: \$1.69 / share

Date of Report:  
10/26/2017

Price Target:  
\$1.69/share

Share Price:  
\$8.42

Avg Daily Volume:  
749.7K

Market Cap:  
\$1,288.4m

Debt:  
\$71.8m

Enterprise Value:  
\$1,132.8m

LTM Revenue:  
\$703.0m

LTM Net Income:  
\$32.1m

Auditor:  
Ernst & Young Hua  
Ming LLP



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### Prescience Point Research Opinions:

- CMCM shares are worth no more than \$1.69 per share.
- ~55% of CMCM's reported consolidated revenue does not exist.
- CMCM should be de-listed from the NYSE.
- CMCM will restate its historical results because of the issues exposed in this report.
- CMCM is the subject of an ongoing, undisclosed SEC investigation, which will result in severe enforcement actions against CMCM and its management team. The SEC is in possession of our findings.

### Research Highlights:

- ~87% of estimated Live.me revenue and ~57% of reported utility revenue is fabricated, based on PP calculations that are supported by App Annie Intelligence data.
- CMCM is its own largest Live.me customer, based on our research – of what revenue Live.me does generate, we estimate 75% came from CMCM's balance sheet and was spent in the app via company-controlled accounts.
- CMCM reported that its mobile MAUs increased 17.7% from Q2'15 to Q2'17, which is not possible given the 49.9% decline in its core utility app MAUs, according to our calculations based on App Annie Intelligence data.
- CMCM's cash balance is suspect.<sup>(1)</sup> From FY'14 to 1H'17, CMCM's average cash balance ballooned 77.3% from \$177.9m to \$315.5m, yet at the same time its annualized interest income plummeted 67.7% from \$4.5m to \$1.5m -- during that time period. In spite of its sizeable cash balance, CMCM's debt balance has grown to >\$70m.
- From Q2'16 to Q2'17, CMCM's share-based compensation declined 72.9% from \$13.3m to \$3.6m. This 72.9% YoY decline 1) appears baseless as it implies an estimated, and unrealistic 5.4x increase in forfeiture rates, and 2) accounted for an estimated 93% of Q2'17 earnings.
- Former employees we interviewed doubt the credibility of CMCM's financials. Here is what one told us: "Sometimes the numbers on my side were going down...and at the same time we were reporting growing numbers in the financial statements."
- CMCM recently invested \$40m into OrionStar, a robotics company owned by CMCM's CEO. The transaction price implies a \$135m post-money valuation for a company that has only existed for ~8 months, and that was originally intended to be a CMCM subsidiary, based on our research.
- Form 144 filings CMCM does not file electronically indicate insiders have registered to sell an estimated \$17.3m worth of CMCM stock over the past 5 months.
- Facebook, CMCM's largest customer, allegedly discovered the Company's fake traffic and in response has been phasing out CMCM from its ad network. Given the industry's increased focus on eliminating ad fraud, we believe other top utility clients like Google will follow suit.
- Former CMCM CFO Mr. Ka Wei Andy Yeung, a seasoned US-trained executive, was viewed by some as a seal of approval for the legitimacy of the Company. He suddenly departed CMCM in March, and now that seal of approval is gone.
- CMCM's auditor E&Y Hua Ming was the auditor for Sino-Forest. Aside from Sino-Forest, it blessed the books of a plethora of now-proven and defunct Chinese frauds, SinoTech Energy and China Agritech.
- The SEC Enforcement division is already investigating CMCM based on the responses to our FOIA requests. CMCM has not disclosed the investigation.

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## Introduction

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Cheetah Mobile (“CMCM” or “the Company”) bears a striking resemblance to a number of US-listed Chinese frauds Prescience Point has previously exposed. In this report, we present a body of evidence which in our opinion indicates that CMCM too is materially misrepresenting its reported financial performance and that its management is so untrustworthy that CMCM is simply uninvestable.

CMCM initially caught our attention when we learned of its plans to invest in a related party entity owned by its CEO Sheng Fu. On May 26, 2017, CMCM [announced](#) its intent to invest \$40m of shareholder capital in OrionStar, an AI and robotic business, in exchange for a 29.55% equity stake, effectively valuing OrionStar at \$95.4m on a pre-money basis. Upon further analysis, we were troubled by the circumstances surrounding the deal:

- Only one year prior to the announcement of the deal, in April 2016, Mr. Fu [announced](#) that CMCM intended to set up a subsidiary called Cheetah Robotics to pursue AI/robotics. Our research indicates the legal formation of this entity did take place in May 2016.
- Mr. Fu then appears to have hi-jacked the opportunity away from CMCM shareholders, forming his own AI and robotics company OrionStar in September 2016, only several months after Cheetah Robotics’ formation. Cheetah Robotics now appears to be a disregarded entity, as CMCM does not talk about it, it is not mentioned in CMCM SEC filings, and it is not accounted for in CMCM’s corporate structure as mapped out in the 2016 20-F (refer to the Appendix).
- At the time the CMCM deal was announced, OrionStar had existed for only 8 months, casting serious doubt on the legitimacy of its lofty ~\$100m pre-money valuation.

OrionStar appeared to be a vehicle for the misappropriation of shareholder capital, in our view.

Our interest in the CMCM story was piqued upon learning of the astounding, yet improbable success of CMCM’s Live.me business. CMCM launched Live.me, a mobile live streaming app, in early 2016. From Q3’16 to Q2’17, Live.me revenue grew by an estimated 429.9% from \$5.9m to \$31.3m, based on our estimates; thus, in the span of just nine months, annualized Live.me revenue had increased from an estimated \$23.6m to \$125.2m! This large and rapid increase in Live.me’s revenue appeared too good to be true, especially when considering that comparable, more well-established live streaming apps with longer operating histories were generating just a fraction of the revenue it claimed.

The more we dug, the more we found. Our 5-month long investigation included a thorough scrub of CMCM’s public disclosures and filings, interviews of several former CMCM employees (including many former managers), the engagement of several private investigators, and exhaustive examination of App Annie Intelligence estimates and other app analytics data.

We found CMCM to be worse than we initially thought:

- Our research indicates ~55% of CMCM’s Q2’17 consolidated revenue was fabricated, including ~87% of its estimated Live.me revenue and ~57% of its reported utility revenue.
- CMCM is its own largest Live.me customer, based on our research – of what revenue Live.me does generate, we estimate 75% came from CMCM’s balance sheet and was spent in the app via company-controlled accounts.
- Many other aspects of CMCM’s financial reports are suspect. Among them – CMCM’s cash balance appears to be significantly overstated. From FY’14 to 1H’17, CMCM’s average cash balance ballooned 77.3% from \$177.9m to \$315.5m, yet at the same time its annualized interest income plummeted 67.7% from \$4.5m to \$1.5m. In spite of its sizeable cash balance, CMCM’s debt balance has grown to >\$70m.<sup>1</sup>
- CMCM’s auditor E&Y Hua Ming was the auditor for Sino-Forest. It has also blessed the books of a plethora of now-proven and defunct Chinese frauds, including SinoTech Energy and China Agritech.
- CMCM has extensively used bots and click farms to generate fake accounts and fake ad impressions on its utility apps, according to former employees. Thus, it appears that a large portion of whatever real revenue CMCM is receiving has been generated through questionable if not illegitimate means.
- CMCM appears to be on the verge of imploding: Its real revenue appears to be rapidly diminishing due to a growing focus by its top clients, like Facebook, on cracking down on fake ad traffic; our FOIA requests have confirmed that it is the subject of an active, undisclosed SEC investigation; some of its key executives – including its US-trained CFO – have recently departed; and insiders

have been rampantly registering their shares for sale via Form 144 filings (an estimated \$17.3m worth of CMCM stock over the past 5 months).

We are not alone in our suspicions related to CMCM; consider the following comments from our interviews with several former CMCM managers:

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*Former Employee #1: One of the reasons I left the company is there is definitely some fuzzy accounting going on... sal've worked with a lot Chinese companies, and I know they do business differently, but Cheetah is a different scale in terms of how worried I would be.*

*Former Employee #2: I was never able to understand the numbers that were published in the financial statements of the Company...Sometimes the numbers on my side were going down... and at the same time we were reporting growing numbers in the financial statements.*

*Former Employee #3: ... they make up (the numbers) for sure... People they watch the news and (the news) says "Cheetah Mobile has increased their revenue". (But) every weekly meeting we had, we definitely see the downloads is going down when I was working there...I mean they must do something to the numbers...There's definitely something wrong with the company, so that's why I left*

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Over the years, we have successfully exposed several fraudulent US-listed Chinese companies (read more about them [here](#), [here](#) and [here](#)). Following the publication of our findings, these companies collapsed, were investigated by the SEC, had their shares delisted, and/or ceased to exist. We believe CMCM will soon meet a similar fate due to the issues covered in this report.

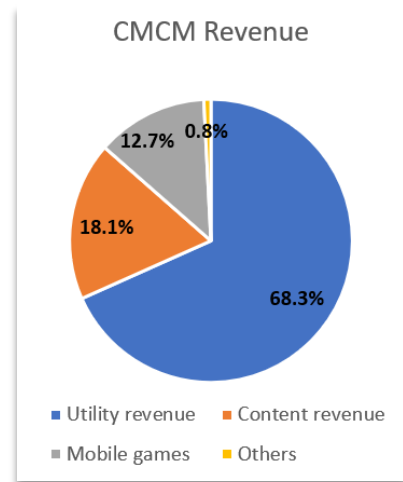
**We hope that current and future investors and creditors familiarize themselves with the risks we have addressed and take immediate action to preserve the value of their holdings. We also hope that the NYSE, regulatory and law enforcement agencies, and CMCM's auditor take necessary precautions in protecting investors.**

## Company Overview

CMCM is a China-based developer of mobile (iOS and Android) and PC applications. In Q2'17, mobile accounted for 86.5% of CMCM's total revenue, while PC accounted for the remaining 13.5%. The Company generates the majority of its revenue from international markets outside of China such as the US, UK, etc.

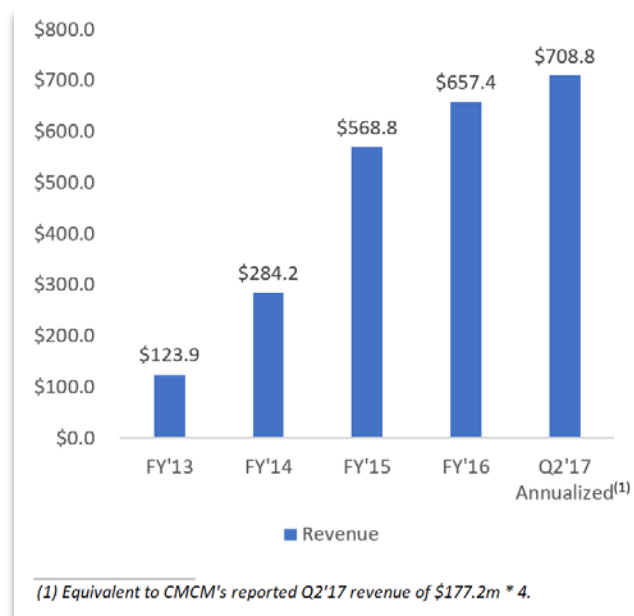
CMCM discloses its revenue by business line as follows:

- **Utility products & related services ("utility revenue")** – Consists primarily of revenue generated from in-app advertising in CMCM's mobile utility apps. The Company's core mobile utility apps include Clean Master, CM Security, Battery Doctor, CM Launcher, CM Browser, Photo Grid and CM Locker.<sup>2</sup>
- **Content driven products ("content revenue")** – Consists of revenue generated from Live.me and News Republic.<sup>3</sup> Live.me is a live video streaming mobile app for iOS and Android devices. News Republic is a personalized news aggregator app for iOS and Android devices. We estimate Live.me accounted for >97% of content driven revenue in Q2'17.
- **Mobile games** – Consists primarily of revenue generated from advertising and virtual currency purchases in CMCM's web-based and mobile games. Some of its most popular games include Tap Tap Fish, Piano Tiles 2 and Rolling Sky.
- **Other** – Miscellaneous revenue representing just a small portion of CMCM's business.



CMCM went public on the NYSE in May 2014 as a spin-off from Kingsoft Corporation, a large IT service provider and software developer traded on the Hong Kong Stock Exchange. From FY'13 to FY'16, the Company grew its reported revenue by 430% from \$123.9m to \$657.4m. CMCM's revenue has continued to grow in FY'17 – In Q2'17, CMCM's reported revenue grew 14.8% YoY to \$177.2m, or \$708.8m on an annualized basis.

Below is the Company's historical consolidated revenue according to SEC filings and earnings releases:



We will provide a body of evidence that we believe indicates the data in the chart above is fiction.

## Is More than 87% of CMCM's "Reported" Live.me Revenue Fabricated?

In late 2015, CMCM launched Live.me, a live video streaming mobile app for iOS and Android devices. In Q2'2016, the Company introduced a revenue-generating virtual gifting function to the app.<sup>4</sup> Since then, Live.me revenue has grown exponentially, increasing an estimated 429.9% from \$5.9m in Q3'16 to \$31.3m in Q2'17, based on our estimates. Thus, in the span of just nine months, annualized Live.me revenue has increased from an estimated \$23.6m to \$125.2m! Due to its rapid growth, CMCM management has touted Live.me as one of the pillars of the Company's future.

Based on our months long investigation, however, Live.me's astounding success is a mirage. We have collected evidence which, in our view, amounts to a smoking gun that the majority of Live.me revenue is fabricated. Our conclusion is based on the following analytical summary, the basis for which is thoroughly supported in the sections that follow:

- **The dollar value of gifting on Live.me is suspiciously large, especially when compared against that of its more well-established direct comp YouNow:** For Q2'17, "Reported" Live.me gross revenue was an estimated \$31.3m. (Note: throughout this document, "Reported" denotes our estimates based on CMCM's financial reports, public disclosures, and/or an interview of CMCM management.) Based on a call with CMCM management, 100% of Live.me gross revenue is generated from in-app gift purchases (as such, henceforth, we use the terms "gross revenue" and "gifting" interchangeably). Thus, we estimate that gifting on Live.me also totaled \$31.3m in Q2'17, or \$125.2m annualized. When compared against its closest comp YouNow, the gifting from Live.me's platform does not seem possible. Our calculations for YouNow gross revenue based on App Annie Intelligence data indicate it generated ~\$4.0m of gross revenue in Q2'17, meaning Live.me's "Reported" gross revenue was 8x YouNow gross revenue. The enormous variance makes little sense given that YouNow introduced virtual gifting as its primary monetization strategy back in 2014 and appears to have more active users than Live.me.
- **Based on App Annie Intelligence data, Prescience Point calculates Live.me generated "actual" Q2'17 gross revenue of \$16.3m, indicating "Reported" Live.me revenue is inflated by 92%:** According to CMCM management, 100% of Live.me revenue is generated, 1) via its mobile platform (as opposed to via PC), and 2) from gifting (vs other monetization models such as advertisements). As a result, App Annie Intelligence estimates should account for 100% of Live.me's revenue streams. Given the high level of data accuracy of App Annie Intelligence estimates, in our view this amounts to incontrovertible proof that the amount of gifting on Live.me is much less than reported.
- **Our in-app research indicates CMCM is its own largest customer, using company-controlled (or, "fake") accounts to inflate the gifting on Live.me. If true, our estimate of \$16.3m for Live.me's "actual" Q2'17 revenue (based on App Annie Intelligence estimates) overstates Live.me's legitimately-generated revenue ("legitimate" revenue):** We provide evidence from our in-app investigation which, in our view, indicates the Company is cycling \$millions of gifts back-and-forth between these fake accounts to inflate the gifting on the app. Our research is backed by claims of such activity made by former employees. Of the \$16.3m of estimated gift purchases in Q2'17, we believe that the vast majority of these purchases were funded by CMCM, while only a small amount came from legitimate users.
- **PP estimates that more than 87% of "Reported" Q2'17 Live.me revenue was fabricated:** In an effort toward estimating legitimate gifting on the Live.me app, and thereby its true financial performance, we give the company credit by using YouNow revenue as a proxy. We estimate that Live.me gross revenue was at most \$4.0m in Q2'17. Thus, we estimate that CMCM overstated its "Reported" Live.me revenue in Q2'17 by \$27.3m or \$109.1m annualized.

Estimated Overstatement of Q2'17 Live.me Revenue		
(\$ in millions)	Q2'17	
	3 Mos.	Annualized
"Reported" Live.me Revenue <sup>(1)</sup>	\$31.3	\$125.2
PP Estimate of Live.me Revenue <sup>(2)</sup>	\$4.0	\$16.1
<b>Magnitude of Overstatement - \$</b>	<b>\$27.3</b>	<b>\$109.1</b>
<b>Magnitude of Overstatement - %</b>	<b>679.7%</b>	<b>679.7%</b>

Sources: CMCM public filings and disclosures; PP research opinions

(1) Prescience Point estimates. Based on reported Q2'17 content revenue of \$31.3m (RMB 218m), less estimated News Republic revenue of \$0.9m

(2) PP estimate. Assumes Live.me gross revenue equivalent to YouNow estimated Q2'17 gross revenue of \$4.0m (PP's custom calculation based on App Annie Intelligence data)

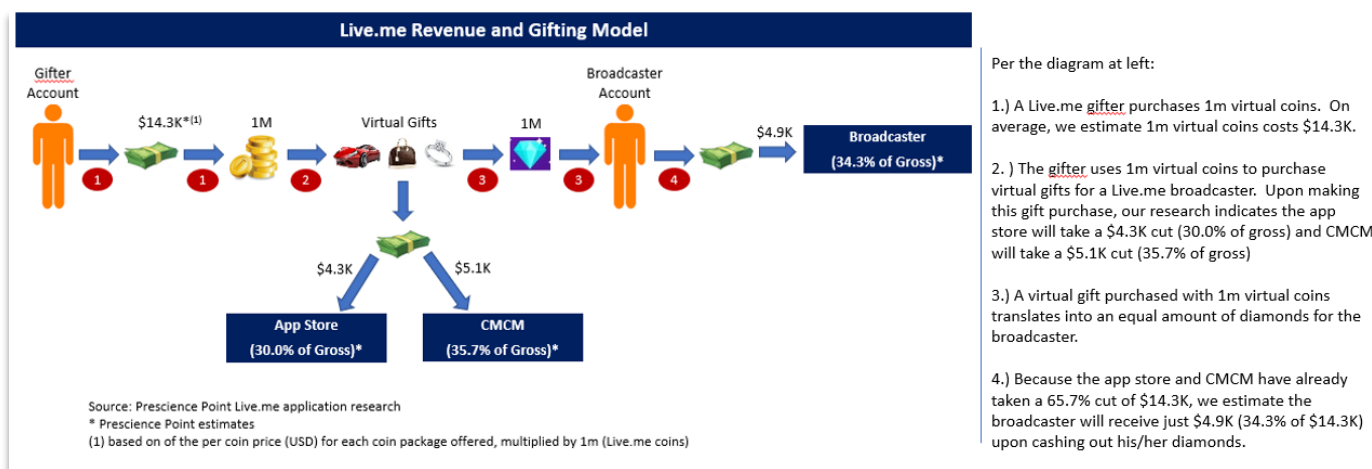


## I. Quick Overview of Live.me's Business Model

Live.me is a live-streaming app available for both Android and iOS devices. With its focus on virtual gifting, Live.me's business model is very similar to YouNow, a competing live streaming app which was launched several years earlier in 2011.

- **In-app gifting:** Broadcasters on Live.me can earn real money from users via the app's gifting system. Live.me users can live stream images of themselves to other users on the app by using the "selfie" cameras on their mobile phones. During the live stream, broadcasters sing, dance, crack jokes or simply talk to attract as many viewers as possible.

Viewers of the live stream can use real money to buy virtual coins. If a viewer likes what they see, they can show their appreciation by using their virtual coins to purchase virtual gifts, such as a castle or Ferrari, for a broadcaster. Each virtual gift corresponds to a certain number of diamonds – more expensive gifts = more diamonds. Broadcasters can later cash-out these virtual diamonds for real money. Based on our research, money that is spent by a US-based Live.me user on the app is divided up as follows: ~35.7% of gross goes to CMCM, ~30.0% of gross goes to the app store (i.e. Apple Store, Google Play Store), and the remaining ~34.3% of gross goes to the broadcaster.



- **Revenue and cost recognition:** CMCM reports Live.me revenue on a gross basis, and records the payments to the app store and broadcasters as cost of revenues.<sup>5</sup> So, in reference to the transactional diagram above, when 1m coins are used to purchase gifts for a broadcaster, the Company reports \$14.3K of revenue and books the \$4.3K app store payment and \$4.9K broadcaster payment in cost of sales:

Estimated Economics of a Gift Purchase on Live.me		
(\$ in thousands)	\$	% of Total
Gross Revenue	\$14.3	100.0%
App-Store Commission	\$4.3	30.0%
Broadcaster Commission	\$4.9	34.3%
Cost of Sales	\$9.2	64.3%
<b>Net Amount Retained By CMCM</b>	<b>\$5.1</b>	<b>35.7%</b>
Sources: Prescience Point Live.me application research, CMCM SEC filings		

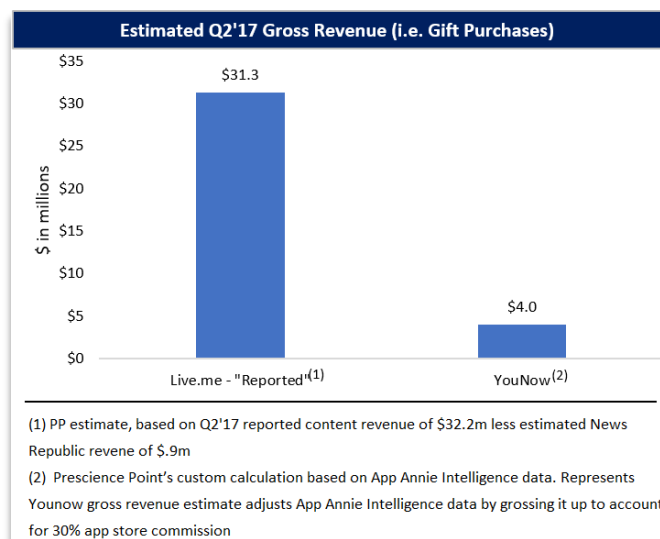
- **100% of Live.me's gross revenue is generated on the mobile platform and from virtual gifting (i.e., in-app gifting),** based on CMCM's public disclosures and our researcher's interview with management.<sup>6</sup> As such in the remainder of this report we use the terms "gross revenue" and "gifting" interchangeably.

## II. Gifting Claimed by Live.me Defies Logic in Comparison to YouNow

Live streaming is not some new, unexploited business opportunity. YouNow – a directly comparable live streaming app that monetizes virtual gifts – is very similar to Live.me, but it's been around a lot longer. It was founded in 2011 and introduced virtual gifting as its primary monetization strategy on July 15, 2014, with the release of its version 6.5 app.<sup>7</sup> We compared Live.me to YouNow as another measure of the credibility of Live.me's astounding performance.

