

How Chinese companies are taking virtual reality into whole new worlds

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Imagine walking into your kitchen and entering the hotel room you hope to stay in next month. Or looking to your left and seeing the Mona Lisa, which you hope to visit on your trip, almost near enough to touch. Or looking down to find yourself surfing a wave in Hawaii – your other choice of holiday should your Paris plans fall through.

Such scenarios are among the loftier hopes for Virtual Reality [VR] and while the technology might not quite have caught up to the vision – or not quite yet – it's easy to see why the hype surrounding the industry has taken off over the past five years.

Major multinationals and plucky startups alike are coming to appreciate that the potential of VR stretches far beyond the computer gaming industry and into tourism and education.



A visitor to the Ara Pacis Museum in Rome, Italy, uses immersive VR goggles to watch a multimedia exhibition 'L'Ara com'era' (The Ara as it was). Photo: EPA

South China Morning Post

Tech giants such as HTC, Samsung, Huawei and Xiaomi are now investing heavily in the technology, in an effort to catch up with the smaller companies such as 3Glasses that have emerged as major forces in China's VR sector, some of which have been shipping tethered VR head-mounted displays as far back as 2014.

One area where the larger companies hope to dominate their smaller rivals is that of so-called screenless viewers, where smartphones are clipped onto headsets, such as the Samsung Gear VR, to provide a VR or Augmented Reality (AR) experience.

“Screenless viewers are going to occupy a big share in the VR market, and smartphone companies are expected to be dominant, posing a serious threat to smaller companies,” said Neo Zheng, an analyst at IDC in Beijing.

Screenless viewing technology is at the forefront of the global race to identify the next boom area for the industry – a race in which China is second to none.

Globally, the value of venture capital investments in VR hit US\$3.5 billion in the past two years, according to Goldman Sachs and it predicts annual revenue of US\$80 billion in both VR hardware and software industries by 2025. China's domestic VR market is expected to grow exponentially over the next four years to US\$8.5 billion annually.



Visitors to the Korea Electronics Grand Fair test Samsung Electronics' Gear VR. Photo: AFP

Meanwhile device shipments are projected to grow elevenfold to 110 million by 2020 – of which about 40 per cent will be contributed by China, according to Jason Low, from technology market analysis firm Canalys.

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While the biggest winner in this boom is likely to be the gaming industry, with its estimated 216 million users worldwide, companies are also looking to expand the horizons of the technology.

Sukrit Tantisuwitkul, a VR expert at Crytek in Shanghai, said that as the industry became more secure VR could turn into “a critical communication and monetisation channel for businesses based on experience of locations, including tourism, hotels and museums”.

For instance, travel companies could use the technology to offer would-be customers sneak previews of holiday destinations, while museums might use it to give virtual tours and hotel guests could use it to pick a suite, book a table or choose a menu.



A visitor to Taipei's annual Computex exhibition tries a pair of HTC's Vive Virtual Reality goggles. Photo: Reuters

With major players in China such as Baidu, Tencent and Alibaba (which owns the *South China Morning Post*) vying with tech startups for a piece of the nascent market, it's hard to predict who will lead the way.

Some analysts say the greater flexibility of smaller companies gives them an advantage despite the greater resources of their larger competitors, with small firms leading the way on a variety of experimental VR content.

Stefan Pernar, the managing director at Virtual Reality Ventures, suggests “large companies are taking their time evaluating and assessing innovative technologies, but they risk delaying implementation of VR into their business processes. This can be exploited by nimble and focused startups that specialise in immersive technologies and out-innovate the larger, more cumbersome competitors”.

But Tantisuwitkul argues the tech giants will dominate in the long run thanks to “higher levels of resources in tech and talent” that will help them provide “more sophisticated experiences”.

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Big companies also have the power to attract skilled employees and students from the best universities. Indeed, some of those students will have been taught not only about VR, but through the medium of VR.

Henry Y.K. Lau, a professor at the department of industrial and manufacturing systems engineering at the University of Hong Kong, said that various courses “involving product development, system analysis and design, as well as other core courses, use VR as a tool and medium for teaching and learning”.

With a steady crop of students raised on VR set to join the industry – whether by joining tech titans or startups – the industry’s future as the technology catches up with the vision seems virtually assured.