

Customer success stories: 3D facial feature mapping

How one tech start-up took on a unicorn -- and won.

When SNOW Camera adopted Alchera's 3D facial feature mapping technology and created a suite of products for an Asian audience, taking on Snapchat was a breeze.

Challenge

In 2015, Changok Kim identified a gap in the multimedia camera app market. Snapchat, the upstart leader in sticker images, 10-second videos, and sponsored filters, had been experiencing fantastic growth. From humble beginnings in 2011, Snapchat exploded into a juggernaut. By 2015, 100 million users were consuming 6 billion video views a day.¹ Venture capitalists took notice. So did Mr Kim.

The Snapchat gap was Asia. We'll never really know why Snapchat seemingly ignored the Asian market. Perhaps its focus prioritized growth in North America and Europe, or maybe the leadership team was busy fending off the biggest social media dragons, Facebook and Instagram. In either case, it seems like Asia was off the Snapchat radar. That blindspot presented Changok with a golden opportunity.

Adapting the Snapchat concept to regional sensibilities in Asia was easy enough. The barrier was technical. Base technology at that time relied on mobile devices with 3D cameras. Cost-prohibitive and hard to adapt, that technology was not well-suited for this commercial application.

Mr Kim's vision required an innovative approach. It needed facial recognition technology to generate 3D image products from 2D camera phones.

Solution

Mr Kim, CEO of Naver Corp, contracted Young Hwang to come up with the answer. In early 2016, Mr Hwang and his Alchera team developed an innovative approach using deep learning.

The Alchera solution creates 3D images through a mapping system that plots 106 points on a human face and uses an algorithm to track movement. The technology can also place augmented reality (AR) stickers or emoji on human faces in 3D. Lightweight and agile, Alchera's technology can be deployed on older smartphones.

Results

Powered by Alchera's technology, Naver launched SNOW Camera in 2015. Within a few months, the app was a hit across Asia. Peppered with local icons like Korean liquor bottles,

¹ techcrunch.com/2015/11/09/snapchat-reaches-6-billion-daily-videos-views-tripling-from-2-billion-in-may/

K pop stars, sushi, and sumo wrestlers, SNOW quickly hit the 30 million download mark. By 2018, a new company called SNOW was launched, backed by almost \$100 million in venture capital.² By any measure, SNOW is a success. It stepped into the shadow of a giant and carved out a regional niche with an idea and cutting edge 3D facial feature technology.

Quote

"Alchera is an incredible team of brilliant engineers who have been paramount in launching our first application and continue to work alongside our in-house development team to bring additional knowledge and concepts to the table!"

- Changok Kim, SNOW Camera Founder, CEO, Naver Board Member

SNOW Facts

2016: SNOW launches

2016: 30 million SNOW downloads

2016: Facebook offers to buy SNOW from Naver Corp (offer declined)

2017: 40-50 million monthly SNOW users

2018: SNOW acquires \$50 million from SoftBank and Sequoia China

About Alchera

We're a technology startup from South Korea. Our domain is artificial intelligence (AI) and augmented reality (AR). Supported by a team of experts in computer vision, deep learning, graphics, data science, and software engineering, we solve problems.

Since 2016, Alchera has empowered businesses to launch products, improve efficiencies, and bring the power of AI to their organization.

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² <https://techcrunch.com/2018/01/21/softbank-sequoia-snow> and <https://techcrunch.com/2017/01/04/snow-the-asian-snapchat-clone-facebook-tried-to-buy-claims-40-50m-monthly-users/>