The results are startling.

- From July 2014, the month YouNow introduced virtual gifting, through March 2016, YouNow was downloaded a whopping >13 million times. We presume this large growth in users is what drove YouNow's gross revenues to reach a peak of \$4.99m in Q1'16.<sup>8</sup> Live.me, on the other hand, generated an estimated ~\$5.9m in Q3'16, only 1-2 quarters after introducing gifting. Are we to believe its revenue exploded beyond YouNow's just by virtue of having introduced a feature YouNow already offered, when YouNow had a ~2 year head start in growing its paying user base and was successful in doing so??
- Whereas YouNow's gross revenue peaked in Q1'16 at ~\$4.99m, Live.me's revenue has grown to an estimated ~\$31.3m in Q2'17.<sup>9</sup> Furthermore, per the chart below, we estimate Live.me is generating almost **8x** as much in-app gifting as YouNow as of Q2'17!



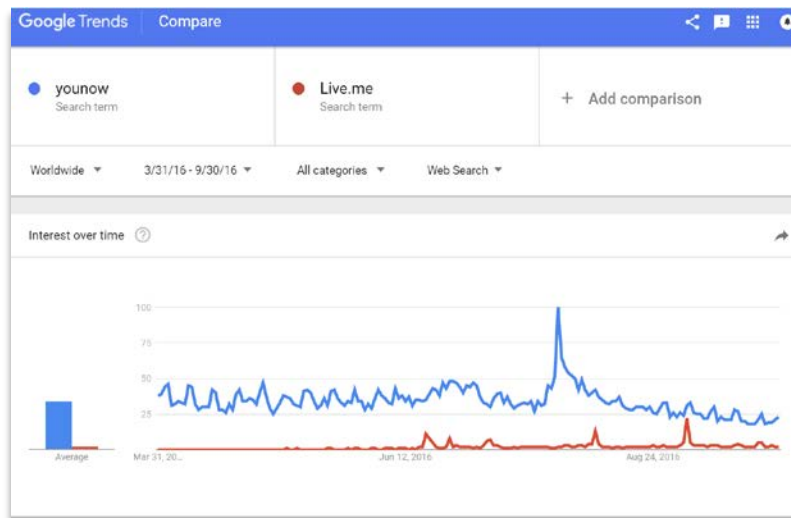
*Note: App Annie Intelligence revenue estimates are reported net of the app store commission, which is typically 30%. Accordingly, Prescience Point's calculates gross revenue based on App Annie Intelligence data by grossing the data up to reflect this.*

A couple observations: YouNow has been employing the same business model as Live.me for over 3 years; and, its revenues peaked almost 2 years ago.

Could it be true that the size of the market opportunity is relatively small, isn't growing, and cannot allow for the success of more than one or a few entrants? Alternatively, what might enable a new entrant with only a few quarters of operating experience to generate multiples of the revenue generated by the much more established player?

Perhaps Live.me has a much larger base of active users, and is thereby the beneficiary of powerful network effects. We hesitate to test this hypothesis using data accessible to us for downloads or app store rankings, because these metrics are easily gamed and may be misdirecting as proxies for active users – in fact, former employees we interviewed claim CMCM makes extensive use of bots and [click farms](#) (more on that in a later section). However, we can look to online search trends to gauge general consumer interest, which we can assume to be indicative of the relative sizes of these companies' active user bases.





Based on the Google Trends comparison above, YouNow generates much higher online search interest compared to Live.me. Further, Live.me has never generated more search interest than YouNow. In our view the results indicate that YouNow's base of active users is much larger than Live.me's.

We can also look to other social media platforms for information that could shed more light on these companies' active user bases. For example, a study of each app's top 5 broadcasters reveals that Live.me's top 5 broadcasters have a cumulative total of 54.5K and 122.4K Twitter and Instagram followers, respectively, while YouNow's top 5 ranked broadcasters have 1.8M and 4.1M Twitter and Instagram followers, respectively. Thus, YouNow's top 5 broadcasters have 33.0x and 33.5x more followers on Twitter and Instagram, respectively, than those on Live.me. Assuming that the most talented and well-recognized Live.me/YouNow broadcasters' fans ought to follow them outside these apps, which would translate to follows on other social media platforms, this also indicates YouNow has more active users than Live.me.

#### Top 5 Ranked Broadcasters on Live.me vs. YouNow (As of 8/7/2017)



Broadcaster	Rank <sup>(1)</sup>	# of Followers <sup>(2)</sup>	
		Twitter	Instagram
TheRealKatherineRojas	#1	584	40,300
TurnUpKing	#2	16	171
Kristina Plisko	#3	52,873	68,200
SammieFreakingFirth	#4	994	10,400
Ashcatash	#5	No Account	3,296
# of Followers - Total		54,467	122,367
# of Followers - Average		13,617	24,473

(1) Live.me ranks top broadcasters by the amount of gifts received.  
(2) As 8/7/2017.



Broadcaster	Rank <sup>(1)</sup>	# of Followers <sup>(2)</sup>	
		Twitter	Instagram
BruhItzZach	#1	761,000	2,200,000
westonkoury	#2	417,000	24,500
Flamingeos	#3	270,000	1,000,000
99goonsquad	#4	227,000	636,000
Kylee Renee	#5	122,000	241,000
# of Followers - Total		1,797,000	4,101,500
# of Followers - Average		359,400	820,300

(1) Represents top 5 broadcasters in YouNow's Editor's Choice rankings.  
(2) As 8/7/2017.

Obviously, strong operating performance alone would not normally be cause for concern. But when a company is doing as well as Live.me, investors need to understand both why and how. We cannot understand either why or how. Live.me is either one of the most incredible growth stories we have witnessed, or CMCM's financial statements are a fiction.

### III. PP Estimates Based on App Annie Intelligence Data Indicate Actual Q2'17 Gifting on Live.me was ~50% Of "Reported"

Prescience Point's calculations based on App Annie Intelligence Data indicate that ~48% of "Reported" Live.me revenue is fabricated – in our view, serving as incontrovertible proof that CMCM has inflated its revenue, based on the following:

- Because all Live.me revenue 1) is generated via its mobile application, and 2) is from virtual gifting, App Annie Intelligence estimates, when grossed up to adjust for an assumed 30% app store commission, account for 100% of Live.me's revenue streams.
- Our calculation for Live.me revenue based on App Annie data is so much lower than indicated by Live.me's public disclosures that it's obvious it cannot be explained by a rounding error.
- **We calculate based on App Annie Intelligence estimates that Live.me generated \$16.3m of gross revenue in Q2'17. Our calculations indicate that ~\$15m, or ~48%, of Live.me revenue is fabricated.** Our calculation was made by grossing up the App Annie Intelligence estimate for Live.me revenue by 30% to adjust for the app store commission, which is not included in the App Annie estimate.

Note that we are prohibited by App Annie's [data usage policy](#) from displaying the App Annie Intelligence estimate itself. However, the raw data is available to all who cross App Annie's paywall.

Estimated Overstatement of Q2'17 Live.me Gross Revenue	
(\$ in millions)	Q2'17
Live.me Gross Revenue - "Reported" <sup>(1)</sup>	\$31.3
Live.me Gross Revenue - PP calc based on App Annie <sup>(2)</sup>	\$16.3
<b>Magnitude of Overstatement - \$</b>	<b>\$15.0</b>
<b>Magnitude of Overstatement - %</b>	<b>92.2%</b>

Sources: CMCM SEC filings and public disclosures; PP research opinions

(1) PP estimate. Equal to reported content revenue of \$32.2m in Q2'17, less \$9m of estimated News Republic revenue. Assumes that all Live.me revenue is from in-app gifting

(2) Prescience Point's custom calculations based on App Annie Intelligence data; grossed up to adjust for an assumed 30% app-store commission

- **The divergence is too large to be explained by simple rounding error:** Our calculation for Live.me revenue based on App Annie Intelligence estimates should be a close approximation of the actual amount of gifting in Q2'17.

According to representatives from App Annie, in-app purchase estimates on the site have a margin of error of 20% for 80% of the apps. The accuracy is generally even higher for top ranked apps, like Live.me, and lower for less popular apps.

*PP: Do you know generally what your margin of error is?*

*AA: For all of our data we are within 20% of confidence, 80% of the time is what our data science team ultimately tells us...The more popular the market and the category, the more accurate we tend to be...We have had our accuracy tested extensively*

*PP: I would assume that for the more popular apps, like the top maybe 100, it would be more accurate than the lesser ranked apps. Would that be correct?*

AA: Yes...Snapchat we've been within I think like 1 or 2 percent for the last five quarter...Zynga, they just reported yesterday, and we actually were right on the dot.

Live.me consistently ranked in or close to the top 50 grossing apps on iOS and Android in Q2'17. Thus, based on our dialogue with App Annie reps, in-app purchase estimates for Live.me should have fallen well within a 20% margin of error. We asked the same representatives whether it was possible that App Annie's estimate for a top-ranked app like Live.me could be off by more than 92% (as shown in the above table). In response, they stated that it was highly unlikely:

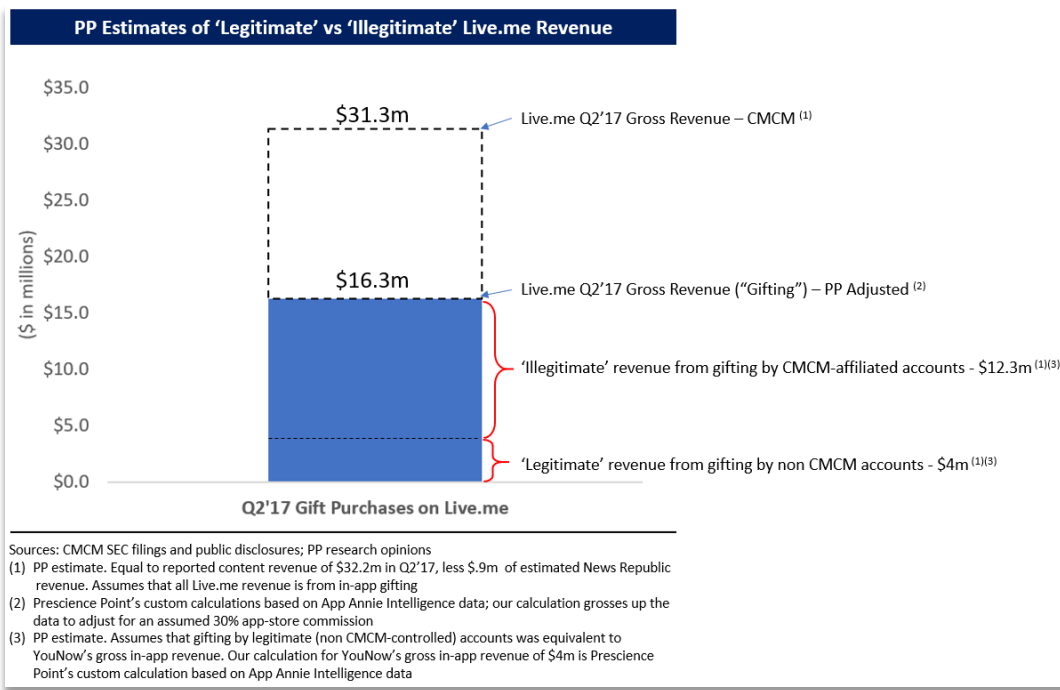
*It's highly unlikely...That big of a difference I personally haven't seen.*

#### IV. Is CMCM Itself Live.me's Largest Customer? Our Calcs Based on App Annie Intelligence Data Appear to Grossly Overstate 'Legitimate' Live.me Gifting

It gets worse. The Live.me revenue accounted for by App Annie Intelligence estimates, and hence our calculation of \$16.3m Q2'17 gross revenue, may significantly overstate legitimate gifting on the app. Our research indicates CMCM may be using \$millions of its own money (i.e., shareholder capital) to inflate gifting on the app.

We spoke with several former CMCM employees believed to have detailed knowledge of the Live.me business. We were told that CMCM has been using company-controlled accounts to inflate the gifting on Live.me. Based our own investigation, we believe these claims to be true.

Our in-app research suggests that CMCM controls the majority of the largest gifting accounts on Live.me and cycles \$millions of gifts back-and-forth between these accounts to inflate the gifting on the app. We conclude that ~75% of the \$16.3m of Q2'17 gifting we calculated based on App Annie estimates was funded by CMCM itself – or, the result of “illegitimate” gifting – while only 25% was from real users (or, “legitimate” gifting). The wealth of evidence in support of our conclusion is thoroughly detailed in the sections that follow.



*Note: In the below sections we may use the term “fake accounts” in reference to Live.me user profiles that are controlled or affiliated with CMCM.*

### **According to Former Employees, CMCM is Using Fake Accounts to Inflate the Gifting on Live.me**

We spoke with former CMCM employees believed to have detailed knowledge of the Live.me business. We were told that CMCM uses company-controlled, or “fake”, accounts on Live.me to gift other users using company money. We were also told, and found evidence indicating, that CMCM hires its own Live.me broadcasters, and that these broadcasters’ accounts are also controlled by the Company. Finally, we were told that CMCM is using these fake broadcaster and gifter accounts to inflate the gifting on the Live.me app.

The relevant extracts from our conversation with this individual are provided below. Please note that some of the responses were provided to us through a translator.

**Former Employee:** *I don’t know if you know the product Live.me...So, they hire a lot of young girls doing the live (streaming) on the app. So, they (Cheetah) work with an agency. So, the agency finds lots of young girls. They have talent. They sing. They do some stupid things when they’re doing the live show - to attract the user to watch them.*

**Former Employee (via a translator):** *What she’s saying is that Cheetah will go and hire good looking girls to live stream, and then what they’ll do is they’ll put money into their live stream, give them gifts.*

**PP:** *You’re saying that Cheetah would give the broadcaster their own money into the app, or feed it into the app...?*

**Former Employee:** *Yes.*

**PP:** *So, are these accounts, including the broadcaster accounts, controlled by the Company then?*

**Former Employee:** *Yes.*

**PP:** *Because they need to control the money, right?*

**Former Employee:** *Yeah, they control the money and also the account, correct.*

Another former employee we interviewed backed the above claims with hearsay knowledge. Speaking through a translator, this individual told us the following:

**Former Employee (via a translator):** *He said that he’s aware of, or he had heard of individuals that will go into different live streams and they’ll have money from the company to then spend on the live streamers and give them gifts.*

Lastly, yet another former CMCM employee we interviewed claimed that CMCM hires broadcasters to produce content for Live.me. This individual referred to them as “Cheetah employees.” The following are the relevant excerpts from our discussion with this individual:

**Former Employee:** *They’ve hired a bunch of people to produce content on Live.me, right, and to essentially seed the machine. So, a lot of the content that’s on Live.me is actually produced by Cheetah employees.*

We present evidence in the form of a recent online casting call made for paid-by-the-hour Live.me broadcasters – which in our view bolsters the assertion that CMCM hires its own broadcasters and controls their user accounts – in the Appendix. In the section below, we present compelling evidence from our in-app investigation we believe suggests that CMCM is using fake accounts to inflate the gifting on Live.me.

## Most of Live.me's Top Ranked Broadcaster Accounts Appear to be Controlled By CMCM

In conducting in-app research, we were shocked to discover that most of the top 30 ranked broadcasters on Live.me had little interest in cashing out the millions of dollars they had earned. Instead they gave all or most of their earnings away, by buying gifts for other users (with many buying more in gifts than they had collected). We estimate that collectively, the top 30 broadcasters earned >\$4 million, yet gave away more than they earned, losing an estimated \$259.8k! Isn't an income stream, as represented by the receiving and cashing out of virtual gifts, supposed to be a reward for hard working broadcasters who had spent large amounts of their time performing and building fan bases? Why then are their earnings all being spent on other Live.me users and staying inside the app?

In our view such activity violates the norms of human behavior, violates the tenets of the app itself, and benefits one entity on a wholesale basis – Cheetah Mobile. As such, we believe most of the top ranked broadcaster accounts are CMCM-affiliated and controlled.

- **Top broadcasters on Live.me are inexplicably giving away all of their earnings:** Live.me publishes a leaderboard of its top 30 broadcasters, ranking users based on the amount of gifts they have received during their live streams. Top broadcasters on the app have received \$hundreds-of-thousands in gifts from their fans. Yet, instead of keeping and cashing out their earnings, the majority of these broadcasters are inexplicably giving most or all of them away by purchasing large amounts of gifts for other users.

Based on our estimates and as demonstrated in the table below,

1. 25 of the top 30 broadcasters on Live.me have spent 70% or more of their earnings on gift purchases for other users.
2. In total, these broadcasters have received an estimated \$4.4M in gifts but have spent \$4.7M on gifts for their fans.
3. Thus, on an overall basis, the top 30 broadcasters on Live.me have lost an estimated \$259.8K!

Analysis of Top 30 Broadcasters: Net Earnings From All Fans (as of Sep 6th)

Broadcaster (\$ in thousands)	Rank <sup>(1)</sup>	Gifts Received		Gifts Purchased		Purchases as % of Gross Earnings	Net Earnings
		# of Diamonds	\$ Value <sup>(2)</sup>	# of Coins	\$ Value <sup>(3)</sup>		
TheRealKatherineRojas	1	72.5M	\$355.2	11.4M	\$163.0	45.9%	\$192.2
TurnUpKing	2	69.0M	\$338.1	26.6M	\$380.4	112.5%	(\$42.3)
Kristina Plisko <sup>(4)</sup>	3	58.0M	\$284.2	2.7M	\$38.6	13.6%	\$245.6
SammieFreakingFirth	4	49.3M	\$241.6	22.0M	\$314.6	130.3%	(\$73.1)
Ashcatash <sup>(4)</sup>	5	42.8M	\$209.7	5.8M	\$83.0	39.6%	\$126.8
R1 KingChis84	6	36.9M	\$180.8	13.9M	\$198.8	110.0%	(\$18.0)
KingOf Diamonds <sup>(4)</sup>	7	33.6M	\$164.6	7.0M	\$100.1	60.8%	\$64.5
F.O.E Undeluke	8	33.1M	\$162.2	10.8M	\$154.5	95.2%	\$7.7
LaYzE	9	32.9M	\$161.2	13.3M	\$190.2	118.0%	(\$29.0)
LS Jordan	10	30.8M	\$150.9	9.7M	\$138.4	91.7%	\$12.5
ICEKING	11	30.6M	\$149.9	50.3M	\$719.4	479.8%	(\$569.5)
CHRISRUGER <sup>(4)</sup>	12	29.2M	\$143.1	7.2M	\$103.0	72.0%	\$40.1
Giveaway fun <sup>(4)</sup>	13	28.4M	\$139.2	6.8M	\$97.3	69.9%	\$41.9
G HHardhead777	14	27.2M	\$133.3	9.8M	\$139.6	104.7%	(\$6.3)
Crisrocks6 <sup>(4)</sup>	15	25.4M	\$124.5	6.9M	\$98.7	79.3%	\$25.8
THEREALFIREGOD	16	25.4M	\$124.5	28.8M	\$411.9	331.0%	(\$287.4)
Ayo Kam <sup>(4)</sup>	17	24.5M	\$120.0	6.8M	\$97.3	81.0%	\$22.8
Tkaye	18	24.1M	\$118.1	9.3M	\$133.3	112.9%	(\$15.2)
SarcasmQueenn <sup>(4)</sup>	19	24.0M	\$117.6	6.2M	\$88.7	75.4%	\$28.9
Kate7 <sup>(4)</sup>	20	22.4M	\$109.8	6.0M	\$85.8	78.2%	\$23.9
BIRDMAN7000 <sup>(4)</sup>	21	21.0M	\$102.9	6.3M	\$90.1	87.6%	\$12.8
TomVape FFG	22	20.0M	\$98.0	9.6M	\$137.4	140.3%	(\$39.4)
Fletch-Read Bio	23	18.7M	\$91.6	7.6M	\$108.3	118.2%	(\$16.6)
JustKimberly <sup>(4)</sup>	24	18.5M	\$90.6	6.8M	\$97.3	107.3%	(\$6.6)
LUCKY 2-LIT <sup>(4)</sup>	25	18.3M	\$89.7	5.8M	\$83.0	92.5%	\$6.7
2HIGH4LIFE tv <sup>(4)</sup>	26	18.3M	\$89.7	6.1M	\$87.2	97.3%	\$2.4
ThugLife	27	17.7M	\$86.7	11.8M	\$168.8	194.6%	(\$82.0)
Brady100 <sup>(4)</sup>	28	17.4M	\$85.3	5.2M	\$74.4	87.2%	\$10.9
David Bush <sup>(4)</sup>	29	17.1M	\$83.8	5.5M	\$78.7	93.9%	\$5.1
Talin Silva <sup>(4)</sup>	30	16.5M	\$80.8	1.8M	\$25.7	31.8%	\$55.1
<b>Total</b>		<b>903.6M</b>	<b>\$4,427.6</b>	<b>327.7M</b>	<b>\$4,687.4</b>	<b>105.9%</b>	<b>(\$259.8)</b>
<b>Average</b>		<b>30.1M</b>	<b>\$147.6</b>	<b>10.9M</b>	<b>\$156.2</b>	<b>105.9%</b>	<b>(\$8.7)</b>

(1) Top broadcasters ranked by the amount of gifts received.

(2) Broadcaster receives \$4.9K per 1M diamonds upon cash-out. Represents net value after payment of commission to app store and CMCM.

(3) Based on average coin price of \$14.3K per 1M coins purchased.

(4) # of coins purchased for fans estimated based on the Level that broadcaster has achieved on the app. Each level equates to an estimated 100K coins purchased.

- **We believe the majority of the top 30 broadcaster accounts are controlled by CMCM:** While one would think the primary motivation for these broadcasters is to make money, most them appear to have no interest in doing so. In our view, the most likely explanation for this puzzling behavior is that these broadcasters (i.e. broadcasters who have given away 70% or more of their earnings) are CMCM employees and their accounts are under the Company's control. As we will later explain in more detail, we think based on the body of evidence collected, that CMCM is using these broadcaster accounts in a scheme to inflate gifting on the app.

