

# *Research on the Development of Vtuber*

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**Abstract.** When a new career is developed, legal issues also come along with it. Nowadays, we live in countries that are highly developed; some of the jobs don't even require people to show themselves. Vtuber is a special job like that; people work behind a 2D model, not having to show their physical face for reasons such as privacy due to potential risks of stalking, being anyone and anything, enjoyment, community interactions and content creation. Due to COVID 19, this career quickly expanded in 2019. Now it has a huge supply chain; just in China, we have more than 3000 Vtuber. Vtuber has now become a very popular way to spread out messages or advertisements, and more and more companies have started to develop their own IP. However, problems also start to show when Vtuber get involved in economic activity; some of the legal responsibilities have fallen to the wrong people, and some minors have spent a large amount of money without getting consent from their parents. In this article, a questionnaire is the way that's been chosen to collect data, and the code has been put on TikTok for targeted group chats with people who watch Vtuber. This new career is already replacing real celebrities, and maybe in the future it will completely overtake some other job. The government will need to set new rules for this brand new career before other big legal issues happen.

**Keywords:** vtubers, artificial intelligence, legal issues, media industry

## 1. Introduction

As technology starts to develop, we start to explore brand new occupations. Artificial intelligence has brought us virtual YouTubers, also known as vtubers. Vtubers are only bound to the production of creative content and entertainment for viewers on platforms such as YouTube, Twitch or Twitter or Bilibili, making them cross-platform and not linked to a specific virtual world. If a person does not produce creative content such as videos, singing, drawing, games streaming, he or she cannot be considered as a VTuber. Most of the YouTubers use a live 2D model with equipment that can capture their facial expressions to perform in front of the audience [1]. Ban ai was the first to start this, and because of her, this career became more popular, but at the time, YouTubers could only show themselves in video format. Nijisanji, a Japanese company, began to specialize in this area; they put almost everything into streaming form when no entrepreneur wanted to put their money in and gamble for something with no clear high return profit, but Nijisanji didn't care and they had success. Now they have more than 100 employees working, including people from different countries such as Korea, Australia, America, and the United Kingdom. A form has been sent out to ask people that watch

YouTube to fill it in. In this article, we are going to talk about what may change in the future and how firms promote YouTuber. Will this change consumer behavior and bring any change in the future [2]?

## **2. Why Vtuber Exist**

Nowadays, some people are bored or they need spiritual sustenance. They chose Vtuber over a real celebrity because users are likely to see Vtuber on screen every day, and because they can see the messages their followers left, they will communicate with them. Unlike celebrities, users can't talk about their lives with them, and it is hard to see them every day. Vtuber is also a lot safer on the emotions than a real idol, because of the massive supply chain, fans have a variety of choices; they can choose all kinds of Vtuber they like and just click the follow button, and they will get a notification when there's a new update. It is also a lot more convenient for people to follow a vtuber because they stream online, so people don't need to go a long way to see them and spend any money for it. Most of the vtubers on YouTube streamed almost every day, so people will have more opportunity to see them. Even if the viewers didn't make it, there are playback videos for people to watch. Now that more people are aware of the existence of vtubers, and as a result of the news about the large amount of money a vtuber has earned in an hour, people have seen a large profit in return, a huge market has quickly formed. The data shows that the popular vtubers have an income of about 500,000 to 2 million yuan per month; by 2020, the world's highest vtubers revenue will be 8.4 million yuan.

### **2.1. The Profit it Bring and Ways They Make Money**

There are several ways for vtuber to earn money, one of which is "superchat," a system available on YouTube and bilibili that allows followers to send money to the streamer while leaving a message, and it makes the message stand out so the streamer notices it. There are also different levels of Superchat, and different colors represent them. The most expensive superchat color is red, often known as a aka "super". But not everyone is willing to pay for the gifts at such an expensive price; from the reference below, we know that 59.1% of users can only accept to give streamers gifts when they are below 100 yuan [3]. But SuperChat is not the only way for streamers to gain profits. Animation derivatives and YouTube member subscriptions are also good ways. Normally, a Vtuber would go pay an artist for a commission and use the art to produce a keychain or badge or other product to sell. A Vtuber that has a company will also produce online digital goods, for example, a voice product that has a theme. They also put up videos that are only shown to subscribers to attract more people to follow and pay for the content every month. From this reference, it shows that 63.6% of the population supports and follows Vtuber, and 37.6% of them are willing to spend more money on related items [4].

### **2.2. Supply Chain in the Market Now**

Vtuber now has a huge market, so the supply chain has suddenly increased. People don't see many vtubers streaming on Douyin before, but after seeing the income of other streamers, they are all drowning in profit, and now if people scroll a few videos on Douyin, they can see a variety of different types of streamer boards casting. The supply has increased, but the size of the population of viewers did not change. This has caused fierce competition in the market.

