

COMPANY REPORT

INTERNET



Expansion brings more challenges, initiate with HOLD

September 23, 2021

INVESTMENT SUMMARY

- While Zhihu continues to expand its user base, its total user time spent and active users' retention rate have been declining. We suggest the trend will continue because there are increasing challenges to Zhihu's content, ecosystem, competitive landscape, and the balance between monetization and user growth.
- The declining total user time spent will pose pressure to Zhihu's future monetization potential, and the unsatisfying user retention rate will affect the margin because Zhihu needs to pay more to retain the users.
- Initiate with HOLD with TP US\$8.0, which implies 10X/6X PS in 21/22.

Research Team



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Zhihu (ZH US)

A bumpy way to expand

- Zhihu's original reputation, that being a serious/elite forum, restricts its expansion through more entertainment content or a wider user group.
- The unsuccessful expansion also creates issues to Zhihu's monetization and profitability potentials.
- Monetization will face more challenges into 2H21 due to weak online ads market and more regulatory issues.

Two key figures are not promising

According to Questmobile, although Zhihu keeps fair growth in total user growth (DAU 11.7% YoY in 1H21), its average user time spent declined by 7% YoY in the same period, Zhihu's active user 7-days retention declined from 57% to 51%.

Competition with short-video platforms is a key issue

Major short video platforms all announced plans to support knowledge-related video content. Zhihu tries to catch up, but the amount of viewership is not satisfying. The increasingly competitive pressure from short-video platforms leads to drainage of Zhihu's top content creators.

Monetization potential is doubtful

Zhihu's online literature membership content is not comparable to those of other online literature platforms, like ones belonging to Yuewen or Bytedance. Online literature is also not compatible to Zhihu's position as a question-answer platform. "Zhi+" should also be seen as a ads, so Zhihu's total ads load already reached 12%-13% in 2021, similar to peers. Conversion results of Zhihu ads are not satisfying, per our channel check, because Zhihu users in general are critical about commercial ads.

MAU growth is accompanied with other metrics' sacrifices

Although our MAU forecast is in line with company's guidance to be 300 mn by 25, or 31.7% CAGR from 21-25, we estimate that Zhihu's DAU/MAU ratio, revenue growth, and margin will weaken. We estimate that Zhihu's DAU/Rev. will have 25.6%/45% CAGR from 21-25, and net margin will reach 17% by 25.

Summary financial data

Highlights	2019A	2020A	2021E	2022E	2023E
Revenue (RMB mn)	671	1,352	3,014	5,066	7,617
Gross margin	46.6%	56.0%	53.6%	59.6%	63.8%
Operating profit, IFRS (RMB mn)	(1,058)	(603)	(1,574)	(1,278)	(614)
Operating margin, IFRS	(157.9%)	(44.6%)	(52.2%)	(25.2%)	(8.1%)
Net Margin, non-IFRS	(123.0%)	(25.0%)	(36.3%)	(15.4%)	(0.3%)
EPS, non-IFRS (RMB)	(13.2)	(5.2)	(3.7)	(2.7)	(0.1)
Free cash flow yield	(9.75%)	0.64%	(3.45%)	(2.42%)	0.33%

Source: Bloomberg, Blue Lotus (as of Sep 23, 2021)

BUY	HOLD	SELL
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Target Price: US\$ 8.0	Current Price: US\$ 7.5
RIC: (NYSE:ZH)	BBG: ZH US
Market cap (US\$ mn)	4,219
Average daily volume (US\$ mn)	23
Shares out/float (m)	523/7.7

Source: Bloomberg, Blue Lotus (as of Sep 23, 2021)

Key Changes

	New	Old	Diff
BLRI Recommendation	HOLD	-	-
BLRI Target Price	US\$ 8	-	-
2021E EPADS (RMB)	(3.78)	-	-
2022E EPADS (RMB)	(2.71)	-	-
2023E EPADS (RMB)	(0.13)	-	-

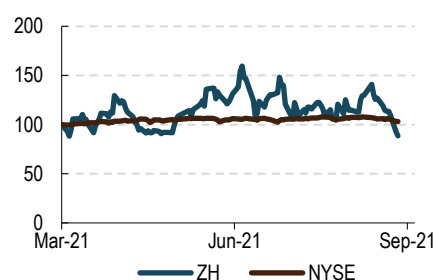
Source: Blue Lotus (as of Sep 23, 2021)

BLRI vs. The Street

No. of Bloomberg Recommendations	13
Target price vs. Bloomberg mean	(42.2%)
1-year-fwd EPS vs. Bloomberg mean	(85.6%)
Bloomberg recommendation	5

Source: Bloomberg Recommendation, Blue Lotus (1=SELL, 5=BUY) (as of Sep 23, 2021)

Price performance and volume data



Source: Bloomberg, Blue Lotus (as of Sep 23, 2021)

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Blue Lotus Capital Advisors Limited

All prices are those current at the end of the previous trading session unless otherwise indicated. Prices are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is sourced from Bloomberg, Blue Lotus Capital Advisors Limited and subject companies. Consensus forward estimates are used in analysis. Past performance is not indicative of future results. Investors should consider this report as only a single factor in making their investment decision.

Zhihu: Financial Summary

Fiscal year ends-31-Dec

Exhibit 1. Income statement

RMB mn	2020A	2021E	2022E
Revenue	1,352	3,014	5,066
Advertising	843	1,145	1,552
Paid membership	320	697	1,237
Content-commerce solutions	136	1,054	2,064
Others	53	118	213
Cost of revenue	(594)	(1,400)	(2,046)
Gross profit	758	1,615	3,020
Gross margin	56.0%	53.6%	59.6%
R&D	(330)	(547)	(818)
S&M	(735)	(1,914)	(2,432)
G&A	(296)	(730)	(1,049)
Operating profit, IFRS	(603)	(1,574)	(1,278)
Operating margin, IFRS	-45%	-52%	-25%
Profit before income tax, IFRS	(516)	(1,425)	(1,222)
Profit for the year, non-IFRS	(337)	(1,110)	(795)
EPS, non-IFRS, RMB	(5.2)	(3.8)	(2.7)

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

Exhibit 2. Balance sheet

	2020A	2021E	2022E
Current assets	3,720	6,869	7,094
Cash and cash equivalents	958	3,358	2,658
Term deposits	1,093	1,093	1,093
Short-term investments	1,046	1,046	1,046
Trade receivables	486	1,083	1,821
Amounts due from related parties	14	14	14
Prepayments & other current assets	124	275	463
Non-current assets	41	36	38
Property and equipment, net	8.1	9.9	13.7
Intangible assets, net	23.5	16.1	14.6
Right-of-use assets	3.2	3.2	3.2
Other non-current assets	6.5	6.5	6.5
Total assets	3,761	6,905	7,132
Current liabilities	1,015	2,193	3,647
Accounts payables & accrued liabilities	502	1,119	1,880
Salary and welfare payables	232	517	869
Taxes payables	7	7	7
Contract liabilities	160	357	599
Other current liabilities	114	194	292
Non-current liabilities	-	-	-
Total Equity	(5,144)	(3,179)	(4,406)
Total liabilities and equity	3,761	6,905	7,132

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

Company Description

Zhihu Inc. operates an online content community platform in China. The company's community allows users to interact in forms of Q&A and other online content formats. It also provides services of technology, business support, consulting, information and marketing services. The company generates revenues from membership, content-commerce solutions, and advertising.

Industry View

As online users' demand to consume the paid knowledge content continue to increase and monetization methodology further diversifies, we expect the paid knowledge-sharing market in China is estimated to grow to RMB 67.5 bn by 2021 with users reaching nearly 480 mn.

Exhibit 3. Cash flows statement

	2020A	2021E	2022E
Profit before income tax	(518)	(1,431)	(1,227)
Adjustments for:			
Depreciation and amortization	20	10	5
Share based payments	180	-	-
Trade receivables	(257)	(597)	(737)
Prepayments, deposits and other assets	(17)	(152)	(187)
Trade payables	215	617	761
Salary and welfare payables	25	285	352
Contract liabilities	53	197	243
Other payables and accruals	(29)	80	99
Net cash generated from operating activities	(244)	(992)	(693)
Cash flows from investing activities	430	(4)	(7)
Purchase of property, plant and equipment	(2)	(4)	(7)
Purchase of intangible assets	--	--	--
Purchase of short-term investments	(6,153)	--	--
Purchases of term deposits	(2,329)	--	--
Cash flows from financing activities	9	3,396	0
Changes in cash	57	2,400	(700)
Cash at the beginning	900	958	3,358
Cash at the end	958	3,358	2,658

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

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Recent Reports

September 16th, 2021: [Blue Lotus Sector Update]: **NEV's continued strong momentum in August**

September 15th, 2021: [Alibaba Health (241 HK, SELL, TP HK\$4.1) Rating Change]: **Not yet a value stock...DG to SELL**

September 15th 2021: [PAGD (1833 HK, HOLD, TP HK\$57) Rating Change]: **Margin outlook challenging despite the niceties**

September 15th 2021: [Blue Lotus Sector Initiation]: **China's digital health: too expensive and too early**

September 15th 2021: [YIDU Tech (2158 HK, SELL, TP HK\$10) Initiation]: **Hard to reach a breakeven point...Initiate @SELL**

September 15th 2021: [JD Health (6618 HK, SELL, TP HK\$30) Initiation]: **Better than peer but not good enough...Start @SELL**

September 15th 2021: [Alibaba (BABA US, BUY, TP US\$225) Rating Change]: **Beneficiary of connectivity, UG to BUY**

September 14th 2021: [ZTO Express (ZTO US, BUY, TP US\$34.5) Target Price Change]: **Delivery fee hike leads to more benign competition**

September 10th 2021: [Blue Lotus Sector Update]: **Live streaming is under more scrutiny**

September 10th 2021: [Blue Lotus Sector Update]: **[Blue Lotus Data Tracker]: After-school-tutoring faced new challenges**

September 7th, 2021: [Blue Lotus Sector Update]: **Game code approval is likely to be further tightened**

September 6th, 2021: [[Li Auto (LI US, BUY, TP US\$50) C2Q21 Review]]: **3Q21 guidance conservative, but strongest vs. peers**

Investment Cases at a Glance

Why is it a HOLD

- **Bullish target accompanied with growing pain.** Zhihu sets up its MAU target to be 300 mn by 4Q25. Given that Zhihu reported that its MAU reached 85mn in 1Q21, Zhihu aims to grow 2.5X more users from its current level. We tend to hold the view that the MAU target is bullish and Zhihu needs to prepare for the high cost of growth. Other top text/image apps like Jinri Toutiao and Tencent News have seen flattish user growth after their MAUs reached around 300 mn. Meanwhile, Zhihu's high MAU target may still be appealing to some investors.
- **Competitive landscape is unfriendly.** Knowledge-related video is a type of content that more relies on top content creators because top KOLs have more authority and authenticity. Therefore, major short-video platforms are attracting top content creators by offering high pay out. Although Zhihu's mid-level content creators keep the frequency stable in contributing content, its top content creators have seen downward trend in uploading content, according to our calculation.
- **A careful balance among monetization, user growth, and community.** Zhihu's membership penetration is only 5%, similar to Yuewen's 4.5%, and much lower than other platforms like iQiyi. The low penetration indicates the lack of matching between membership content and users' demand. To be more specific, the online literature offered to membership is not matched with Zhihu's Q&A community position. Zhihu's ads monetization rate is already similar to Weibo's. By adding more ads, either "Zhi+" or newsfeed ads, Zhihu's user growth and community stickiness will be affected.

What are the key catalysts for the next 3-6 months?

- **Ads will see more challenge in 2H21.** We expect that there will be sector-wise slowdown growth of online ads into 2H21 because of the weak macro economy and increasing number of regulatory measures. Although Zhihu's ads recorded high-speed growth in 1H21, they will also experience similar pressure in coming quarters. Zhihu has a high percentage of brand ads, which will be more impacted by the macro economy. Besides, "Zhi+" is likely to be under more regulatory scrutiny because it doesn't specifically tag itself as a commercial ad.

Where can we be wrong?

- Zhihu still has advantage in maintaining its mid-level content producers and producing hard-core knowledge video content. Zhihu's cohorts have higher stickiness than we thought.
- Zhihu's user and content expansion is better than we thought. Under weak macro economy, an increasing number of users will pursue knowledge online.
- Advertisers may shift their ads budget from performance-based ads to brand ads into 2H21 because the new regulation regarding data privacy will lead to

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September 3rd 2021: [Blue Lotus Sector Update]: **New regulations bring wide impact to online ads**

September 3rd 2021: [Blue Lotus Sector Update]: **Cloud market slightly impacted by tightened regulation**

September 1st 2021: [Leju Holdings (LEJU US, BUY, TP US\$2) Target Price Change]: **(China Evergrande) bad debt concern**

lower conversion rate of performance-based ads. Zhihu may be benefited because it has more advantage in brand ads.

What can change our view?

- Key metrics like user time spent or user retention showing reversing trend.
- Breakthrough in video content.
- New monetization methods, like e-commerce, prove to be successful.

