



## MIL-OSI Economics: Brands Court Chinese Consumers in the Metaverse with Array of Limited Editions For Valentine's Day on Alibaba's Tmall

369 words

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ForeignAffairs.co.nz

PARALL

English

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Source: Alibaba

Headline: Brands Court Chinese Consumers in the Metaverse with Array of Limited Editions For Valentine's Day on Alibaba's Tmall

Love went virtual this year, with many fashion and beauty brands launching a slew of digital limited-editions for Valentine's Day on Alibaba Group's online marketplace Tmall.

British luxury fashion brand Burberry offered romantics 100 units of digital pieces inspired by its popular deer mascot. Swiss luxury watch brand Piaget is selling 35 digital collectibles featuring its tiger-themed wristwatch.

For lovers demanding a more tangible token of affection, Tom Ford debuted its latest rose-based fragrance, Rose De Chine, featuring a Chinese golden peony. A limited-edition lipstick from Hermès, in its signature Rouge Grenat dark red shade, is trending on Tmall.

Among the brands looking to maintain sales momentum gathered during Chinese Lunar New Year holiday, Yves Saint Laurent brought forward the launch of an eye cream from April to this month to capitalize on Valentine's Day demand.

Generation-Z consumers in China are the biggest gift-buyers for Valentine's Day, another report showed. Compared with older consumers, they are more likely to purchase gifts from online channels, rather than offline retailers.

Tmall has become an important channel for luxury brands to reach the young consumers. Less than a year after Hermès opened its flagship store on Tmall, it has gained more than 330,000 followers.

China is on pace to become the world's largest luxury market by 2025, spurred by increasing digitization, according to consultancy Bain & Co. Online luxury sales grew faster than offline across all categories, it added.

Amid surging sales on digital platforms, international fashion brands are increasingly pursuing a digital-first strategy, making product debuts globally on Alibaba's flagship luxury platform, Tmall Luxury Pavilion.

Data from Tmall Luxury Pavilion shows that brands launched over 30,000 products on the platform per month last year, and many are limited editions or available first in China.

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[MIL OSI Economics](#) -

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## **Alibaba To Launch AR Glasses For DingTalk Virtual Meetings In The Metaverse**

Shivdeep Dhaliwal

375 words

7 January 2022

17:52

Benzinga.com

BNZNGA

English

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Alibaba Group Holding Limited's (NYSE: [BABA](#)) DingTalk workplace app is planning to launch augmented reality glasses that can be used to conduct meetings in the Metaverse.

What Happened: DingTalk's glasses will not require nearsighted persons to wear glasses as they will feature self-adjusted optical functions. Ye Jun, president of DingTalk, said as [reported](#) by South China Morning post, citing a report from state-owned Beijing News.

Ye said that the new AR product is an improvement over previous iterations and makes the workplace more "immersive."

"DingTalk will become the connection point between the digital world and the physical world, especially in the work scene," said Ye, as per local Chinese media.

See Also: [How To Buy Alibaba \(BABA\) Stock](#)

Why It Matters: No launch date for the product was disclosed by the executive, according to SCMP.

DingTalk launched its first AR glasses in 2020 in collaboration with Beijing-based AR start-up Nreal. This product is on sale at DingTalk's Taobao store for RMB 13,999 (\$2,202).

The Jack Ma-founded company's DingTalk app saw its [user base swell](#) from 400 million to 500 million in August, according to a prior SCMP report.

This week, Berkshire Hathaway Inc (NYSE: [BRK-A](#)) (NYSE: [BRK-B](#)) Vice Chair Charlie Munger doubled his newspaper publisher and investment [firms stake in Alibaba](#).

Last month, Alibaba [reorganized its e-commerce business](#) into separate domestic and international units and named Toby Xu as its new chief financial officer.

Alibaba's shares have made a [parabolic turnaround](#) in 2022 rising 6.6% so far since the year began.

The rise in shares is in contrast with 2021 when shares fell 49% after the company faced [increased pressure](#) from Chinese regulators.

Price Action: On Thursday, Alibaba shares closed nearly 4.5% higher at \$126.63 in New York in the regular session. The shares rose 1% in the after-hours trading. At press time, the company's shares traded 2.4% higher at HKD 124 in Hong Kong.

Read Next: [Alibaba Analyst Thinks Management Willing To Take Bold Measures To Rebuild Shareholder Value](#)

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## Alibaba Jumps On The Metaverse Bandwagon With Proposed Gaming Unit: Report

Shanthi Rexaline

497 words

15 December 2021

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English

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Metaverse has created quite a stir, with tech and cryptocurrency projects making a beeline into this virtual world. Not wanting to be left behind, Chinese Internet tech giant Alibaba Group Holding Ltd - ADR(NYSE: [BABA](#)) is drawing up the blueprint for its own metaverse.

What Happened: Alibaba has registered a new company named Yuanjing Shengsheng in Beijing to test the gaming potential of the metaverse, the South China Morning Post reported.

Yuanjing Shengsheng has been registered as a company offering software development and services and has 10 million yuan (\$1.6 billion) in registered capital, the report said, citing public registry tracking firm Tianyancha.

A report in a local media outlet, citing unnamed Alibaba staff, said the unit is likely to focus on the metaverse.

The development, according to the report, underlines Alibaba's intent to make a splash in the metaverse following similar actions by its Chinese peers, including Tencent Holdings ADR(PNK: TCEHY), Baidu, Inc. (NASDAQ: [BIDU](#)) and NetEase, Inc. (NASDAQ: [NTES](#)).

The setting up of the unit is to leverage the company's edge and cloud computing technology to establish the essential infrastructure for the metaverse, the SCMP reported, citing an analyst at Omdia.

Alibaba has already submitted applications to trademark the Chinese terms for "Ali Metaverse," "Taobao Metaverse" and "DingDing Metaverse," the report said.

Related Link: [How Is Alibaba Stock Shaping Up Ahead Of Its Analyst Day Scheduled For The Upcoming Week](#)

Why It's Important: The term metaverse was coined by Neal Stephenson in his 1992 science fiction novel "Snow Crash." It is an online virtual world that uses AR, VR, 3D holographic avatars and video to offer an alternative to real-world experience.

Social media giant Facebook recently rebranded itself as MetaPlatformsInc(NASDAQ: [FB](#)), emphasizing its accent on metaverse.

Graphic chip giant Nvidia Corporation (NASDAQ: [NVDA](#)) announced Omniverse, a key enabler/platform for the development of the metaverse across a wide range of vertical apps, including industrial, manufacturing, design, engineering and autonomous vehicles/robotics. The metaverse could present Nvidia with a \$10 billion incremental market opportunity over the next five years, Wells Fargo analyst Aaron Rakers [said](#) in a recent note.

Chinese search engine Baidu reportedly said in a statement it plans to host its annual AI developer conference "Create 2021" on the Xirang app this year. The company said the app will allow up to 100,000 attendees to experience immersive and interactive sound and visual effects simultaneously.

Alibaba's initiatives come at a time Chinese regulators are wielding their whip on online gaming companies. Alibaba itself has been at the receiving end of [regulatory crackdowns](#) that have intensified since late last year and left the company battered.