## **3. The Economic Transformation of Vtuber**

Since enterprises have seen how influential Vtuber can be and now recognize the commercial value they can bring, various advertisements about them have begun to appear more frequently on apps

such as Bilibili and Douyin. More and more firms decide to work with them. Most of the enterprises know that fan economies will work well, so they use basic strategies like endorsements or co-branded products; they try to work with Vtuber to influence the sale of their products. The brand can borrow Vtuber fame to attract fans' attention and provide customized products in order to convert this into consumption and realize profit [5].

### 3.1. Change in Consumer Behaviour and Changes in Firms When Promoting Products

There are a few shops on Taobao that sell coffee co-branded with Vtuber and have more than 4000 sales per month. 42 questionnaires were collected, and the data shows that 36 people received promotional videos from the app's front page. Firms are not the only people that are promoting; there are also fans who clip the fun part of the stream and post it to help the streamer gain more followers. According to Figure 1 that's been collected, there are 38 out of 42 people who become followers of a Vtuber after watching some of the clips that other people post online. 31 out of 42 people have changed their way of spending after they have become fans; they would spend more money on the animation derivatives and save money to spend on a superchat on their birthday. Some of the viewers don't have a big allowance; they have to save from their living expenses to buy merchandise items. The number of vtubers quickly increases; according to the largest anime app in China, it shows that there were more than thirty thousand of them settled in China last year.

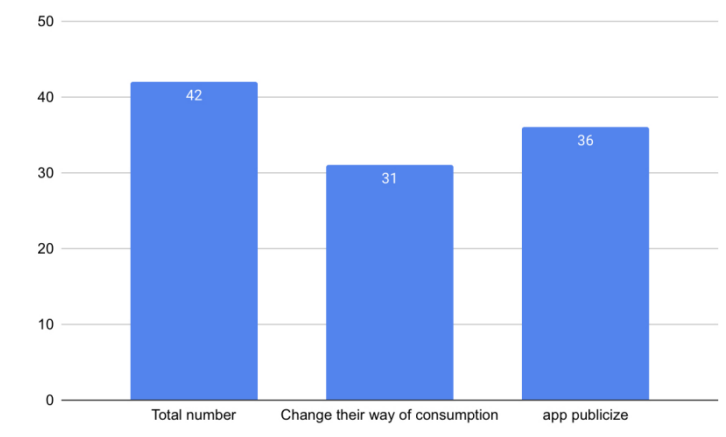


Figure 1: Consumer Behavior.

### 3.2. Legal Issues

As vtuber are getting involved in more economic activity so comes with legal issues. Vtuber has a large population of viewers and most of them are still students, so they are not allowed to spend money on these kind of things because the adult consider this as a waste of money. More than 40 vtuber are forced to refund the money they earn from the stream because the donor are minor. Another problem is the endorsements product that vtuber sell. This year on Tao bao 618 more than 30 enterprise choose to work with vtuber to sell their product on live stream, but according to the law, vtuber don't have a legal personality, so if the quality of the product has a problem the responsibility may actually fall to the operator or the company that's responsible for its model. In this reference Han dan dong also point out another problem. Vtuber should pay taxes and follow the code of conduct just like live anchor did, this year on bilibili a Vtuber posted a video titled about my disappearance for six months is because she was kidnapped, this has occurred a huge discussion online quickly, people are guessing that the Vtuber was treated wrongly by its own company. But it was proved faked

content after the police investigated, Vtuber should be more careful about what they post online since there will be a huge population watching it[6].

#### 4. Change in the Future

Every day, our technology advances, and Vtuber is one example. People can earn money just by working behind a model, enterprise will also see the value behind this new career, but this industrial chain is still unstable, as some fans like to cosplay the vtuber they like and post it online to expand visibility for the streamer, some merchants saw the profit they could gain and decide to produce related clothing and accessories, from the reference below we know that most of the merchants did not ask the streamer itself for permission to produce and sell clothes, these kind of action have damaged the IP rights, also there aren't various way for vtuber to gain profits and has bring risks when it comes to IP activist [7]. We are not sure whether vtuber will completely overtake real live streamer in the future, but they are playing a vital role for media transformation. The difficulties the media is facing: Firstly, they have limited content production capacity; they don't have enough content to attract viewers. Second, the lack of artificial intelligence has made it hard to interact with the viewers. In the era of artificial intelligence, the media industry has been completely reformed, from content creation to the data in the news to publishing. All can be done by it. Vtubers has minimized the cost of labor and content production [8].