Operating Metrics

Exhibit 4. Quarterly revenue table

RMB mn	3Q20A	4Q20A	1Q21A	2Q21A	3Q21E	4Q21E
Revenue	383	520	478	638	829	1,069
Advertising	231	319	214	248	304	378
Paid membership	91	104	127	155	190	225
Content-commerce solutions	46	76	121	207	302	424
Others	15	20	17	28	32	42
Cost of revenue	(163)	(187)	(206)	(262)	(398)	(534)
Gross profit	220	333	273	377	431	534
Gross margin	57.5%	64.1%	57.0%	59.0%	52.0%	50.0%
R&D	(77)	(82)	(106)	(121)	(149)	(171)
S&M	(220)	(243)	(347)	(443)	(547)	(577)
G&A	(53)	(112)	(162)	(163)	(191)	(214)
Operating profit, IFRS	(130)	(105)	(342)	(351)	(453)	(425)
Operating margin, IFRS	(34%)	(20%)	(72%)	(55%)	(55%)	(40%)
Profit before income tax, IFRS	(110)	(90)	(324)	(320)	(423)	(394)
Profit for the year, non-IFRS	(70)	(26)	(194)	(200)	(304)	(276)
Business lines breakdown:						
Advertising revenue	231	319	214	248	304	378
-MAU (mn)		75.7	85.0	94.3	105.6	114.1
-Advertising revenue per MAU (in RMB)		4.2	2.5	2.6	2.9	3.3
Paid membership revenue	91	104	127	155	190	225
-Paying ratio		4.0%	4.7%	5.0%	5.3%	5.6%
-Quarterly ARPU (in RMB)		34.5	31.6	33.0	34.1	35.3
Content-commerce solutions revenue	46	76	121	207	302	424
-MAU (mn)		75.7	85.0	94.3	105.6	114.1
CCS revenue per MAU (in RMB)		1.0	1.4	2.2	2.9	3.7

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

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MAU growth target is too high

Zhihu reported that its MAU reached 85mn in 1Q21 and it sets the MAU target to reach 300 mn by 2025. Our view is that the target is bullish in comparison with other mainstream text/image media platforms such as Jinti Toutiao and Tencent news, which already encountered flattish user growth after their MAUs reached around 300 mn. Meanwhile, its user profile to include deepened penetration among users with higher education level as well as lower tier cities could help further expand the user base.

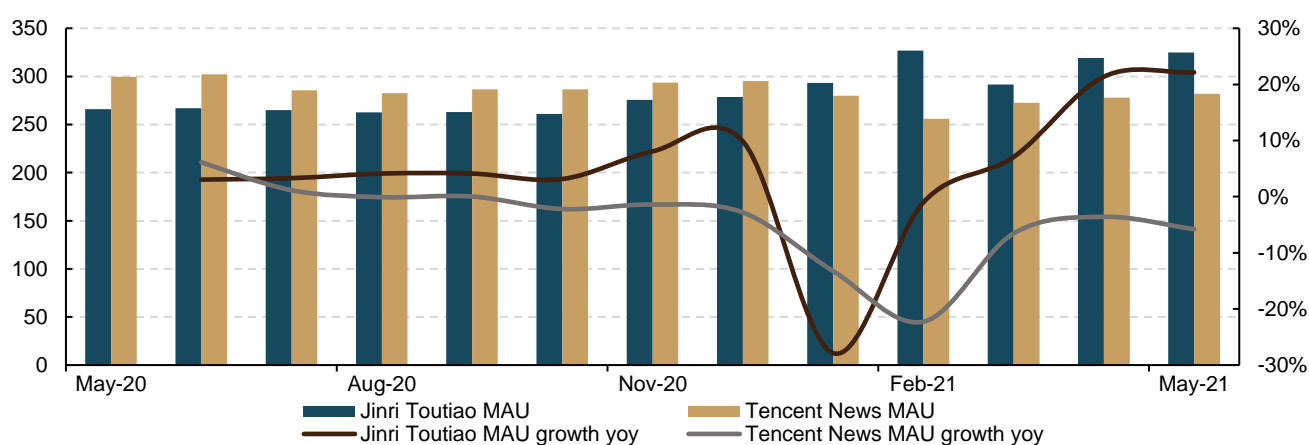
300 mn MAU is the cap for text/image media platform

The most comparable cases are two major text/image media platforms: Jinri Toutiao from Bytedance and Tencent News from Tencent, which recorded 320 mn and 280 mn MAU by May 2021, according to Questmobile Data. Both Jinri Toutiao and Tencent News offer various content categories, offer mainly text/image content, and both show flattish user growth trend in the past several quarters.

There are several other media platforms which have high user bases. However, we don't think that Zhihu is very comparable to these platforms. For example, Weibo and Mobile Baidu reached 460 mn/560 mn MAU by the end of May 2021, according to Questmobile Data. We estimate that Wechat Official Account had about 360/900 mn DAU/MAU by May 2021. Most of Weibo's content is restricted to 140 characters or 9 images, and Weibo more emphasizes discussion/forward functions, which distinguishes itself to a media platform. Baidu includes search function, which implies much broader audiences. Wechat Official Account is inserted in Wechat, the largest social platform. More importantly, Weibo, Mobile Baidu, and Wechat Official Account also saw very limited user growth in recent quarters.

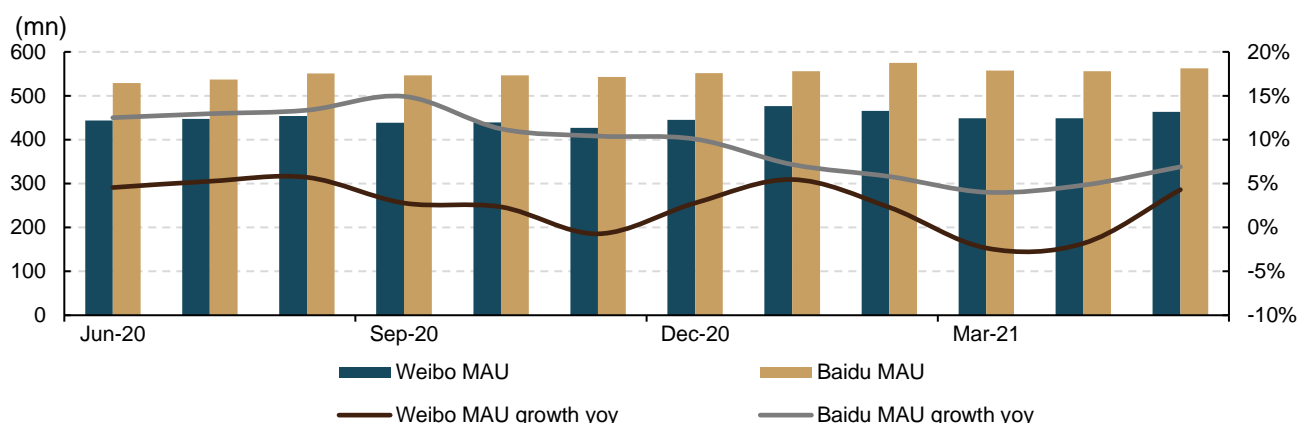
Jinri Toutiao and Tencent news could reach 300 mn MAU partly because of the ecosystem from Bytedance and Tencent News.

Exhibit 5. Jinri Toutiao and Tencent News MAU growth trend (2020 May to 2021 May)



Source: QuestMobile, Blue Lotus (as of Sep 23, 2021)

Exhibit 6. Weibo and Baidu MAU growth trend(2020 May to 2021 May)



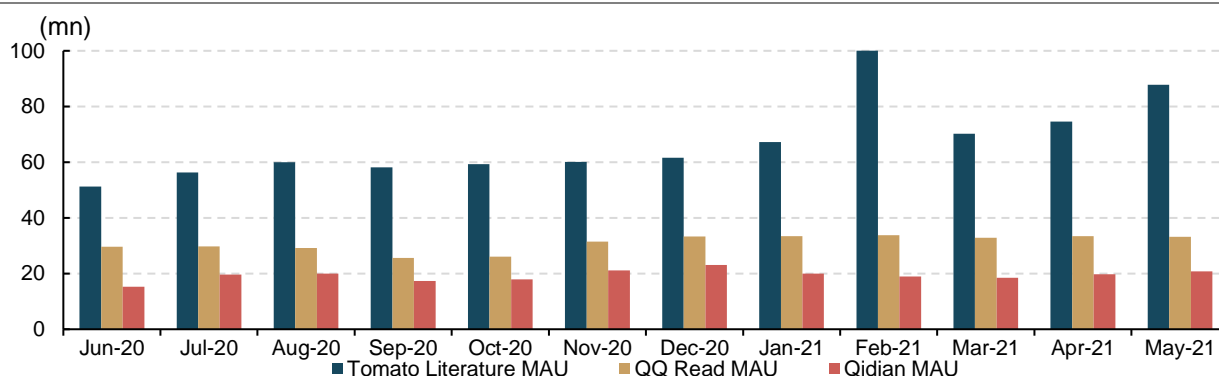
Source: QuestMobile, Blue Lotus (as of Sep 23, 2021)

Online literature platforms have fewer users

In recent quarters, Zhihu introduced more content related to stories or novels to enrich its content. However, MAU of major online literature platforms are much fewer than media platforms. For example, the top free-to-read media platforms, Tomato Literature, had 87 mn MAU by May 2021, while other apps, like QQ Read or Qidian, only had about 20-30 mn MAU.

Online literature is seeing more challenge from other online entertainment, like short video.

Exhibit 7. Top literature platforms MAU growth trend (2020 June to 2021 May)



Source: Questmobile, Blue Lotus (as of Sep 23, 2021)

User profile shows user growth cap

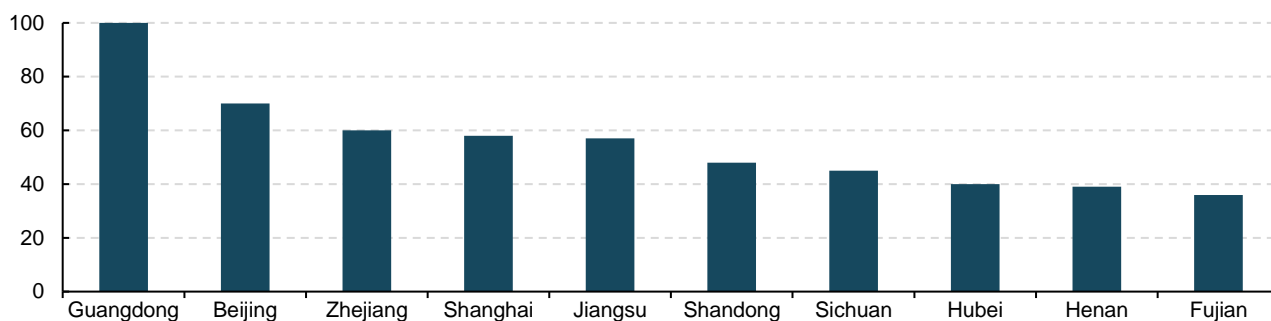
Zhihu's current users have about 56% males, of whom 78% are under 30 years old, and 50% are living in second-tier cities and below, according to Zhihu's management in June 2021. Hence Zhihu's users are at the young age and live in high-tier cities, but there isn't too much difference in gender ratio.

According to Baidu Index, the top five provinces that gather most Zhihu users are all coastal provinces with higher economic development, including Guangdong, Beijing, Zhejiang, Jiangsu, Shanghai, etc. Top interests of Zhihu's users include movie&music, education, software, online gaming, etc.

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Exhibit 8. Zhihu's users from top provinces in China

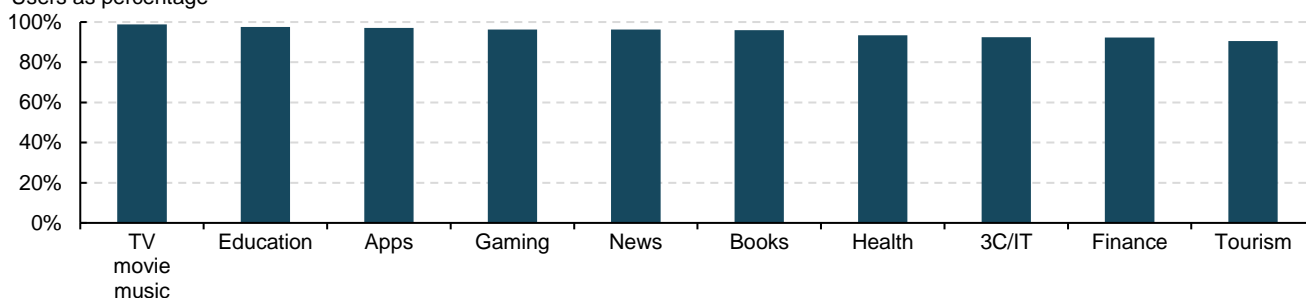
Search Weights



Source: QuestMobile, Blue Lotus (as of Sep 23, 2021)

Exhibit 9. Top interests of users on Zhihu

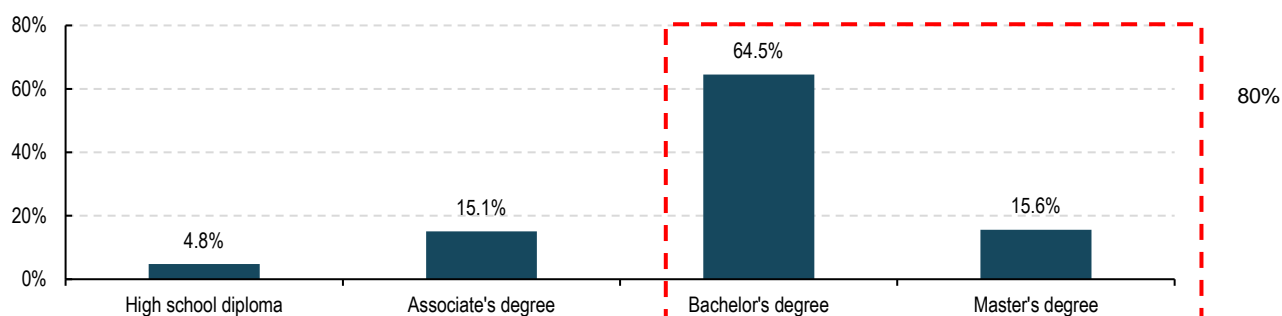
Users as percentage



Source: QuestMobile, Blue Lotus (as of Sep 23, 2021)

In 2018, iResearch published a report that estimated Zhihu users' education level. More than 80% of the users have bachelor's or master's degree, indicating that education level is a better indicator to measure Zhihu's potential user size. Zhihu's users' core demand include: 1) obtain answers or high-quality information; and 2) communicate or share ideas. These two demands are highly associated with education background.