BABA Price Action: At last check Tuesday afternoon, Alibaba shares were up 3.48% to \$126.55.

Related Link: [Alibaba Vs. JD.com: Whos Winning The Chinese E-Commerce Battle?](#)

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AsiaWorld

**Alibaba to test gaming potential of metaverse as Big Tech firms stampede into virtual world**

814 words

14 December 2021

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English

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\* The new unit, wholly owned by Alibaba's investment arm, has listed its major business as software development and services

\* Yuanjing Shengsheng's creation comes just two months after Alibaba's cloud gaming business unit launched a new brand with a similar name

Alibaba Group Holding has registered a new company in Beijing named Yuanjing Shengsheng to test the gaming potential of the metaverse, in the latest sign that China's Big Tech firms are doubling down on what many see as the future of the internet.

The new unit, wholly owned by Alibaba's investment arm, has listed its major business as software development and services, according to public registry tracking firm Tianyancha. It has 10 million yuan (US\$1.6 million) in registered capital. The unit's business is related to the metaverse, according to a report by Chinese media outlet Chinastarmarket.cn, citing unnamed Alibaba employees.

The establishment of the new unit underlines Alibaba's interest in the metaverse, a shared, immersive 3D virtual space where people can interact and trade, and the move comes despite Beijing's tighter scrutiny of the gaming sector in the past year. It also comes hot on the heels of similar forays into the metaverse by other Chinese tech giants, including Tencent Holdings, NetEase and Baidu.

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"This move reflects Alibaba's strategy for the metaverse," said Chenyu Cui, a senior games research analyst at London consultancy Omdia. "[It's] an effort to leverage its edge and cloud computing technology to establish the essential infrastructure for the metaverse."

Alibaba owns the South China Morning Post.

Yuanjing Shengsheng's creation comes just two months after Alibaba's cloud gaming business group launched a new brand with a similar name, describing it as a platform for cloud gaming. Alibaba said at the time that the platform would offer free computing sources for small to medium-sized cloud gaming developers.

Cui said Alibaba is choosing technology to enter the segment, which may allow the e-commerce giant to step into games and the virtual reality space later once the metaverse concept becomes more mature.

The race towards the metaverse has gathered pace in China in recent months, even as regulatory concerns remain in the background.

Chinese search engine Baidu announced last week that it is launching its first metaverse product this month, called the Land of Hope, a virtual 3D space which will serve as the online interaction hub for Baidu's own artificial intelligence (AI) developers' conference later this year.

It will be the first Chinese conference to be held in a metaverse space, the tech firm said. It also boasted that its platform would be able to handle 100,000 participants interacting at the same time.

Other Big Tech companies including Alibaba, Tencent, and NetEase have all applied for trademarks related to the metaverse to pave the way for future plans around the red-hot concept.

Hong Kong and New York-listed Alibaba has submitted applications to trademark the Chinese terms for "Ali Metaverse", "Taobao Metaverse" and "DingDing Metaverse", according to business research firm Qichacha. Taobao is the name of Alibaba's flagship online marketplace, while DingTalk is the company's chat app.

Tencent, owner of multipurpose super app WeChat and operator of the world's largest video gaming business by revenue, filed in September to register nearly 100 metaverse-related trademarks, including "QQ Metaverse", "QQ Music Metaverse" and "Kings Metaverse" – corresponding to the names of the company's messaging app, music-streaming platform and marquee mobile game Honour of Kings, respectively.

Online video platforms Kuaishou and iQiyi, as well as electric carmaker Li Auto, have also sought to register their own metaverse trademarks.

The metaverse – a term coined by American writer Neal Stephenson for his 1992 science-fiction novel Snow Crash – refers to a lifelike, immersive virtual world where people can meet, work and play using devices including virtual reality (VR) headsets, video gaming consoles, and gadgets that offer augmented reality technology like smartphones and smart glasses.

Alibaba's investments and announcements in the metaverse up to now have focused on the infrastructure side, leveraging its cloud expertise and data analytics on its cloud to provide tools for others to build metaverse experiences, according to Matthew Kanterman, senior analyst at Bloomberg Intelligence.

"These new companies could help it create its own consumer-facing layer and focus on key areas such as the burgeoning 'direct-to-avatar' economy that [could] take off and revolutionise its core e-commerce business, but it's far too premature to speculate on that," said Kanterman.

Document SCMCOM0020211214ehce000e2

**DGene Announces \$20 Million Series A Funding Round Led by Alibaba Group to Build a New Generation of Tools for Content Creation and the Metaverse**

806 words

1 November 2021

20:51

PR Newswire

PRN

English

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Technology Leader DGene Uses Series A Round to Support Hollywood Content Creators and Film Restoration Projects, While Advancing Metaverse Development

SAN JOSE, Calif. and LOS ANGELES, Nov. 1, 2021 /PRNewswire/ -- DGene, the content creation company building tools to expand creativity and redefine virtual production and immersive entertainment, announces its Series A funding round led by technology and e-commerce giant Alibaba Group. This substantial investment follows a seed round at the time of the company's founding.

Helena Packer

The raise is a testament to DGene's ability to execute on a variety of fronts pertinent to bringing the most advanced AI technology, content creation and restoration tools into the hands of today's creators. The round has fueled the company's recent endeavors with Hollywood, allowed it to open a world-class volumetric capture stage in Louisiana, and supply restoration tools to revive film libraries with the highest quality results available with a process that's faster and more affordable than traditional methods. Its current relationships with some of the most revered libraries in Hollywood will soon revive older films and TV shows so they may be watched across streaming platforms.

"We like to define our AI technology as 'assisted' intelligence because it builds upon and enhances creations that only humans can make, saving time and money while delivering a level of quality unmatched by other tools," said Helena Packer, Senior Vice President and General Manager, DGene U.S. "Whether you're restoring a film to stream in high definition or replicating an entire city to build upon in the metaverse, collaborating with DGene opens a world of possibilities."

In its upcoming collaboration with acclaimed film producer Jeff Apple, DGene aims to be the first to cross the "uncanny valley." By using AI-driven characters combined with real-life actors' performances, the episodic series with working title "Secret Agent," will feature digital characters who appear completely human and lifelike on screen. This is familiar territory, as he previously produced the critically acclaimed action thriller "In the Line of Fire" starring Clint Eastwood, which grossed \$176 million at the box office.

DGene was co-founded by three computer science experts: Jingyi Yu, dean of the School of Information and Technology at Shanghai Tech University, Jason Yang, former GPU Performance Engineering and Research manager at Advanced Micro Devices (AMD), and Yi Ma, Berkeley Electrical Engineering and Computer Sciences (EECS) professor. Together with their growing global team, which also includes a robust research and development group, they're continuously releasing new AI and virtual production technologies for content creation.

As the company looks to the future, it's also well positioned to be a major player in the development of metaverse environments. According to insights consultancy Voxburner's 2021 U.S. Youth Trends Report, 65% of Gen Z have spent money on virtual items within a game, raising no question that building the metaverse will have massive economic potential for a variety of stakeholders. DGene offers the capability to capture entire cities, input them into virtual worlds and also helps builders develop the characters and creatures that inhabit those worlds.