Vtubers exist because there is a demand for them. They are becoming a new way for people to relax during their free time or when they are feeling bored. Most of the people are interested because they never seen something like this before. Others started watching them because they were attracted by the model and voice in the first place, but they stayed because of the streamer's personality. Some people found that it can help them to learn a new language or culture by watching board cast in other language. Vtubers have even become spiritual pillars for some viewers, as they can find solace in their streams when the real world is disappointing or something bad has happened. Some viewers will pay for them because they believe it is a way of showing their love to the streamer; it may also be a way of appreciating them for being there when viewers are upset and unmotivated. Vtubers are more than just models to some people. Sometimes you may actually learn things from them; they shared their own stories with viewers to encourage them. This may be the reason why many people see them as a place to heal their emotions. Vtuber has also brought a brand new experience to the users; normally we don't see celebrities in real life, and even if we did, we couldn't just walk up and talk to them. This may be a sign that in the future, Vtuber may be more popular or even overtake celebrities [9]. 2022. Vtuber definitely changed the ways of promoting products for some firms, as they have such a big influence. Firms believe that they will attract a vast visitor flow rate. The law for Vtuber is not perfect enough; the government could adjust the law for real live streamers so that it can also be applied to Vtuber.

#### 5. Conclusion

However, for this article, there's only a 42-person sample, which is not a large amount of data, so the answer may be inaccurate. The questionnaire has only been posted in group chat and TikTok, so there may not be a lot of people who see it and fill it in. One person who filled out the form said that the questions all required people to type in their own answer, but none of them were multiple choice questions, so people may feel annoyed and decide not to fill it in. To improve, we could try distributing the form in person the next time so that I have more data to collect and the answer is more accurate. The majority of the population does believe that the industrial chain for Vtuber will be stable in the future because they are already taking over some business right now, but there are still so many problems that need to be solved in order to protect this career. Tax is the number one problem; even

Vtuber may be seen as not having a legal personality, but they are still run by real people behind the computer. They must pay tax on the gifts and super-chat they receive online, as well as the merchandise they sell in their online store. The government should also set new laws for Uber to help protect this new career. First, because this supply chain is clearly expanding, more people are getting involved in economic activities, and the model they use provides the commercial value, so when other people copy their model, the streamer can find a way to protect their IP rights. Second is that Vtuber shouldn't be treated differently just because they've shown themselves to the public in a 2D model; they still need to follow the rules like a real celebrity would, pay their taxes, and follow the code of conduct just like everyone else, and if some legal issues arise, it should be them taking the responsibility instead of the firm working behind them. A third point is that the government could also consider using Vtuber as a new way to spread messages when needed. It's not just about the commercial value that Vtuber can bring when used correctly; it's also about spreading good vibes and energy [10].

## Reference

- [1] Xu Yucong. *Are you ready to walk with virtual human* [J]. *Data*. 2022 (06): 8-13
- [2] Bredikhina Liudmila, 2020, *Designing identity in Vtuber Era*, [https://www.academia.edu/42785257/Designing\\_identity\\_in\\_VTuber\\_Era?from=cover\\_page](https://www.academia.edu/42785257/Designing_identity_in_VTuber_Era?from=cover_page)
- [3] Qi Yawen, a trainee reporter of our newspaper. *Virtual anchor: how to better serve news reports with advanced technology* [N]. *China News, Publishing, Radio and Television News*. 2022
- [4] Guo Quanzhong, Huang Wufeng. *AI Capability: Evolution, Key and Trend of Virtual Anchors* [J]. *News Lovers*. 2022 (07): 7-10
- [5] Guo Quanzhong, Zhang Yingying. *Research on the Development and Evolution of Virtual Idol and Its Marketing Approach from the Perspective of Fans Economy* [J]. *News Lovers*. 2022 (03): 16-19
- [6] [Reporter Han Dandong, intern of our newspaper, Fan Xiaoya. *Who is responsible for problems with virtual idol endorsement products?* [N]. *Legal Daily*. 2022]
- [7] [Chen Yuqi, a trainee reporter of IT Times, the real value behind the virtual UP owner [N]. *IT Times*. 2022]
- [8] Guo Quanzhong, Huang Wufeng. *AI Capability: Evolution, Key and Trend of Virtual Anchors* [J]. *News Lovers*. 2022 (07): 7-10
- [9] Wang Xiaoxiao. *Research on the transmission form of virtual anchor taking goods from the physical perspective* [D]. Huaibei Normal University Wang Xiaoxiao. *Research on the transmission form of virtual anchor taking goods from the physical perspective* [D]. Huaibei Normal University (page 13)
- [10] Qi Yawen, a trainee reporter of our newspaper. *Virtual anchor: how to better serve news reports with advanced technology* [N]. *China News, Publishing, Radio and Television News*. 2022