Exhibit 10. Education level as the percentage of Zhihu users



Source: Blue Lotus (as of Sep 23, 2021)

According to the latest China Population Census, there are about 218 mn people who obtained bachelor's degree or above. Compared with 2010's Census, people who have bachelor's degree or above increased from 8.9% to 15.5%. Based on the trend from 2010-2020, we could infer that people who have bachelor's degree or above will take up about 18.7% of total population by 2025. If Zhihu needs to reach 300 mn MAU, then its penetration in users with bachelor's degree or above/high school needs to reach to 70%/30%, respectively. (See Exhibit. 11)

Zhihu's user profile is a double-edged sword. Zhihu is a platform with highly educated users, but its expansion will also lead to declining stickiness of cohorts.

Exhibit 11. Estimated education level as a percentage of China's total population

	2010	2020	2025E
Bachelor's degree or above	8.9%	15.4%	18.7%
High School	14.0%	15.0%	15.5%
Junior School	38.8%	34.5%	32.4%
Primary School	26.8%	24.8%	23.8%
Others	11.5%	10.3%	9.7%

Source: China Population Census, Blue Lotus (as of Sep 23, 2021)

Exhibit 12. Users estimate based on the education level

	Total Population (by 2025)	Zhihu Penetration	Total User Number
Bachelor's degree or above	270	70%	189
High School	225	30%	67
Junior School	469	10%	47
Primary School	345	1%	3
Others	141	1%	1
Total			308

Source: China Population Census, Blue Lotus (as of Sep 23, 2021)

Alternatively, a cross analysis of tiers of cities/age group also leads to similar results. Assuming that Zhihu's core users are between 20-35 years old who live in high-tier cities, then Exhibit. 13 also shows that, even if penetration of Zhihu reaches 80% among its core user target by 2025, MAU is close to 280 mn.

Exhibit 13. Users estimate based on the education level

	Total Population (2025)	Penetration of 20-35	Penetration of 0-19	Penetration of others	Total MAU
Tier 1	279	80%	35%	15%	37
Tier 2	197	70%	30%	11%	76
Tier 3	205	60%	15%	9%	63
Other tiers	915	20%	10%	3%	103
Total					279

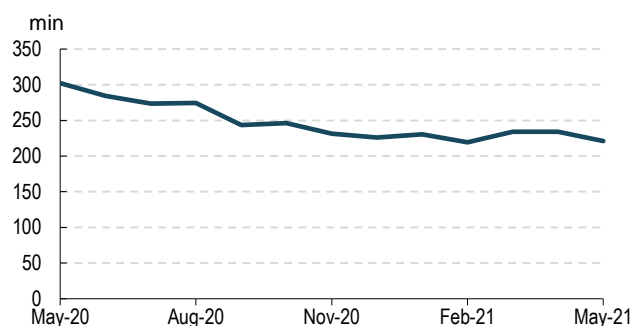
Source: China Population Census, Blue Lotus (as of Sep 23, 2021)

Average time spent and retention decline

Zhihu's average user time spent continues to decline since mid-2020. According to Questmobile, Zhihu's daily average user time spent declined about (15%)-(20%) YoY since September 2020 and total user time spent declined (2%)-(15%) in the same period of time. The significant drop in average user time spent highlights the dilemma during Zhihu's expansion period.

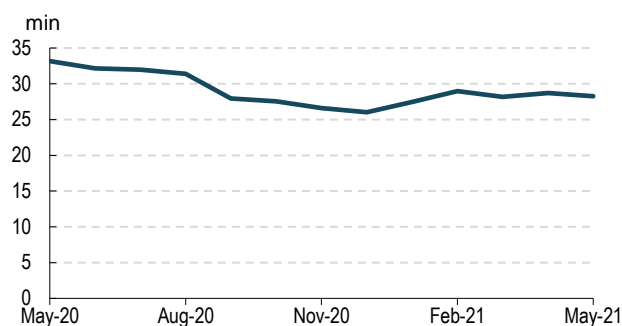
Zhihu's MAU growth couldn't cover the weakness of several of its key metrics.

Exhibit 14. Total average time spent per user



Source: QuestMobile, Blue Lotus (as of Sep 23, 2021)

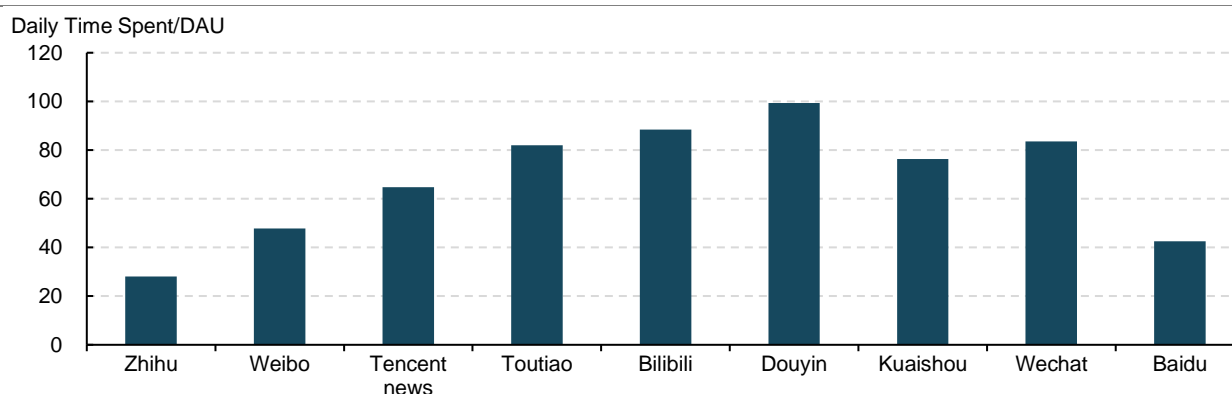
Exhibit 15. Daily average time spent per user



Source: QuestMobile, Blue Lotus (as of Sep 23, 2021)

Comparing with other major comparable media platforms, Zhihu's average daily time spent is also not very satisfying.

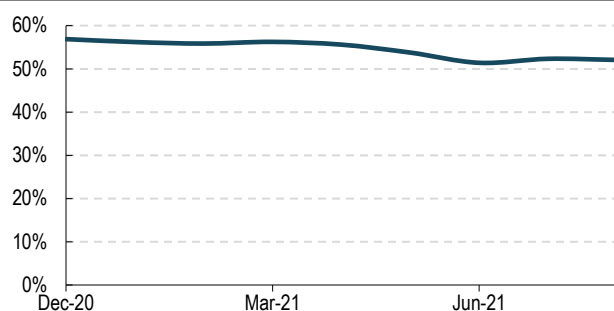
Exhibit 16. Average daily time spent Zhihu vs. other peers in 2021 (mins)



Source: Company filings, Questmobile, Blue Lotus (as of Sept. 2021)

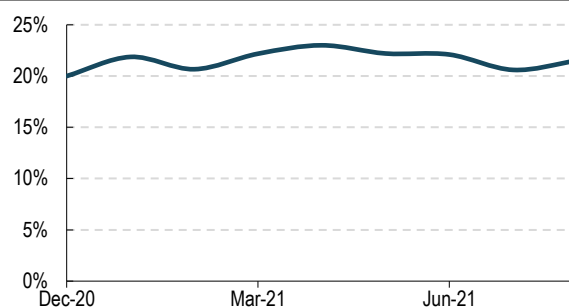
The other key indicator is Zhihu's retention rate. According to Questmobile, Zhihu's new-user 7 day retention remains at approximately 21%, but it's all active user 7-day retention continues to decline, from 57% to 51%. The number shows that although Zhihu attracts new users, its cohorts' stickiness continues to decline.

Exhibit 17. Active user 7 days retention rate



Source: QuestMobile, Blue Lotus (as of Sep 23, 2021)

Exhibit 18. New user 7 days retention rate



Source: QuestMobile, Blue Lotus (as of Sep 23, 2021)

Zhihu always aims to expand its user groups

We summarize Zhihu's expansions into several stages, as follows. Zhihu is not a new platform, and its expansion has never been easy because of its position and niche community.

- 1) Phase one (2011.1-2013.2): Interests | Elite Q&A forum; with a slogan: "To find a greater world."

Zhihu launched the operation in Jan. 2011. As the Chinese counterpart of California-based Q&A platform Quora, Zhihu is specialized in high-quality and professional knowledge-based answers. In comparison with Baidu Knows, Sina iask, and other Q&A platforms, Zhihu has the following features at this time:

- Verticals of question categories with enriched contents related to IT or internet;
 - High-quality and professional answers, attributable to elite profile of users admitted through invitation code and verification;
 - Encouragement to open-minded and critical thinking and popular ranks of answers based on likes, comments, and shares;
 - Connections between knowledges and users, and incubations of content creators supported by functions such as subscription and followers;
 - Community built-up backed by likes, comments, shares, followers, and messages.
- 2) Phase two (2013.3-2016.4): Growth | Q&A platform with open access; with a slogan: "To share your knowledge, experiences, and insights with the world."
- Zhihu opened registration in 2013 and registered users grew from 400k to 4 mn in the following nine months. Its new slogan "to share your knowledge, experience and insights with the world" emphasizes the core value of exploring and sharing knowledge and encourages users to participate in content production and discussion.
 - Zhihu also began to expand its information channels and touching points to Zhihu's contents, including search engines, social network, and other channels.

Zhihu's very first group of core users are active, elite opinion leaders.

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- On the product function side, Zhihu focuses on the build-up of its core Q&A modules with system stability and product availability. In addition, the "Browse around" function was launched to lower the threshold for new users to obtain information.
- 3) Phase three(2016.5-2017.4): Monetization | diversified knowledge-sharing platform; with a slogan "To share your knowledge, experiences, and insights with the world." Zhihu began to actively explore monetization models beyond commercial advertising and launched Zhihu Live, Value (later changed to paid content), and Zhihu Bookstore, with the effort to build a knowledge payment network. The approach helped Zhihu to develop following advantages:
- Healthy monetization: Commercial advertising does not match Zhihu's position as a knowledge-sharing platform, while knowledge payment services can achieve a healthy and sustainable monetization without user damage from commercialization;
 - More quality content creators: high quality content creators could be attracted from other platforms and platform stickiness would improve from increased content volume;
 - Diversified ways to obtain knowledge: The demand of users to acquire knowledges under different cases could be better fulfilled, improving platform stickiness.
- 4) Phase Four(2017.5-2017.11): Entertainment | Pan-entertaining knowledge-based social platform; slogan changes from "A social platform for sharing the trending knowledge with live Q&A" to "A knowledge-based social platform for sharing ideas with Q&A." User time spent is the key driver to content products and users from market of lower tier cities become the key target as those users outnumber elite users from top-tier cities in terms of absolute user numbers and time spent, hence the following adjustments are adopted to further expand the market share:
- Pen-entertainment: The shift from hardcore knowledges to entertainment contents;
 - Strengthened socialization: Enhancement of social interaction among users with the effort to take market share from other social media platforms such as Weibo and Jinri Toutiao.
 - Zhihu has launched the "Topic Square" feeds, along with Zhihu information, daily news, "ideas," and other functions, and also expanded the contents from film and television categories. Some of these functions have still been kept to this day, such as "Topic Square" (later upgraded to "Hot List") and "Idea" (similar to Weibo moments).
- 5) Phase Five(2017.12- now): Exploration | Relatable knowledge-sharing social platform; slogan changes from "Turn to Zhihu for questions" to "Questions will always have answers". Zhihu continued its strategic transformation of pan-entertainment and strengthened socialization since the end of 2017, while adhering to the core value of knowledge exploration and sharing. There are three main changes during this period:
- Actively expand online literature business and penetrate potential users in the low tier market;
 - Enter the video content field to expand the creative and interesting contents;
 - Widen the scope of Q&A contents with the focus of two types: 1) Hobbies and life: Q&A related to hobbies based on different subjects, as well as life-based Q&A, leading by categories of relationship, work, and parenting; 2) hot topics discussion: real-time

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discussion and timeline tracking of trending events in various fields, such as social events, film and television, technology, gaming, education, and work.