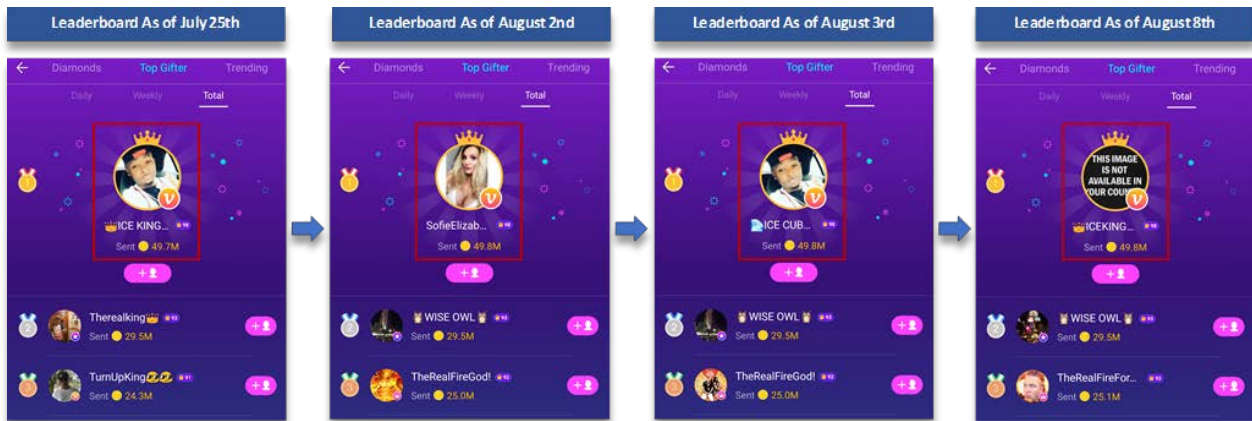
Furthermore, our in-app research indicates that former employee claims – that CMCM uses company controlled accounts to increase gifting on Live.me – likely have merit, as detailed in the following two subsections.

### Bots Gone Wild? Live.me's Top Two Gifter Accounts Appear to be Funded and Controlled by CMCM

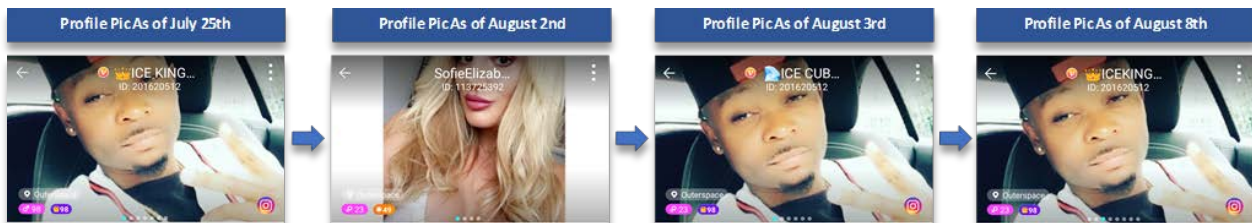
We observed the accounts of Live.me's top 2 gifters over time – who have collectively bought \$1.1m worth of gifts over the ~1.5 years since Live.me's inception – and witnessed the same bizarre and random activity in both accounts, suggesting a link between the two accounts and, potentially, they are operated by bots; the accounts appear to be controlled by a common entity. Of course, we believe that entity is... CMCM.

(Note: For a comprehensive primer on the use of bots by dishonest social media platforms, read [Ashley Madison Code Shows More Women, and More Bots.](#))

- **We observed bizarre and random, potentially bot-driven, changes made to the user profile of the #1 gifter:** Over a period of about two weeks, we observed highly unusual and frequent changes to the profile of the #1 ranked gifter on Live.me. From July 25<sup>th</sup> to August 8<sup>th</sup>, the user name of this account changed a total of three times from Ice King on July 25<sup>th</sup> to SofieElizabeth on August 2<sup>nd</sup> to Ice Cube on August 3<sup>rd</sup> and finally back to IceKing on August 8<sup>th</sup> (this time with no space between "Ice" and "King"):



Even more unusual than the frequent name changes was this person's apparent transformation from a black male on July 25<sup>th</sup> to a white female on August 2<sup>nd</sup> and then subsequent transformation back to the same black male on August 3<sup>rd</sup>:

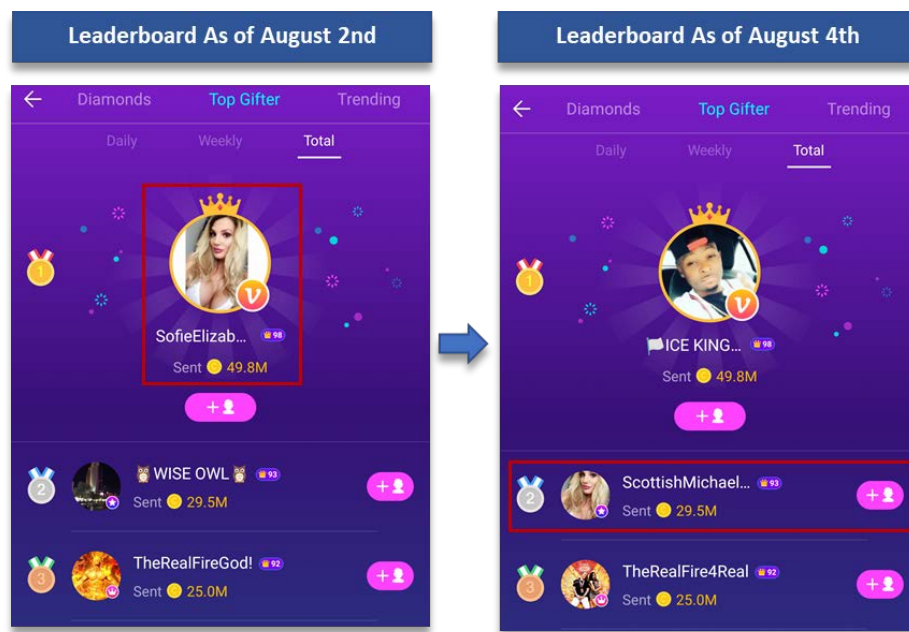




- **We observed the same type of strange activity in the user profile of the #2 gifter:** Like the #1 gifter, the #2 gifter's name changed a total of three times over the span of about two weeks from Therealking on July 25<sup>th</sup> to Wise Owl on August 2<sup>nd</sup> to ScottishMichael on August 4<sup>th</sup> and then finally back to Wise Owl on August 7<sup>th</sup>. During that same time, like the #1 ranked gifter once again, this user's profile pic also changed several times.



- **Bots on bad code? Live.me's #1 and #2 ranked gifters used the same exact profile pic on different dates.** Specifically, the #2 ranked gifter's profile picture on August 4<sup>th</sup> was the same as the #1 ranked gifter's profile picture on August 2<sup>nd</sup>.



- **We believe these are fake accounts controlled by the same entity:** We believe the top two gifters on Live.me must be fake accounts. A legitimate user, in our view, would not make such frequent and nonsensical changes to their profiles. We also believe that these accounts must be controlled by the same entity. We believe it is not likely two unrelated entities would both make such frequent, similar, and bizarre changes to their profiles, or that the top 2 gifters on the entire app would use the same profile pic on different days.
- **We believe these accounts must belong to CMCM:** It also stands to reason that the accounts of the top two gifters on Live.me must belong to CMCM. Based on data provided on Live.me's gifter leaderboard, these two users have spent a combined total of over \$1.1m on gifts for broadcasters! We cannot think of another party, besides CMCM, that would have the funds as well as the incentive to operate illegitimate accounts and give away \$millions.

## The Majority of the Top 30 Ranked Gifter Accounts Appear to be Funded and Controlled by CMCM

Looking beyond Live.me's top two gifters, the other top ranked gifters on the app are also spending unbelievable amounts of money. We find it hard to believe that real users would have the means or willingness to spend their hard-earned money so frivolously. As a result, we believe the majority of the top 30 gifter accounts on Live.me must be funded and controlled by CMCM.

Live.me publishes a leaderboard of its top 30 gifters, ranking users by the amount of money spent on gifts. As of September 6<sup>th</sup>, the top 30 gifters have spent an estimated average of \$199.2K on gift purchases for broadcasters since inception! Even when excluding the top two gifters, whom we believe to be fake, we estimate the average is still well into six-figures at almost \$172.6K. Also, it is important to keep in mind that Live.me launched less than 1.5 years ago, meaning that this money was spent in a very compressed timeframe.

A summary of Live.me's gifter leaderboard is provided below:

**Top 30 Gifters: Total Amount Spent on Gift Purchases (as of Sep 6th)**

(\$ in thousands)	Rank <sup>(1)</sup>	Gifts Purchased		Name	Rank <sup>(1)</sup>	Gifts Purchased	
		# of Coins	\$ Value <sup>(2)</sup>			# of Coins	\$ Value <sup>(2)</sup>
ICEKING	1	50.3M	\$719.4	TheRealSam TRS	16	10.5M	\$150.2
WISE OWL	2	29.6M	\$423.3	G GHardhead777	17	9.8M	\$139.6
THEREALFIREGOD	3	28.8M	\$411.9	LS Jordan	18	9.7M	\$138.4
TurnUpKing	4	26.6M	\$380.4	TomVape FFG	19	9.6M	\$137.4
SammieFreakingFirth	5	22.0M	\$314.6	J A M A L	20	9.6M	\$137.2
Legendary Nick	6	17.3M	\$247.4	Tkaye	21	9.3M	\$133.3
King Salmon WG NBW	7	15.4M	\$220.3	WHISKEYGIRL	22	9.1M	\$130.0
R1 KingChis84	8	13.9M	\$198.8	GOD REAPER GRF	23	8.8M	\$125.1
LaYzE	9	13.3M	\$190.2	ILOCKMAN	24	8.6M	\$122.3
Deleted	10	13.0M	\$185.9	Christopher	25	8.4M	\$120.1
ThugLife	11	11.8M	\$168.8	MrGrownStylez	26	8.4M	\$120.1
TheRealKatherineRojas	12	11.4M	\$163.0	Fletch-Read Bio	27	7.6M	\$108.3
MoNiCAsaVaGE	13	11.2M	\$160.2	Ghost Ryder	28	7.6M	\$108.1
F.O.E Uncleluke	14	10.8M	\$154.5	LM 737488 49D74B2	29	7.5M	\$107.8
David McVey	15	10.5M	\$150.2	BretTV (SFL)	30	7.5M	\$107.4

<b>Total</b>	<b>417.7M</b>	<b>\$5,974.5</b>
<b>Total (excl Top 2)</b>	<b>337.8M</b>	<b>\$4,831.7</b>
<b>Average</b>	<b>13.9M</b>	<b>\$199.1</b>
<b>Average (excl Top 2)</b>	<b>12.1M</b>	<b>\$172.6</b>

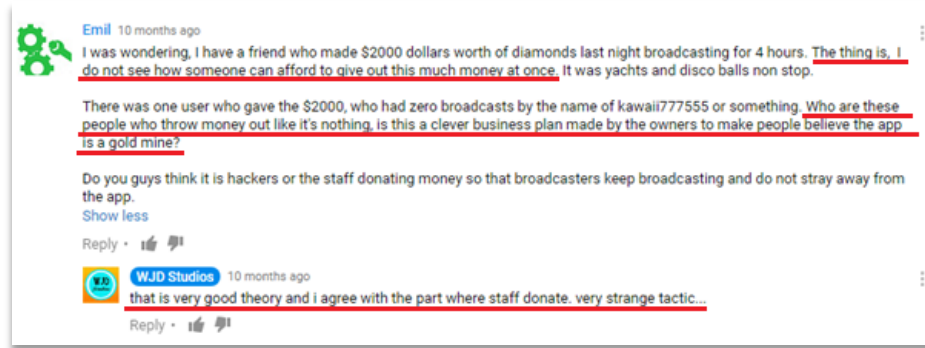
(1) Live.me ranks top gifters by the amount of gifts purchased.

(2) Based on average coin price of \$14.3K per 1M coins purchased.

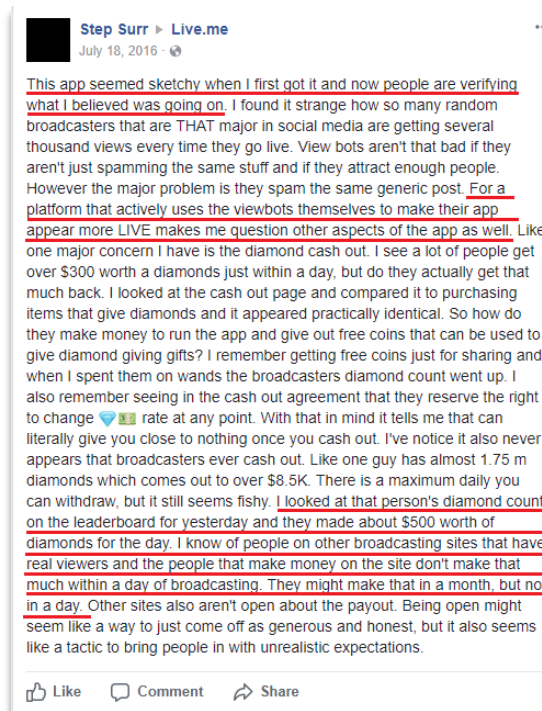
## Actual Live.me Users also Suspect that CMCM is Funding Gifting on the App

The levels of gifting taking place on Live.me are so unbelievable, that even users are left scratching their heads speculating whether CMCM is funding the gift purchases:

- **In a comment posted online, a Live.me user speculated whether CMCM was funding the gifting on the app:** In the comments section of a [YouTube video](#), a Live.me user noted that a random user was giving out \$thousands of gifts during a broadcast. This individual expressed disbelief that a legitimate user would "throw money out like it's nothing" and speculated whether the gifter was affiliated with CMCM:



- **Another Live.me user expressed similar doubts, questions the legitimacy of gifting on Live.me:** In a comment posted on [Facebook](#), another Live.me user expressed a great deal of skepticism over the legitimacy of the gifting on the app. This user noted that a large portion of Live.me's users appeared to be fake accounts or bots. This user also noted that the amount of gifts that Live.me broadcasters were receiving in a day was as much as what broadcasters on other comparable apps were making in a month. Given that other live streaming apps appeared to have more "real viewers" than Live.me, this large discrepancy in gifting did not make sense to him/her:

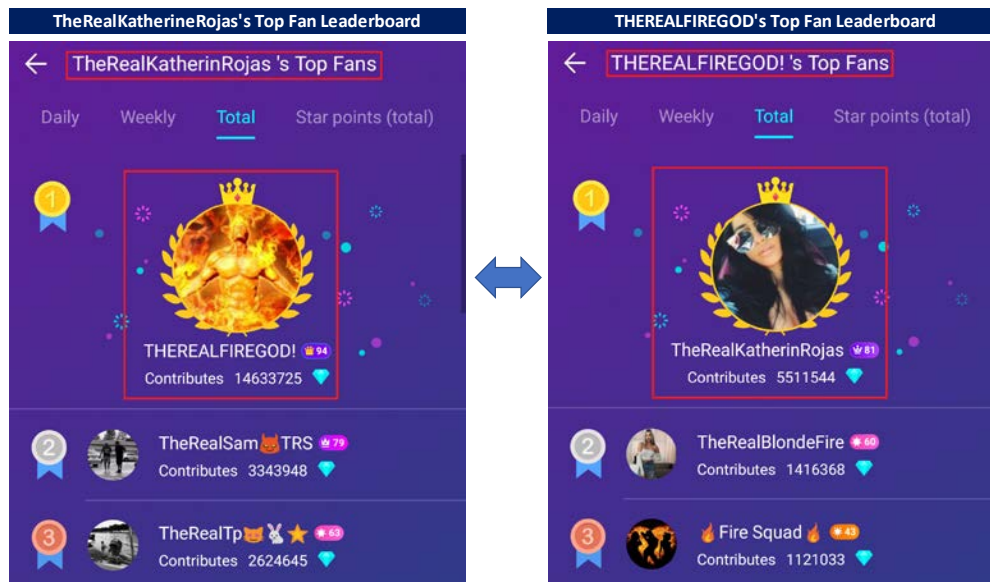


## V. Gift Cycling: The Most Cost-Effective Way to Carry Out a Cash-Consuming Scheme

Not only does the evidence presented indicate CMCM is using fake gifter and broadcaster accounts to inflate the gifting on Live.me, additional evidence presented in this section suggests CMCM is cycling gifts back and forth between these accounts in order to inflate gifting in the most cost-effective manner. As our research demonstrates, employing this strategy is much cheaper for CMCM than other alternatives to inflate revenue.

- **Top broadcasters are engaging in rampant gift cycling with their #1 ranked fans:** We have discovered that top broadcasters and their #1 ranked fans are engaging in rampant gift cycling on the app.

Included in the profile of every Live.me user is a top fans leaderboard which ranks fans based on the amount of gifts (i.e. diamonds) they have sent to the user. TheRealKatherineRojas was the #1 ranked user on Live.me's broadcaster leaderboard as of September 6<sup>th</sup>. TheRealKatherineRojas's #1 ranked fan was THEREALFIREGOD!, who had sent her a total of 14.6m diamonds. Interestingly, THEREALFIREGOD's top fan was none other than TheRealKatherineRojas, who had sent him a total of 5.5m diamonds. They were each other's #1 fan:



As we noted earlier, our research indicates broadcasters on Live.me only take a ~35% cut of the gifts they receive during live streams. Because of this, TheRealKatherineRojas has actually spent ~\$7.1k more on gifts for THEREALFIREGOD! than what she has received (\$71.7K received vs \$78.8K spent). In other words, she has sent all the money she received from THEREALFIREGOD! right back to him and then some!

#### TheRealKatherineRojas - Estimated Net Earnings/(Losses) from Top Fan (\$ in thousands)

Diamond Value of Gifts Received	14.6M
x Net Value per 1M Diamonds <sup>(1)</sup>	\$4.9
<b>Total Net Value of Gifts Received from Top Fan</b>	<b>\$71.7</b>
Diamond Value of Gifts Purchased	5.5M
# of Virtual Coins Needed to Purchase Gifts	5.5M
x Price per 1M Virtual Coins <sup>(2)</sup>	\$14.3
<b>Total Cost of Gifts Purchased for Top Fan</b>	<b>\$78.8</b>
<b>Net Earnings / (Loss) from Top Fan</b>	<b>(\$7.1)</b>

(1) PP estimate. Broadcaster receives \$4.9K per 1M diamonds upon cash-out. Represents net value after payment of commission to app store and CMC.

(2) PP estimate. Average cost of 1M virtual coins is \$14.3K.

This unusual behavior is not isolated to TheRealKatherineRojas or a few accounts. The majority of the top 30 broadcasters on Live.me are engaging in gift cycling with their #1 ranked fans. Our analysis indicates (as shown in the table below) that 19 of the top 30

broadcasters on Live.me have spent 70% or more of their earnings on gifts for their #1 fan, and that in total, the top 30 broadcasters on Live.me have received \$479.4K and spent \$851.8K on their #1 fan. Thus, on an overall basis, the top 30 broadcasters have given all their earnings and then some right back to their top fan.

**Analysis of Top 30 Broadcasters: Net Earnings From Top Fan (As of Sep 6th)**

(\$ in thousands)	Broadcaster	Name of	Gifts Received From Top Fan		Gifts Purchased For Top Fan		Net
	Rank <sup>(1)</sup>	Top Fan <sup>(2)</sup>	# of Diamonds	\$ Value <sup>(3)</sup>	# of Coins <sup>(4)</sup>	\$ Value <sup>(5)</sup>	Earnings
TheRealKatherineRojas	1	THEREALFIREGOD	14.6M	\$71.7	5.5M	\$78.8	(\$7.1)
TurnUpKing	2	MoNiCaSaVaGE	6.4M	\$31.2	4.2M	\$60.2	(\$29.0)
Kristina Plisko	3	Ramos Is	2.3M	\$11.3	0.0M	\$0.0	\$11.3
SammieFreakingFirth	4	ICEKING	1.7M	\$8.2	0.3M	\$4.4	\$3.8
Ashcatash	5	SC19	0.9M	\$4.2	0.1M	\$0.8	\$3.5
R1 KingChis84	6	The2Real Jaderama	1.5M	\$7.5	0.6M	\$9.0	(\$1.5)
KingOf Diamonds	7	IceKing	2.1M	\$10.4	0.6M	\$7.9	\$2.4
F.O.E Undeluke	8	michelle F.O.E	0.6M	\$3.0	0.1M	\$1.4	\$1.6
LaYzE	9	ILockman	2.5M	\$12.4	1.3M	\$18.5	(\$6.1)
LS Jordan	10	NoFamLitQueen	2.6M	\$12.6	1.0M	\$14.0	(\$1.4)
ICEKING	11	ThugLife	9.0M	\$43.9	13.7M	\$195.7	(\$151.8)
ChrisRuger	12	AlishaPatricia	1.7M	\$8.4	0.6M	\$8.0	\$0.4
Giveaway fun	13	Elit3Pixie	0.9M	\$4.6	0.6M	\$7.9	(\$3.3)
G GHardhead7Emperor	14	TKaye	1.8M	\$8.9	1.2M	\$17.9	(\$8.9)
Crisrocks6	15	SmileyRocks	1.4M	\$6.7	0.5M	\$6.6	\$0.1
THEREALFIREGOD!	16	TheRealKatherineRoja	5.5M	\$27.0	14.6M	\$209.3	(\$182.3)
Ayo Kam	17	AyoKayWantsCandy	1.0M	\$4.9	0.3M	\$3.8	\$1.2
Tkaye	18	G GHardhead7Empero	1.2M	\$6.1	1.8M	\$26.0	(\$19.9)
SarcasmQueenn	19	Emhail Alma	3.0M	\$14.5	0.0M	\$0.1	\$14.4
Kate7	20	MADGE 7	1.3M	\$6.4	0.2M	\$3.6	\$2.8
BIRDMAN7000	21	SUGARQUEEN7000	0.9M	\$4.2	0.3M	\$4.3	(\$0.2)
TomVape FFG	22	TheRealSandman614	0.6M	\$3.1	0.2M	\$3.4	(\$0.3)
Fletch-Read Bio	23	Kat Undone	2.7M	\$13.2	1.4M	\$20.5	(\$7.4)
JustKimberly	24	WISE OWL	3.0M	\$14.8	0.0M	\$0.0	\$14.8
LUCKY 2-LIT	25	SunKiss	0.5M	\$2.2	0.0M	\$0.7	\$1.5
2High4Life tv	26	KingFamBam JerryB	0.7M	\$3.7	0.0M	\$0.5	\$3.2
ThugLife	27	ICEKING	13.7M	\$67.0	9.0M	\$128.2	(\$61.1)
Brady100	28	LEGENDS 3.5	3.0M	\$14.6	1.4M	\$20.1	(\$5.5)
David Bush	29	Laura Bush	0.4M	\$2.1	0.0M	\$0.3	\$1.9
Talin Silva	30	Live.me Official Accou	10.3M	\$50.5	0.0M	\$0.0	\$50.5
<b>Total</b>			<b>97.8M</b>	<b>\$479.4</b>	<b>59.6M</b>	<b>\$851.8</b>	<b>(\$372.4)</b>
<b>Average</b>			<b>3.3M</b>	<b>\$16.0</b>	<b>2.0M</b>	<b>\$28.4</b>	<b>(\$12.4)</b>

(1) Top broadcasters ranked by the amount of gifts received.

(2) Represents the fan that has purchased the most gifts for the broadcaster during a given time period.

(3) Broadcaster receives \$4.9K per 1M diamonds upon cash-out. Represents net value after payment of commission to app store and CMC.