With this funding, the company will continue to invest in its products and collaborate with leaders in entertainment. To learn more about DGene, visit [dgene.com](https://dgene.com).

About DGene

DGene is a forward-thinking content creation company researching and developing the most advanced artificial intelligence (AI) solutions to expand creativity and redefine virtual production and immersive

entertainment. Real-world applications for DGene's technology include film and television content creation, entertainment, experiential marketing, concerts, sporting events, games, e-commerce and education.

DGene was founded by the world's brightest minds in artificial intelligence, computer vision and computer graphics and operates its U.S. headquarters from San Jose, California, with a team located in Los Angeles to focus on its entertainment interests. Founded in Shanghai, China, DGene has grown its team in the U.S., and now also manages its world-class volumetric capture stage in Baton Rouge, Louisiana.

<https://www.us1.dgene.com/>

#### About Alibaba Group

Alibaba Group's mission is to make it easy to do business anywhere. The Company aims to build the future infrastructure of commerce. It envisions that its customers will meet, work and live at Alibaba and that it will be a good company that lasts for 102 years.

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<https://www.prnewswire.com/news-releases/dgene-announces-20-million-series-a-funding-round-led-by-alibaba-group-to-build-a-new-generation-of-tools-for-content-creation-and-the-metaverse-301413033.html>

SOURCE DGene

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/Web site: <https://www.us1.dgene.com/>

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Business

**Alibaba submits applications for 'metaverse' trademarks**

Josh

511 words

1 October 2021

South China Morning Post

SCMP

2

English

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E-commerce giant joins Chinese tech companies such as Tencent in rush to embrace virtual world

E-commerce giant Alibaba Group Holding has filed to register several trademarks related to "metaverse", joining fellow Chinese tech firms such as Tencent Holdings in exploring opportunities in a virtual world that has been termed the next iteration of the internet.

Alibaba, owner of the Post, recently submitted applications to trademark the Chinese terms for "Ali Metaverse", "Taobao Metaverse" and "DingDing Metaverse", according to business registration tracking platform Qichacha. Taobao is the name of Alibaba's flagship online marketplace, while DingTalk is the company's chat app.

Alibaba did not immediately respond to a request for comment.

The move by the Hangzhou-based conglomerate comes as an increasing number of tech companies in China are scrambling to register Metaverse-themed trademarks in a rush to experiment with the burgeoning concept.

Tencent, owner of multipurpose super app WeChat and operator of the world's largest video gaming business by revenue, filed in September to register nearly 100 metaverse-related trademarks, including "QQ Metaverse", "QQ Music Metaverse" and "Kings Metaverse" - corresponding to the names of the company's messaging app, music-streaming platform and marquee mobile game Honour of Kings.

Online video platforms Kuaishou and iQiyi, as well as electric carmaker Li Auto, have also sought to register their own metaverse trademarks.

The concept of metaverse, which first appeared in the 1992 dystopian science fiction Snow Crash by writer Neal Stephenson, is often referred to as a shared, immersive 3D virtual space that is seen by enthusiasts as the future of the internet.

The idea has gained momentum following the success of the 2018 Steven Spielberg blockbuster Ready Player One, based on a novel of the same name by author Ernest Cline, which depicts a digital world where users can play, trade or simply hang out.

The buzzword became more popular during the Covid-19 pandemic, as people who were physically confined to their homes took to games like Fortnite and Roblox to socialise and trade digital possessions.

Western tech companies, including Facebook, Epic Games and Roblox, have all made metaverse a central concept to their company mission this year.

Meanwhile, Chinese tech investors have been pouring money into virtual and augmented reality start-ups.

Last week, Yunfeng Capital, the private equity firm established by Alibaba founder Jack Ma, co-led a US\$100 million funding round into augmented reality company Nreal, valuing the company at US\$700 million.

Beijing-based tech unicorn ByteDance, owner of short-video-sharing apps TikTok and Douyin, acquired virtual reality firm Pico Interactive last month in a deal estimated to be worth close to 5 billion yuan (HK\$6 billion).

Metaverse-themed stocks in China have been riding on the hype.

Video game developers that have been marketing themselves as metaverse companies, such as ZQGame and TOM, have seen their share prices more than doubled on the Shenzhen Stock Exchange last month before paring some gains this week.

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## **Alibaba** subsidiary applies for a slew of **metaverse** trademarks after patent troll strikes

Jiaxing Li  
296 words  
30 September 2021  
KrASIA  
KRSGIA  
English  
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The conglomerate has not revealed plans for creating experiences in the metaverse.

A Singapore-based Alibaba subsidiary has applied for multiple trademarks related to the metaverse, as shown by public records seen by KrASIA.

Alibaba Singapore Holdings Co., Ltd. submitted applications for over 20 trademarks, including “Ali Metaverse” and “Taobao Metaverse,” on September 18, according to information compiled by data aggregator [Tianyancha](#). The trademarks’ categories span advertising, education, entertainment, and telecommunications. All applications are currently being processed by the China National Intellectual Property Administration (CNIPA).

While this may point to the possibility of Alibaba laying the groundwork for building services in the metaverse, the applications may also be meant to fend off patent trolls. Just four days before Alibaba submitted applications for the new trademarks, an accounting firm in Shandong Province applied for a trademark labeled “Alibaba Metaverse.”

The law firm’s submission is also currently being processed by the CNIPA.

The metaverse is one of the newest frontiers for innovation—and the latest sector in which an [investment frenzy](#) is taking place. In September, several video game companies claimed they were developing new titles that will blur the line between physical and virtual realities, sending their stock prices to new heights.

While Alibaba’s strategy remains unclear, one other conglomerate is staking its future on the metaverse. Tencent has already applied for over 70 trademarks related to this space, according to [Tianyancha](#), with some pointing to its popular mobile games.

Another tech giant, ByteDance, will likely also be active in this sector. It acquired one of the world’s largest VR headset makers, Pico, in late August.

Read this: [Digital asset platform Global Mofy nets investment to develop metaverse infrastructure](#)

Document KRSGIA0020210930eh9u0005I



Business

**Hong Kong stocks slip as attack on online gaming 'opium and drugs' slams Tencent, NetEase while market awaits Alibaba earnings**

Zhang Shidong in Shanghai

739 words

3 August 2021

scmp.com

SCMCOM

English

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\* Tencent's market value has crashed by US\$415 billion from its February peak, about the capitalisation of Louis Vuitton owner LVMH

\* Mainland investors were net sellers of Hong Kong stocks for 12 consecutive days through midday Tuesday, Stock Connect shows

Hong Kong [stocks](#) declined after a publication run by the Xinhua News Agency slammed internet gaming addiction, heightening concerns that the industry could become the next target of Beijing's regulatory wrath. Losses narrowed after the daily pulled the article.

The Hang Seng Index dropped 0.2 per cent to 26,194.82, after losing as much as 1.8 per cent. Gaming operators Tencent Holdings and NetEase tumbled by at least 6 per cent, among the market's worst performers. Alibaba Group Holding erased losses before its quarterly earnings report. China's Shanghai Composite Index lost 0.5 per cent.

Traders scrambled to unwind their holdings of gaming stocks after the Economic Information Daily, a newspaper of state-run Xinhua, blasted addiction among children to online games, likening them to "spiritual opium" and "electronic drugs" and [singled out Honour of Kings](#), Tencent's top-grossing and most popular games.