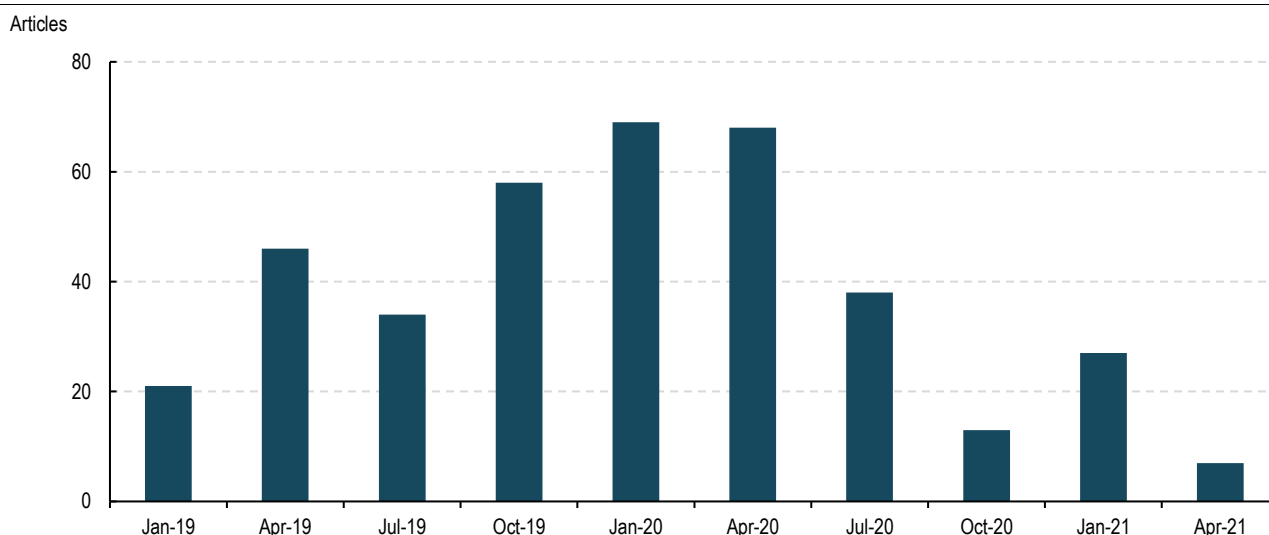
Zhihu is gradually losing attraction to content creators

To understand Zhihu's attractiveness to content creators, we randomly selected about 20 top content creators whose followers are more than 1 mn, and about 50 middle-ranged content creators whose followers are between 100K to 600K, to observe their frequencies of creating content and interactive activities. We found that activeness of top content creators are declining while mid-tier content creators are more stabilized.

Top content creators like Zhang Jiawei(张佳玮), Banfo Xianren(半佛仙人), and Limiao(李淼) have seen declining frequencies of creating content in 2021. We estimate that the number of articles they created, in general, declined about (50%) YoY. On the other hand, the "likes" they received also experienced a slipping trend. In 2H20, the average "like" they received was about 1,500, but declined to about 900 in 1H21. Most of the top content creators also post content on other platforms, such as Wechat official account, Weibo, and Bilibili, etc., in which Zhihu top content creators could receive much more traffic and interactions.

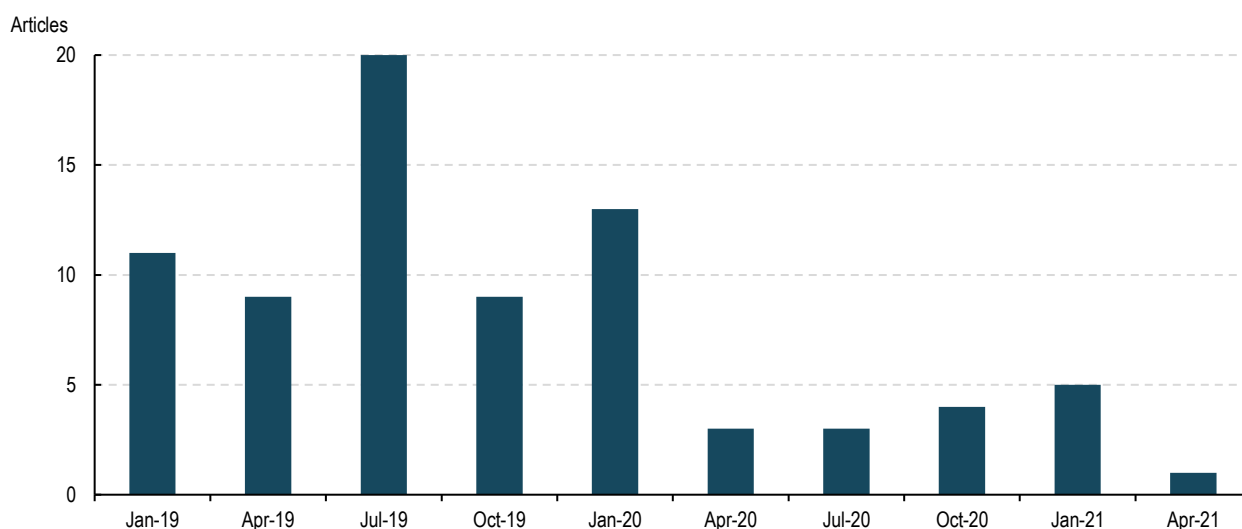
Zhang Jiawei has been more active on Wechat, and Banfo is now a well-known content creator on Bilibili

Exhibit 19. Number of articles published by Jiawei Zhang on quarterly basis



Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

Exhibit 20. Number of articles published by BanFo Xianren on quarterly basis



Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

Exhibit 21. Key metrics of top tier content creators on Zhihu

Name	followers	Articles	Content exclusivity	BILI	Toutiao	Weibo	Wechat
张佳玮	3,040,546	1268	No	No	100k	1m	per 70k reading
半佛仙人	1,696,489	142	No	5.7 mn	470k	1.8m	per 100k+reading
张小北	1,121,946	103	Yes	No	No	1.9m	No
孟德尔	2,202,531	169	Yes	No	No	No	No
李淼	1,193,337	283	No	113k	No	No	per 30k reading
马伯庸	1,085,503	80	No	No	180k	7.8mn	per 35k reading

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

Mid-tier content creators are generating content with a stable pace. Their like/comment ratio is about 16 (vs 13 for top content creators), demonstrating high interaction frequencies with their followers. About 50% of the mid-tier content creators launch exclusive content on Zhihu while the other 50% will follow multi-channel strategy, which is across other platforms, including Bili, Toutiao, Weibo.

Exhibit 22. Key metrics of mid-tier content creators on Zhihu

Name	followers	Articles	Content exclusivity	BILI	Toutiao	Weibo
闪米特	575,205	159	Yes	not offical	208	517k
芋小桌儿	357,330	233	Yes	No	22k	80k
李雯雯	405,996	460	Yes	0.7K	7k	28k
肆大财子	413,698	619	No	No	590k	12k
设计师柠檬	385,230	158	No	200k	No	No
孙尉翔	146,026	359	Yes	No	No	No

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

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The lack of business opportunity could be the key reasons why Zhihu is losing the attraction of top content creators. In the prospectus, Zhihu reported that its top 100 content creators could generate more than 100K RMB/month, and 1K content creators could generate more than 10K RMB/month. The income is very insignificant compared with short video platforms like Douyin and Kuaishou, on which top content creators could generate more than 10 mn RMB per month. In addition, top content creators on Zhihu are also in a less competitive position to top content creators compared with other text-image platforms, like Wechat Official Account, Toutiao, and Weibo.

Content creators may pursue a reputation in the beginning but will all turn to the platform that could offer business opportunities.

- For example, Wechat is leading the text-image platforms in terms of income for top content creators. Wechat has various monetization ways for top content creators, including ads, tipping, and live streaming, etc. In 2018, top Wechat content creators' daily ads could be as high as RMB 800 K. So top Wechat content creators' monthly income is estimated to be more than 10 mn.
- Jinri Toutiao, in 2020, announced that there are 45 content creators who could generate more than RMB 10 mn every month.
- Weibo reported that content creators generate RMB 26.8 bn in 2020. Assuming that 50% of the income belongs to 50 K top content creators, then every top content creator could generate about RMB 270 K in 2020.

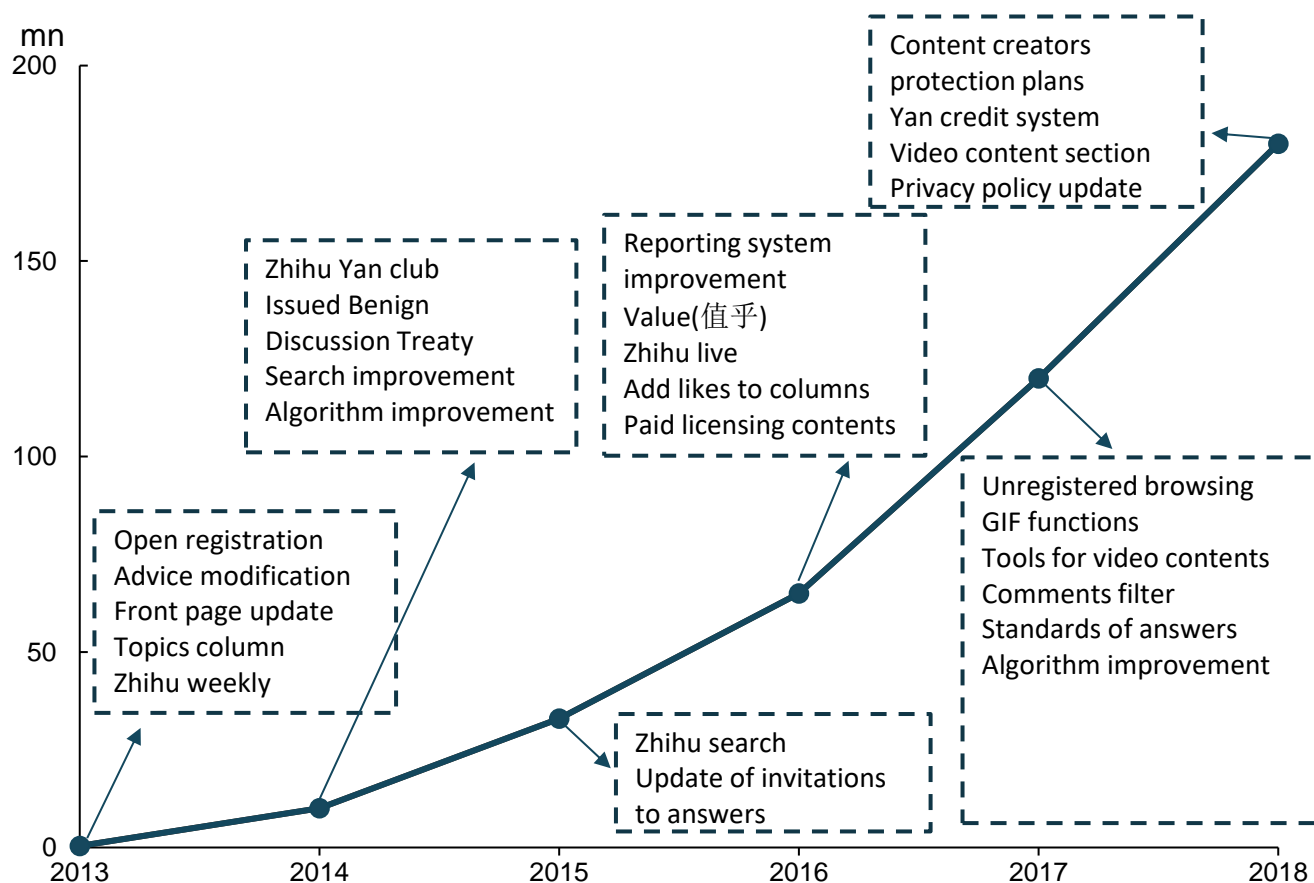
Zhihu sees more challenge in community atmosphere

Zhihu has done much work to improve its community atmosphere. In 2019, Zhihu's community manager shared some particular methods that Zhihu has been working, including:

It's very difficult to define community atmosphere, but it'll be very important to a lot of key metrics of the platform.

- Lay out a protocol called <Zhihu Content Value Handbook> to guide the actions by Zhihu daily operation teams. For example, under what kind of situation the Zhihu team is allowed to interfere with the users' discussions.
- Improve AI/algorithm capability to distinguish content quality. Also, the AI technology could help identify negative impressions, unauthorized ads, etc.
- Construct a system called "Salt Value" to issue credibility scores to users. The scores are based on the users' level of activity, cooperation with other users, and behaviors that are user-friendly, etc. Higher-score users could enjoy several privileges, like VIP client service or higher scores in upvoting, etc.
- Zhihu also established an achievement system to encourage content creators to contribute more high-quality content. Content creators could obtain virtual badges if they could reach certain criteria, such as posting a certain amount of content or responses to questions in consecutive days.

Exhibit 23. Evolution of Zhihu's community built-up with registered users growth (mn)



Source: Company filings, Questmobile, Blue Lotus (as of Sep 23, 2021)

Exhibit 24. Screenshots of Zhihu's Salt Value Score System



Source: Zhihu Screenshot, Blue Lotus (as of Sep 23, 2021)

Yet, the challenge to Zhihu's atmosphere is unavoidable, as the number of users continues to grow. We highlight several particular issues that are particularly related to Zhihu:

- **Fabricating answers.** In the beginning, Zhihu more encourages users to exchange their thoughts or personal experience. However, there are increasing numbers of users fabricating their experience because this could lead to higher viewership. In 2018, Zhihu banned a user who fabricated more than 200 identities in his answers. But Zhihu is hesitant to such a trend that more answers are coming from fabricating stories because these answers are more dramatic, which could bring more traffic. Today, stories/online literature becomes an important content type on Zhihu, and also one of the most important type of content for membership.
- **Argumentative users.** Zhihu has a large number of young users who easily choose to debate/argue. As user group expands, the debate becomes more illogical or irrational. Searching "argumentative users" (杠精) and several platforms like Zhihu, Bilibili, and Weibo

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as key words in Baidu will lead to about 300K results for each. Although the total number of search results are similar, considering that Zhihu has many fewer users than Bilibili and Weibo (in MAU are about 35% and 15% respectively), a reasonable assumption is that Zhihu has more argumentative user behavior than other platforms.