(4) Based on a 1:1 coin to diamond exchange ratio. On Live.me, 1 coin, 10 coins and 100 coins must be used to purchase a gift worth 1 diamond, 10 diamonds and 100 diamonds, respectively.

(5) Based on average coin price of \$14.3K per 1M coins purchased.

- **Top broadcasters are cycling gifts with not only their #1 fan, but many others as well:** As we highlighted previously, the top 30 broadcasters on Live.me have collectively earned an estimated \$4.4M in gifts but have spent \$4.7M on gifts for other users. Based on this, it appears that most of the top 30 broadcasters on Live.me are cycling gifts with numerous fans, not just their top ranked ones. It also appears that the majority of the gifting associated with these top broadcaster accounts is from gift cycling.
- **Countless other top ranked users (outside the top 30) are engaging in gift cycling:** Live.me also publishes a weekly broadcaster leaderboard in which users are ranked based on the amount of gifts they received in a given week. Our research indicates that the users on these leaderboards were also engaging in a significant amount of gift cycling with their fans.

For example, provided in the table below is a summary of Live.me's weekly leaderboard published on September 6<sup>th</sup>. Based on our analysis, 17 of the 30 broadcasters on this leaderboard spent 70% or more of their earnings on gifts for their #1 fan over a one-week

period. Per the table below, in total we estimate these broadcasters received \$26.3K and spent \$45.5K on their #1 fan, indicating that these users were engaging in a substantial amount of gift cycling.

**Analysis of Top 30 Broadcasters on Weekly Leaderboard: Net Earnings From Top Fan (as of Sep 6th)**

(\$ in thousands)	Broadcaster	Name of	Gifts Received From Top Fan		Gifts Purchased For Top Fan		Net
	Rank <sup>(1)</sup>	Top Fan <sup>(2)</sup>	# of Diamonds	\$ Value <sup>(3)</sup>	# of Coins <sup>(4)</sup>	\$ Value <sup>(5)</sup>	Earnings
TheRealKatherineRojas	1	THEREALFIREGOD	807.5K	\$4.0	291.0K	\$4.2	(\$0.2)
LEGENDS 3	2	LEGENDS 3.5	630.0K	\$3.1	353.7K	\$5.1	(\$2.0)
THEREALFIREGOD!	3	TheRealKatherineRoja	291.0K	\$1.4	807.5K	\$11.5	(\$10.1)
TurnUpKing	4	MonroeMarie	141.8K	\$0.7	85.2K	\$1.2	(\$0.5)
LM-Karen	5	LM-AD HD	175.3K	\$0.9	79.1K	\$1.1	(\$0.3)
KRIS	6	BobbyHoward	131.1K	\$0.6	62.5K	\$0.9	(\$0.3)
LaYzE	7	Smoke	82.7K	\$0.4	42.8K	\$0.6	(\$0.2)
Michael	8	Ambush 5213	415.5K	\$2.0	0.0K	\$0.0	\$2.0
LS JORDAN	9	MR G LIT	77.2K	\$0.4	37.4K	\$0.5	(\$0.2)
Sarah	10	TREE	399.5K	\$2.0	127.6K	\$1.8	\$0.1
Tonka ontana	11	Lena ontana	38.8K	\$0.2	0.0K	\$0.0	\$0.2
LEGENDS 3.5	12	LEGENDS 3	353.7K	\$1.7	630.0K	\$9.0	(\$7.3)
MoneyMoeFamous	13	ANNA SOPHIA	64.8K	\$0.3	82.1K	\$1.2	(\$0.9)
BethBella	14	Frockin Lit	185.8K	\$0.9	20.0K	\$0.3	\$0.6
RaraLove	15	Sexy Boss	241.0K	\$1.2	9.6K	\$0.1	\$1.0
CaliGirl	16	Frankie1000rr	51.7K	\$0.3	20.0K	\$0.3	(\$0.0)
BretTV (SFL)	17	IGotThickness SFL	77.1K	\$0.4	92.4K	\$1.3	(\$0.9)
Swimgoggles20	18	MrLixx	22.6K	\$0.1	0.0K	\$0.0	\$0.1
ElectricEyez	19	GS GILLYGILL	90.8K	\$0.4	197.3K	\$2.8	(\$2.4)
R1 KingChis84	20	FamousRocket	32.3K	\$0.2	0.0K	\$0.0	\$0.2
SUGARQUEEN7000	21	Ronnie Scrima	220.8K	\$1.1	0.0K	\$0.0	\$1.1
CHRISRUGER	22	AJohnson45	34.7K	\$0.2	3.0K	\$0.0	\$0.1
MadisonDoane	23	daveb51	172.8K	\$0.8	87.2K	\$1.2	(\$0.4)
GS GILLYGILL	24	ElectricEyez	197.3K	\$1.0	90.8K	\$1.3	(\$0.3)
MilitaryMike	25	Renee37 ontana	79.8K	\$0.4	24.3K	\$0.3	\$0.0
Danielle Kay	26	OMG ~cuddles	61.1K	\$0.3	0.0K	\$0.0	\$0.3
Sofie Elizabeth	27	king eman	78.1K	\$0.4	12.1K	\$0.2	\$0.2
Julia Raleigh	28	Moody112233	72.8K	\$0.4	0.0K	\$0.0	\$0.4
SpongeBob	29	kaak0	43.5K	\$0.2	0.0K	\$0.0	\$0.2
CHRIS (SFL)	30	Alien beauty	104.7K	\$0.5	24.5K	\$0.4	\$0.2
<b>Total</b>			<b>5,375.7K</b>	<b>\$26.3</b>	<b>3,180.0K</b>	<b>\$45.5</b>	<b>(\$19.1)</b>
<b>Average</b>			<b>179.2K</b>	<b>\$0.9</b>	<b>106.0K</b>	<b>\$1.5</b>	<b>(\$0.6)</b>

(1) Top broadcasters ranked by the amount of gifts received.

(2) Represents the fan that has purchased the most gifts for the broadcaster during a given time period.

(3) Broadcaster receives \$4.9K per 1M diamonds upon cash-out. Represents net value after payment of commission to app store and CMCM.

(4) Based on a 1:1 coin to diamond exchange ratio. On Live.me, 1 coin, 10 coins and 100 coins must be used to purchase a gift worth 1 diamond, 10 diamonds and 100 diamonds, respectively.

(5) Based on average coin price of \$14.3K per 1M coins purchased.

- **In our view, the majority of the gifting on Live.me is likely fabricated:** Based on the time periods in which we assessed the business, it appears that most of the gifting associated with the top broadcaster accounts on Live.me is from gift cycling between fake accounts, meaning between CMCM and itself.

### Gift Cycling Is A (Relatively) Cheap Way to Inflate the Gifting (i.e. Revenue) On Live.me

If CMCM wanted to inflate its revenue, what benefit does it derive from gift cycling between fake accounts? In addition to the obvious reason of inflating the gifting on Live.me, employing this strategy is much cheaper than other alternatives.

For example, if CMCM purchases a gift for a legitimate broadcaster through a company-controlled account, we estimate that a 30.0% cut goes to the app-store, a 34.3% cut goes to the broadcaster, and the remaining 35.7% goes back to CMCM. By comparison, if CMCM uses



its own gifter account to purchase a gift for its own broadcaster account, it only has to give an estimated 30.0% cut to the app store. Since it controls the broadcaster account, the Company would recoup the remaining 70.0%.

To further illustrate, in order to inflate the gifting on Live.me by \$100, CMCM would have to spend an estimated \$64.3 if it purchases the gift for a legitimate broadcaster. By comparison, the Company would only have to spend an estimated \$30.0 if it purchases the gift for its own broadcaster account. This is 53.3% less than the \$64.3 it would spend in the first scenario.

Economics of Gift Cycling vs. Gift Purchase For A Real User*		
	Purchase For Real User	Gift Cycling
Gift Purchase	\$100.0	\$100.0
30.0% App-Store Commission	\$30.0	\$30.0
34.3% Broadcaster Commission	\$34.3	\$0.0
<b>Total Amount Spent by CMCM</b>	<b>\$64.3</b>	<b>\$30.0</b>
<b>Difference - %</b>		<b>(53.3%)</b>
<b>Difference - \$</b>		<b>(\$34.3)</b>

\* Prescience Point estimates.

Accordingly, if CMCM were inclined to inflate its revenue, gift cycling is the least costly/most efficient way to do it.

## VI. Prescience Point Estimates that ~87% of Q2'17 Live.me Revenue is Fabricated

As we've demonstrated, our research indicates that most of the top broadcaster and gifter accounts on Live.me are controlled by CMCM and most of these top accounts are engaged in rampant gift cycling; accordingly, we believe most gifts purchased on Live.me are purchased by CMCM, for itself, and is therefore illegitimate. As a result, we believe that our calculation of actual Live.me revenue based on App Annie Intelligence estimates overstates its financial performance; in other words, we believe that legitimate Live.me revenue was far less than \$16.3m in Q2'17.

To derive a more realistic estimate of Live.me's financial performance, we look to its closest comp – YouNow. Given that YouNow appears to have more active users than Live.me, we believe that actual Live.me revenue was *at most* equivalent to YouNow's, and likely far less. As such, we believe it is conservative to use YouNow revenue as a proxy for Live.me's.

We calculate, based on App Annie Intelligence data, that YouNow generated \$4.0m of in-app gross revenue in Q2'17. By comparison, Live.me accounted for an estimated \$31.3m of CMCM reported revenue in Q2'17. Thus, we estimate that CMCM inflated its Live.me revenue in Q2'17 by \$27.3m, or \$109.1m annualized.

Estimated Overstatement of Q2'17 Live.me Revenue		
(\$ in millions)	Q2'17	
	3 Mos.	Annualized
"Reported" Live.me Revenue <sup>(1)</sup>	\$31.3	\$125.2
PP Estimate of Live.me Revenue <sup>(2)</sup>	\$4.0	\$16.1
<b>Magnitude of Overstatement - \$</b>	<b>\$27.3</b>	<b>\$109.1</b>
<b>Magnitude of Overstatement - %</b>	<b>679.7%</b>	<b>679.7%</b>

Sources: CMCM public filings and disclosures; PP research opinions  
 (1) Prescience Point estimates. Based on reported Q2'17 content revenue of \$31.3m (RMB 218m), less estimated News Republic revenue of \$0.9m  
 (2) PP estimate. Assumes Live.me gross revenue equivalent to YouNow estimated Q2'17 gross revenue of \$4.0m (PP's custom calculation based on App Annie Intelligence data)

## Inflation of Q2'17 Utility Revenue – Is More Than 57% Fabricated?

We believe CMCM's utility revenue is also fabricated. Our research included interviews of several former employees we believe to have detailed knowledge of CMCM's utility business, including three former managers and a former software engineer. Every one of these individuals expressed concern over the accuracy of CMCM's utility business, with most expressing skepticism over the company's public financial reporting or internally distributed metrics. One expressed doubt about CMCM's reported MAUs.

We performed a thorough analysis of the utility business to determine the veracity of these claims. Based on our findings, which are summarized below, they have merit:

- **Total reported utility revenue was \$121.0m in Q2'17 or \$484.0m on a run-rate basis:** CMCM reported that its total utility revenue was \$121.0m. We estimate that mobile apps accounted for \$110.1m (91.0%) of this amount, while PC apps accounted for just \$10.9m (9.0%).
- **CMCM's reported mobile MAUs appear significantly overstated:** From Q2'15 to Q2'17, CMCM reported a 17.7% increase in its mobile MAUs. However, our calculations based on App Annie Intelligence data suggest the MAUs of CMCM's core mobile utility apps declined by 49.9% during that same time period. Accordingly, we conclude the Company has grossly inflated its reported mobile MAUs.
- **The Company's mobile utility revenue appears to be overstated as well:** From Q2'15 to Q2'17, "Reported" mobile utility revenue increased by an estimated 35.9% from \$81.0m to \$110.1m. We do not believe this growth in mobile utility revenue is possible given that, as our analysis indicates, 1) the MAUs of CMCM's core mobile utility apps declined by an estimated 49.9% during this time and 2) the Company's largest customer – Facebook – significantly [reduced](#) the amount of CMCM utility inventory on its ad network. Given these headwinds, we believe that mobile utility revenue should, instead, have declined from Q2'15 to Q2'17.
- **Prescience Point estimates that more than 57% of reported utility revenue in Q2'17 was fabricated:** CMCM's "Reported" mobile utility revenue in Q2'15 was an estimated \$81.0m. By applying the 49.9% decrease in CMCM's core mobile utility MAUs from Q2'15 to Q2'17 to this amount, we estimate 'actual' mobile utility revenue of \$40.6m. Adding \$40.6m of mobile utility revenue to \$10.9m of PC utility revenue, we estimate that 'actual' total utility revenue was \$51.5m in Q2'17. Thus, we conclude that CMCM overstated its utility revenue in Q2'17 by \$69.5m, or \$277.9m annualized.

### Estimate of Overstatement of Q2'17 Utility Revenue

(\$ in millions)	Q2'17		Annualized	
	PP Estimate	"Reported" <sup>(1)</sup>	PP Estimate	"Reported"
Mobile Utility Revenue	\$40.6	\$110.1	\$162.3	\$440.3
PC Utility Revenue	\$10.9	\$10.9	\$43.7	\$43.7
<b>Total Utility Revenue</b>	<b>\$51.5</b>	<b>\$121.0</b>	<b>\$206.1</b>	<b>\$484.0</b>

#### Mobile Utility Revenue:

<b>Magnitude of Overstatement - \$</b>	<b>\$69.5</b>	<b>\$277.9</b>
<b>Magnitude of Overstatement - %</b>	<b>171.2%</b>	<b>171.2%</b>

#### Total Utility Revenue:

<b>Magnitude of Overstatement - \$</b>	<b>\$69.5</b>	<b>\$277.9</b>
<b>Magnitude of Overstatement - %</b>	<b>134.9%</b>	<b>134.9%</b>

Sources: CMCM public filings and disclosures, Prescience Point Research Opinions

(1) Prescience Point estimates. Assumes "Reported" Q2'17 mobile utility revenue equivalent to Q2'16 mobile marketing services revenue, and "Reported" Q2'17 PC utility revenue equivalent to reported Q2'17 total utility revenue less estimated Q2'17 mobile utility revenue.

## I. Quick Background on the Utility Business

Before discussing our findings in more detail, we have first provided below some background information on the utility business:

- **Brief description of CMCM's utility apps:** The Company's two most popular mobile utility apps are Clean Master and CM Security (formerly Security Master). Some of the Company's other mobile utility apps include Battery Doctor, CM Launcher, CM Browser, Photo Grid and CM Locker. CMCM's 2016 20-F refers to these 6 apps as its "core" utility applications, as do we in this report. CMCM also provides utility apps for the PC, but this accounts for only a small and declining portion of its utility business today.

The Company claims that its mobile utility apps will optimize a phone's performance by boosting its memory, extending its battery life, protecting it against security threats, etc. (As we discuss in a subsequent section, many experts believe these apps are functionally useless and potentially detrimental to a phone's performance.)

*Clean Master is a junk file cleaning, memory boosting and privacy protection tool"*

*CM Security, which we launched in January 2014 on the Android platform, is an anti-virus and security application for mobile devices.*

*Battery Doctor optimizes battery usage by utilizing our cloud-based application behavior library that contains power consumption characteristics of a number of mobile applications.*

- **Breakdown of Q2'17 utility revenue:** In Q2'17, reported utility revenue was \$121.0m which represented 68.3% of total reported revenue. Of this amount, as explained in the table above, we estimate that mobile accounted for 91.0% of reported utility revenue, while just 9.0% was from PC. Almost all of the revenue that the Company generates from its utility apps comes from in-app advertising.
- **Utility revenue and online marketing services revenue are almost equivalent:** From FY'14 to FY'16, CMCM included all its utility revenue in a business segment called "online marketing services." Beginning in Q1'17, CMCM changed its financial reporting by organizing its business segments by product line rather than by service. As a result, CMCM now reports utility revenue (mobile + PC) in a separate segment called "utility products and related services" (or, "utility revenue"), while online marketing services is no longer reported.

In some of the analysis to follow, we will be using online marketing services revenue as a proxy for utility revenue in periods prior to Q1'17. This makes sense given that 1) CMCM's online marketing services revenue came almost entirely from in-app advertising on its utility apps and 2) almost all of the utility app revenue comes from in-app advertising. In other words, online marketing services revenue and utility revenue are almost the same thing. (See Appendix for additional support for this assumption.)

## II. Former Employees: CMCM's Reported Utility Revenue and MAUs do not Add Up

We spoke with several former CMCM employees with detailed knowledge of the Company's utility business. These employees included 1) a former manager in the utility division, 2) another former manager in the utility division, 3) a former marketing manager, and 4) a former engineer in the utility division.

Every one of these individuals expressed concern over the accuracy of CMCM's utility business, with most expressing skepticism over the company's public financial reporting or internally distributed metrics. One expressed doubt about CMCM's reported MAUs. We summarize some of their most concerning claims and provide relevant extracts from our interviews in the following bullets:

- While internal numbers were showing that utility downloads and impressions were going down, reported revenue was somehow increasing at that time.

*Former Employee: I don't exactly know how they make up their number(s), definitely they do something for the public financial reports. People they watch the news and (the news) says "Cheetah Mobile has increased their revenue". (But) every weekly meeting we had, we definitely see the downloads is going down when I was working there...I mean they must do something to the numbers.*

*They're going down (downloads) and the impressions are going down too. They tried to push us to do something to see how can (we get) the users back and we tried really hard because I know it was a really hard year for us last year.*

- CMCM heavily guarded the number of active users, even inside the organization; they were even kept from executives and advertising sales staff.

*PP: What percentage of the users are active, do you think?...They report 600 million monthly active users, but I'm a little bit suspicious about that.*

*Former Employee: So that number is heavily, heavily guarded, even inside the organization. To the point that I will say not all executives get to see the real number of active users. So, when you, like me, work in advertising and are trying to sell advertising space, it's extremely hard to do if you don't know how many users you have to sell... but I would suspect it's significantly lower than that (600 million)*

- Most, if not all, of the advertising sales team in the US had recently left over an approximately 18-month timeframe because they were struggling to sign new business. (Note: Given how much the sales team was struggling, we think CMCM's reporting of growing utility revenues makes little sense.)

*Former Employee: Look at advertising sales in the US for example, I think you can probably go on LinkedIn and look at everybody who was part of the US advertising sales team and you've realized that over the past 18 months everybody's left. So, it's a pretty good sign that sales are not working if you have sales people leaving because sales people stay as long as they pay commission, so if they can't make commission they leave, right.*

- Often times numbers would be circulated internally that appeared to be inaccurate. (Note: his statement reflects very poorly on the company's financial controls.)

*PP: When you said that the numbers you calculated did not match what the company was disclosing, can you just be more specific?*

*Former Employee: On the ad platform we can know everything, which ads are served, what's the payout for which campaign, how many clicks it got, downloads, how much revenue they made every day. But to give you a sense of the mess it was - When I joined, if you are looking at the monthly revenue, and if you are taking the daily revenue and adding up every daily revenue for the month, it wouldn't match the monthly revenue.*

- Former colleagues who work in CMCM's advertising department had mentioned that the reported financials were "fake numbers."

*Former Employee (via a translator): These are all things that he has heard from...colleagues that are in the sales & marketing department, different departments, advertising department. From his understanding, these are fake numbers.*

(Note: Refer to the Appendix for more complete from conversations with these individuals.)

Based on our analysis, the concerns expressed by these former employees have merit.

### III. CMCM's Reported Mobile MAUs Appears to be Grossly Overstated

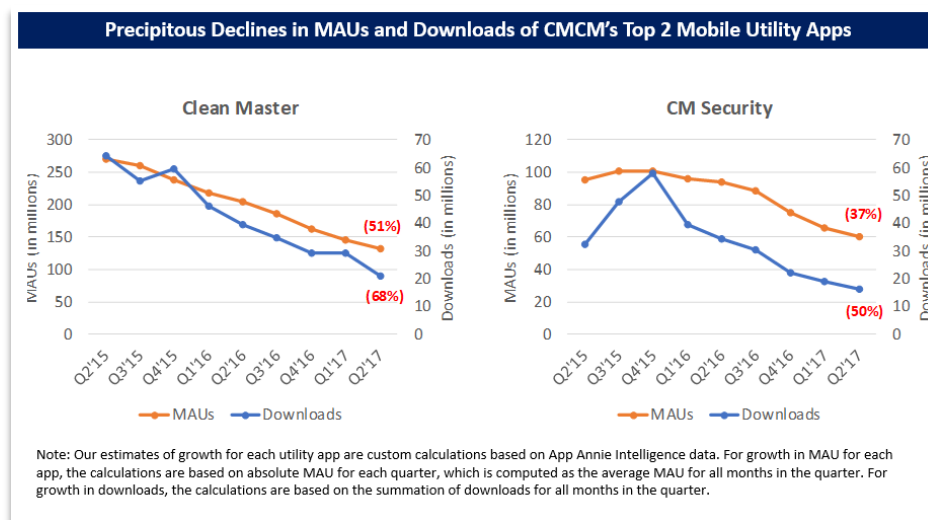
To begin with, our research indicates that the mobile MAUs reported by CMCM are likely fabricated. From Q2'15 to Q2'17, CMCM reported a 17.7% increase in mobile MAUs from 494m to 581m. However, our custom calculation based on App Annie Intelligence data indicates that MAUs of CMCM's core mobile utility apps declined by 49.9%! Given that utility apps account for the majority of its mobile MAUs – ~500m based on an interview of CMCM management – this large increase does not seem possible.

- Our calculations based on App Annie Intelligence data indicate that downloads and MAUs of all of CMCM's core utility apps have fallen off a cliff since peaking in Q2'15.

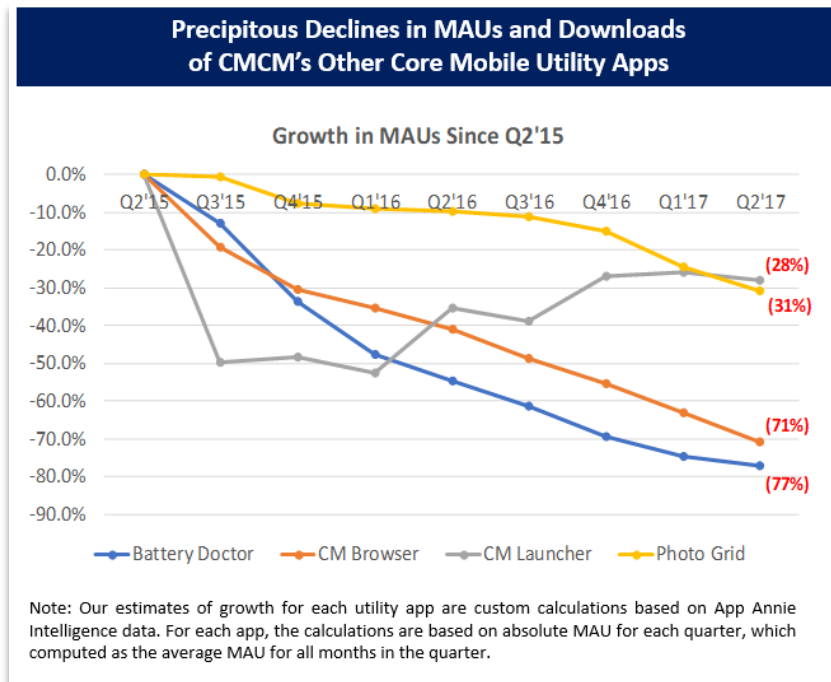
From Q2'15 to Q2'17,

- Clean Master downloads declined by 67.6%, and its average MAUs declined by 51.1%. (Note: We calculate based on App Annie Intelligence data that Clean Master accounted for approximately 26% of CMCM's Q2'17 mobile utility MAUs, based on ~500m total mobile utility MAUs,)
- CM Security downloads declined by 50.2%, and its average MAUs declined by 36.7%. (Note: We calculate based on App Annie Intelligence data that CM Security accounted for ~12% of CMCM's Q2'17 mobile utility MAUs, based on ~500m total mobile utility MAUs.