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The Hang Seng Index recouped some of the earlier setbacks after the daily retracted the article from its website and WeChat account on speculation it did not represent the official view of the government.

The controversy added to jitters around Beijing's regulatory storm, which provoked a [US\\$1.2 trillion wipeout in market value](#) in July. Beijing last month tackled the after-school tutoring industry after earlier trampling on technology firms. Policymakers have pointed to expensive property prices, tutoring fees and medical expenses as the major financial burdens on families.

"The uncertainty surrounding Chinese tech firms will remain high in the near term," said Aleksey Mironenko, managing director at The Capital Company. "Investors' anxiety on regulatory uncertainty will mean that the required risk premium on Chinese stocks is now higher. The authorities will have to clarify their true intentions to win back market confidence."

Tencent slumped 6.1 per cent to HK\$446, erasing US\$60 billion of market value. The firm's capitalisation has shrunk by US\$415 billion from its February peak, an amount equivalent to the size of LVMH, the owner of the French luxury brand Louis Vuitton.

NetEase, a video game developer, crashed 12 per cent to HK\$145.90. Meituan, which is under the government's antitrust probe, fell 2 per cent to HK\$211.60.

Mainland Chinese traders dumped HK\$3.7 billion (US\$481 million) worth of Hong Kong-listed stocks for a 12-day net-selling streak by midday Tuesday, according to the Stock Connect southbound trading links compiled by Bloomberg. Last month, they sold HK\$63.5 billion of stocks, the first monthly retreat since March.

"The regulatory clampdown is likely to go on for years, yet its intensity will fluctuate," BlackRock, the world's biggest money manager, said in a report. "China's leadership sees regulatory tightening in sectors such as tutoring and technology as necessary to rein in the industries that have been rapidly growing and lightly

regulated, which has led to concerns about control of data, inequality, and the rising costs of education, housing and health care.”

Elsewhere, Alibaba added 0.8 per cent to HK\$193.50. The owner of this newspaper may offer investors a clue on how Beijing’s clampdown will erode corporate earnings. Net income for the quarter probably declined 4.4 per cent from a year earlier, according to the estimate of analysts surveyed by Bloomberg.

Standard Chartered rose 0.6 per cent to HK\$47.75. The lender said that net income more than doubled in the second quarter, beating estimates. It also announced an interim dividend of 3 US cents a share and a share buy-back plan worth US\$250 million.

Other major markets in Asia all headed south except Taiwan following an overnight pullback in US stocks, where declining Treasury yields added to concern that the economic recovery will lose traction.

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## Alibaba Rival JD Plans A Gaming Foray: What You Need To Know

Rachit Vats

427 words

3 August 2021

13:40

Benzinga.com

BNZNGA

English

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Chinese e-commerce player JD.com Inc (NASDAQ: [JD](#)) is pumping in money in its gaming business to ensure it becomes the go-to place for young customers to shop all gaming-related goods, CNBC [reported](#) on Monday, citing a company executive.

JD Plans To Parallel, Not Compete, With Others: Alibaba Group Holding (NYSE: [BABA](#)) rival's retail unit had last month firmed up a strategic partnership with Tencent Holdings Ltd' (OTC: [TCEHY](#)) gaming unit to focus on developing tournaments and marketing collaboration.

The partnership with Tencent is being seen as an attempt by JD to build an ecosystem around gaming that will drive the growth of its other businesses, the report noted.

Besides Tencent, JD has also announced plans to work with companies such as Chinese PC-maker Lenovo to develop smartphones for mobile gaming. That collaboration will help JD distribute the phones through its retail ecosystem and also target gamers through its shopping app.

In addition, JD is aiming to scale up its e-sports teams JD Gaming that it launched in 2017 and the mobile gaming team named JD Esports.

See Also: [Heres Why Alibaba Rival Tencents Stock Is Plummeting Today](#)

Gaming Shows 'Huge Potential': "At the end of the day, I think the entire industry is still at the incubation stage. So from our perspective, it's an investment...but we do see a huge potential," Daniel Tan, president of JD Mobile Devices, noted.

"We need to incubate the entire ecosystem before we think about ... how do you cash out. It's about participating, it's about being involved with young people, associating with young people. And that's the kind of consumers we want, you know ... they will use JD."

Unlike Tencent and NetEase Inc (NASDAQ: [NTES](#)), JD does not make its own games but could look at the possibility of co-investing in gaming companies with a partner, the report noted, adding that it can use its vast network to collect customer feedback and pass it on to its partners to improve the gaming products.

As per the CNBC report, global e-sports revenue is forecast to surpass \$1 billion for the first time in 2021.

Price Action: JD shares closed 0.86% higher at \$71.49 on Monday.

See Also: [Hot Chinese Stocks Like Nio, Alibaba, JD Are Falling On US-China Relations, Regulatory Concerns And Research Firm Says Institutions Are Buying The Dip](#)

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Business

**Hong Kong stocks slide as attack on online gaming 'opium and drugs' slams Tencent, NetEase while market awaits Alibaba earnings**

Zhang Shidong in Shanghai

782 words

3 August 2021

scmp.com

SCMCOM

English

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\* Hang Seng drops 1 per cent as Tencent paces losers after mainland media likens mobile-gaming addiction to 'spiritual opium'

\* Mainland investors are poised to be net sellers of Hong Kong stocks for 12 consecutive days on Tuesday, Stock Connect shows

Hong Kong [stocks](#) resumed declines after a publication run by the Xinhua News Agency slammed internet gaming addiction, heightening concerns that the industry could become the next target of Beijing's regulatory wrath.

The Hang Seng Index dropped 1 per cent to 25,987.16 at the noon break, surrendering most of the 1.1 per cent rebound on Monday. Gaming operators Tencent Holdings and NetEase tumbled by at least 10 per cent. Alibaba Group Holding retreated before its quarterly earnings report. China's Shanghai Composite Index was little changed after losing as much as 0.8 per cent.

Traders rushed to unwind their holdings of gaming stocks after the Economic Information Daily, a publication of state-run Xinhua News Agency, blasted addiction among children to online games, likening them to "spiritual opium" and "electronic drugs." It also blamed overindulgence in them for short-sightedness and poor academic performances among teenagers, and [singled out Honour of Kings](#), one of Tencent's top-grossing and most popular games.

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"The uncertainty surrounding Chinese tech firms will remain high in the near term," said Aleksey Mironenko, managing director at The Capital Company. "Investors' anxiety on regulatory uncertainty will mean that the required risk premium on Chinese stocks is now higher. The authorities will have to clarify their true intentions to win back market confidence."

Tencent, the biggest game developer, tumbled 10 per cent to HK\$426.40, the worst performer among Hang Seng Index members. NetEase, a video game developer, crashed 12 per cent to HK\$139.60. Meituan, which is under the government's antitrust probe, fell 4.1 per cent to HK\$207.20.

Mainland Chinese traders dumped HK\$3.7 billion (US\$481 million) worth of Hong Kong-listed stocks so far on Tuesday, heading for a 12-day net-selling streak, according to the Stock Connect southbound trading links compiled by Bloomberg. Last month, they sold HK\$63.5 billion of stocks, the first monthly retreat since March.