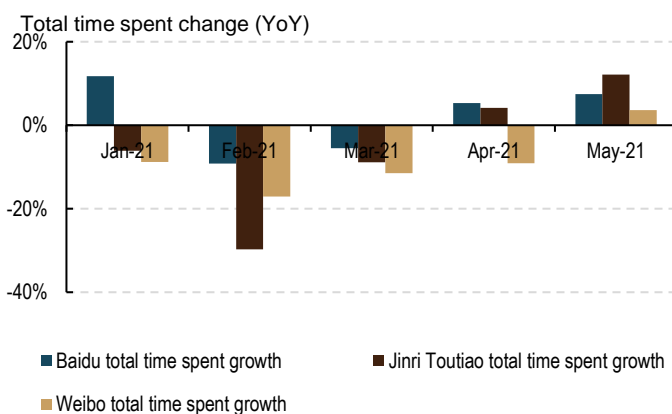
- Contradictions between new users/cohorts and new content/old content. Zhihu had more focused on elite users, and some professional questions in which content creators more perform as teachers. Yet, as Zhihu expands its content categories and user groups, it is gradually becoming a platform that everyone could teach other people, or a place for student teaching student. For new content categories like digital devices, mother/children, beauty care, etc., it's very difficult to say there is an absolute correct answer for each question. The transitions in content and user groups sometimes lead to inconsistency among new users and cohorts.

Intensified competition landscape is ahead

Text/image medias see increasing challenge from video platforms

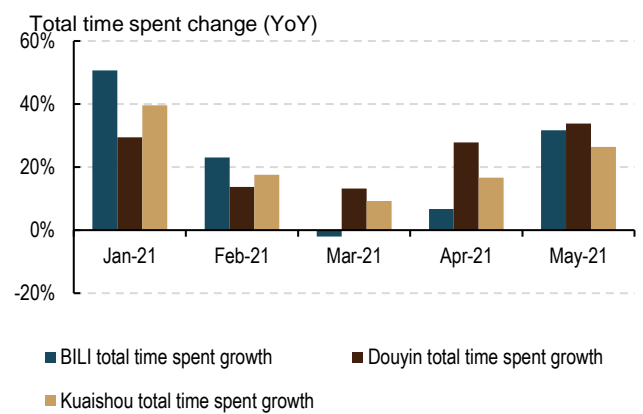
Zhihu's decline in user time spent is a sector-wide issue. In the past two years, text-image platforms have seen increasing pressure in user time spent. According to Questmobile, major apps like Jinri Toutiao, Weibo, Baidu, etc., all have seen flattish or slow increase in total user time spent in 2021. As a comparison, short video platforms like Douyin, Kuaishou, and Bili have been ramping up quickly.

Exhibit 25. Total user time spent growth on text/image platforms



Source: Questmobile, Blue Lotus (as of Sep 23, 2021)

Exhibit 26. Total user time spent growth on short video platforms



Source: Questmobile, Blue Lotus (as of Sep 23, 2021)

Various platforms offer subsidies for knowledge-related video

Major video platforms including Zhihu, Bili, Bytedance, and Baidu are all picking up the pace to develop knowledge-related video contents and development progresses are largely determined by the number of content creators. However, given the resource intensity needed to produce high-quality knowledge-related video contents, there are usually long incubation period to help content creator grow on the platforms. To better encourage the content creation and grow the size of their body of content creators, each platform provides various subsidies in forms of traffics support or cash rewards. The table below details major initiatives for subsidy plans:

Knowledge-related video is a special type of video because it needs to have a more authoritative, teacher-like KOL. The focus on top KOL is suitable for platforms to launch a subsidy campaign.

Exhibit 27. Subsidies plans of China's major video platforms to knowledge-related content

Platform	Launch Date	Incentives
Zhihu	May 2020	"Video content creators recruiting plan" to provide traffic volume support and cash rewards as high as 10k per person
	Oct 2020	"Sea Salt Plan" to offer incentives such as RMB 500 mn cash rewards, traffic volume support, and contracting opportunities
BILI	Feb 2020	"Knowledge sharing officer recruiting plan" launched with offerings of traffic volume support and millions of cash rewards, the plan is still running as of 3Q21.
Bytedance – Xigua video	Oct 2020	"Knowledge Creators" Incentive Campaign aims to create 100 high-quality knowledge creators by providing traffic volume support.
Baidu – Haokan video	Jun 2020	"Future Plan" provides traffic volume in order to support short video content of verticals such as hobby studying, cultural arts, real estate, etc.
	Dec 2020	"Future Plan Plus" will offer RMB 1 bn cash subsidies to content creators in fields of quality knowledge, stories, and reviews
	April 2021	"Qingzhi Plan" invites 100 experts and 10k specialists to help content creators gain no less than 100k earnings through various monetization methods.

Source: Zhihu, BILI, Bytedance, Baidu, Blue Lotus (as of Sep 23, 2021)

Knowledges-based video content still lags behind

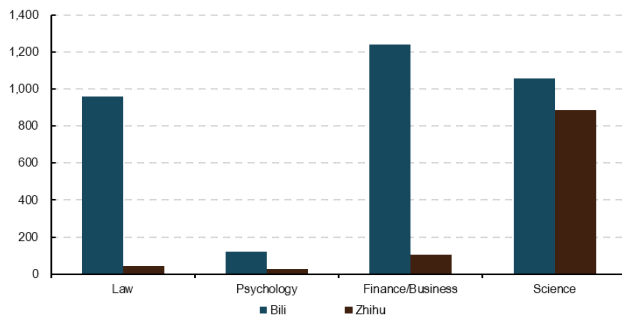
The video content has become the major content format to attract user traffic among content-based media platforms. Zhihu is no exception, as the company strategically expands its selections of contents library in the form of video. As Zhihu mainly focuses on video content longer than one minute, with the wide range of verticals, the company puts itself in direct competition with Bili and Douyin in the field of knowledge-sharing-based video content.

We selected the top 5-10 popular content creators in the major categories, including Law, Psychology, Finance/Business, and Science, to observe key metrics of video contents on Zhihu, Bili, and Douyou. Based on the datapoints we collected, the viewership of each major type of video contents on Zhihu lags behind Bili and the number of followers behind top content creators shows a large gap between Zhihu and other two video platforms.

- In the law section, the average viewership of video content from top content creators is 960k on Bili and 42k on Zhihu. As one of the most popular categories, the Finance/Business section also observed widened viewership differences given Bili's 1.24 mn and Zhihu's 106k. On the follower side, the average of followers of top 5 content creators in the law section is near 500k on Zhihu whereas there are averages of 4.5 mn and 5.66 mn followers for each top content creator on Bili and Douyin. Similarly, the average number of followers for top content creators in the Finance/Business section is also significant on Bili and Douyin, with 2.68 mn and 4.12 respectively, compared to Zhihu's 0.9 mn.

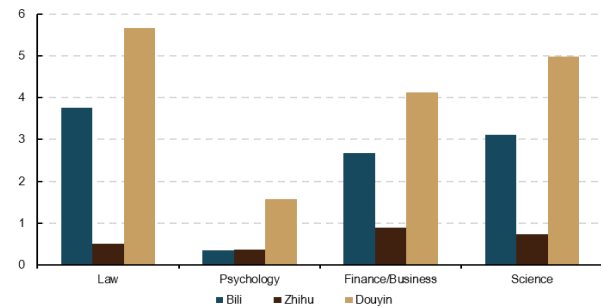
There are still some users who tend to actively search/find answers. But most people are keen on a recommendation system to acquire knowledge.

Exhibit 28. Average viewership of selected samples within major verticals on Zhihu and BILI (000)



Source: BILI, Zhihu, Blue Lotus (as of Sep 23, 2021)

Exhibit 29. Number of followers of selected samples within major verticals on Zhihu, Bili, and Douyin (mn)



Source: BILI, Zhihu, Douyin, Blue Lotus (as of Sep 23, 2021)

- We also noticed that Zhihu has apparent advantages over verticals of various hardcore knowledge-sharing content, given its wide presence of content creators under those extended subcategories. The Law section could further branch out into Labor Law, Commercial Law, Real Estate Law, and Criminal Law, with relevant content creators providing high-quality content to subsections, as opposed to Bili's or Douyin's traffic being concentrated on general contents from very top-tier content creators. The field of Psychology also has similar content structure, where Zhihu includes Social Psychology, Clinical Psychology, Psychiatry, etc., vs. general introduction contents in the same field on Bili and Douyin.
- However, the result of key metrics from Zhihu's content creators in those subsections is weaker than that of other platforms. For example, the average number of followers in the selected law subsections is only 0.42 mn compared to Bili's 4.5 mn and Douyin's 5.66 mn, and the viewership gap in the same category is further widened between Zhihu and Bili. The table below detailed key metrics from top content creators of selected sections:

Exhibit 30. Key metrics of top content creators on Zhihu, BILI, and Douyin

Unite:000	Zhihu	Followers	Average views	Likes	BILI	Followers	Average views	Likes	Douyin	Followers	Likes
Law											
General	王瑞恩	1,100	200	3,200	一个凡老师	410	300	2,600	刘晓嘉律师	5,400	33,500
	Three 诗睿	300	30	200	侯朝辉律师	380	500	15,100	李叔凡	11,900	130,000
					张鹏宇律师	400	100	4,700	是俊	8,400	35,000
									四川雷律师	1,380	10,400
									杨丽君	1,200	5,180
Criminal law	罗翔说刑法	1,458	500	570	罗翔说刑法	17,100	3,500	51,500			
Commercial Law	猴子老湿	860	5	1,300							
Labor Law	法律人袁亚洋	30	1	140							
Real estate Law	徐斌	510	12	600							
Psychology											
General	史秀雄	500	8	300	武志红讲心理	600	150	700	人际交往心理学	2,300	11,300
	暗涌	350	20	240	雪颖心理	400	200	1,200	Hello 心理学	1,300	6,500
					米茶心理	300	140	1,200	梦涵心理学	1,500	7,400
					心理学家 Tracey	200	20	100	墨多先生	1,900	10,900
Consulting	曾旻	350	10	200							
Social Psychology	狼宝宝	160	3	50							
Clinical Psychology	王怡蕊	500	100	50							
Psychiatry	酷炫脑	350	10	300							
Science											
General	毕导	1,800	6,000	1,800	无穷小亮的科普日常	5,150	2,000	21,000	科技公元	17,100	250,000
	李雷	600	200	1,200	毕导 THU	4,440	1,100	18,750	科普自媒体	4,700	18,900
	子乾	400	500	100	思维实验室	3,950	1,300	7,700	模型师老原儿	6,000	21,300
	Yjango	700	100	400	知心者联盟	1,510	700	11,900	AI 科普	1,200	9,600
									嘿科普	1,400	10,800
Chemistry	法式滚筒 Yeboss	300	6	100							
Aviation	卢西	700	150	150							
Neuroscience	Owllite	500	30	280							
Health									泽桥科普	2,500	6,600
Cosmology	Linvo	850	100	10	我们的太空	530	200	5,400	碎片记	2,000	9,400

Source: BILI, Zhihu, Blue Lotus (as of Sep 23, 2021)

Monetization potential is overestimated

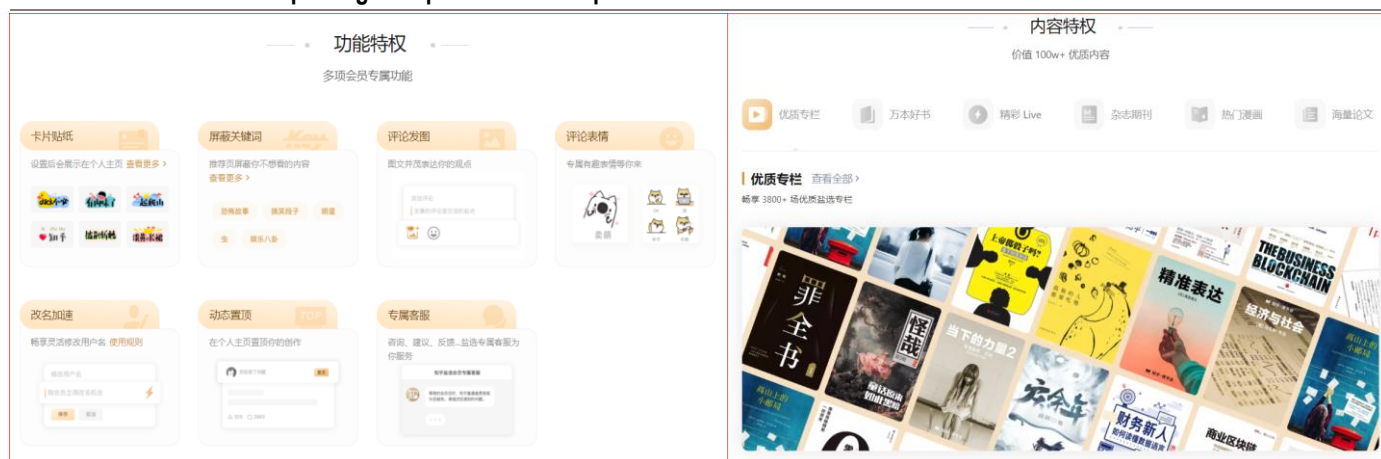
As contents are further accumulating on the platform, Zhihu adopts content-centric monetization approaches and generates revenue from online advertising, content-commerce solution, paid membership, and other such services as online education and e-commerce. As of 2Q21, advertising is the largest contributor with 38.9% of total revenue, followed by content-commerce solution, paid membership, and other services. Though Zhihu is enhancing its commercialization capability, we think there are still monetization obstacles ahead.