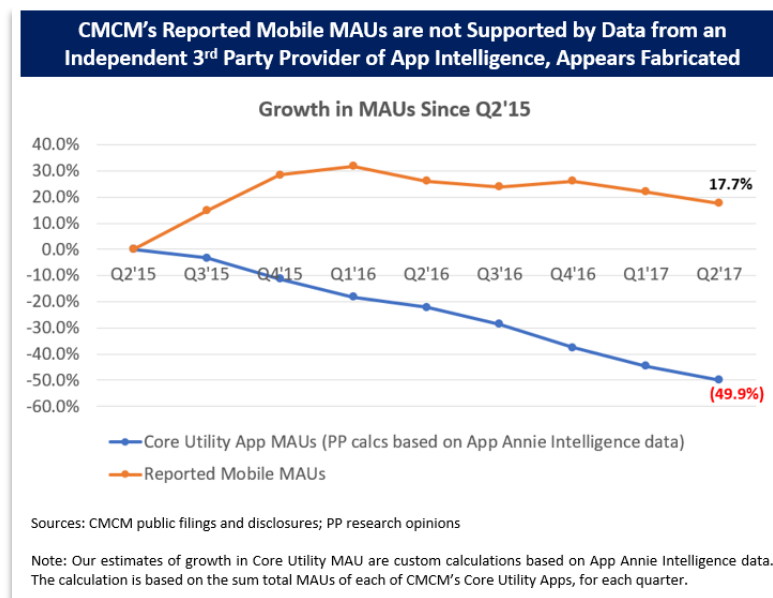
(Note: We calculate based on App Annie Intelligence data and ~500m total mobile utility MAUs, that Clean Master and CM Security together accounted for ~38% of CMCM's Q2'17 mobile utility MAUs.)



In fact, over the same period, the trend is just as bad for almost all of CMCM's other core utility apps.



- Given the sharp decline in utility users, CMCM appears to have fabricated the reported increase in mobile MAUs: Following on the above analysis, we estimate that on the whole, the average MAUs of CMCM's core mobile utility apps declined 49.9% from Q2'15 to Q2'17! During that same time period, CMCM inexplicably reported a 17.7% increase in its mobile MAUs:



- The divergence is too large to be explained by simple rounding error: Our calculations for growth in CMCM core utility MAU based on App Annie Intelligence estimates should be a close approximation of the company's reality. According to representatives from App Annie, mobile app MAU data reported on App Annie is very accurate, particularly for top-ranked apps.



As an example, she indicated that App Annie's estimates for Snapchat's (SNAP) QoQ MAU growth has been 99% correlated to actuals since 2014: *AA MAUs are .99 correlated when comparing QoQ growth against Snap's DAU metric since 2014.* She also indicated that App Annie's estimates for Twitter's (TWTR) YoY MAU growth have landed within 0%-2% of actuals for the past six quarters:

*Since TWTR only reports total MAUs and not mobile MAUs, it is important to look at the consistent trends in our dataset. We have found that dividing the YoY AA MAU growth rates by 2 is the best way to normalize for the substantial mobile growth that has taken place. By dividing by 2, AA MAU growth rates have landed within 0-2% of actual YoY growth rates in the past 6 quarters.*

We believe the mobile MAUs reported by CMCM are grossly inflated.

#### IV. CMCM's Reported Mobile Utility Revenue Also Appears to Be Grossly Overstated

From Q2'15 to Q2'17, CMCM's utility revenue from its mobile apps grew 35.9% from \$81.0m to \$110.1m, based on our estimates. We believe this growth is not possible given the severe headwinds the Company's core mobile utility apps have run into over the past two years. Thus, we believe CMCM has also fabricated its mobile utility revenue.

- **MAUs of mobile utility apps have dropped precipitously over the past two years:** As just detailed, we estimate MAUs of CMCM's core mobile utility apps to have declined 49.9% over the past two years. Given that almost half of the Company's mobile utility MAUs have seemingly disappeared, this should have significantly pressured the Company's mobile utility revenue.
- **Facebook has significantly reduced its business with CMCM:** Facebook significantly reduced the amount of CMCM inventory on its ad network in early 2016 after discovering that ads placed on CMCM's utility apps [did not perform](#) well. As a result, CMCM's revenue from Facebook has declined significantly over the past 1.5 years. Given that Facebook is the Company's largest customer, this should also have placed great pressure on utility revenue. (More details on Facebook's decision has been provided in a later section.)
- **In the face of severe headwinds, CMCM's mobile utility revenue has...increased?:** Our research indicates that CMCM's mobile utility revenue has actually *increased* by 35.9% over the past two years. We do not believe this large increase in mobile utility revenue is possible given the severe headwinds outlined above. Again, if anything, we think CMCM's mobile utility revenue should have decreased significantly.

CMCM's "Reported" Mobile Utility Revenue Defies Logic, Appears Fabricated									
"Reported" Mobile Utility Revenue Growth vs. Estimated MAU Growth of Core Utility Apps									
(All amounts in millions)	Q2'15	Q3'15	Q4'15	Q1'16	Q2'16	Q3'16	Q4'16	Q1'17	Q2'17
MAUs of Core Utility Apps									
Cumulative Growth Since Q2'15 - % <sup>(1)</sup>		(3.3%)	(11.2%)	(18.2%)	(22.1%)	(28.5%)	(37.4%)	(44.6%)	(49.9%)
"Reported" Mobile Utility Revenue <sup>(2)</sup>	\$81.0	\$102.0	\$117.8	\$118.5	\$110.1	\$121.3	\$125.0	\$118.5	\$110.1
Cumulative Growth Since Q2'15 - %		26.0%	45.5%	46.3%	35.9%	49.8%	54.4%	46.3%	35.9%

Sources: CMCM public filings and disclosures; PP research opinions  
 (1) Prescience Point custom calculation based on App Annie Intelligence data.  
 (2) Prescience Point estimates. Mobile utility revenue in Q2'15 to Q4'16 assumed to be equivalent to reported mobile marketing services revenue. Q1'17 and Q2'17 mobile utility revenue assumed to be equivalent to Q1'16 and Q2'16 mobile marketing services revenue, respectively, as mgmt indicated that mobile utility had remained flat YoY in Q1'17 and Q2'17.

## V. Is More Than 57% Of CMCM's Q2'17 Utility Revenue Fabricated?

To reiterate we believe the evidence suggests CMCM is grossly inflating its mobile utility revenue and by extension, its total utility revenue. By applying the historical growth in the Company's core mobile utility MAUs to its estimated mobile utility revenue, we can ballpark CMCM's 'actual' total utility revenue:

- Based on its public filings and disclosures, we estimate that CMCM's mobile utility revenue in Q2'17 was \$110.1m: CMCM reported that its total utility revenue was \$121.0m in Q2'17. Of this, we estimate \$110.1m was from mobile, while \$10.9m was from PC:

### Estimated Q2'17 Reported Utility Revenue by Platform

(\$ in millions)	Q2'17
Mobile Utility Revenue <sup>(1)</sup>	\$110.1
PC Utility Revenue <sup>(2)</sup>	\$10.9
Total Utility Revenue <sup>(3)</sup>	\$121.0

Sources: CMCM public filings and disclosures, Prescience Point research opinions

(1) Prescience Point estimate. Assumed to be equivalent to reported Q2'16 mobile marketing service revenue.


(2) Prescience Point estimate. Assumed to be equivalent to reported Q2'17 total utility revenue of \$121.0m, less estimated Q2'17 mobile utility revenue of \$110.1m.

(3) Actual total utility revenue reported by CMCM in Q2'17.

- We estimate that actual mobile utility revenue in Q2'17 was \$40.6m: CMCM's reported mobile marketing services revenue was \$81.0m in Q2'15. Thus, we estimate that the Company's mobile utility revenue in Q2'15 was also \$81.0m.

From Q2'15 to Q2'17, we estimate the MAUs of CMCM's core mobile utility apps decreased by 49.9%. We make the simplifying assumption this should have translated into a corresponding, equivalent decline in revenue, thereby estimating that the Company's actual mobile utility revenue was \$40.6m in Q2'17:

### Estimate of 'Actual' Q2'17 Mobile Utility Revenue

(\$ in millions)	Q2'17
Q2'15 Mobile Utility Revenue <sup>(1)</sup>	\$81.0
(x) Decline in Mobile Utility MAUs from Q2'15 to Q2'17 <sup>(2)</sup>	(49.9%)
Decline in Mobile Utility Revenue from Q2'15 to Q2'17	(\$40.4)
	
Q2'15 Mobile Utility Revenue <sup>(1)</sup>	\$81.0
Less: Decline in Mobile Utility Revenue from Q2'15 to Q2'17	(\$40.4)
<b>PP Estimate of Q2'17 Mobile Utility Revenue</b>	<b>\$40.6</b>

Sources: CMCM public filings and disclosures, Prescience Point research opinions

(1) Prescience Point estimate. Assumes Q2'17 mobile utility revenue equivalent to Q2'15 mobile marketing services revenue

(2) PP estimate. Prescience Point's custom calculation based on App Annie Intelligence data

- Prescience Point estimates that more than 57% of CMCM's reported utility revenue in Q2'17 was fabricated: Adding \$40.6m of est mobile utility revenue to \$10.9m of est PC utility revenue, we calculate that total utility revenue was \$51.5m in Q2'17. Thus, we estimate that CMCM overstated its utility revenue in Q2'17 by \$69.5m or \$277.9m annualized.

#### Estimate of Overstatement of Q2'17 Utility Revenue

(\$ in millions)	Q2'17		Annualized	
	PP Estimate	"Reported" <sup>(1)</sup>	PP Estimate	"Reported"
Mobile Utility Revenue	\$40.6	\$110.1	\$162.3	\$440.3
PC Utility Revenue	\$10.9	\$10.9	\$43.7	\$43.7
<b>Total Utility Revenue</b>	<b>\$51.5</b>	<b>\$121.0</b>	<b>\$206.1</b>	<b>\$484.0</b>

#### Mobile Utility Revenue:

<b>Magnitude of Overstatement - \$</b>	<b>\$69.5</b>	<b>\$277.9</b>
<b>Magnitude of Overstatement - %</b>	<b>171.2%</b>	<b>171.2%</b>

#### Total Utility Revenue:

<b>Magnitude of Overstatement - \$</b>	<b>\$69.5</b>	<b>\$277.9</b>
<b>Magnitude of Overstatement - %</b>	<b>134.9%</b>	<b>134.9%</b>

Sources: CMCM public filings and disclosures, Prescience Point Research Opinions

(1) Prescience Point estimates. Assumes "Reported" Q2'17 mobile utility revenue equivalent to Q2'16 mobile marketing services revenue, and "Reported" Q2'17 PC utility revenue equivalent to reported Q2'17 total utility revenue less estimated Q2'17 mobile utility revenue.

## Glaring Red Flags in CMCM's Financial Reports?

All roads lead to the same destination:

Our assessment of CMCM's business lines initially led us to conclude it is fabricating its reported revenue and its financial reports cannot be relied upon. Had our research instead begun with the Company's financial statements, we would have arrived at the same conclusion: Cheetah's SEC financial reports cannot be trusted.

*Note: In the below analyses we use the term "cash balance" to represent the summation of Cash & Equivalents, Restricted Cash, and Short-term Investments account balances (i.e., cash balance = Cash & Equivalents + Restricted Cash + Short-term Investments).*

### I. Did CMCM Fabricate Its Cash Balance, And Is It Actually Running Out of Cash?

At the end of Q2'17, CMCM's reported cash balance stood at \$351.5m. However, numerous red flags in CMCM's financial statements in our view suggest that CMCM's cash balance is (1) grossly inflated, and (2) quickly shrinking:

- **Large decline in interest income despite a rising cash balance:** In FY'14, CMCM's average cash balance was \$177.9m, and it generated interest income of \$4.5m. In 1H'17, CMCM's average cash balance was \$315.5m, and it generated interest income of only \$1.5m, on an annualized basis. In other words, during a time period over which CMCM's average cash balance grew over 75%, its annualized interest income contracted 67.7%! CMCM's interest income declined dramatically over a period its average cash balance rose equally as dramatically, which would make sense if its cash balance were falsified.

**CMCM Reported Cash Balance vs. Interest Income**

(\$ in millions)	FY'14	1H'17
Cash Balance <sup>(1)</sup>	\$177.9	\$315.5
<b>% Inc / (Dec) in Cash &amp; Equivalents vs. FY'14</b>		<b>77.3%</b>
Interest Income <sup>(2)</sup>	\$4.5	\$1.5
<b>% Inc / (Dec) in Interest Income vs. FY'14</b>		<b>(67.7%)</b>

(1) Represents average cash balance.

(2) 1H'17 interest income is an annualized amount.

- **Increasing reliance on debt further confirms that CMCM's cash balance cannot be trusted and it is running out of cash, in our view:** Despite purportedly having a \$351.5m cash balance, CMCM is borrowing significant amounts of cash; further, per the table below, since going public in the US in May 2014, its debt load has grown year-after-year. As of the end of Q2'17, CMCM had a total of \$70.5m of debt outstanding. CMCM is exhibiting an increasing reliance on debt at a time it claims to be flush with cash, which would make sense if its cash balance was falsified.

**CMCM Historical Debt Balances**

(\$ in millions)	12/31/14	12/31/15	12/31/16	6/30/17
Short-Term Debt	\$0.0	\$20.1	\$54.7	\$56.3
Long-Term Debt	\$0.0	\$1.6	\$17.1	\$14.2
<b>Total Debt</b>	<b>\$0.0</b>	<b>\$21.7</b>	<b>\$71.8</b>	<b>\$70.5</b>

Sources: CMCM public filings and disclosures

- **Is CMCM blatantly concealing from investors its growing interest expense and dwindling interest income to avert scrutiny of a falsified cash balance?** CMCM has an "interest expense, net" line item on its income statement, but guess what? It doesn't net interest income and interest expense. As a matter of fact, its growing interest expense is nowhere to be found on CMCM's income statement.

Here is a snapshot of CMCM's FY'16 income statement:

CHEETAH MOBILE INC. Condensed Consolidated Statements of Comprehensive Income (Loss) (Unaudited, amounts in thousands of Renminbi ("RMB") and US dollars ("US\$"), except for number of shares and per share(or ADS) data)			
	Year Ended December 31		
	2015 RMB (As adjusted) (b)	2016 RMB	2016 USD
Operating profit (loss)	216,898	(12,448)	(1,793)
Other income (expense):			
Interest income, net	14,550	7,783	1,121
Changes in fair value of redemption right and put options granted	22	(94)	(14)
Settlement and changes in fair value of contingent consideration	7,011	(3,377)	(486)
Foreign exchange (loss) gain, net	(213)	3,747	540
Impairment of investments	(34,728)	(141,069)	(20,318)
Losses from equity method investments, net	(12,144)	(11,363)	(1,637)
Other income, net	46,981	87,925	12,664
<b>Income (Loss) before taxes</b>	<b>238,377</b>	<b>(68,896)</b>	<b>(9,923)</b>
Income tax (expenses) benefits	(63,740)	12,189	1,756
<b>Net income (loss)</b>	<b>174,637</b>	<b>(56,707)</b>	<b>(8,167)</b>
Less: net (loss) income attributable to noncontrolling interests	(1,710)	23,818	3,431
<b>Net income (loss) attributable to Cheetah Mobile shareholders</b>	<b>176,347</b>	<b>(80,525)</b>	<b>(11,598)</b>

Per CMCM's [FY'16 20-F](#), as highlighted in the below disclosure, total interest income in FY'16 was \$1.1m while total interest expense was also \$1.1m. Thus, the \$1.1m of "interest income, net" in FY'16 that the Company reported excludes interest expense.

*We generated interest income of RMB28.2 million, RMB14.6 million, and RMB7.8 million (US\$1.1 million), and interest expense of nil, RMB0.5 million and RMB7.9 million (US\$1.1 million), for the years ended December 31, 2014, 2015 and 2016, respectively. (FY'16 20-F)*

During an interview, management seemed to misdirect, stating that interest income and expense are indeed netted in 'interest expense, net' – (but it's not.)

*You're saying that the interest income that you're showing on your income statement is net of the interest expense?*

**CMCM:** *It's net numbers. I think we put the 'net' there.*

*So, it's interest income plus interest expense is what you're saying?*

**CMCM:** *Yes.*

So why would CMCM mislead investors into believing that reported interest income is net of interest expense? And why wouldn't CMCM net the two in 'interest income, net'? Certainly, given CMCM's growing debt balance – and hence, growing interest expense – and shrinking interest income, doing so would make very apparent the collapse in spread between interest income and interest expense... Is this another effort to avert scrutiny of a suspect cash balance?

## II. Capital Expenditures Are Suspiciously Low for a High-Growth Tech Company

CMCM shares another red flag associated with a multitude of proven Chinese frauds, specifically fraudulent Chinese technology companies - It spends an unusually small amount on capital expenditures.

For example, Longtop Financial, a US-listed Chinese software company, was exposed as a massive fraud in 2011. Whistleblowers pointed to Longtop's low capital expenditures relative to its revenue as a red flag that its books were cooked.

From FY'14 to FY'16, CMCM grew its revenue by 131% from \$284.2m to \$657.4m. During that same time period, CMCM spent very little on incremental capex to support this growth. The Company spent just \$9.4m (1.7% of revenue) and \$10.7m (1.6% of revenue) in FY'15 and FY'16, respectively, on property and equipment. Due to its minimal equipment purchases, CMCM owned just \$18.4m of gross computer equipment at the end of FY'16.

High-growth technology companies typically need to spend a significant amount on computer equipment, servers, etc. as their user base and headcount expands. Yet, despite growing its revenue more than 130% in just two years, CMCM has not invested much in fixed assets.

A comparison of CMCM to a group of legitimate US-listed Chinese technology companies further illustrates why this does not add up:

<b>CMCM Comparable Analysis: Capex and Computer Equipment Owned</b>					
<i>(\$ in millions)</i>	<b>CMCM</b>	<b>QIHU</b>	<b>SOHU</b>	<b>SINA</b>	<b>BIDU</b>
Revenue <sup>(1)</sup>	\$657.4	\$1,804.6	\$1,650.4	\$1,030.9	\$10,161.2
Capital Expenditures <sup>(1) (2)</sup>	\$10.7	\$119.7	\$105.1	\$37.7	\$607.1
<b>Capex as % of Revenue</b>	<b>1.6%</b>	<b>6.6%</b>	<b>6.4%</b>	<b>3.7%</b>	<b>6.0%</b>
Computer Equipment Owned <sup>(3)</sup>	\$18.4	\$368.6	\$323.6	\$185.8	\$2,188.2
<b>Computer Equipment as % of Revenue</b>	<b>2.8%</b>	<b>20.4%</b>	<b>19.6%</b>	<b>18.0%</b>	<b>21.5%</b>

Sources: PP estimates, SEC filings.

(1) CMCM, SOHU, SINA and BIDU based on 12 months ended 12/31/2016. QIHU (taken private in 2016) based on 12 months ended 12/31/2015.

(2) Represents amount spent on property & equipment as disclosed in investing cash flow statement.

(3) CMCM, SOHU, SINA and BIDU as of 12/31/2016. QIHU as of 12/31/2015.

We have serious doubts that CMCM could more than double its revenue without making significant capital investments. In our view, this unusual discrepancy supports our conclusion that CMCM has grossly fabricated its reported revenue.

### III. Did a Baseless Decline in Share Based Comp Account for >90% of Q2'17 Earnings?!

Aside from our opinion that CMCM's revenue and cash balance are fabricated, we also believe reductions in its share based comp expenses were largely fabricated, with the effect of inflating CMCM's earnings:

- **CMCM's share-based compensation has declined substantially YoY:** CMCM's share-based compensation has declined an unusually large amount over the span of just twelve months. From Q2'16 to Q2'17, CMCM reported a \$9.7m or 72.9% decrease (or 72.7% decrease based on RMB) in share-based compensation from \$13.3m to \$3.6m. Annualized, this represents a decrease of \$38.8m.

<b>Decline In Share-Based Compensation From Q2'16 To Q2'17</b>				
<i>(\$ in millions)</i>	<b>Quarterly</b>		<b>Annualized</b>	
	<b>Q2'16</b>	<b>Q2'17</b>	<b>Q2'16</b>	<b>Q2'17</b>
Share-Based Compensation	\$13.3	\$3.6	\$53.2	\$14.4
<b>YoY Decline - \$</b>		<b>(\$9.7)</b>		<b>(\$38.8)</b>
<b>YoY Decline - %</b>		<b>(72.9%)</b>		<b>(72.9%)</b>

Sources: PP estimates, CMCM filings with the SEC.



- **The large decline in share-based compensation was attributed to an increase in forfeiture rates:** In its Q1'17 [earnings report](#), CMCM stated that the decrease in share-based compensation was primarily attributable to an increase in the estimated forfeiture rates of share-based awards.

*Share-based compensation expenses decreased by 73.4% year over year and 55.0% quarter over quarter to RMB24.4 million (US\$3.5 million) in the first quarter of 2017, **mainly due to the change in the estimated forfeiture rates of share-based compensation.** (Q1'17 Earnings Report)*

Curiously, in its Q2'17 [earnings report](#), CMCM removed the disclosure about its forfeiture rates increasing. However, we'll use common sense and assume that the decrease in Q2'17 share-based compensation was also attributable to an increase in forfeiture rates.

