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Introduction

Chapter One

Background and functions of investigators
- In the past 2020, opportunities and challenges coexist for the whole XR industry. In terms of hardware, standalone devices have gradually occupied the market, providing more platforms and choices for developers. The excellent performance of Oculus Quest 2 has attracted attention from both inside and outside the industry, and the quality of mobile content has also been greatly improved. Due to the epidemic caused by the remote social mode is promote the development of the XR industry, more people pay attention to the virtual reality industry.

- In order to show the growth of the XR content team more intuitively and understand the survival and development needs of developers in the epidemic situation, VRCORE conducted a questionnaire survey in March 2021. Team decision makers, project directors and developers each account for about 30% of the respondents, which basically represents the overall outlook and development trend of domestic XR content projects.
Team Situation

Background and scale
- Compared with the data in 2019, the number of new XR content teams increased significantly in 2020. With the widespread application of remote social networking, more teams are optimistic about the development of virtual reality industry and devote themselves to the XR industry;

- As new blood comes in, the proportion of developers who have worked for more than three years has decreased;

- The age distribution of developers is very concentrated. Developers aged 26-30 are the mainstream. Developers aged 31-40 have accumulated rich experience and become the mainstay of the industry. It is worth noting that due to the policy support of the Ministry of Education for the virtual reality industry in 2020, young people under the age of 25 also beginning to join the industry.
- Compared with the data in 2019, the pattern of team size in 2020 is more differentiated. Large scale (more than 50 people) teams reduce team size to save project cost, while small and medium scale (5-10 people) teams gradually take the lead;

- As for the change of the overall team size, some small teams was expand in 2020, but some larger teams was shrink.
Chapter Three

Financial Revenue

Financing and income of the team
With the XR genre once again gaining capital attention, in 2020, another group of teams get financing, but the financing rounds are basically in the early stage, and there are few financing to series B and beyond;

- In 2020, the number of teams receiving financing increased slightly compared with that of last year (12.68%);

- Most of the content teams still have urgent financing needs.
In 2020, the financial situation of the team has improved compared with that in 2019, more than half of the teams have reached the balance of revenue and expenditure, and the proportion of profitable teams has also increased significantly.

Over 60% of the teams are confident they will break even or even make a profit by 2021, while over 30% will focused on reducing losses. The reason may be that some teams have obtained financing, and their main goal is more on how to do well in product development and subsequent development.
FINANCIAL SITUATION

- From the perspective of the revenue in 2020, ToB commercial customized projects are still the main source of revenue for the team, and the proportion of revenue has increased. Among them, industry content occupies the main position;

- The proportion of ToC project in the total team income has shrunk, which also shows that the consumption power of ToC consumer market is still insufficient. How to guide TOC market to participate in the market is still the whole industry needs to solve the problem.
Chapter Four

Business path of team and details of ToB, ToC projects
- In 2020, the success of Quest2 on the ToC market has boosted developers' confidence in ToC content. In 2020, some teams that have done both the ToB business and the ToC business was refocus their energy and business direction on ToC in 2020;

- Overall, the division of the team business is much clearer than it was last year, with TOB and TOC further separated.
Most teams have completed 2-5 products in 2020, and are confident that they will continue to do so in 2021, and there are a lot of teams that are targeting 5+ products in 2021.

In terms of the duration of work experience, the number of works within 5 minutes is significantly less than that in 2019 (37.6%), and the works within 10-20 minutes (11.6% in 2019) grow the most.
In the field of ToC game content, in 2020, the situation of shooting and action content far ahead was changed. Although the two continue to maintain the leading position, the gap with other content is gradually narrowing. Simulation games return to the category popular with content team 【Simulations are fourth in 2018, with 28.13%】;

It can be seen from the data that the epidemic has caused a strong blow to LBE;

The main target group has changed from the core players (42.3%) in 2019 to the general public in 2020.
In the ToC film content, the gap between various categories is further narrowed. CG film content has decreased, and some teams still focus on producing specific content categories.