"The regulatory clampdown is likely to go on for years, yet its intensity will fluctuate," BlackRock, the world's biggest money manager, said in a report. "China's leadership sees regulatory tightening in sectors such as tutoring and technology as necessary to rein in the industries that have been rapidly growing and lightly regulated, which has led to concerns about control of data, inequality, and the rising costs of education, housing and health care."

Elsewhere, Alibaba dropped 0.6 per cent to HK\$190.80. The owner of this newspaper may offer investors a clue on how Beijing's clampdown will erode corporate earnings. Net income for the quarter probably declined 4.4 per cent from a year earlier, according to the estimate of analysts surveyed by Bloomberg.

Standard Chartered rose 0.5 per cent to HK\$47.70. The lender said earnings more than doubled in the second quarter, beating estimates. It also announced an interim dividend of 3 US cents a share and a share buyback plan of US\$250 million.

Other major markets in Asia all headed south except Taiwan following an overnight pullback in US stocks, where declining Treasury yields added to concern that the economic recovery will lose traction.

After a series of cybersecurity reviews that kicked off with the attack on Didi Global, Chinese policymakers will [soon release guidelines for defining "important data"](#), classifying it into eight categories based on their impact on national security, a top researcher at a state-owned cybersecurity think tank has revealed.

Zhuang Rongwen, the chief of the Cyberspace Administration of China (CAC), the agency that is leading the probe into Didi, said in Beijing on Monday that one of the regulatory priorities will be "data security and cybersecurity".

Document SCMCOM0020210803eh830008f



Business

**Tencent, Alibaba-backed studio in spotlight ahead of Hong Kong IPO as China's video gaming boom continues**

Josh Ye

743 words

3 July 2021

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English

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\* Xiamen-based Qingci Games last week filed for an initial public offering in Hong Kong

\* Its investors include Tencent, Alibaba, Bilibili and private equity firm Boyu Capital

While the [Covid-19](#) pandemic has slowed the world to a crawl, the success of a [mobile game](#) about a snail making its way through a post-apocalyptic planet has lifted its Chinese developer's profile ahead of a potential public listing.

Qingci Games, based in the southeast city of Xiamen in Fujian province, last week filed for an [initial public offering](#) in Hong Kong. The company counts [Tencent Holdings](#), [Alibaba Group Holding](#), [Bilibili](#) and a grandson of a former Chinese president among its star-studded cast of investors.

Its portfolio of mobile games, led by the popular The Marvelous Snail, raked in 480 million yuan (US\$74.2 million) in revenue in the first quarter alone. That has put the company on track to surpass its total 2020 revenue of about 1.2 billion yuan, according to its IPO prospectus.

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The Marvelous Snail – an idle tap game, which is played by repeatedly tapping on the screen – now ranks as China's second most popular casual game, according to a recent report by research firm Frost & Sullivan.

"Qingci is a typical case of thriving on differentiation," said Zheng Jintiao, co-founder of online media outlet GamerBoom.

Founded in 2012, Qingqi has distinguished itself in the world's largest video games market by focusing on emerging genres such as idle tap games – the segment where The Marvelous Snail has become a runaway hit – and roguelike, a subgenre of role-playing video games that features a dungeon crawl through procedurally generated levels.

While 95 per cent of Qingci's soaring revenue was attributed to The Marvelous Snail, the company said it has 10 games in the pipeline that are set for release by 2023, helping drive future growth.

Qingci's success is yet another sign of the continued video gaming boom in China, where the number of players expanded during the Covid-19 lockdown amid the increased consumption of online entertainment. There were 681.7 million mobile gamers in mainland China at the end of 2020, up 7 per cent from 2019, according to data from video gaming research firm Niko Partners.

Chinese companies have proven especially adept at mobile gaming, in part, because the market is huge in the country, accounting for three-quarters of its total video gaming revenue, according to the China Audio-Video and Digital Publishing Association.

In the quarter ended March, video gaming revenue in China reached more than 77 billion yuan, according to data from the China Audio-Video and Digital Publishing Association. Total video gaming revenue last year reached 278.7 billion yuan, up 20.7 per cent from 2019.

Chinese online games heavyweight G-bits Network Technology (Xiamen) Co has a 21.37 per cent stake in Qingci Games, making it the company's second-largest shareholder behind founder and chief executive Yang Xu.

Tencent, which runs the world's biggest video gaming business by revenue and super app [WeChat](#), has a 4.99 per cent stake in Qingi Games. E-commerce giant Alibaba, which owns the South China Morning Post, and streaming video-sharing platform operator Bilibili each have the same 4.99 per cent interest in The Marvelous Snail developer.

Chinese private equity firm Boyu Capital, co-founded by former Chinese President [Jiang Zemin](#) 's grandson Alvin Jiang Zhicheng, holds a 1.87 per cent shareholding.

Chinese companies are not the only ones in the video gaming industry that have looked to go public.

Tencent-backed Krafton, the developer of blockbuster video game [PlayerUnknown Battlegrounds](#) , plans to launch its IPO on the Korea Exchange, with the goal to raise at least US\$5 billion.

Popular US gaming platform Roblox went public on the New York Stock Exchange in March through a direct listing. It had a market capitalisation of about US\$49 billion as of Friday. The company has [partnered with Tencent](#) to launch its sandbox gaming platform in China on both smartphones and desktop personal computers.

Document SCMCOM0020210702eh73000mb

## Cloud Gaming Market to Witness Huge Growth by 2026 : Google, Microsoft, Alibaba

969 words

12 March 2021

iCrowdNewswire

ICROWDN

English

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The "Cloud Gaming – Market Development Outlook " Study has been added to HTF MI repository. The study envisage detailed qualitative as well as quantitative market data insights and follows Industry benchmark classification and NAICS standards to built strong players coverage in the study. Some of the major and emerging players identified are Loudplay.io, Sony, Ubitus, Nvidia, Tencent, EA, Capcom, Blade SAS, Google, Microsoft & Alibaba.

Get Inside Scoop of the report, request for sample @:

<https://www.htfmarketreport.com/sample-report/3116176-global-cloud-gaming-market-2>

Global Cloud Gaming Market Development Scenario by Players

Ø Financials Information, Business Overview and Product Specification Matrix

Ø Patent Analysis Briefing\* [if applicable]

Ø No. of Patents Issuance by Year / by Players / By Issuing Office

Ø Key Development – Product/Service Launch, Mergers & Acquisition, Joint Ventures

Cloud Gaming Market Competition

Each company profiled in the research document is studied considering various factors such as product and its application portfolios, market share, growth potential, future plans, and development activity. Readers will be able to gain complete understanding and knowledge of the competitive landscape. Most importantly, the report sheds light on important strategies that key and emerging players are taking to maintain their ranking in the Global Cloud Gaming Market. It shows how the market competition will change in the next few years and how players are preparing themselves to stay ahead of the curve.

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Important Features that are under offering & key highlights of the report :

1) How companies are selected or profiled in the report?