Paid membership is less attractive than peers

Revenue from paid membership is mostly generated from Yan Selection membership program with premium contents covering Yan selection VIP column, book club, live lecture, and magazine. Zhihu launched the Yan Selection membership program in 2019 to provide some functionality privileges to members, such as content filters, commenting features, and customer services, as well as exclusive contents including fictions and other paid knowledge-sharing contents.

Zhihu's membership includes online literature and knowledge-related content.

Exhibit 31. Screenshots of privileges of paid membership



Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

Stories, fiction, and novels in relation to storytelling are major content consumption behind paid membership. A sizable number of content creators on the platform are creating storytelling contents as Zhihu encourages those related content creations by offering monetization incentives, such as subscription fee sharing and copyright profits. Based on our observation, the storytelling contents are mostly comprised of real-experience inspired stories and imaginary stories with popular categories of relationship, crime fiction, and history.

We noticed some differentiation of those contents in comparison with other literature competitors. For example, the writing of popular stories on Zhihu are concise, with average of 30 chapters for each storytelling content piece in contrast with usually more than 700 chapters for top fiction on the other platforms, such as Qidian. On the other hand, compared to popular categories on Zhihu being concentrated on the aforementioned genres, other online literature platforms largely have Fantasy and Wuxia stories that topped the popularity rank.

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There are some challenges we think could adversely impact users willing to pay for the storytelling content. First, the contents with limited chapters on Zhihu are mostly suitable for the light reading, lacking enough immersive reading experiences for readers. Second, Fantasy and Wuxia genres are wildly popular in the mass online literature market in China, easily gaining followers with attachments to those contents. Third, online piracy is still a major issue need to be tackled as some exclusive contents from Zhihu are accessible on piracy websites.

Exhibit 32. Key metrics of top storis on Zhihu and Qidian

Zhihu				Qidian			
Name	Chapters	Words per chapter	Genre	Name	Chapters	Words per chapter	Genre
历史的温度：大变局下的生与死	41	5	Literature · history	夜的命名术	324	3	Urban story
相爱相杀案件簿：关于出轨、报复和分手的犯罪故事	9	13	Literature · detective fiction	不科学御兽	115	3	Fantasy
真实解剖手记：一个法医的死因调查簿	14	10	True Story · detective fiction	从红月开始	661	3	Science fiction
霸道总裁别爱我：甜又爽的反套路现言小说	44	30	Fantasy · modern relationship	我有一棵神话树	1086	3	Fantasy
都市男女：我必须忘记你	100	10	Modern romance	深空彼岸	241	4	Urban story
奇说妙语：20个猜得到开头，猜不到结尾的故事	21	6	Story · Literature	我就是不按套路出牌	492	3	Novel
鉴爱高手，年仅二十	9	10	Story	星门	78	8	Fantasy
真实寻凶手记：京城重案组的人性档案簿	10	11	True Story · detective fiction	大梦主	1255	2	Wuxia
消失的凶手：高智商谋杀背后的人性深渊	11	9	True Story · detective fiction	我的云养女友	445	3	Novel
他们行走在你我之间：中国特大杀人案件纪实	9	11	True Story · detective fiction	这个人仙太过正经	380	5	Wuxia
妻子的复仇	50	6	Modern relationship	仙狐	176	3	Wuxia
白色球鞋：他爱你的一百件小事	20	20	Modern relationship	斗罗大陆 V 重生唐三	222	2	Fantasy
西游新说：成佛之后，成仁之前	8	8	Historical stories-fantasy	大奉打更人	950	4	Wuxia
民间惊悚故事：命案、灵异与人性至暗之地	12	9	Literature · fantasy	人族镇守使	415	3	Fantasy
美国神秘事件档案：女巫、外星人、生化实验	12	6	Story · sociology	轮回乐园	3612	3	Novel

Source: Zhihu, Blue Lotus (as of Sep 23,2021)

In addition to the storytelling content, paid knowledge-sharing content is another key privilege to which Yan Selection members have access. Given a large presence of content creators with professional backgrounds on Zhihu, the company collaborates with those creators to offer exclusive knowledge-sharing content usually in forms of training classes, audio books, or live streaming across broad fields, including studying, social skills, hobbies, professional skills, etc.

Based on the source of content generation, such Zhihu's content offerings are Professional Generated Content (PGC). Several PGC-focused platforms with subscription business model offer similar contents, but with different focuses. For example, top popular contents on Dedao, a leading company among vertical platforms of knowledge-sharing, are mostly experts in their respective fields offering educational courses with subjects of business and wealth management ranking high

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on the chart, whereas topics of top contents on Zhihu are spread across fields of studying, professional skills, and social skills. Content wise, top-paid knowledge content offered in the form of courses on Dedao usually comprise more than 300 sessions, while sessions from Zhihu's paid knowledge content are in the much smaller scale, with the average of 25 sessions from top 15 contents.

Exhibit 33. Key metrics of top paid knowledge-sharing content on Zhihu and Dedao

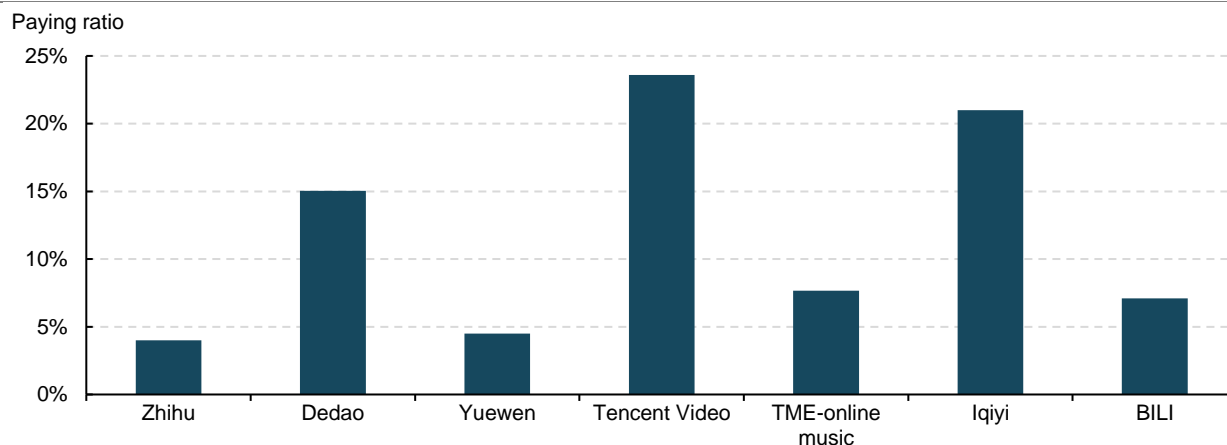
Zhihu				Dedao			
Name (English)	Name (Chinese)	Subject Field	Sessions	Name (English)	Name (Chinese)	Subject Field	Sessions
The Craftsman Awakening Plan: Diligently in the transition	职人觉醒计划: 在转变中精进	Craftmanship	10	Wu Xiangjun: Letters from Silicon Valley	吴军: 硅谷来信	Technology	313
Zhang Xuefeng's planning for postgraduate entrance exam	张雪峰考研全程规划	Studying	28	Ning Xiangdong's Management Course	宁向东的管理学课	Management	316
Say goodbye to inefficient efforts	告别低效努力	Efficiency	28	Learn Confucianism from Hua Shan	跟华杉学儒家思想	Thoughts	31
Zhang Xuefeng: Guidelines for College Application	张雪峰: 高考志愿填报指南	Studying	61	Li Xiaolai: The Road to Wealth	李笑来: 通往财富之路	Wealth Management	328
Tips of professional writing for high paid jobs	高薪人士的职场写作秘诀	Professional skill	65	Wu Zhihong's Psychology Class	武志红的心理学课	Psychology	333
Internet writing guidance	互联网文案写作指导	Professional skill	35	Xiang Shuai's Finance Course of Peking University	香帅的北大金融学课	Finance	394
Refreshing: Another way to develop smart mindset	醒脑: 另辟蹊径的聪明人养成之路	Social skill	13	Cai Yu: Business Reference	蔡钰: 商业参考	Business	260
Say goodbye to messing around: practical time management	告别瞎忙: 实用时间管理术	Management	44	Zhuo Ke: Science and Technology Reference	卓克: 科技参考	Science	310
Teacher Qualification Certificate Application Guidance 2021	教师资格证报考指导 2021	Studying	19	Wan Weigang: Elite daily class	万维钢: 精英日课	Elite	318
Nail the interview: 11 ways to land your dream offer	搞定面试: 11 招带你拿到心仪 offer	Professional skill	12	Xue Zhaofeng's Economics Class	薛兆丰的经济学课	Economics	366
Introductory Course for public servant	公务员入门课: 我要不要考公, 该如何准备	Studying	10	5 Minute Business School: Fundamentals	5 分钟商学院: 基础	Business	332
Chatting is also a technical job: Social tips for Introverts	聊天也是技术活: 内向性格社交宝典	Social skill	24	How to become a master of energy management	怎样成为精力管理的高手	Management	11
Grow up	向上生长	Social skill	1	Tongqing Nutritional Science 20 Lectures	仝卿营养科学 20 讲	Science	21
Courses for Charismatic Voices 2020	2020 年的魅力声音必修课	Professional skill	15	He Caitou: Adult Practice Manual	和菜头: 成人修炼手册	Adulthood	270
Think one level higher than your peers	降维力: 比你的同龄人高一个维度去思考	Thoughts	15	He Gang: Finance and Economics Major	何刚: 财经大课	Finance	323

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

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Among several Chinese internet companies with paid membership services, Tencent video has about 23.6% paying ratio in 2020, followed by Iqiyi (21%), Dedao (15%), TME's online music service (7.7%), Bili (7%), and Yuewen (4.5%) in the same period. Zhihu had a paying ratio of 4% by the end of 2020, below all above subscription services.

Exhibit 34. Estimated paying ratio of major subscription companies in 2020



Source: Company filings, Blue Lotus (as of Sep 23, 2021)

As Zhihu's membership service is a combination of online literature and paid knowledge, with more users in favor of membership for online literature, we pick paying ratio of Yuewen (Qidian) and Dedao as our best comparable cases.

- Yuewen's paying ratio experienced declines in recent years, from 5.8% in 2017 to 4.5% in 2020, because of: 1) problem of piracy; 2) competition from free-to-read online literature business model as evidence shows that Bytedance's Fanqie Free Novel reached 61 mn MAU and Baidu's Qimao Free Novel gained 54 mn MAU in 2020, compared to 53 mn and 23 mn MAUs of QQ reader and Qidian of the same year, of which both are paid literature online platforms under Yuwen; 3) user time spent impacted from other entertainment formats, like short video and gaming. We expect Zhihu to encounter similar issues afterward.
- Dedao's paying ratio dropped from 20.6% in 2017 to 15% in 2020, reflecting several issues of paid knowledge: 1) lack of consistency on contents given the limited content supplies; 2) insufficient in-depth knowledges from users' perspective; 3) competition from other content forms, such as short videos. As Zhihu provides knowledge content in the similar business format of a subscription model, it also needs to tackle those issues faced by Dedao.
- We estimate that paying ratio of membership services on Zhihu could gradually reach 8%-9% by 2025, a ceiling between Yuwen's and Dedao's. Assuming 60% of the membership users come for online literature, whereas 40% comes for paid knowledge, the total paying ratio could reach about 8%-9% ($\approx 60\% \times 4\% + 40\% \times 15\%$)

Content-commerce solution is also a format of ads

In the financial report, Zhihu breaks its ads revenue into "advertising" and "content-commerce solution."

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- “Advertising” can be further broken into splash ads, banner ads, newsfeed ads, search ads, etc., by ads product format. Within “advertising” revenue, about 55%-60% comes from display, and the rest come from performance-based ads. Top display advertisers include FMCG, e-commerce, automobile, gaming, app downloads, etc., and percentage of single advertisers’ contribution is less than 20%. Performance-based ads ad loads are about 15%, or every 1 ad within every 6-7 feeds. CPM of banner ads is estimated to be about RMB 20-30, and CPM of newsfeed ads is about RMB 12-15, which is similar to other text-image platforms.

Exhibit 35. Samples of Zhihu's ads products



开屏广告
图文、视频开屏广告
.....

信息流广告
图文、视频、信息流广告
.....

热榜榜单
暂仅开放
第5/10位/15位售卖

搜索广告
图文广告
.....

搜索品牌专区
搜索预制词
搜索彩蛋
.....