Per CMCM's [FY'16 20-F](#), forfeiture rates of share-based awards are estimated based on historical and future expectations of employee turnover rates:

*Forfeiture rates are estimated based on historical experience and future expectations of employee turnover rates and are periodically reviewed... Share-based compensation expense is recorded net of estimated forfeitures such that expense is recorded only for those share-based awards that are expected to vest. (FY'16 20-F)*

- **Forfeiture rates increased by an estimated 5.4x, we estimate:** In its 2016 20-F, CMCM reported that there was \$13.9m of unrecognized share-based compensation under its 2013 share incentive plan. The Company expected this expense to be recognized over 1.94 years:

*As of December 31, 2016, there was RMB96,350 (US\$13,877) of total unrecognized share-based compensation expenses related to non-vested restricted shares with an option feature and the cost is expected to be recognized over a weighted average period of 1.94 years. Total estimation share-based compensation expenses may be adjusted for future changes in estimated forfeitures. (FY'16 20-F)*

The 2016 20-F also included the following summary of restricted shares granted under the 2013 share incentive plan:

	Number of shares
Outstanding at January 1, 2016	61,320,331
Forfeited	(4,261,000)
Exercised	(8,092,280)
Outstanding at December 31, 2016	48,967,051
Vested and expected to vest at December 31, 2016	48,515,858
Exercisable as at December 31, 2016	14,181,172

As highlighted above, only 4.3m restricted shares under the 2013 plan were forfeited by employees in FY'16. This represents just 6.9% of the 61.3m of total restricted shares outstanding under this plan.

Based on the 72.9% reduction in share-based compensation in Q2'17, we estimate that close to 73% of the remaining ~49.0m shares outstanding are projected to be forfeited in 1.94 years; accordingly, the annual forfeiture rate is projected to increase more than 5.4x from 6.9% to 37.6% ( $73\% \div 1.94$  years)!

- **We think its unlikely turnover increased enough to warrant such a large increase in forfeiture rates:** We understand that turnover can fluctuate higher or lower depending on business conditions. However, we find it unlikely that CMCM's turnover increased enough in just twelve months to warrant an estimated 5.4x increase in forfeiture rates.

The majority of CMCM's outstanding restricted shares are held by key executives and board members of the Company. From Q4'15 to Q1'17, it appears that there was not a significant amount of executive or board turnover, based on our review of CMCM's press releases and SEC filings. There were a couple recent, notable departures – former CFO Ka Wai Andy Yeung and former Senior VP Yong Chen – but their departures occurred at the end of Q1'17 (3/31/2017) and end of Q2'17 (6/30/2017), respectively.

Now, consider that the decline in CMCM's share-based compensation occurred in the periods prior to Q2'17 – From Q4'15 to Q1'17, share-based compensation declined by 77.0% from \$15.2m to \$3.5m. However, as we just noted, there does not appear to have been an unusual amount of executive and board turnover during that time period. Thus, we believe the large increase in forfeiture rates and large decline in share-based compensation reported by CMCM is fiction.

- **Prescience Point estimates that CMCM's Q2'17 share-based compensation was understated by \$9.7m (representing 93.3% of Q2'17 earnings):** We believe CMCM's Q2'17 share-based compensation is a fabrication with the effect of inflating earnings, and that it is valid to assume this line-item should have been closer to that reported in Q2'16 – \$13.3m. Therefore, we estimate that CMCM's reported share-based compensation in Q2'17 was understated by \$9.7m. This represents 93.3% of CMCM's reported Q2'17 earnings of \$10.4m.

#### PP Estimate Of 'True' Share-Based Compensation In Q2'17

(\$ in millions)	Q2'17
Share-Based Compensation - Reported	\$3.6
Share-Based Compensation - PP Estimate <sup>(1)</sup>	\$13.3
<b>Magnitude Of Understatement - \$</b>	<b>\$9.7</b>
<b>Magnitude Of Understatement - %</b>	<b>72.9%</b>

Sources: PP estimates, CMCM filings with the SEC.

(1) Based on CMCM's reported share-based compensation in Q2'16.

## IV. Other Financial Reporting Red Flags

But wait...there's more. Provided below are additional red flags we identified which further indicate that the Company's financial statements cannot be trusted.

- **Did CMCM violate GAAP by completely excluding interest expense from its income statement?** Our research indicates that CMCM has excluded interest expense not only from "Interest income, net" but potentially from the entire income statement – a clear violation of GAAP. Consider once again the following snapshot of CMCM's FY'16 income statement:

CHEETAH MOBILE INC.  
Condensed Consolidated Statements of Comprehensive Income (Loss)  
(Unaudited, amounts in thousands of Renminbi ("RMB") and US dollars ("US\$"), except for number of shares and per share(or ADS) data)

	Year Ended December 31		
	2015	2016	2016
	RMB	RMB	USD
	(As adjusted) (b)		
Operating profit (loss)	216,898	(12,448)	(1,793)
Other income (expense):			
Interest income, net	14,550	7,783	1,121
Changes in fair value of redemption right and put options granted	22	(94)	(14)
Settlement and changes in fair value of contingent consideration	7,011	(3,377)	(486)
Foreign exchange (loss) gain, net	(213)	3,747	540
Impairment of investments	(34,728)	(141,069)	(20,318)
Losses from equity method investments, net	(12,144)	(11,363)	(1,637)
Other income, net	46,981	87,925	12,664
Income (Loss) before taxes	238,377	(68,896)	(9,923)
Income tax (expenses) benefits	(63,740)	12,189	1,756
Net income (loss)	174,637	(56,707)	(8,167)
Less: net (loss) income attributable to noncontrolling interests	(1,710)	23,818	3,431
Net income (loss) attributable to Cheetah Mobile shareholders	176,347	(80,525)	(11,598)

As highlighted above, besides “Interest income, net,” it appears that “Other income, net” is the only other line item in CMCM’s FY’16 income statement that could possibly include interest expense. However, according to the description of “Other income, net” from the Company’s [FY’16 20-F](#), this line item consists primarily of gains on investment disposals, as well as gains or losses on disposal of PP&E and intangible assets. No mention is made of interest expense:

*Other income consists primarily of gain on disposal of certain investments, as well as gain or loss on disposal of property and equipment and intangible assets. (FY’16 20-F)*

The only place where interest expense appears to be included in CMCM’s FY’16 financial statements is as an obscure footnote to its cash flow statement:

CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)				
(Amounts in thousands of Renminbi (“RMB”) and US dollars (“US\$”), except for number of shares and per share (or ADS) data)				
	Year ended December 31,			
	2014	2015	2016	
	(As adjusted) <sup>(a)</sup>	(As adjusted) <sup>(a)</sup>	RMB	US\$
Supplemental disclosures	RMB	RMB		
Income taxes paid	(21,427)	(24,526)	(67,962)	(9,789)
Interest expense paid	—	(547)	(7,306)	(1,052)

- **CMCM has changed its reportable business segments in each of the last two quarters!** Prior to Q1’17, CMCM reported its revenue on a by-service basis in three segments – online marketing services, internet value-added services and internet security services and others:

**CHEETAH MOBILE INC.**  
Condensed Consolidated Statements of Comprehensive Income (Loss)  
(Unaudited, amounts in thousands of Renminbi (“RMB”) and US dollars (“US\$”), except for number of shares and per share(or ADS) data)

	Year Ended December 31		
	2015	2016	2016
	RMB	RMB	USD
	(As adjusted) (b)		
<b>Revenues</b>	<b>3,773,877</b>	<b>4,564,650</b>	<b>657,446</b>
Online marketing services	3,283,423	3,950,886	569,045
Internet value-added services	395,312	500,991	72,158
Internet security services and others	95,142	112,773	16,243

In Q1’17, CMCM changed its revenue reporting to be on a by-product rather than a by-service basis. As such, it reorganized its revenue into four new business segments – utility products and related services, content driven products, mobile game and others:

**CHEETAH MOBILE INC.**  
Condensed Consolidated Statements of Comprehensive Income (Loss)  
(Unaudited, amounts in thousands of Renminbi (“RMB”) and US dollars (“US\$”), except for number of shares and per share(or ADS) data)

	For The Three Months Ended			
	31-Mar-16	31-Dec-16	31-Mar-17	31-Mar-17
	RMB	RMB	RMB	USD
<b>Revenues</b>	<b>1,114,988</b>	<b>1,274,672</b>	<b>1,190,703</b>	<b>172,987</b>
Utility products and related services	949,285	1,009,206	827,225	120,181
Content driven products	-	144,160	223,805	32,515
Mobile game	165,695	121,306	139,663	20,290
Others	8	-	10	1

Despite having just changed its reportable business segments in Q1’17, CMCM curiously decided to change its business segments again in Q2’17. This time, it combined its content driven products and mobile game segments into a single segment called “mobile entertainment”:

**CHEETAH MOBILE INC.**  
Condensed Consolidated Statements of Comprehensive Income (Loss)  
(Unaudited, amounts in thousands of Renminbi ("RMB") and US dollars ("US\$"), except for number of shares and per share (or ADS) data)

	For The Three Months Ended			
	30-Jun-16 RMB	31-Mar-17 RMB	30-Jun-17 RMB	30-Jun-17 USD
<b>Revenues</b>	<b>1,046,664</b>	<b>1,190,703</b>	<b>1,201,561</b>	<b>177,239</b>
Utility products and related services	946,198	827,225	820,342	121,007
Mobile entertainment	100,137	363,468	371,034	54,730
Others	329	10	10,185	1,502

The fact that CMCM once again reorganized its business segments after just doing so in the prior quarter is a significant red flag. We believe the Company made its most recent change in order to obfuscate the performance of its individual business lines.

By combining content driven products and mobile game revenue into a single segment, it has become more difficult for investors to gauge the performance of Live.me, a unit for which we believe more than 90% of the revenue is fabricated.

## CMCM's Auditor E&Y Hua Ming – Former Auditor of Sino-Forest & Other Chinese Frauds

In light of the body of evidence we believe indicates CMCM is misrepresenting its financial performance and fabricating its financial statements, we were amazed it passed its audits. After we looked into CMCM's auditor, we were no longer amazed; frankly, we grew more confident that CMCM's financial statements cannot be trusted.

CMCM's auditor is Ernst & Young Hua Ming LLP:

- **E&Y Hua Ming has been the auditor of record for several high-profile China frauds:** Over the years, E&Y Hua Ming has blessed the books of several fraudulent Chinese companies, some of the most notable of which are listed below. Given E&Y Hua Ming's seemingly poor track record in identifying past frauds, it is not surprising that the firm appears to have completely whiffed on identifying the multitude of financial red flags we identified in this report.
  - **Sino-Forest:** At its peak, Sino-Forest had a market cap of \$6B. Its downfall was triggered in June 2011 by a short seller report which accused the company of being a "near total fraud." The company eventually filed for bankruptcy protection and was delisted in early 2012. According to the Ontario Securities Commission's ("OSC") 7/14/2017 ruling, the company used fictitious transactions to falsify its revenue and inflate its assets.
  - **SinoTech Energy:** SinoTech went public on the Nasdaq in November 2010, raising \$167.8m from investors. Its downfall was triggered in August 2011 by a short seller report which accused the company of using empty shell entities to inflate its financial performance. The company was formally delisted in January 2012. In April 2012, the SEC sued the Chairman of SinoTech for misappropriating company cash, and Sinotech for falsifying asset value.
  - **China Agritech:** China Agritech went public on the Nasdaq via a reverse merger. Its downfall was triggered by a series of short seller reports in early 2011 which concluded that the company's financial statements were fraudulent, its purported revenue was overstated and its plants were idle. The company was formally delisted in May 2011.
  - **Standard Water:** E&Y Hong Kong was the signing accountant for Standard Water but outsourced almost all of the audit work to Ernst & Young Hua Ming, its mainland affiliate. Standard Water applied for a listing on the Hong Kong Stock Exchange in November 2009. However, in March 2010, E&Y resigned as the company's auditor after discovering inconsistencies in the company's documentation, and Standard Water withdrew its listing application.
- **E&Y Hua Ming has been subjected to penalties and other enforcement actions due to its alleged failings as an auditor:** For example, in September 2014, the firm agreed to pay the OSC an \$8m penalty without any admission of wrongdoing to resolve allegations that it performed negligent work in its audits of Sino-Forest. The firm also changed its internal policies on emerging markets and agreed to cooperate with the Sino-Forest fraud investigation. As another example, in February 2015, the firm agreed to pay the SEC \$500K for refusing to produce documents related to investigations of potential fraud. The SEC also imposed a requirement that the firm must perform specific steps to satisfy future SEC requests for similar materials.
- **The seemingly poor reputation of auditors located in mainland China is another point of concern:** Adding further to our concerns over the quality of E&Y Hua Ming's audit work is its location in mainland China. According to a May 2013 South China Morning Post [article](#), auditors in mainland China, even those affiliated with Big 4 audit firms, are generally not very well-regarded due to a lack of confidence in the mainland's legal system and ethical standards:

*Imagine there are two new listings with largely identical businesses. Company A has its report signed off by a Hong Kong arm of a Big Four accountancy. Company B's is signed by the accountancy's mainland joint venture. Where will you put your money?*

*Most of you will say Company A, given the lack of confidence in the mainland's legal system and professional ethics.*

An older [article](#) published in the NY Times in December 2009 expressed similar sentiments:

*Mainland accounting firms that prepare reports under Chinese standards charge about one-third what their Hong Kong counterparts do, making them more attractive in terms of price.*

*But any cost gains could easily be offset by an industry where book-cooking scandals were so common less than a decade ago that they led a former prime minister, Zhu Rongji, to call fraudulent accounting a “malignant tumor” that threatened the country’s economy.*



## Many Other Aspects of CMCM's Business Appear to be a Sham

Aside from the plethora of red flags already discussed, based on our analysis and conversations with several former employees, many other aspects of the Company's business are highly questionable.

### I. Former Employees Claim CMCM Has Used Fake Accounts to Generate Illegitimate Revenue From its Utility Clients

Based on our conversations with former employees, CMCM has extensively used bots and click farms to generate fake accounts, which are used to create fake ad impressions. We were also told that Facebook's decision to reduce its business with CMCM was made because it discovered that a large portion of the utility traffic was fake. Thus, it appears that a significant portion of whatever real revenue the utility business is receiving has been generated through questionable if not illegitimate means.

As we discussed earlier, in early 2016, Facebook decided to significantly reduce the amount of CMCM inventory on its ad network. In a May 2016 Wall Street Journal [article](#), it was explained that Facebook made this decision after discovering that ads on the Company's utility apps did not perform well:

*Last October, Facebook tweaked algorithms to give advertisers a metric on how ads perform on third-party publishers. Ads on Cheetah's platform didn't do well, and revenue was hit. Separately, Facebook has tightened policies that have hurt Cheetah's ability to direct its own advertising clients onto Facebook, says Morgan Stanley. (Facebook Tweaks Algorithm, Tripping Cheetah Mobile, Wall Street Journal, 5/22/16)*

Based on our research, the above does not represent the full story of what happened. We spoke with a former employee who had worked on CMCM's utility apps. This individual suggested that the basis for Facebook's decision was that it discovered a substantial portion of the ad impressions on CMCM's utility apps were generated from fake accounts:

Former Employee (via a translator): He had indicated that Cheetah had bought a lot of these (utility app) users, that there was a large number of these users that were first purchased by Cheetah Mobile and this is obviously not a long-term strategy. The revenue comes from these fake users being able to push advertising content and having fake engagement essentially. (So) He had indicated that all the users were really fake.

Former Employee (via a translator): He's indicating a usage of click farms as a way to generate revenue on behalf of them. So they have an advertising department then they'll purchase a click farm to essentially advertise for them on this. And then they'll go through that to continuously generate revenue as far as from the advertising perspective goes.

PP: Oh okay, so the click farms actually generate the impressions? Is that what you're saying?

Former Employee (via a translator): (He indicated that) Yes, the click farms generate the impressions.

Former Employee (via a translator): He said that Facebook did in fact notice that a lot of the users were fake, so when they went to renegotiate the contract after about a year, they had negotiated the price a lot lower, just knowing that the Cheetah Mobile users were fake, and obviously their impressions weren't being reached as highly.

*He indicated that he had a Taiwanese colleague that went to Facebook to negotiate with them and eventually they had brought the price down quite considerably.*

We interviewed another former employee who had worked in CMCM's advertising department. This individual also suggested that Facebook reduced the amount of CMCM inventory on its ad network after discovering a large portion of the utility users were fake accounts:

Former Employee: Facebook got a little bit wiser in their analysis of the quality of the traffic, so not just initial actions like a click on an ad, but also what happened after an ad was clicked on. Did the user engage with the product, download it, etc, and they realized the quality was really not good which comes back to this robot question. And so, they dropped Cheetah pretty significantly.

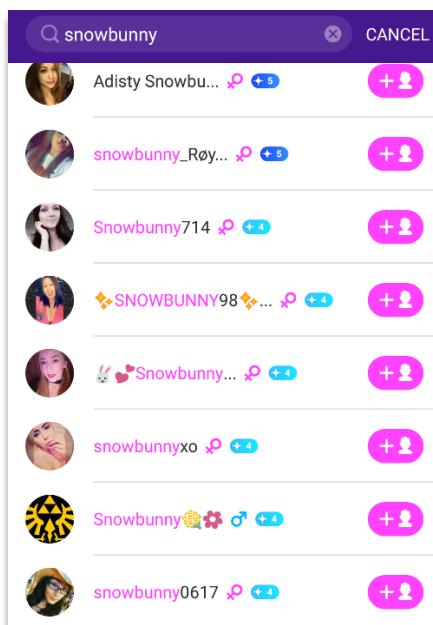
Former Employee: (Cheetah's) Utility inventory is not that attractive in itself, right...Putting two and two together, if you had a lot of users that are robots, those users are not typically very good users to advertise products to.

## II. A Significant Amount of Live.me's User Base Appears to Be Fake as Well

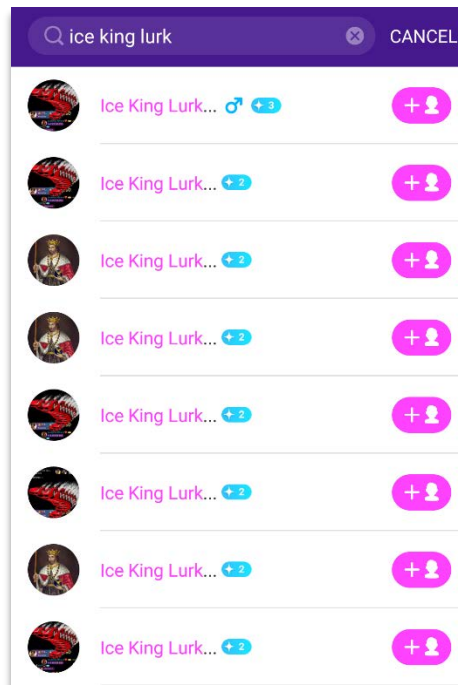
When it comes to Live.me, we see more of the same; aside from those fake accounts we believe CMCM uses to inflate its revenue via gift cycling, the Company also appears to have setup a large number of other fake accounts, with the effect of artificially boosting Live.me's user count and, thus, creating the false impression that Live.me is more popular than it actually is. Although we cannot exactly quantify the degree to which Live.me's user base has been inflated with fake accounts, we believe it is significant. The following provide support for our conclusion:

- **A suspiciously large number of Live.me accounts have similar user names:** During our use of the Live.me app, we discovered that a countless number of Live.me accounts have very similar user names, in our view indicating that these are fake accounts whose user names are randomly generated from a pool of pre-selected words.

For example, as of October 23<sup>rd</sup>, 176 accounts on Live.me have user names containing the phrase "snowbunny." Provided below is a snapshot of some of these accounts:

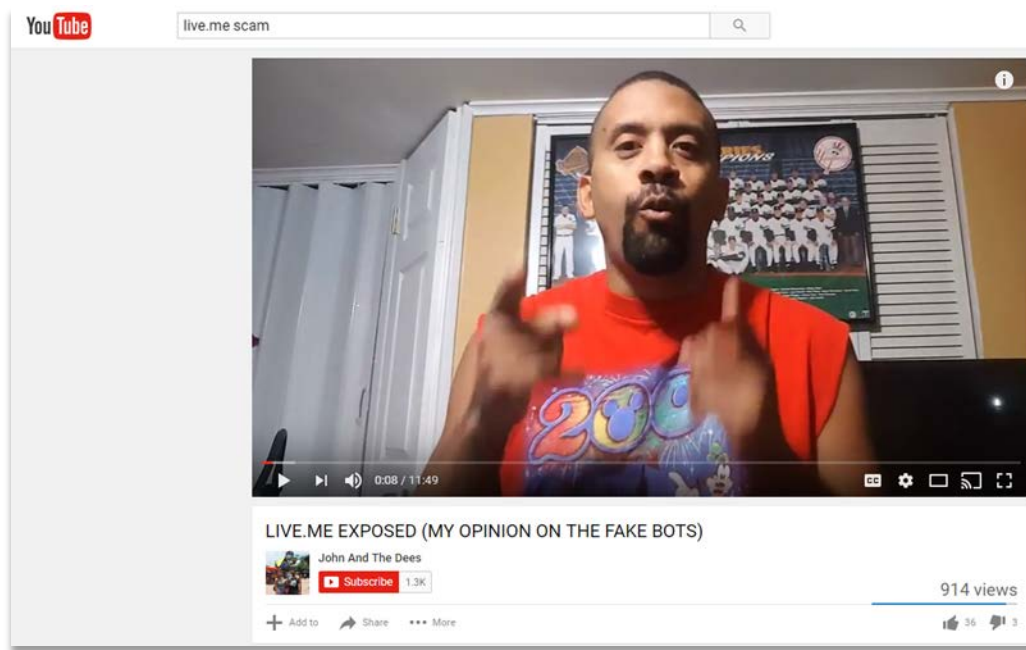


As another example, as of October 23<sup>rd</sup>, 18 accounts on Live.me have user names beginning with "Ice King Lurk". In addition to having very similar user names, many of these accounts also shared the same profile picture. Provided below is a snapshot of some of these accounts:

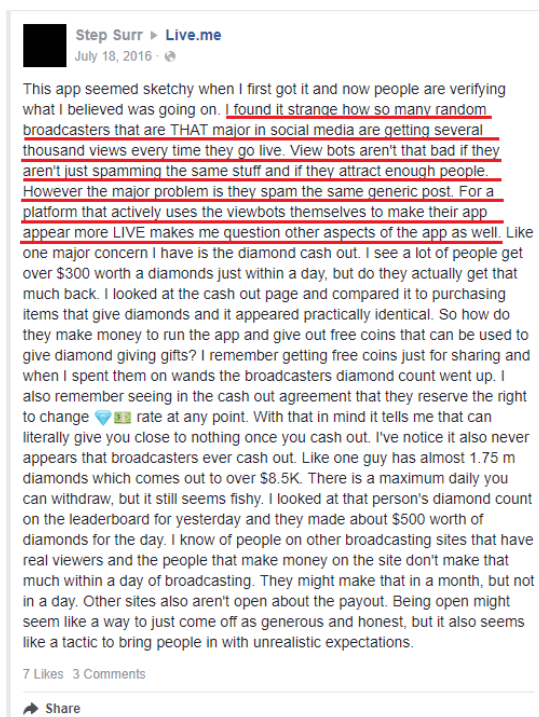


As a final example, as of October 23<sup>rd</sup>, 103 accounts on Live.me have user names containing the phrases “moneymoe”, “money moe”, “moemoney” or “moe money.” A snapshot of some of the accounts containing the phrase “moneymoe” can be found [here](#).