List of some players that are profiled in the the report includes "Loudplay.io, Sony, Ubitus, Nvidia, Tencent, EA, Capcom, Blade SAS, Google, Microsoft & Alibaba". Usually we follow NAICS Industry standards and validate company profile with product mapping to filter relevant Industry players, furthermore list is sorted to come up with a sample size of atleast 50 to 100 companies having greater topline value to get their segment revenue for market estimation.

\*\* List of companies mentioned may vary in the final report subject to Name Change / Merger etc.

2) Is it possible to add more list of company and customize study as per our need?

Yes, we can add or profile new company as per client need in the report, provided it is available in our coverage list as mentioned in answer to Question 1 and after feasibility run final confirmation will be provided by research team checking the constraints related to difficulty of survey.

3) Can we narrow the available business segments ?

Yes, depending upon the data availability and feasibility check by our Research Analyst, further breakdown in business segments by end use application or product type can be provided (If applicable) by Revenue Size or Volume\*.

4) Can specific country of interest be added? What all regional slits covered with covid impact analysis?

Yes, Country level splits can be modified in the study as per objectives. Currently, research report gives special attention and focus on following regions with covid outbreak and impact analysis:

North America (Covered in Chapter 9), United States, Canada, Mexico, Europe (Covered in Chapter 10), Germany, UK, France, Italy, Spain, Russia, Others, Asia-Pacific (Covered in Chapter 11), China, Japan, South Korea, Australia, India, South America (Covered in Chapter 12), Brazil, Argentina, Columbia, Middle East and Africa (Covered in Chapter 13), UAE, Egypt & South Africa

\*\* One country of specific interest can be included at no added cost. For inclusion of more regional segment quote will vary.

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Hardcore gamers & Casual gamers are the segments analysed and sized in this study by application/end-users, displays the potential growth and various shift for period 2015 to 2026. The changing dynamics supporting the growth makes it critical for businesses in this space to keep abreast of the moving pulse of the market. Check which segment will bring in healthy gains adding significant momentum to overall growth. , PC, Connected TV & Smartphone have been considered for segmenting Cloud Gaming market by type.

With the multiple advantages of technology, cost and service, many major developed rapidly. They kept leading domestic market and on the other way actively developing international market and seizing market share, becoming the backbone of Global Cloud Gaming industry. It is understood that currently domestic players has been massively used by operators in China.

\*\*\*Sub Regions Included: North America [United States, Canada, Mexico], Asia-Pacific [China, India, Japan, South Korea, Australia, Indonesia, Malaysia, Philippines, Thailand, Vietnam], Europe [Germany, France, UK, Italy, Russia, Rest of Europe], South America [Brazil, Argentina, Rest of South America], Middle East & Africa [GCC Countries, Turkey, Egypt, South Africa, Rest of Middle East & Africa]

\*\*\* Unless until specified in Original TOC of Global Cloud Gaming Market Study

To know more about the table of contents, you can click @

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#### Research Objectives

- To analyse and forecast the Global Cloud Gaming market, in terms of value and volume.
- Which segment has the potential to gain the highest market share?
- To help decision maker from new offer perspective and benchmark existing marketing strategy.
- Correlate cost structure historical data with key business segments.
- Analyse marketing contribution and customer acquisition by up-selling and cross selling.
- Identifying Influencing factors keeping Global Cloud Gaming Market Intense, factored with periodic analysis of CR4 & CR8 concentration ratio & HHI Index.

HTF MI also offers Custom Research services providing focused, comprehensive and tailored research according to clientele objectives. Thanks for reading this article; you can also get individual chapter wise section or region wise report like North America, Europe or Asia.

Document ICROWDN020210312eh3c000me

**Alibaba Group Holding Limited; Patent Application Titled "Method And Apparatus For Synchronizing Viewing Angles In Virtual Reality Live Streaming" Published Online (USPTO 20210037116)**

3,698 words

22 February 2021

Internet Weekly News

INTWKN

938

English

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2021 FEB 22 (VerticalNews) -- By a News Reporter-Staff News Editor at Internet Weekly News -- According to news reporting originating from Washington, D.C., by VerticalNews journalists, a patent application by the inventor ZHANG, Zhe (Hangzhou, CN), filed on February 2, 2019, was made available online on February 4, 2021.

The assignee for this patent application is Alibaba Group Holding Limited (Grand Cayman, Cayman Islands).

Reporters obtained the following quote from the background information supplied by the inventors: "Technical Field

"The disclosure generally relates to the technical field of virtual reality live streaming, and in particular, to methods and apparatuses for synchronizing viewing angles in virtual reality live streaming.

"Description of Related Art

"Virtual Reality (VR) techniques use a computer to generate a simulated environment, which is comprised of real-time, dynamic, yet realistic images generated by computers. Users can view such images on screens of their mobile devices (e.g., mobile phones), or by immersing in the simulated environment with specialized head-mounted display devices, or the like. One salient difference between VR content and ordinary video content is that each VR video frame can be shot in a 360-degree panoramic manner, reproducing scenes more clearly and accurately. In a video playing process, since the screen of a playing device is usually of a planar structure and cannot display in a 360-degree panoramic manner, the playing device needs to first determine for users a viewing angle, which is utilized as the display angle for displaying each image frame. Initially, the VR content may include a default display angle. Later in the playing process, the viewer can change the viewing angle by rotating a display device or turning his or her head or rolling his or her eyeballs in the case of wearing a head-mounted display device, to view the content of each image frame of the video from more than one angle.

"VR live streaming is a novel application combining VR content with live streaming technology. In VR live streaming, VR content usually includes content such as a VR video prepared in advance. A VR content transmitting device obtains the VR content in advance and then plays it synchronously to one or more VR receiving devices in real-time. There are many application scenarios for VR live streaming. For example, in an Internet-based sales system, the sale of some products (e.g., home furnishing or decoration products) requires large-scaled scenes to more clearly present and showcase specific product features. With VR technology, those products can be arranged in such scenes in advance to prepare the corresponding VR content. Subsequently, the VR content is played to shopping or purchasing users via VR live streaming, enabling the users to obtain more accurate information about specific products. In various scenarios, VR live streaming is used to transmit movie-like pure display content, game-like exploration content, or the like, to VR receiving devices."

In addition to obtaining background information on this patent application, VerticalNews editors also obtained the inventor's summary information for this patent application: "Embodiments of the disclosure provide methods and apparatuses for synchronizing viewing angles in Virtual Reality (VR) live streaming to solve the problem associated with synchronization of viewing angles in VR live streaming.

"In one embodiment of the disclosure, a method for synchronizing viewing angles in VR live streaming comprises: determining transmitting user's viewing angle information corresponding to image frames in a process of playing VR content on a transmitting device side; and providing the image frames in the VR content as well as the transmitting user's viewing angle information corresponding to the image frames to a VR receiving device such that, when displaying the VR content, the VR receiving device is configured to determine, based on the transmitting user's viewing angle information corresponding to a current image frame to be displayed and a preset number of preceding image frames, a display angle for the VR receiving device to display the current image frame to be displayed.

"In one embodiment of the disclosure, a method for synchronizing viewing angles in VR live streaming comprises: obtaining VR content information provided by a VR transmitting device, the VR content information including image frames and transmitting user's viewing angle information corresponding to the image frames; determining, based on the transmitting user's viewing angle information corresponding to a current image frame to be displayed and a preset number of preceding image frames, a display angle for a VR receiving device to display the current image frame to be displayed; and displaying, based on the determined display angle, the current image frame to be displayed.