评论页广告
评论页混合投放

答案页广告
答案页定向投放

入口型广告产品

路径型广告产品

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

- “Content-commerce solution” mainly refers to “Zhi+,” in which Zhihu is described as (being able to) “provide merchants and brands with effective content-based online marketing solutions.” Although Zhihu suggests that “Zhi+” is content, we see “Zhi+” as another form of ads, which appears to be a question/answer, and hiding the “ads” tag.
- “Zhi+” can be both used in branding and performance-based ads. An enterprise could set up an account, continuously posting questions/answers, acquiring traffic by investing in “Zhi+,” and accumulate users. If an enterprise doesn’t know how to produce high-quality question/answers, Zhihu also has a platform to connect enterprise and content creators.
- An individual/SME could also use “Zhi+” to generate traffic to its external website, like e-commerce or app download. In that case, advertisers will focus more on the conversion of “Zhi+.”
- “Zhi+” has some merits. For example, it is more matched with Zhihu’s original content formats. If an advertiser could continuously produce high quality content, its “Zhi+” questions and answers could receive higher viewership. Because a lot of users are from search, so an answer that was produced a very long time ago could sometimes continuously receive traffic. For know-how types of products, like dentists, 3C, and education, “Zhi+” has some advantages.
- However, “Zhi+” is still an ad, because it still aims to monetize the traffic by promoting certain products. Most ads agencies suggest that they have been launching more ads through the “Zhi+” system because it doesn’t have an “ads” tag, so the conversion could be a little bit higher than newsfeed ads. But the general conversion of Zhihu ads, including “Zhi+” is lower than the

“Zhi+” can be used both for branding ads and performance-based ads. But branding ads are more commonly used.

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industry average level because Zhihu users are generally more critical and suspicious to any commercial ads.

- If we assume “Zhi+” is still an ad, we could compare Zhihu’s ads monetization with other platforms by adding up both “ads revenue” and “content-commerce solution revenue.” In this case, Zhihu’s ads revenue per DAU or ads revenue per time spent (1K hrs) is similar to Weibo. In other words, there is limited potential to Zhihu’s ad loads increase. Zhihu’s ads revenue is more driven by user growth in the future.

Exhibit 36. Samples of “Zhi+” ads

知+多元入口，覆盖核心关注人群

首页精准推送
首页推荐流通过原生生态分发
回答和文章内容

提升回答排序
用户在该精准问题下点击「下一个回答」有机会阅读该回答

搜索结果收录
用户搜索“便宜”“冲牙器”等关键词，结果页展示回答和文章

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

Online ads will have sector-wise slowdown growth into 2H21

We expect that there will be sector-wise slowdown growth of online ads into 2H21 because of the weak macro economy and regulatory risks. Although Zhihu’s ads recorded high-speed growth in 1H21, it will also experience similar pressure in coming quarters.

- China’s GDP is estimated to grow about 8%-8.5% in 2021. 1Q21/2Q21 has seen 18.3% YoY and 7.9% YoY, respectively. Therefore, China’s GDP is expected to grow 5.5%-6% in 2H21. Starting from July and August, there have been several key macroeconomy indicators showing the slowing growth of China’s economy. For example, total retail of social consumption goods only recorded 3.6% 2-yrs-GAGR in July, vs 4.9% 2-yrs-GAGR in June. In August, the Purchasing Managers’ Index (PMI) for China’s manufacturing sector is 50.1%, vs 50.4% in July. China’s New Export Order Index dropped to 46.7% in August vs 47.7% in July. Three key engines of China’s macro economy, including consumption, manufacture, and export, all see a declining trend because of sporadic COVID cases and following lock-down methods, and a series of economic regulation policies.
- Market size of China’s online ads is highly associated with China’s GDP growth. In recently years, the market size of China’s online ads stabilized at about 0.9% of China’s total GDP. If there is going to be a slowing growth of China’s GDP, then online ads will also experience

Many brand advertisers increase their spending in 1H21, but will be more cautious in 2H21.

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pressure. Exhibit 37 summarizes our forecasts of several other major ads platforms, which will all decelerating growth in 2H21.

Exhibit 37. Advertising revenue forecasts of major Chinese internet companies

(RMB bn)	1H21	YoY	2H21E	YoY
Baidu	35.1	22%	41.6	12%
iQIYI	4.0	27%	4.0	9%
Tencent	44.7	23%	53.5	16%
Weibo	5.8	45%	7.2	28%
Kuaishou	18.5	159%	23.5	60%
Baba	144.6	24%	202.1	18%
Meituan	12.9	79%	15.8	35%

Source: Blue Lotus (as of Sep 23, 2021)

Exhibit 38. Recent regulations issued in online ads industry

Regulation Name:	Issue Authority:	Issue date:	Effective date:	Main Content
Cybersecurity Law of the People's Republic of China	Standing Committee of the National People's Congress	Nov 7 th 2016	June 1 st 2017	Restrictions to the information the platforms could collect. Users' data cannot be transferred to other platforms without users' permission. Important data should be stored in China
Personal Information Protection Law of the People's Republic of China	Standing Committee of the National People's Congress	Aug 20 th 2021	Nov 1 st 2021	Companies need notify users use of their data. Users have the right to close algorithm-based recommendations. Users cannot be identified by person through the information the companies use.
Data Security Law of the People's Republic of China	Standing Committee of the National People's Congress	Jun 10 th 2021	Sep 1 st 2021	Establishment of a "National Data Security Coordination Mechanism"; Data Categorization and the Protection of "National Core Data."
Measures for Cyber security Review	the Cyberspace Administration of China,	Apr 13 th 2020	Jun 1 st 2020	Operators with more than 1 million users' personal information data, which are listing in a "foreign country", are obliged to apply for a mandatory cybersecurity review
Guidelines for the Enforcement of Medical Beauty Advertising (Draft for Comment)	State Administration for Market Regulation	Aug 27 th 2021	Draft for public comments	Crackdown on advertising disorder such as creating "appearance anxiety" and using advertising spokespersons to make recommendations for medical beauty.
"Clear and Bright" Campaign to rectify "Fan Circle"	the Cyberspace Administration of China	Aug 27 th 2021	Aug 27 th 2021	Cancel the celebrity rankings and discourage the idol talent shows
"Clear and Bright" Campaign to rectify "Social Media"	the Cyberspace Administration of China	Aug 27 th 2021	Aug 27 th 2021	Crackdown on problematic online social media accounts that illegally publish financial information and engage in fraud and other illegal activities,
Notice on Special Remediation of Internet Insurance Marketing	the Beijing Banking and Insurance Regulatory Bureau	Aug 26 th 2021	Aug 26 th 2021	Suspend insurance companies and professional insurance intermediaries from publishing marketing advertisements in Beijing that have excessive marketing and consumption-inducing problems
Notice on Carrying out Special Rectification of Internet Insurance Disorders	The China Banking and Insurance Regulatory Commission (CBIRC)	Aug 11 th 2021	Aug 11 th 2021	Curb violations such as illegal insurance operations on unauthorized platforms, mispricing and misuse of customer information by October 2021

Source: Blue Lotus (as of Sep 23, 2021)

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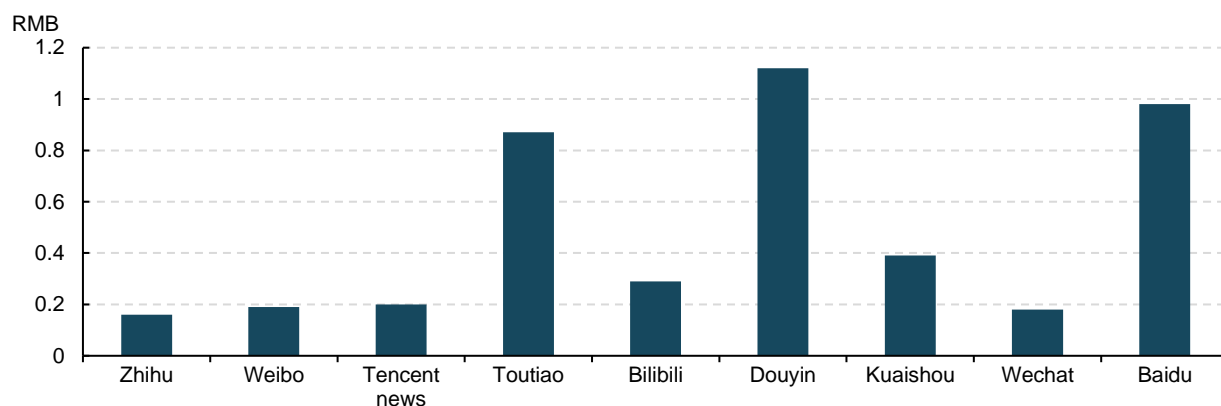
- Besides, Chinese regulatory bodies have launched several new policies about the online media and advertising industry. The first group of policies aims to have general guidelines for the industry, which includes the data security law and policies about algorithms. The second group has more specific demands about certain content or advertisers, which include those about online entertainment information, financial information, internet finance ads, and beauty surgeon ads, etc. For detailed information, please refer to Exhibit. 38 Recent regulations issued in online ads industry
- Zhihu has a high percentage (60%-70%) of ads that are brand ads. In 1H21, when macroeconomy was experiencing high-speed growth, advertisers tended to allocate more budget into branding. In 2H21, if there is sign of slowdown, then more advertisers will pursue performance-based ads.
- Several of Zhihu's major advertisers, like online education, online gaming, and internet finance have all seen relevant regulatory policies. Online education is the one that suffered most severe clash right now. Online gaming may see more scrutiny over minor protection and game code approval issues. We estimate that these three sectors together take about 30% of Zhihu's total ads revenue.
- "Zhi+" doesn't have an "ads" tag, which may have potential regulatory risk. According to *Temporary Measures for the administration of Internet advertising*, published by State Administration for Industry and Commerce of the People's Republic of China (SAIC) in 2016, online ads need to be "identifiable to be ads." In the past, other advertising platforms, like Baidu, have been criticized that they didn't have an "ads" tag to the paid search results.

Zhihu's ad growth will more rely on user growth in the future

We did a comparison between Zhihu and other major online advertising platforms and conclude that Zhihu's ads monetization rate is mid-to-high with other peers. So Zhihu's ads growth will be more relying on user growth rather than ad load increase.

For example, although Zhihu's daily ads revenue per DAU is lower than other platforms, its daily ads rev. per daily time spent is higher than the number of Weibo, Tencent News, Bilibili, and Wechat. We suggest that the second metric is more suitable to measure Zhihu's ads monetization potential because the user time spent is more associated with ads inventory.

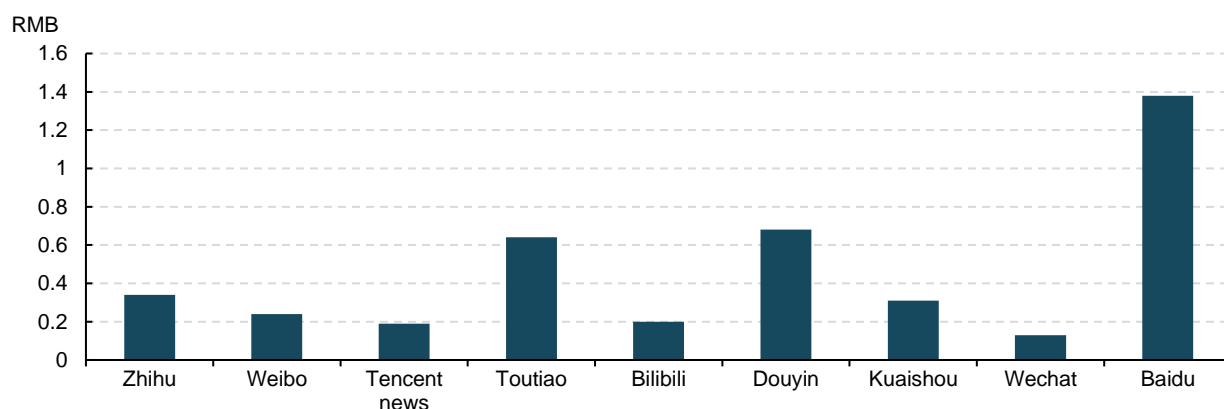
Exhibit 39. Estimated ads revenue per DAU across China major online ads platforms



Source: Questmobile, Blue Lotus (as of Sep 23, 2021)

Note: DAU number is from Questmobile for cross-platform comparison, so the DAU might be lower than the number on company's financial report.

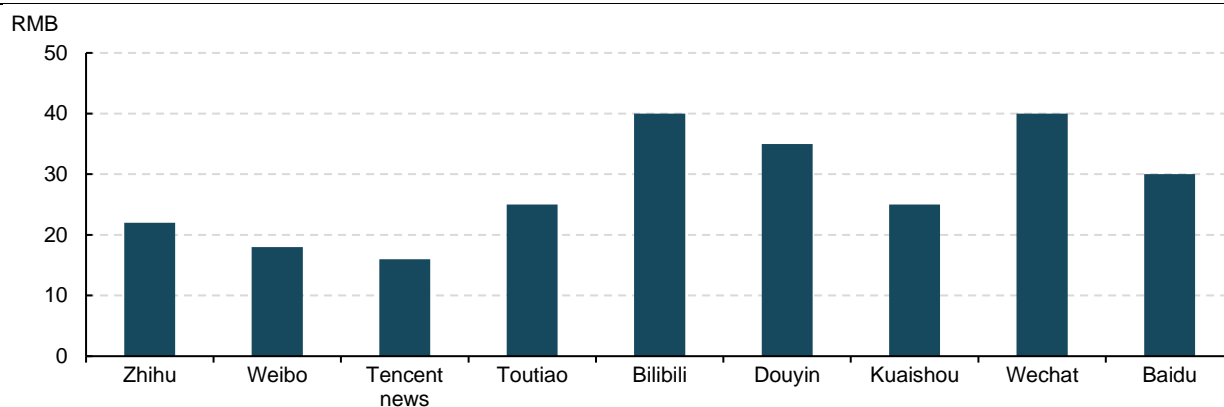
Exhibit 40. Estimated ads revenue per hour across China's major online ads platforms



Source: Questmobile, Blue Lotus (as of Sep 23, 2021)

On the other hand, Zhihu's ad loads is estimated to be about 12.8% in 2021, if we include both Zhi+ and Zhihu ads, which is higher than most text/image platforms like Weibo, Tencent news, and Wechat and similar to short video platforms like Kuaishou and Bilibili.