The resolution of film content is still dominated by 4K, and the proportion of teams that were working on 8K content last year is also decreased this year.
- Consumer-oriented AR content has changed from entertainment to education. AR+ industry has become a new breakthrough in the development of the industry, which leads to the increase of AR content;

- The project progress of the content team has also improved. In the past year, it has completed an average of 4-6 types of content. However, in the plan of 2021, the content team has reduced the R & D plan of AR content and strived to spend time to create high-quality content.
- On the whole, content teams in 2020 commercial orders significantly increased, about 40% of the teams in the past year completed ToB projects significantly increased, only less than 10% of the team saw a decrease in the number of projects;

- The research and development cycle from 1-3 months in 2019 to decentralized development at both ends in 2020. On the one hand, the experienced team is more skilled in ToB project research and development and has more tacit teamwork; On the other hand, for the purpose of creating high-quality projects, there have been some large projects. This shows that the XR content format is starting to become more accepted and play a bigger role.
- In terms of the amount of the project, the average amount of the project has increased, although the price of the project has not changed much;

- The proportion of XR in the total budget of the ToB project has not changed much, and it is still not the main part of expenditure in the overall project.
- In the ToB projects in 2020, education-training category is still in a leading position. Once popular project categories marketing, tourism, construction and real estate were greatly reduced due to the impact of the epidemic. And in the project plan of 2021, the development team did not focus back on these categories;

- Although the situation of industrial manufacturing and medical field in 2020 is not ideal, it is still the research and development direction valued by the content team.
Chapter Five

Selection of engine tools, XR equipment and landing platform
- In terms of engine tools, the proportion of teams choosing dual engine operation in 2020 did not reach the expected 40%, but decreased from 30% in 2019 to less than 20%.

- In 2020, UE4 will continue to take the lead with a slight advantage, but in 2021, it is on the contrary. Stronger support for AR devices is one of the factors for developers' increasing willingness to use Unity.
- In 2020, the strong appearance of Oculus Quest2 has a direct impact on the pattern of VR HMD. Developers turned their attention to standalone devices, the share of PCVR represented by HTC Vive series continued to decrease, but the demand of standalone devices released has not been successfully achieved by domestic standalone.

- Valve Index is the only device in the PCVR that maintains the development expectation.
Although Steam continues to be the preferred platform, its gap with other platforms has been gradually narrowed;

The impressive performance of Oculus Quest and Oculus Quest 2 has increased the importance of Oculus Home among developers, even surpassing Steam to become the first online platform of intention in 2021;

The epidemic has affected the expansion of arcade platforms, and the actual landing of arcade platform will also decrease in 2020. However, as we can see from the launch plans for 2021, the online profit trend last year made some teams shift their focus to online.
- Compared with last year, the advantage of handheld AR devices has disappeared. The head-mounted AR devices represented by Nreal and Hololens series are more popular with content developers;

- Hololens series is far ahead in the selection plan of 2021. On the one hand, it proves the rapid development of AR+ industry in the past year, and on the other hand, it also shows that HoloLens series has accumulated a good reputation among developers in the past two years.
TECHNOLOGY COOPERATION

- The most popular junctions for technical cooperation with other fields have shifted from 5g to AI;

- For example, remote social networking is booming in 2020. The combination of office and AI technology can enhance the immersive experience of users and create an atmosphere of office environment. In addition to the application field, it is even more so in the game field. Combined with AI technology, the game's character feedback will be richer and the player experience will be upgraded.
Epidemic Situation

Chapter Six

The impact of the epidemic on developers
The content teams with stable customer groups were not affected by the epidemic. Some new teams may shelve the team development progress due to the lack of project opportunities, but there are also some teams that are increasing their online content revenue because of the epidemic.
Chapter Seven

Industry support and overseas expansion plan for team’s own development
- There is no big change in the support required by the contents team in 2021. For the ToC team, no matter the financial situation, funding support is needed during the project development period and distribution support is needed in the later project development period. These two are always the main demands of the team.
Due to the repeated epidemic situation, developers don't have many opportunities to participate in overseas projects in 2020. However, in 2021, the recovery of overseas market is still far away, and the content team will focus more on the domestic market, which is significantly lower than the overseas expansion intention in 2020.

- Compared with the surrounding Asian countries, the West is the area where developers prefer to cooperate overseas.
Although product sales still remain the first goal of overseas expansion, the demand intensity has shown a decreasing trend year by year, which indicates that developers have gradually shifted their focus on overseas expansion from market consumption to technology and content.
Chapter Eight

Overall review and summary of the report
CONCLUSION

- On the whole, the financial situation of the content team in 2020 is relatively stable. How to advance financing is still the focus of most teams this year.

- Domestically, national policies have provided a lot of corresponding support under the epidemic situation. There is also a lot of good news about the industry. It is believed that the XR industry will be flooded with more teams and resources with real strength in the future.

- In terms of hardware, the release of Oculus Quest2 attracted strong attention and praise. On the one hand, it promoted the share of standalone, and on the other hand, it refocused developers' vision on TOC content.

- The quality of mobile content has also improved significantly in the past year. With the gradual updating and optimization of mobile hardware, developers are also looking to improve the quality of mobile content.
THANKS