"In one embodiment of the disclosure, a method for synchronizing viewing angles in VR live streaming comprises: determining transmitting user's viewing angle information corresponding to image frames in the process of playing VR content on a transmitting device side; and providing the image frames in the VR content and the transmitting user's viewing angle information corresponding to the image frames to a VR receiving device such that, when displaying the VR content, the VR receiving device is configured to provide prompt information about a transmitting user's viewing angle based on a parallax between a recipient user's viewing angle and the transmitting user's viewing angle.

"In one embodiment of the disclosure, a method for synchronizing viewing angles in VR live streaming comprises: obtaining VR content information provided by a VR content transmitting device, the VR content information including image frames and transmitting user's viewing angle information corresponding to the image frames; determining recipient user's viewing angle information corresponding to a current image frame to be displayed; generating prompt information about a transmitting user's viewing angle based on parallax information between the recipient user's viewing angle and the transmitting user's viewing angle corresponding to the current image frame to be displayed; and providing the prompt information when the current image frame to be displayed is being displayed.

"In one embodiment of the disclosure, an apparatus for synchronizing viewing angles in VR live streaming comprises: a first transmitting user's viewing angle information determining unit, configured to determine transmitting user viewing angle information corresponding to image frames in a process of playing VR content on a transmitting device side; and a first VR content providing unit, configured to provide the image frames in the VR content and the transmitting user's viewing angle information corresponding to the image frames to a VR receiving device such that, when displaying the VR content, the VR receiving device is configured to determine, based on transmitting user's viewing angle information corresponding to a current image frame to be displayed and a preset number of preceding image frames, a display angle for the VR receiving device to display the current image frame to be displayed.

"In one embodiment of the disclosure, an apparatus for synchronizing viewing angles in VR live streaming comprises: a VR content obtaining unit, configured to obtain VR content information provided by a VR transmitting device, the VR content information including image frames and transmitting user viewing angle information corresponding to the image frames; a display angle determining unit, configured to determine, based on transmitting user's viewing angle information corresponding to a current image frame to be displayed and a preset number of preceding image frames, a display angle for a VR receiving device to display the current image frame to be displayed; and a display unit, configured to display, based on the determined display angle, the current image frame to be displayed.

"In one embodiment of the disclosure, an apparatus for synchronizing viewing angles in VR live streaming comprises: a second sender user viewing angle information determining unit, configured to determine transmitting user's viewing angle information corresponding to image frames in a process of playing VR content on a transmitting device side; and a second VR content providing unit, configured to provide the image frames in the VR content and the transmitting user's viewing angle information corresponding to the image frames to a VR receiving device such that, when displaying the VR content, the VR receiving device is configured to provide prompt information about a transmitting user viewing angle based on a parallax between a recipient user's viewing angle and the transmitting user's viewing angle.

"In one embodiment of the disclosure, an apparatus for synchronizing viewing angles in VR live streaming comprises: a VR content obtaining unit, configured to obtain VR content information provided by a VR transmitting device, the VR content information including image frames and transmitting user viewing angle information corresponding to the image frames; a recipient user's viewing angle information determining unit, configured to determine recipient user's viewing angle information corresponding to a current image frame to be displayed; a prompt information generating unit, configured to generate prompt information about a transmitting user viewing angle based on parallax information between the recipient user's viewing angle and the transmitting user's viewing angle corresponding to the current image frame to be displayed; and a prompt information providing unit, configured to provide the prompt information when the current image frame to be displayed is being displayed.

"In one embodiment of the disclosure, a method for synchronizing viewing angles in Augmented Reality (AR) live streaming comprises: determining transmitting user viewing angle information corresponding to image frames in a process of playing AR content on a transmitting device side; and providing the image frames in

the AR content and the transmitting user's viewing angle information corresponding to the image frames to an AR content receiving device such that, when displaying the AR content, the AR receiving device is configured to determine, based on transmitting user's viewing angle information corresponding to a current image frame to be displayed and a preset number of preceding image frames, a display angle for the AR receiving device to display the current image frame to be displayed.

"In one embodiment of the disclosure, a method for synchronizing viewing angles in Augmented Reality (AR) live streaming comprises: obtaining AR content information provided by an AR transmitting device, the AR content information including image frames and transmitting user's viewing angle information corresponding to the image frames; determining, based on transmitting user's viewing angle information corresponding to a current image frame to be displayed and a preset number of preceding image frames, a display angle for an AR content receiving device to display the current image frame to be displayed; and displaying, based on the determined display angle, the current image frame to be displayed.

"In one embodiment of the disclosure, a method for synchronizing viewing angles in AR live streaming comprises: determining transmitting user's viewing angle information corresponding to image frames in a process of playing AR content on a transmitting device side; and providing the image frames in the AR content and the transmitting user's viewing angle information corresponding to the image frames to an AR content receiving device such that, when displaying the AR content, the AR receiving device provides prompt information about the transmitting user's viewing angle based on a parallax between a recipient user's viewing angle and the transmitting user's viewing angle.

"In one embodiment of the disclosure, a method for synchronizing viewing angles in AR live streaming comprises: obtaining AR content information provided by an AR transmitting device, the AR content information including image frames and transmitting user's viewing angle information corresponding to the image frames; determining recipient user viewing angle information corresponding to a current image frame to be displayed; generating prompt information about a transmitting user's viewing angle based on parallax information between the recipient user's viewing angle and the transmitting user's viewing angle corresponding to the current image frame to be displayed; and providing the prompt information when the current image frame to be displayed is being displayed.

"Compared with the current technology, embodiments of the disclosure provide the following advantages.

"With embodiments of the disclosure, for live streaming of movie-like pure display VR content, by simultaneously transmitting image frames in the VR content and corresponding transmitting user's viewing angle information to a VR receiving device by a VR transmitting device, the transmitting user's viewing angle information is preprocessed on the VR receiving device side before the preprocessed information is used as a display angle for the receiving device to display an image frame to be displayed. As such, with changes in the display angles at which the VR receiving device displays the image frames becomes smoother, despite any sudden change in the transmitting user's viewing angle incurred on the transmitting device side. Thus, the occurrence probability of situations where a recipient user feels dizzy due to such sudden change is controlled and/or reduced.

"For live streaming of game-like exploration VR content, by computing parallax information between a recipient user's viewing angle and a transmitting user's viewing angle corresponding to a current image frame to be displayed, and providing prompt information accordingly, a recipient user is prompted regarding how to perform operations such as rotating his/her VR receiving device. This way, synchronization of the viewing angle of a transmitting user and the viewing angle of the recipient user is realized such that the recipient user adjusts his/her own viewing angle based on the prompt information to view, via the VR receiving device, the same VR content as viewed by the transmitting user.

"The above-described advantages are merely exemplary, and embodiments the disclosure do not necessarily require all of the advantages described above to be achieved at the same time."