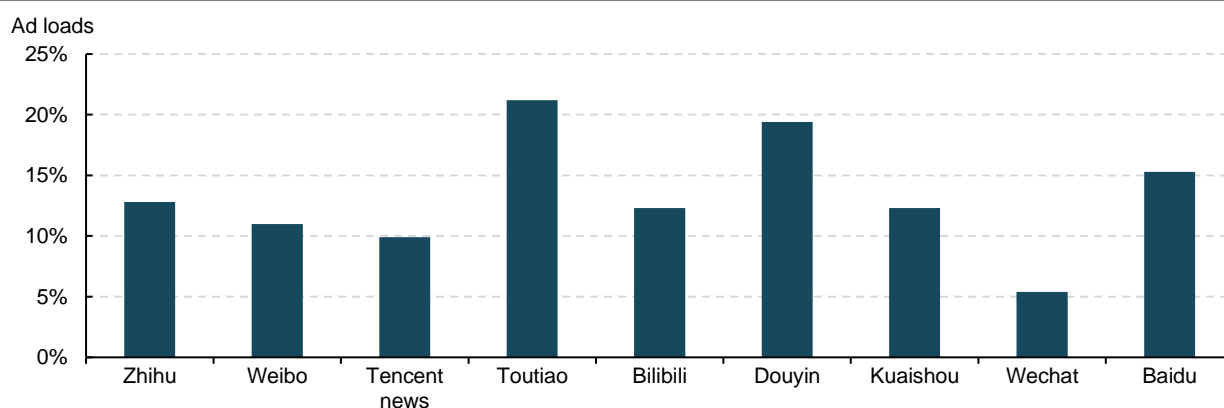
Exhibit 41. Estimated CPM across China major online ads platforms



Source: Questmobile, Blue Lotus (as of Sep 23, 2021)

Note: DAU number is from Questmobile for cross-platform comparison, so the DAU might be lower than the number on company's financial report.

Exhibit 42. Estimated ad loads across China's major online ads platforms



Source: Questmobile, Blue Lotus (as of Sep 23, 2021)

Valuation and peer analysis

We use the DCF method to evaluate Zhihu's market cap, and we conclude that the company could be worthy of USD 4.7 bn, or about 7% higher than its current market cap. In our DCF model, we assume an 14.5% WACC and a 3% terminal growth rate. Our key assumptions of several key metrics include:

- We estimate that average MAU will reach 300mn by 2025, in line with management's guidance. However, because of our concern about user stickiness, we estimate that DAU/MAU ratio will decline from 2021's 28.8% to 26.8% by 2025, so Zhihu's DAU will be about 71.6 mn by 2025. In addition, Zhihu's daily active user average time spent will decline from 21's 34.8 min to 25's 28.3 min.
- We estimate that rev. of online ads/commercial solution will have 31.6%/53.7% GAGR from 21-25. So, total ad loads will reach to about 25% by 2025 if we conclude commercial solution is part of the broadly defined ads.
- Membership paying ratio will reach 8.8% by 2025 as we forecast it will be between 8%-9% by that time.
- We estimate that Zhihu will reach breakeven point by 2023, and net margin will increase to 21% by 2025, and continue to climb up to about 25%-30% in the next couple of years. We suggest Zhihu has to give about 15%-20% of its total revenue to content creators, so its final margin will be 15%-20% lower than other online advertising platforms' net margin at 50%.
- Zhihu's P/S will be 10X/6X in 21/22, lower than Pinterest's 13.3X/10.2X, close to Bili's 9.5x/6.6x, higher than Kuaishou's 4.1X/3X.

Exhibit 43. DCF valuation

(RMB mn)	FY20A	FY21E	FY22E	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E
Revenue	1,352	3,014	5,066	7,617	10,387	13,392	15,712	17,873	19,699	21,247	22,590	23,753
Profit from operations	(603)	(1,574)	(1,278)	(614)	617	1,910	3,042	3,795	4,429	4,777	5,079	5,340
Tax effected EBIT	(604)	(1,581)	(1,284)	(617)	614	1,681	2,586	3,226	3,765	4,060	4,317	4,539
Depreciation& Amortization	15	10	5	6	8	11	13	16	19	22	25	27
Stock-Based Compensation	180	321	432	519	567	584	549	499	550	593	631	663
Working capital change	(10)	429	530	659	715	776	599	558	472	399	347	300
Capital expenditures	(2)	(4)	(7)	(11)	(15)	(19)	(23)	(26)	(28)	(31)	(33)	(34)
Unlevered Free Cash Flow	(421)	(825)	(325)	557	1,889	3,033	3,724	4,273	4,777	5,044	5,286	5,495
WACC	14.5%											
NPV of FoCF	12,661											
+ Net cash (debt), current	(5,497)											
- Minorities (Market value)	0											
= Equity value (RMB mn)	30,401											
= Equity value (USD mn)	4,677											
(+) Shares (mn)	588											
Implied value per Share (\$US)	8.0											

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

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Exhibit 44. Peer comparison table

Company	Ticker	Price	Market Cap	PS			PE			EV/EBITDA		
		(Local)	(US\$m)	FY21E	FY22E	FY23E	FY21E	FY22E	FY23E	FY21E	FY22E	FY23E
Social Media												
Tencent	700 HK	457	563,641	6.3x	5.3x	4.5x	27.0x	22.1x	18.3x	122.3x	106.8x	89.1x
Kuaishou	1024 HK	97	52,071	4.1x	3x	2.3x	NM	NM	NM	NM	NM	492.1x
Bili	BILI US	74	28,358	9.5x	6.6x	4.9x	NM	NM	NM	NM	NM	NM
Baidu	BIDU US	160	55,648	2.8x	2.5x	2.2x	17.8x	14.5x	11.7x	66.7x	58.6x	46.5x
Weibo	WB US	50	11,347	5.1x	4.5x	4.2x	16.5x	14.9x	13.1x	14.4x	12.7x	11.1x
XD	2400 HK	45	2,802	6.3x	4.8x	3.9x	NM	NM	69.2x	NM	489.0x	126.6x
Online Entertainment												
Yuewen	YY US	52	4,083	1.6x	1.4x	1.1x	NM	54.5x	26.8x	19.5x	2.6x	2.0x
TME	TME US	7	12,593	2.5x	2.3x	2.0x	20.8x	19.7x	16.3x	134.8x	125.0x	104.0x
Global Peers												
Facebook	FB US	343	967,662	8.1x	6.8x	5.8x	22.0x	19.4x	17.8x	14.0x	12.1x	10.3x
Snapchat	SNAP US	79	124,275	29.5x	20.0x	13.9x	230.3x	94.8x	50.0x	233.7x	92.4x	45.9x
Twitter	TWTR US	64	35,934	10.1x	8.2x	6.8x	67.5x	54.0x	39.0x	33.2x	26.0x	20.4x
Pinterest	PINS US	54	34,926	13.3x	10.2x	7.7x	51.9x	38.3x	28.3x	44.2x	31.9x	23.2x

Source: Bloomberg, Blue Lotus (as of Sep 23, 2021)

Annual Income Statement

Fiscal year ends-31-Dec

Exhibit 45. Annual income statement (Report Currency: RMB)

	2020A	2021E	2022E	2023E	2024E	2025E	2026E	2027E
Revenue	1,352	3,014	5,066	7,617	10,387	13,392	15,712	17,873
Advertising	843	1,145	1,552	2,095	2,718	3,439	3,960	4,471
Paid membership	320	697	1,237	1,886	2,593	3,422	4,132	4,841
Content-commerce solutions	136	1,054	2,064	3,287	4,571	5,890	6,893	7,784
Others	53	118	213	349	505	641	727	776
Cost of revenue	(594)	(1,400)	(2,046)	(2,758)	(3,449)	(4,081)	(4,647)	(5,237)
Gross profit	758	1,615	3,020	4,860	6,938	9,311	11,065	12,635
Gross margin	56.0%	53.6%	59.6%	63.8%	66.8%	69.5%	70.4%	70.7%
Research & Development	(330)	(547)	(818)	(1,002)	(1,054)	(1,292)	(1,501)	(1,689)
Sells & Marketing	(735)	(1,914)	(2,432)	(3,047)	(3,532)	(4,018)	(4,242)	(4,647)
General & Administrative	(296)	(730)	(1,049)	(1,425)	(1,736)	(2,091)	(2,280)	(2,504)
Operating profit, IFRS	(603)	(1,574)	(1,278)	(614)	617	1,910	3,042	3,795
Operating margin, IFRS	(45%)	(52%)	(25%)	(8%)	6%	14%	19%	21%
Profit before income tax, IFRS	(516)	(1,425)	(1,222)	(556)	695	2,027	3,209	4,021
Profit for the year, non-IFRS	(337)	(1,110)	(795)	(39)	1,259	2,368	3,276	3,917

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

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Annual Balance Sheet

Fiscal year ends-31-Dec

Exhibit 46. Annual Balance Sheet (Report Currency: RMB)

	2020A	2021E	2022E	2023E	2024E	2025E	2026E	2027E
Cash and cash equivalents	958	3,358	2,658	2,753	4,154	6,705	10,022	13,988
Term deposits	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093
Short-term investments	1,046	1,046	1,046	1,046	1,046	1,046	1,046	1,046
Trade receivables	486	1,083	1,821	2,738	3,734	4,814	5,648	6,424
Amounts due from related parties	14	14	14	14	14	14	14	14
Prepayments and other current assets	124	275	463	696	949	1,223	1,435	1,633
Non-current assets	41	36	38	43	50	58	67	77
Property and equipment, net	8.1	9.9	13.7	19.9	27.9	37.7	48.0	58.4
Intangible assets, net	23.5	16.1	14.6	13.2	11.9	10.8	9.8	8.8
Right-of-use assets	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Other non-current assets	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Total assets	3,761	6,905	7,132	8,383	11,039	14,953	19,325	24,275
Current liabilities	1,015	2,193	3,647	5,456	7,420	9,550	11,195	12,727
Accounts payables and accrued liabilities	502	1,119	1,880	2,827	3,855	4,970	5,831	6,633
Salary and welfare payables	232	517	869	1,306	1,781	2,296	2,694	3,064
Taxes payables	7	7	7	7	7	7	7	7
Contract liabilities	160	357	599	901	1,229	1,585	1,859	2,115
Other current liabilities	114	194	292	415	548	692	803	907
Non-current liabilities	-	-	-	-	-	-	-	-
Total Equity	(5,144)	(3,179)	(4,406)	(4,965)	(4,272)	(2,488)	239	3,657
Total liabilities and equity	3,761	6,905	7,132	8,383	11,039	14,953	19,325	24,275

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

See the last page of the report for important disclosures

Annual Cash Flow Statement

Fiscal year ends-31-Dec

Exhibit 47. Annual Cash Flow Statement (Report Currency: RMB)

	2020A	2021E	2022E	2023E	2024E	2025E	2026E	2027E
Profit before income tax	(518)	(1,431)	(1,227)	(559)	692	1,784	2,727	3,418
Adjustments for:								
Depreciation and amortization	20	10	5	6	8	11	13	16
Share based payments	180	-	-	-	-	-	-	-
Trade receivables	(257)	(597)	(737)	(917)	(996)	(1,080)	(834)	(777)
Prepayments, deposits and other assets	(17)	(152)	(187)	(233)	(253)	(275)	(212)	(197)
Trade payables	215	617	761	947	1,028	1,115	861	802
Salary and welfare payables	25	285	352	437	475	515	398	370
Contract liabilities	53	197	243	302	328	356	275	256
Other payables and accruals	(29)	80	99	123	133	144	111	104
Net cash generated from operating activities	(244)	(992)	(693)	106	1,415	2,570	3,340	3,992
Cash flows from investing activities	430	(4)	(7)	(11)	(15)	(19)	(23)	(26)
Purchase of property, plant and equipment	(2)	(4)	(7)	(11)	(15)	(19)	(23)	(26)
Purchase of intangible assets	--	--	--	--	--	--	--	--
Purchase of short-term investments	(6,153)	--	--	--	--	--	--	--
Purchases of term deposits	(2,329)	--	--	--	--	--	--	--
Cash flows from financing activities	9	3,396	0	0	0	0	0	0
Changes in cash	57	2,400	(700)	95	1,400	2,551	3,317	3,966
Cash at the beginning	900	958	3,358	2,658	2,753	4,154	6,705	10,022
Cash at the end	958	3,358	2,658	2,753	4,154	6,705	10,022	13,988

Source: Zhihu, Blue Lotus (as of Sep 23, 2021)

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