- **In videos posted on YouTube, Live.me broadcasters noted that numerous users on the app appeared to be fake:** Several Live.me broadcasters claimed in videos posted on YouTube (found [here](#), [here](#) and [here](#)) that a large portion of the users watching live streams on the app were fake accounts (i.e. bots) we assume to be controlled and created by CMCM. A snapshot from one of these videos is provided below:



- **On Facebook, another Live.me user expressed concern over the seemingly large number of fake accounts on the app:** In a Facebook comment (which was also posted previously in this article), another Live.me user expressed concern over the seemingly rampant presence of fake accounts or in his/her words ‘viewbots’, which “spam the same generic post”:



- **Top Live.me broadcasters have relatively few social media followers, further indicating that a large portion of Live.me users are fake:** Despite having hundreds of thousands and in some cases over a million followers on Live.me, most of Live.me’s top 5 broadcasters as of the date of our analysis (8.7.2017) have very few followers on social media sites like Instagram and Twitter (as was noted earlier).

For example, the top 5 ranked broadcasters on Live.me have a cumulative total of 3.4m fans on Live.me, yet have only 54.5K and 122.4K Twitter and Instagram followers, respectively. In our opinion, the most likely explanation for why top Live.me broadcasters have so few fans outside the app is that a substantial portion Live.me’s users are fake.

Top 5 Live.me Broadcasters: # Of Fans On Social Media vs. On The App (As of 8/7/2017)



Broadcaster	Rank <sup>(1)</sup>	# Of Followers <sup>(2)</sup>		
		Live.me	Twitter	Instagram
TheRealKatherineRojas	#1	690,000	584	40,300
TurnUpKing	#2	426,000	16	171
Kristina Plisko	#3	710,000	52,873	68,200
SammieFreakingFirth	#4	1,080,000	994	10,400
Ashcatash	#5	499,000	No Account	3,296
# of Followers - Total		3,405,000	54,467	122,367
# of Followers - Average		681,000	13,617	24,473

(1) Live.me ranks top broadcasters by the amount of gifts received.

(2) As 8/7/2017.

### III. Flagship Utility Apps, Like Clean Master, Appear to be Functionally Useless

CMCM claims that its utility apps will boost a phone's performance by cleaning its memory, extending its battery life, protecting against security threats, and even cooling its CPU. Based on the following and other information detailed in this report, we believe these claims are bogus.

- **CMCM claims that its utility apps will optimize a phone's performance:** by boosting its memory, boosting its battery life, protecting it against security threats and even cooling its CPU. For example, on the Clean Master [landing page](#) in the Play store, CMCM touts the following features for Clean Master:

*Clean Master helps clean all types of junk files (photo junk, video junk, system junk, advertisement junk, and cache junk) to free up storage space. It can also clean junk notifications and free up RAM to improve your phone's speed and performance! It gives your phone powerful protection with functions such as Anti-virus and AppLock.*

*Cools down your phone temperature and reduces CPU usage by stopping apps that cause device overheat.*

- **According to a couple former employees we interviewed, some of CMCM's flagship utility apps – including Clean Master – don't function as claimed; instead, they hinder a phone's performance.**

Provided below are the relevant excerpts from our discussions:

*Former Employee #1: The problem with the Utility business is that...it's non-engaged users, so users are not even happy with the product. They're not using it. They don't want it. When they open the app, they're always frustrated with it.*

*Former Employee #2: Essentially if you use like Battery Booster or Clean Master, it doesn't do anything actually. It's more of a placebo than anything because it doesn't have the permissions to do anything.*

*Especially those battery boosting utilities, they are actually detrimental to your battery because they are always running, always killing those applications that actually are just restarting immediately right after. So, it actually makes your battery run out faster. You can find reviews on the Internet.*

- **Numerous recent trade publications (e.g., [here](#), [here](#), and [here](#)) have voiced similar concerns about CMCM's utility apps.**

For example, in a June 2016 MakeUseOf [article](#) titled "Do Not Install These 10 Popular Android Apps," two of the ten apps listed in this article were CMCM utility apps - Clean Master and QuickPic:

*What it is: (Clean Master is) Another insanely popular "speed booster, battery saver, and phone optimizer". It has 600 million users and 26 million five-star reviews.*

*Why it's bad: Firstly, it's made by Cheetah Mobile. We referred to them earlier – the company is renowned for packing ads, bloatware, and nag screens into their apps. Secondly, it doesn't do anything useful...*

*What it is: QuickPic used to be a friendly and easy-to-use photo gallery. It was never flashy, but clear communications and frequent updates saw it steadily grow a well-sized user base.*

*Why it's bad: It (QuickPic) was bought by Cheetah Mobile last year. The company immediately started uploading users' data to their own servers, as evidenced by one Google Plus user who found a raft of new DNS requests that were attributable to the app.*

As another example, in an August 2015 AndroidPolice [article](#), the author had some less than flattering things to say about CMCM:

*If you're unfamiliar with Cheetah Mobile, they're one of those developers that create the apps that you end up having to remove from your family members' phones at Thanksgiving when they ask why it sucks so much now. They've created dozens and dozens of apps...all of which are free and dripping with adware.*

*Many of the apps that they provide are duplicates of features already installed on your phone...*

*They also publish apps that are more or less entirely useless, including multiple "virus scanners," "battery boosters," "game boosters," and the like.*

- **According to one trade publication, even CMCM reps could not demonstrate that Clean Master worked as advertised:** In a series of articles published in [June 2016](#) and [July 2016](#) by AndroidPit, the author reported about his interviews with Clean Master representatives. In his interviews, he asked the CMCM reps to demonstrate that Clean Master's claimed features, such as performance boosting and CPU cooling, are beneficial and actually work; he relates that even they could not!

*He installed the Facebook app and showed me how it performed before and after using Clean Master's boost function. I didn't see a difference in speed and said it looked just the same as before. (We Interviewed Cheetah Mobile to Ask If Clean Master Actually Works, AndroidPit, 6/21/16)*

*I had concerns about the 'CPU Cooler' function of the app. Clean Master claims it can cool down your smartphone to prevent the processor overheating. I said modern smartphones don't overheat (with some exceptions) and that it's not necessary to have this. (We Interviewed Cheetah Mobile to Ask If Clean Master Actually Works, AndroidPit, 6/21/16)*

*...it's still concerning that they have been unable to show me the app working as it's intended...This is the second time that I've spoken to Clean Master representatives in person about the product: how hard can it be? If I had a phone with my app installed and somebody asked me to show them how it works, I would just show them. (Clean Master: You Have a Right to Complain, AndroidPit, 7/29/16)*

- **Reviews from actual users are also generally very poor, based on our browsing of several Android-related message boards.**

Provided below are a couple of these postings:

*As has been covered here before, anything by Cheetah Mobile has been known for quite a while to be not only basically functionally worthless, but just plain evil. Hijacks your device, throws up nag ads and false alarms, and phones home with your data to numerous servers in China. Many, many warnings about avoiding Cheetah Mobile have been posted here and in numerous other places. ([AndroidCentral Forums](#))*

*Cheetah Mobile makes a bunch of ad-filled crapware with suspicious ratings like "Battery Saver" and "Speed Booster" and generally anything they touch turns to sh\*t so you can see why this might end up being a problem. ([Reddit](#))*

#### IV. CMCM has Used Deceptive Tactics to Acquire Real Users for Potentially Useless Apps

Assuming as we have that CMCM's utility apps are indeed useless, it is little wonder then the Company has resorted to deceptive tactics in an attempt to acquire real users for its (useless) utility apps. These include the following:

- **Misleading and/or malicious advertisements:** For several years, CMCM has used misleading/malicious ads, in our view to trick users into installing its products. In fact, in 2014, Clean Master was temporarily banned from the Play Store for its misleading advertisements which encouraged users to uninstall Google Chrome and replace it with CMCM's browser. The following is an excerpt from an August 2015 South China Morning Post [article](#):



*In July 2014, Google removed Clean Master from its rankings list due to a violation of Google Play's policies. The company was accused of encouraging users to uninstall competitors' browsers and replacing them with its own.*

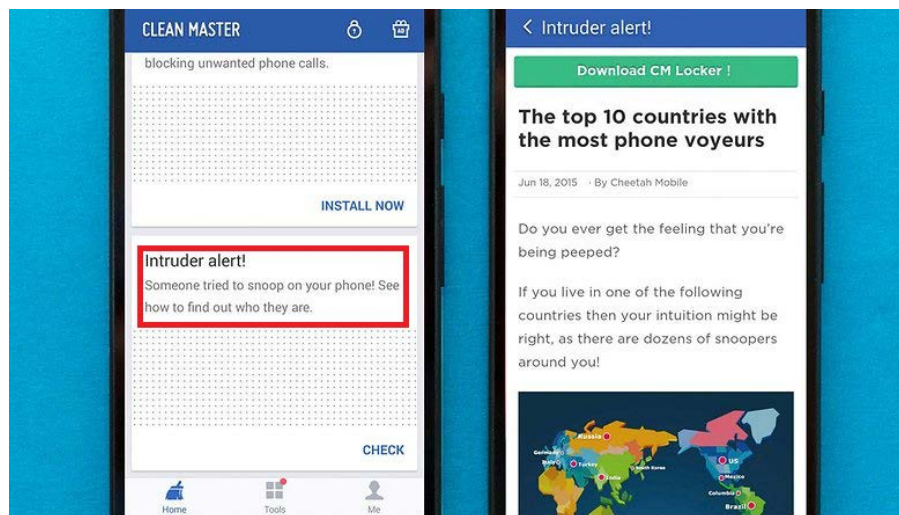
The Company's use of such ads continued even after being temporarily banned from the Play Store. AndroidPit took the Company to task on this matter during its interviews with Clean Master representatives last year. In the June 2016 and July 2016 articles that we referenced previously, AndroidPit noted the following:

*Functionality aside, another concern the Android community has regarding Clean Master is its advertising. (Clean Master: You Have a Right to Complain, AndroidPit, 7/29/16)*

*The Clean Master app warned me of "monetary loss" and recommended I install the CM Security app (another Cheetah Mobile product) to fix this. Apps at risk included Chrome and other seemingly safe products. (We Interviewed Cheetah Mobile to Ask If Clean Master Actually Works, AndroidPit, 6/21/16)*

*I followed up by showing Shih and Ting a message from the Clean Master app. "It says 'intruder alert, someone tried to snoop on your phone!'"...I asked again why the app is telling me something that is untrue. (Clean Master: You Have a Right to Complain, AndroidPit, 7/29/16)*

AndroidPit also provided the following picture of what is clearly a misleading ad designed to scare the user into installing a CMCM app:



- **Forced installations:** According to a former employee, CMCM has used a highly questionable tactic known as cross-selling in order to boost the downloads of its utility apps. The author of a May 2015 Seeking Alpha [article](#) referenced this tactic in his comments about the Company:

*Cheetah had five apps among the top-30 non-game apps on Google Play in March and has been able to successfully cross-sell these apps with a high frequency of use.*

So, what exactly is cross-selling? Cross-selling refers to the forced installation of an app on your phone. Hypothetically speaking for example, were a user to install an app like Clean Master, it will automatically download and install another CMCM app – which would be reprehensible, in our view.

A former CMCM employee explained the “strategy” to us:

*Former Employee: What I mean by up-selling and cross-selling, sometimes they will force your phone to download a new app because you have one of them. So, say you open Clean Master and then automatically it downloads CM Launcher in the background and you're not even aware of it.*

*PP: Okay, is that even legal?*

*Former Employee: It's borderline.*

- **Fake Reviews:** Finally, CMCM has been accused on many occasions of using fake reviews to artificially boost the rankings of its apps. Based on our negative perception of CMCM and its applications, we assume these accusations to have merit.

In the same AndroidPolice [article](#) posted earlier, the following was noted about the suspiciously high ratings of the Company's apps:

*We can't legally say that Cheetah Mobile floods all of its apps with fake downloads and five-star reviews, but we can sure as hell imply it.*

*Clean Master Boost & AppLock" has over 500 million downloads...and its distribution of reviews shows some clearly sketchy behavior skewing the Play Store rating.*

Many Android users have also expressed their skepticism on various message boards. For example:

*Also, I'm beginning to think Cheetah Mobile pays people to rate their apps highly. 4.7 stars with millions of installs is crazy. Not only that, but every time I One Star the app and leave a negative review, I come back a week later to see it has been modified to a 5 Star rating when I first rated it years ago. WTF? I've put a negative review more than once on Clean Master and every time I come back, it's gone. ([Reddit](#))*

## Is CMCM On the Verge of Imploding?

To state the obvious, a business that has acted in as troubling of a manner as CMCM appears to have is not a sustainable one. That CMCM has been able to survive for this long, especially as a US-listed public company, is quite remarkable in our view. However, recent developments suggest that the Company's luck may be running out.

As will be discussed in this section, CMCM is the subject of an active, undisclosed SEC investigation as confirmed by responses to our recent FOIA requests; its real revenue appears to be rapidly diminishing due to a growing focus by its top clients, like Facebook, on cracking down on fake ad traffic; some of its key executives – including its US-trained CFO – have recently and suddenly departed; and its insiders have been rampantly registering their shares for sale via Form 144 filings. All of this leads us to believe that CMCM may be on the verge of imploding.

### I. FOIA Requests Reveal CMCM Is the Subject of An Ongoing, Undisclosed SEC Investigation

In response to our FOIA requests to the SEC, we received information that confirms CMCM is the subject of an active, undisclosed SEC Enforcement Division investigation. In light of the evidence presented in this report, which in our view indicates gross malfeasance, we expect this investigation to eventually result in severe enforcement against the Company and its management team. We have submitted the results of our investigation to the SEC via whistleblower complaint.

In a letter dated July 24, 2017, the FOIA office denied our request for access to CMCM's investigative records by invoking Exemption (b)(7)(A) of the FOIA. Citation of the (b)(7)(A) exemption means that the SEC deems the release of information it has collected on CMCM could be expected to interfere with an ongoing investigation.

An excerpt from the first page of the FOIA office's response letter is provided below:



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
STATION PLACE  
100 F STREET, NE  
WASHINGTON, DC 20549-2465

Office of FOIA Services

July 24, 2017



Re: Freedom of Information Act (FOIA), 5 U.S.C. § 552  
Request No. 17-03175-FOIA

Dear [REDACTED]

This letter responds to your request, dated July 14, 2017 and received in this office on July 21, 2017, seeking investigative information concerning Cheetah Mobile, Inc., since January 1, 2014.

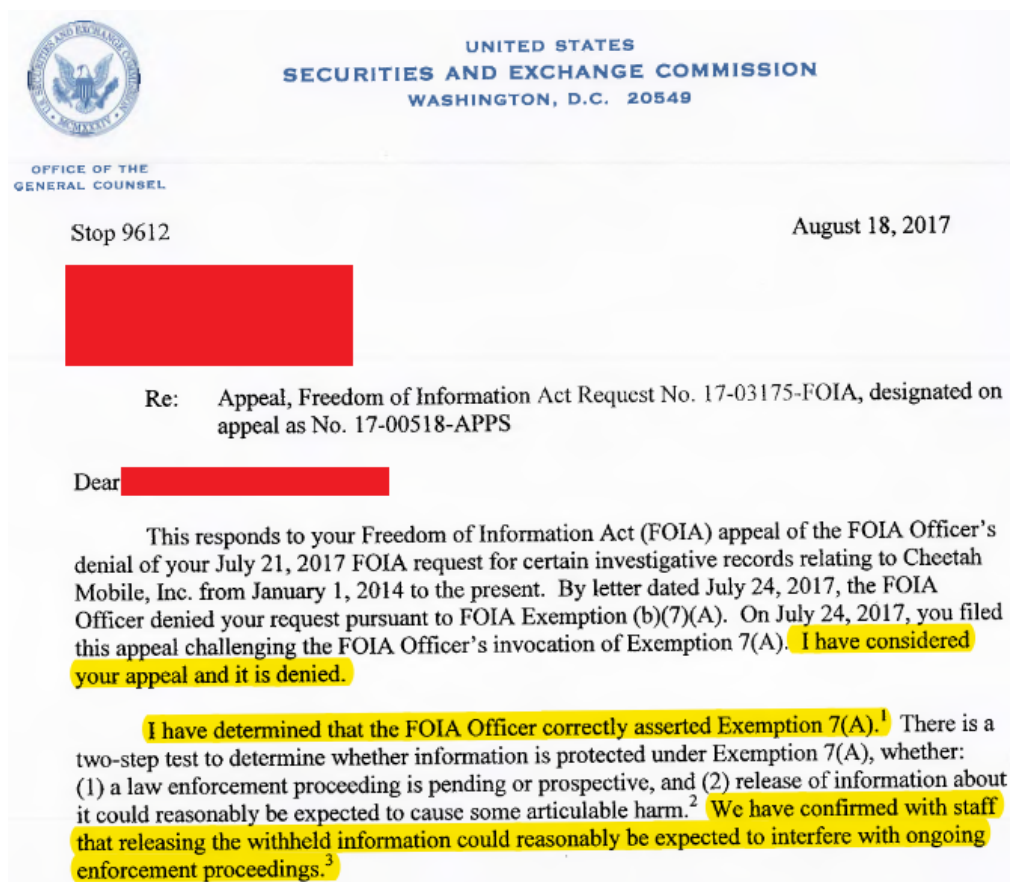
We are withholding records that may be responsive to your request under 5 U.S.C. § 552(b)(7)(A), 17 CFR § 200.80(b)(7)(i). This exemption protects from disclosure records compiled for law enforcement purposes, the release of which could reasonably be expected to interfere with enforcement activities. Since Exemption 7(A) protects the records from disclosure, we have not determined if other exemptions apply. Therefore, we reserve the right to assert other exemptions when Exemption 7(A) no longer applies.

Again, by invoking Exemption (b)(7)(A), the SEC has effectively acknowledged that CMCM is the subject of an ongoing SEC investigation as of the date of their response. Per the [Department of Justice](#):

*The first subpart of Exemption 7 of the Freedom of Information Act, Exemption 7, authorizes the withholding of 'records or information compiled for law enforcement purposes, but only to the extent that production of such law enforcement records or information . . . could reasonably be expected to interfere with enforcement proceedings.*

For further confirmation of the existence of an investigation, we sent an administrative appeal to the General Counsel's office. In its response, the General Counsel's office denied our access to CMCM's records by once again invoking Exemption (b)(7)(A), stating that releasing investigative records on CMCM could "interfere with ongoing enforcement proceedings." By doing so, the General Counsel's office has confirmed that CMCM is the subject of an active SEC investigation.

An excerpt from the first page of the General Counsel's response letter is provided below:



## II. CMCM's Real Revenue Appears to be Rapidly Contracting Due to Growing Focus on Eliminating Ad Fraud

Facebook was CMCM's largest customer in FY'16, accounting for 19.9% of its total reported revenue. Our research indicates that Facebook has continued to reduce its business with CMCM in FY'17. Based on the additional reductions that Facebook has made, and a former employee's claims that Facebook knows CMCM ad traffic is "fake", we think its likely Facebook is in the process of cutting off its business with the Company. Furthermore, we believe that the growing industry focus on eliminating ad fraud means that CMCM is at elevated risk of having Google and other utility clients follow Facebook's lead. Thus, whatever real revenue the utility business is generating will likely continue to contract significantly over the coming quarters.

We estimate -- after adjusting for our estimates of fabricated utility and Live.me revenue (\$69.5m and \$36.4m, respectively) -- that more than 72% of CMCM's total revenue in Q2'17 came from the utility business; as such, we find it highly unlikely that CMCM will survive the loss of a large portion of its utility revenue.

We derive these research opinions based on the following:

- **In FY'17, Facebook has further reduced its business with CMCM:** In FY'17, Facebook has continued to make further significant cuts to CMCM inventory on its ad network. During its Q1'17 [earnings call](#) on May 22nd, CMCM management indicated that some of its ad formats had been recently discontinued by some of its third party advertising partners:

*We expect our revenues from utility products and related services to decrease year-over-year as certain ad formats have been recently discontinued by some of our overseas third-party advertising partners.*

*So, some of our third-party advertising platforms, they decide to discontinue to deliver ads to those type of formats. So that will impact us as well. And we will see some other inventory, which now may not be filled up immediately by our other advertising platform partners. So that's what's happening right now. (Q1'17 Earnings Call)*

We spoke with a former CMCM employee who told us that the third-party advertising partner referred to was Facebook. This individual also indicated that Facebook was trying to cut off its partnership with CMCM.

*Former Employee: In our world the way it happens, you don't just cut a partnership off. Typically, you make it harder for the partner to participate. So, in this case, effectively they (Facebook) changed the requirement for the advertising format. So, that's what happened in terms of excluding them (Cheetah) from those advertising opportunities.*

- **Our research suggests Facebook to soon cut off its business with CMCM:** We do not believe that Facebook will continue to place ads on CMCM apps when, as we were told by a former employee, it knows a substantial portion of CMCM traffic is "fake". Thus, in light of the ongoing cutbacks it has been making, we believe it is likely Facebook is in the process of phasing out its business with CMCM.
- **Google and potentially other utility clients, who are increasingly focused on eliminating ad fraud, are likely to follow Facebook's lead:** Over the past year, the elimination of ad fraud has become an increasingly hot topic of discussion in the online advertising space. For example, according to various articles published over the past few months ([here](#), [here](#) and [here](#)), Google is paying an increasing amount of attention on trying to curb online ad fraud. The following excerpts are from a July 2017 MediaPost [article](#):

*Google has been trying to gauge the number of fraudulent ads that run across the advertising ecosystem, and along with a few media companies, has been "quietly" running tests to examine the problem, according to one report.*

*Google is taking the lead on an industry initiative called ads.txt spearheaded by the Interactive Advertising Bureau. Ads.txt aims to wipe out fraud known as spoofing and increase transparency in programmatic advertising by keeping a public record of the Authorized Digital Sellers of the ads.*

Given this increased focus on eliminating ad fraud, and assuming that CMCM is presenting with fake ad impressions, we believe CMCM's other utility clients will follow Facebook's lead.

- **CMCM is unlikely to survive further significant contractions in its utility revenue:** We estimate Q2'17 utility revenue was 72% of consolidated revenue, after adjusting for our estimates of fabricated utility and Live.me revenue (\$69.5m and \$36.4m, respectively). Given that the utility business accounts for the majority of its actual revenue, CMCM will likely be unable to survive for much longer if its utility revenue continues to decline significantly, as we believe it will.

**Prescience Point Adjusted Revenue By Segment in Q2'17**

<i>(\$ in millions)</i>	Adjusted Revenue Q2'17	% of Total
Utility Revenue	\$51.5	72.2%
Content Revenue (Live.me + News Republic)	\$4.9	6.9%
Gaming & Other	\$14.9	20.9%
<b>PP-Adjusted Revenue</b>	<b>\$71.3</b>	<b>100.0%</b>

\* Prescience Point estimates.