The claims supplied by the inventors are:

"1-24. (canceled)

"25. A method comprising: receiving, at a virtual reality (VR) receiving device, viewing angle information for image frames of VR content transmitted by a transmitting device; displaying, on the VR receiving device, the image frames; determining, by the VR receiving device, a display angle for a current image frame in the image frames, the display angle computed based on viewing angle information corresponding to the current image frame and a preset number of previous image frames; and adjusting, by the VR receiving device, display of the current image frame based on the display angle.

"26. The method of claim 25, the determining a display angle for a current image frame in the image frames comprising: computing an average value of transmitting user's viewing angle information corresponding to the

current image frame and the preset number of previous image frames; and determining the average value as the display angle at which the VR receiving device displays the current image frame in the image frames.

"27. The method of claim 26, further comprising: determining degree of change information associated with the transmitting user's viewing angle information corresponding to the current image frame relative to the transmitting user's viewing angle information corresponding to the preset number of previous image frames; and triggering, in response to determining that the degree of change information reaches a preset threshold, computing an average value of the transmitting user's viewing angle information corresponding to the current image frame and the preset number of previous image frames.

"28. The method of claim 25, further comprising: determining degree of change information associated with transmitting user's viewing angle information corresponding to the current image frame relative to transmitting user's viewing angle information corresponding to the preset number of previous image frames; and determining, in response to determining that the degree of change information does not reach a preset threshold, the transmitting user's viewing angle corresponding to the current image frame as the display angle at which the VR receiving device displays the current image frame.

"29. The method of claim 25, wherein a display angle recorded by the VR transmitting device is associated with a movement of the VR transmitting device.

"30. The method of claim 25, wherein the display angle is unrelated to a movement of the VR receiving device.

"31. A non-transitory computer-readable storage medium for tangibly storing computer program instructions capable of being executed by a computer processor, the computer program instructions defining the steps of: receiving, at a virtual reality (VR) receiving device, viewing angle information for image frames of VR content transmitted by a transmitting device; displaying, on the VR receiving device, the image frames; determining, by the VR receiving device, a display angle for a current frame in the image frames, the display angle computed based on viewing angle information corresponding to a current image frame and a preset number of previous image frames; and adjusting, by the VR receiving device, display of the current image frame based on the display angle.

"32. The computer-readable storage medium of claim 31, the determining a display angle for a current image frame in the image frames comprising: computing an average value of transmitting user's viewing angle information corresponding to the current image frame and the preset number of previous image frames; and determining the average value as the display angle at which the VR receiving device displays the current image frame in the image frames.

"33. The computer-readable storage medium of claim 32, the computer program instructions further defining the steps of: determining degree of change information associated with the transmitting user's viewing angle information corresponding to the current image frame relative to the transmitting user's viewing angle information corresponding to the preset number of previous image frames; and triggering, in response to determining that the degree of change information reaches a preset threshold, computing an average value of the transmitting user's viewing angle information corresponding to the current image frame and the preset number of previous image frames.

"34. The computer-readable storage medium of claim 31, the computer program instructions further defining the steps of: determining degree of change information associated with transmitting user's viewing angle information corresponding to the current image frame relative to transmitting user's viewing angle information corresponding to the preset number of previous image frames; and determining, in response to determining that the degree of change information does not reach a preset threshold, the transmitting user's viewing angle corresponding to the current image frame as the display angle at which the VR receiving device displays the current image frame.

"35. The computer-readable storage medium of claim 31, wherein a display angle recorded by the VR transmitting device is associated with a movement of the VR transmitting device.

"36. The computer-readable storage medium of claim 31, wherein the display angle is unrelated to a movement of the VR receiving device.

"37. An apparatus comprising: a processor; and a storage medium for tangibly storing thereon program logic for execution by the processor, the stored program logic comprising: logic, executed by the processor, for receiving viewing angle information for image frames of VR content transmitted by a transmitting device; logic, executed by the processor, for displaying the image frames; logic, executed by the processor, for determining a display angle for a current frame in the image frames, the display angle computed based on viewing angle information corresponding to a current image frame and a preset number of previous image frames; and logic, executed by the processor, for adjusting display of the current image frame based on the display angle.



"38. The apparatus of claim 37, the logic for determining a display angle for a current image frame in the image frames comprising: logic, executed by the processor, for computing an average value of transmitting user's viewing angle information corresponding to the current image frame and the preset number of previous image frames; and logic, executed by the processor, for determining the average value as the display angle at which the VR receiving device displays the current image frame in the image frames.

"39. The apparatus of claim 38, the stored program logic further comprising: logic, executed by the processor, for determining degree of change information associated with the transmitting user's viewing angle information corresponding to the current image frame relative to the transmitting user's viewing angle information corresponding to the preset number of previous image frames; and logic, executed by the processor, for triggering, in response to determining that the degree of change information reaches a preset threshold, computing an average value of the transmitting user's viewing angle information corresponding to the current image frame and the preset number of previous image frames.

"40. The apparatus of claim 37, the stored program logic further comprising: logic, executed by the processor, for determining degree of change information associated with transmitting user's viewing angle information corresponding to the current image frame relative to transmitting user's viewing angle information corresponding to the preset number of previous image frames; and logic, executed by the processor, for determining, in response to determining that the degree of change information does not reach a preset threshold, the transmitting user's viewing angle corresponding to the current image frame as the display angle at which the VR receiving device displays the current image frame.

"41. The apparatus of claim 37, wherein a display angle recorded by the VR transmitting device is associated with a movement of the VR transmitting device.

"42. The apparatus of claim 37, wherein the display angle is unrelated to a movement of the VR receiving device."

For more information, see this patent application: ZHANG, Zhe. Method And Apparatus For Synchronizing Viewing Angles In Virtual Reality Live Streaming. Filed February 2, 2019 and posted February 4, 2021.

Patent URL:

<http://appft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PG01&p=1&u=%2Fmetahtml%2FPTO%2Fsrchnum.html&r=1&f=G&I=50&s1=%2220210037116%22.PGNR.&OS=DN/20210037116&RS=DN/20210037116>

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Document INTWKN0020210222eh2m0001p

## Search Summary

Text	(hd=alibaba) and wc>100 and hd=(virtual real estate or virtual properties or digital real esate or digital real assets or digital properties or metaverse properties or digital plots or virtual plots or virtual land or virtual reality platform or manufacturing simulation or virtual simulation or digital twins or virtual manufacturing or immersive learning or mixed-reality learning or metaverse learning or VR learning or AR learning or VR training or virtual recruitment or 3d training or training metaverse or virtual retail or virtual shopping or virtual clienteling or omnichannel shopping or humanising digital retail or immersive virtual stores or 3d virtual store or metaverse shopping or virtual clothing or virtual goods or gaming or digital avatar or digital character or virtual game or 3D avatars or virtual reality or interoperable VR space or digital financial ecosystems or metaverse wallets or robo advisory or virtual financial data or digital bank branches or digital touchpoint or blockchain wallets or digital wallets or digital wedding or virtual wedding or virtual event or virtual concert or virtual theme park or virtual classroom or virtual learning or virtual school or immersive learning or metaverse)
Date	In the last year
Source	All Sources
Author	All Authors
Company	All Companies
Subject	All Subjects

Industry	All Industries
Region	All Regions
Language	English
Results Found	23
Timestamp	21 February 2022 18:28