### III. Recent Executive Departures, Including CMCM's CFO, And Rampant Insider Sale Registrations Are Further Signs of Looming Trouble

As CMCM's financial condition is deteriorating and the SEC is investigating, key executives are departing the Company and insiders are rampantly registering shares for sale via Form 144 filings. Is this a sign that trouble is looming for CMCM? We think so.

- **Recent departure of key executives is a red flag:** On March 31, 2017, Mr. Ka Wai Andy Yeung [resigned](#) as CFO of CMCM. Just a few months later, as disclosed in the Company's Q2'17 [earnings report](#), Mr. Yong Chen resigned as Senior VP effective June 30<sup>th</sup>.

Of particular concern is the departure of CFO Mr. Yeung. According to a former CMCM manager, Mr. Yeung was a seasoned, US-trained executive who was brought in to reassure the US markets of the legitimacy of the Company and its reported financials. Now, with his sudden departure, that seal of approval is gone – Adding further to the already serious doubts over the accuracy of the Company's reported financials.

*Former Employee: Their CFO was a very sophisticated American trained guy, right. And so he was brought on as a seal of approval for the market to perceive...He was the one, I guess, the warranty of Americanism and cleanliness on the books, and he brought the big bankers to the deal, etc. I think he found very different things than (what) he was expecting."*

*He was also not politically very well-aligned with Fu Sheng because I think he wasn't really doing what Fu Sheng wanted him to do all the time*

- **Insiders appear to be cashing out:** A total of 5 insiders have registered their shares for sale via Form 144 filings over the past 5 months for an estimated total of \$17.3m in proceeds, according to CapitalIQ. This includes an estimated \$1.4m of registered stock sales by CEO Sheng Fu (via an entity he owns called Fax Vision Corporation) and an estimated \$9.7m of registered stock sales by President Ming Xu.<sup>10</sup> (see Appendix for the source data from CapitalIQ)



<i>(All amounts in millions)</i>	Title	Trade Date <sup>(1)</sup>	# of Shares Registered To Be Sold	Estimated Share Sale Proceeds
Sheng Fu <sup>(2)</sup>	CEO	Sep-17	150	\$1,447.5
Ming Xu	President	Aug-17	1,000	\$9,700.0
Chenggong Fan	CTO	Aug-17	76	\$772.6
Jie Xiao	Senior VP	Aug-17	310	\$3,134.0
Ambition & Sincerity Ltd <sup>(3)</sup>		Jun-17	125	\$1,500.0
Chenggong Fan	CTO	May-17	64	\$778.3
<b>Total</b>			<b>1,725.0</b>	<b>\$17,332.3</b>

Source: CapitalIQ.

(1) Trade date is intent to sell date.

(2) Mr. Fu registered to sell shares via Fax Vision Corporation

(3) An entity controlled by a CMCM insider.

## Valuation

Given the evidence of gross malfeasance presented in this report, we conclude that CMCM shares are simply uninvestable. That being said, in the interest of being conservative, we have attempted to provide an estimated valuation.

CMCM's reported Adj. EBITDA was \$18.7m in Q2'17. We estimate that CMCM's actual Adj. EBITDA in Q2'17 was \$3.3m. We derived our Q2'17 EBITDA estimate based on the following key assumptions:

- **Revenue:** As calculated earlier, we believe actual Q2'17 revenue was \$80.4m, rather than the \$177.2m CMCM reported.
- **Gross Margin:** Assumed to be equivalent to reported Q2'17 gross margin of 61.6%.
- **Operating Expenses:** Assumed to be equivalent to reported Q3'14 operating expenses. We believe this is a reasonable assumption given that CMCM's reported Q3'14 revenue of \$78.0m is close to our estimate of its actual Q2'17 revenue of \$80.4m.

### Prescient Point Estimation of CMCM's Q2'17 Adj. EBITDA

(\$ in millions)	Q2'17
Reported Revenue	\$177.2
Less: Total Fabricated Revenue <sup>(1)</sup>	(\$96.8)
<b>PP-Estimated Revenue</b>	<b>\$80.4</b>
Less: COGs	(\$30.9)
<b>Gross Profit</b>	<b>\$49.6</b>
<i>Gross Margin <sup>(2)</sup></i>	<i>61.6%</i>
Less: Research & Development <sup>(3)</sup>	(\$22.1)
Less: Selling & Marketing <sup>(3)</sup>	(\$27.2)
Less: General & Administrative <sup>(3)</sup>	(\$11.5)
<b>Operating Income</b>	<b>(\$11.2)</b>
Plus: Share-based Compensation <sup>(3)</sup>	\$9.2
Plus: D&A <sup>(4)</sup>	\$5.3
<b>PP-Estimated Q2'17 Adj. EBITDA</b>	<b>\$3.3</b>

*(1) Based on PP estimate that 54.6% of CMCM's Q2'17 revenue was fabricated.*

*(2) Equal to CMCM's reported Q2'17 gross margin.*

*(3) Equal to amount CMCM reported in Q3'14.*

*(4) Equal to CMCM's reported Q2'17 D&A expense.*

We have used the above EBITDA estimate along with reasonable assumptions to value CMCM's shares:

- Based on its share price of \$8.42 as of 10/25/2017, CMCM is currently trading at 17.8x its reported LTM EBITDA of \$63.7m (See the Appendix for a more detailed calculation).
- By applying this multiple and a 35% corruption discount to our annualized Q2'17 Adj. EBITDA estimate of \$13.3m, CMCM's enterprise value is \$153.9m.
- After applying a 50% corruption discount to CMCM's Q2'17 cash balance of \$351.5m, CMCM's adjusted cash balance is around \$175.8m.
- Adding it all up, we value CMCM's equity at \$1.69 per share. This represents a discount of 80.0% to the current share price.

**Prescience Point Estimation of Fair Value of CMCM Shares**

(\$ in millions, except per share values)

PP-Estimated Q2'17 Adj. EBITDA - Annualized <sup>(1)</sup>	\$13.3
EBITDA Multiple (PF for 35% Corruption Discount) <sup>(2)</sup>	11.6x
<b>Enterprise Value</b>	<b>\$153.9</b>
Less: Total Debt <sup>(3)</sup>	(\$71.8)
Plus: Cash Balance (PF for 50% Corruption Discount) <sup>(4)</sup>	\$175.8
<b>Equity Value</b>	<b>\$257.9</b>
÷ Total Shares Outstanding <sup>(5)</sup>	153.0
<b>Market-Value Per Share</b>	<b>\$1.69</b>

*(1) Equal to PP-estimated Q2'17 Adj. EBITDA of \$3.3m \* 4**(2) Equal to 17.8x EV / Reported LTM EBITDA \* (1 - 35% corruption discount).**(3) Total debt as of 6/30/2017 as reported by CMCM.**(4) Equal to Q2'17 cash balance of \$351.5m \* (1 - 50% corruption discount).**(5) FD shares outstanding as of 6/30/2017. Includes 143.6m basic shares outstanding as reported in CMCM's Q2'17 earnings report + 9.4m of restricted shares outstanding as reported in CMCM's FY'16 20-F.*

But we believe this valuation is likely too generous given the 1) evidence that CMCM has materially misled investors about its financial performance, 2) presence of an ongoing SEC investigation into CMCM, and 3) evidence that the Company's real revenue is contracting rapidly and that it is running out of cash. While we currently value CMCM at \$1.69 per share, we expect CMCM shares will eventually become worthless and subsequently de-listed from the NYSE due to the issues highlighted in this report.



CMCM: It's very very small.

## Extracts of Our Conversations with Former CMCM Employees About CMCM's Utility Business

- Extracts of our conversation with a former CMCM manager in the utility division:

Former Employee: I don't exactly know how they make up their number(s), definitely they do something for the public financial reports. People they watch the news and (the news) says "Cheetah Mobile has increased their revenue". (But) every weekly meeting we had, we definitely see the downloads is going down when I was working there...I mean they must do something to the numbers.

There's definitely something wrong with the company, so that's why I left.

They're going down (downloads) and the impressions are going down too. They tried to push us to do something to see how can (we get) the users back and we tried really hard because I know it was a really hard year for us last year.

PP: You're saying that you don't believe that the financials are accurate that they're reporting to the public.

Former Employee: No, no. There must be something. I mean they make up (the numbers) for sure.

PP: Did your other colleagues say anything about that (the numbers)?

Former Employee: We are like 80 (to) 90 percent sure that the numbers are fake.

PP: You're saying that you and your colleagues were skeptical about the numbers?

Former Employee: Correct, yeah that's what we talked about every day when I was there.

- Extracts of our conversation with another former CMCM manager in the utility division:

Former Employee: It's a Chinese company, I don't know how much experience you guys have with Chinese companies. You never know exactly what's going on in there.

PP: One thing that we heard about the company was the senior executive team was very hush hush about numbers internally. So, as an example, one person told us that they didn't even know what the actual monthly active users were for the company because the management team would not share that data with them. Which was, to us, a very big red flag because why would you not share one of your most important metrics with your own advertising team, right? Have you seen any evidence of the company being either misleading about their own numbers internally or trying to hide things?

Former Employee: They are very hush hush about it (the numbers)

I was managing the advertising platform, so I had access to the numbers, the stats of the platform in real time, and I didn't get the same numbers that they had. So I don't know where they were getting their numbers from.

PP: When you said that the numbers you calculated did not match what the company was disclosing, can you just be more specific?

Former Employee: On the ad platform we can know everything, which ads are served, what's the payout for which campaign, how many clicks it got, downloads, how much revenue they made every day. But to give you a sense of the mess it was - When I joined, if you are looking at the monthly revenue, and if you are taking the daily revenue and adding up every daily revenue for the month, it wouldn't match the monthly revenue

(And) When I would check the monthly revenue from the platform, I wouldn't get the same number the business had on their side, and I was never able to understand the numbers that were published in the financial statements of the Company.

PP: When you look at how far off the numbers were, what's your assessment of that? Did you ever think wow these numbers are off by xyz percent, or are inflated by 300%? What are your thoughts on that, like the degree.

Former Employee: They were sometimes going in different directions. Sometimes the numbers on my side were going down and whereas the business teams, the sales teams were getting lot of pressure to sell more and get the numbers back up and at the same time we were reporting growing numbers in the financial statements.

- **Extracts of our conversation with a former CMCN marketing manager:**

PP: What percentage of the users are active, do you think?...They report 600 million monthly active users, but I'm a little bit suspicious about that.



*Former Employee: So that number is heavily, heavily guarded, even inside the organization. To the point that I will say not all executives get to see the real number of active users. So, when you, like me, work in advertising and are trying to sell advertising space, it's extremely hard to do if you don't know how many users you have to sell.*

*So, I can't tell you for sure because...most of the teams weren't given access to the actual active user numbers but I would suspect it's significantly lower than that (600 million)...Some of the most attractive geos (geographies) like US and Western Europe are really poor.*

*Look at advertising sales in the US for example, I think you can probably go on LinkedIn and look at everybody who was part of the US advertising sales team and you've realized that over the past 18 months everybody's left. So, it's a pretty good sign that sales are not working if you have sales people leaving because sales people stay as long as they pay commission, so if they can't make commission they leave, right.*

*PP: Over the last two years revenue has gone up from advertising, but you're saying that the advertising personnel has left, meaning that they're not actually selling any advertisements. So, it seems to me that with the decline in downloads, with people leaving from the advertising department, I'm calling into question whether their reported revenue is real.*

*Former Employee: You and me both...I don't wanna make a snap judgement on it (but)...one of the reasons I left the company is there is definitely some fuzzy accounting going on, right. And clearly partly its sheer incompetence financially and partly it probably serves them well, but it's happened that numbers that were shared internally were really far from reality, and there were some very obvious accounting mistakes.*

*I would say that I was very surprised that for a American publicly listed company there was such large mistakes in accounting.*

*PP: (So) Would you agree with my assessment...that their reported revenue for advertising does not make a lot of sense relative to the trends in the business.*

*Former Employee: Completely.*

*I've worked with a lot Chinese companies, and I know they do business differently, but Cheetah is a different scale in terms of how worried I would be.*

- Extracts of our conversation with a former CMCM software engineer in the utility division:

Former Employee (via a translator): He also wanted to add in one extra thing that he had spoken with a couple colleagues he remembers during his time there. He had spoken with colleagues that were heading to Europe for a sales meeting and the numbers weren't reflecting what they needed as far as the real numbers. So they had lied to say that their ad impressions had increased 10x the amount that it actually was...they published a lot of fake numbers.

PP: Does he think it's possible or has he seen any evidence of the Company massaging their numbers or fudging their numbers?

Former Employee (via a translator): These are all things that he has heard from...colleagues that are in the sales & marketing department, different departments, advertising department. From his understanding, these are fake numbers.

### Additional Evidence That Online Marketing Services and Utility Revenue Are Almost Equivalent

In its Q2'17 earnings report, CMCM disclosed that utility products and related services revenue totaled RMB 946.2m in Q2'16. By comparison, online marketing services revenue totaled RMB 939.1m in Q2'16. Thus, in Q2'16, online marketing services revenue and utility revenue were almost the same amount:

For The Three Months Ended			
	30-Jun-16 RMB	31-Mar-17 RMB	30-Jun-17 RMB
Revenues	1,046,664	1,190,703	1,201,561
Utility products and related services	946,198	827,225	820,342
Mobile entertainment	100,137	363,468	371,034
Others	329	10	10,185

For The Three Months Ended			
	June 30, 2015 RMB (As adjusted, unaudited) (b)	March 31, 2016 RMB (Unaudited)	June 30, 2016 RMB (Unaudited)
Revenues	886,222	1,114,988	1,046,664
Online marketing services	757,170	992,279	939,125
Internet value-added services	109,308	102,268	79,601
Internet security services and others	19,744	20,441	27,938

### Recent Online Casting Call is Evidence Suggesting CMCM Hires Broadcasters to Live Stream on Live.me

We present evidence in the form of recently published online casting calls suggesting, as former employees claimed, that CMCM hires its own broadcasters. Given the casting call states that compensation is in the form of a fixed hourly wage and makes no mention of any variable component from the receipt of gifts on the platform, we are left to believe CMCM would maintain control over these broadcasters' accounts.

## Production Description

Seeking entertainers for [Live.Me](#), a social platform for broadcasting live streaming videos. Recruiters ask: "Can you sing, dance or do you have any kind of talents (body building, cooking, etc)? If you wow, show us how, come join this young community and earn some money." In addition to holding auditions, the company will host trainings and presentations explaining [Live.Me](#) and how to gain more followers.

## Roles

[Collapse All Roles](#)

**Broadcaster (Day Player):** 18-35

**Ethnicity:** All Ethnicities

## Rehearsal and Production Dates & Locations

Work is for online ambassadors so location is dependent on talent selected.

## Compensation & Union Contract Details

Pays: \$12/hr.

## Calculation of CMCM's Current Market Valuation

Provided below is our calculation of CMCM's current market valuation as of 10/25/2017:

### Current CMCM Market Valuation

*(\$ in millions, except per share values)*

Share Price (as of 10/25/2017)	\$8.42
Total Shares Outstanding <sup>(1)</sup>	153.0

**Equity Value** **\$1,288.4**

Plus: Total Debt <sup>(1)</sup> \$71.8

Less: Cash & Equivalents <sup>(1)</sup> (\$227.4)

**Enterprise Value** **\$1,132.8**

**Reported LTM Adj. EBITDA <sup>(1)</sup>** **\$63.7**

**EV / LTM Adj. EBITDA** **17.8x**

\* Based on CMCM's SEC filings.

(1) As of 6/30/2017.

## Snapshot of Insider Sales Registration Data from CapitalIQ

# S&P Capital IQ

## Cheetah Mobile Inc. (NYSE:CMCM) > Public Ownership > Insider Trading

### Insider/Individual Trades

<b>Currency:</b>	Reported Currency						
<b>Date:</b>	All History						
<b>Types:</b>	All Transaction Types						
Holder Name	Trade Date Range	Security Type	Transacted Shares	Transaction Value Range (USD)	Transaction Type	Price Range (USD)	Filed Date
FaX Vision Corporation	Sep-19-2017	ADR REPR 1 CL A ORD	(150,000)	(1,447,500)	Intent to Sell (Form 144)	9.65	Sep-25-2017
Xu, Ming (President)	Aug-29-2017	ADR REPR 1 CL A ORD	(1,000,000)	(9,700,000)	Intent to Sell (Form 144)	9.7	Sep-05-2017
Fan, Chenggong (Chief Technology Officer)	Aug-24-2017	ADR REPR 1 CL A ORD	(76,417)	(772,575)	Intent to Sell (Form 144)	10.11	Aug-25-2017
Xiao, Jie (Senior Vice President)	Aug-24-2017	ADR REPR 1 CL A ORD	(309,991)	(3,134,009)	Intent to Sell (Form 144)	10.11	Aug-25-2017
Ambition & Sincerity Ltd	Jun-12-2017	ADR REPR 1 CL A ORD	(125,000)	(1,500,000)	Intent to Sell (Form 144)	12.0	Jun-19-2017
Fan, Chenggong (Chief Technology Officer)	May-30-2017	ADR REPR 1 CL A ORD	(63,583)	(778,256)	Intent to Sell (Form 144)	12.24	May-31-2017
Singularity US, Inc.	Aug-24-2016	ADR REPR 1 CL A ORD	(200,000)	(2,200,000)	Intent to Sell (Form 144)	11.0	Aug-29-2016
Yeung CFA, Ka Wai (External Advisor)	Jun-08-2016	ADR REPR 1 CL A ORD	(91,275)	(1,034,145)	Intent to Sell (Form 144)	11.33	Jun-09-2016
Fu, Sheng (CEO & Director)	Jun-08-2016	ADR REPR 1 CL A ORD	(1,000,000)	(11,000,000)	Intent to Sell (Form 144)	11.0	Jun-15-2016
Xu, Ming (President)	May-27-2016	ADR REPR 1 CL A ORD	(103,196)	(1,137,219)	Intent to Sell (Form 144)	11.02	May-31-2016
Liu, Xinhua (Former Chief Marketing Officer)	May-23-2016	ADR REPR 1 CL A ORD	(199,991)	(2,039,908)	Intent to Sell (Form 144)	10.2	May-24-2016
Singularity US, Inc.	May-23-2016	ADR REPR 1 CL A ORD	(300,000)	(2,949,000)	Intent to Sell (Form 144)	9.83	May-31-2016
FaX Vision Corporation	Apr-29-2016	ADR REPR 1 CL A ORD	(2,000,000)	(30,640,000)	Intent to Sell (Form 144)	15.32	May-05-2016
Fu, Sheng (CEO & Director)	Mar-23-2016	ADR REPR 1 CL A ORD	(200,000)	(3,600,000)	Intent to Sell (Form 144)	18.0	Mar-24-2016
Liu, Xinhua (Former Chief Marketing Officer)	Nov-27-2015	ADR REPR 1 CL A ORD	(150,000)	(2,931,000)	Intent to Sell (Form 144)	19.54	Nov-30-2015
Liu, Xinhua (Former Chief Marketing Officer)	Nov-23-2015	ADR REPR 1 CL A ORD	(150,000)	(2,982,000)	Intent to Sell (Form 144)	19.88	Nov-24-2015
FaX Vision Corporation	Oct-26-2015	ADR REPR 1 CL A ORD	(195,000)	(3,900,000)	Intent to Sell (Form 144)	20.0	Nov-02-2015
Kau, Pak Kwan	Jun-02-2015	ADR REPR 1 CL A ORD	(54,016)	(1,700,000)	Intent to Sell (Form 144)	31.47	Jun-08-2015
Yeung CFA, Ka Wai (External Advisor)	Mar-24-2015	ADR REPR 1 CL A ORD	(60,000)	(1,115,400)	Intent to Sell (Form 144)	18.59	Mar-25-2015
Kau, Pak Kwan	Aug-27-2014	ADR REPR 1 CL A ORD	(146,500)	(4,240,000)	Intent to Sell (Form 144)	28.94	Sep-02-2014
1 Dilutive Ownership: Shares include other equity security classes and/or derivative securities that were unable to be quantified and subtracted from the primary class.							
2 As Reported: These values are taken directly from the document with no attempt to reconcile the positions from previous filings.							
3 Trade Date is Intent to Sell date.							

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## Endnotes

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<sup>1</sup> cash balance calculated as follows: Cash & Equivalents + Restricted Cash + Short-term Investments

<sup>2</sup> FY'16 20-F, p. 56

<sup>3</sup> As stated in CMCM's Q1'17 [earnings report](#), content revenue consists of revenue from its Live.me and News Republic app

<sup>4</sup> 2016 20-F

<sup>5</sup> *ibid*

<sup>6</sup> Per the Q4'16 [earnings call](#).

*Okay. So if you look at our content revenues for Live.me, it's fully in IVAS, because it's virtual gift and so you if look at virtual gift, it increased – sorry, the IVAS increased quarter-on-quarter mainly coming from the increase in Live.me's revenue increase. (Q4'16 Earnings Call)*

Our researcher spoke with CMCM management:

Researcher: In your FY'16 20-f you state Live.me rev is classified as IVAS. Based on this is it safe for us to assume that all Live.me revenue is virtual gifting?

CMCM: *At this stage, yes; correct. All of it is from users buying virtual items and sending those to broadcasters, and then we get a cut. But in the future there could be some new business models...the business model is always evolving. There could be some new models being introduced on the Live.me platform, but currently 100% of them are through the selling of virtual items*

Researcher: When we look at the biz models of your competitors, we see they're generating far more mobile revenue vs pc revenue.. Is it safe for us to assume for our models that 100% of revenue generated is generated via mobile app

CMCM IR: *For cheetah, all of the Live.me revenue generated is on the mobile platform, so the mobile app; we have a pc version, but its more for people to have another platform to view some of the content.*

<sup>7</sup> App Annie

<sup>8</sup> Prescience Point's custom calculations based on App Annie Intelligence data

<sup>9</sup> Prescience Point's custom calculations based on App Annie Intelligence data for YouNow; PP estimates for Live.me

<sup>10</sup> CapitalIQ insider share sales data for CMCM based on hardcopy Form 144 filings provided by the Washington Service. The data has been verified as accurate. As per the Washington Service, insiders of foreign companies are not required to file a Form 4 but are still required to register proposed sales of restricted stock on a Form 144:

*In contrast to insiders in U.S. companies, officers and directors of many foreign issuers traded on U.S. stock exchanges are not required to file a Form 4. However, they are still required to register proposed sales of restricted stock on a Form 144. Consequently, the 144 is the only source of information on insider stock sales in these companies.*

*In addition, while all insiders who file a Form 144 must also file a Form 4 if they actually sell the restricted stock, not all affiliates are insiders. Form 144s may therefore also report significant sales by affiliates that are not disclosed on Form 4s.*