

Insight: Look, no hands! Augmented reality gets a grip

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One day in March 2000, just days before the dot-com bubble began its journey back to earth, German engineer Thomas Alt first glimpsed the future of technology.

"Do you know augmented reality?" his boss at Volkswagen asked.

He did not.

"Neither do I, but you are about to, because this will be your project," he said, dropping a stack of papers on his desk.

For the next three years, Alt developed a technology that overlays text or graphics on real-life images and objects. The resulting hybrid can be viewed on a smartphone, tablet or PC screen, and soon - the tech geek's fantasy - through dedicated specs.

Today, 37-year-old Alt partly owns Munich-based Metaio, one of the leading companies in the rapidly growing augmented reality (AR) industry. Along with dozens of other products, Alt has created an AR manual for Audi cars.

No more leafing through a crumpled manual to find out why the aircon's blowing hot in August. Point your phone at the offending gadget, and instructions pop up on the screen.

Augmented reality has been called the eighth mass medium, after print, recordings, cinema, radio, television, Internet and mobile phones.

By reaching out to media companies, the industry, which was a collection of smartphone apps generating less than \$2 million in 2010, is on the verge of becoming a real business worth perhaps \$1.5 billion in 2015.

"In the early days, we were talking about visionary ideas for the future. Today we come up with business models and products," said Maarten Lens-FitzGerald, co-founder and general manager at Layar, a Dutch start-up.

Layar, whose software has been downloaded more than 20 million times, hooking 3 million active users, has the world's most used consumer AR application, a reality browser that helps find services nearby, acquiring info on anything from favorite restaurants to networking opportunities via a mobile camera.

"We are actually making money and are becoming a little boring. But that is what the industry needs right now," said Lens-FitzGerald. "We actually try to hold back on

visionary ideas. We are getting out of the gimmicky stuff."

Layar's demonstration video went viral in 2009. It showed period houses as seen from a boat on Amsterdam's canals. By pointing a camera at the houses, information about which were for sale and their prices is layered on the camera image.

Not for the faint-hearted, but another eye-opener for the house hunter, SpotCrime, by Popvox, will people the scene with the stylized muggers, murderers and burglars that have graced the neighborhood, too.

CHIPS WITH VIRTUALLY EVERYTHING

Sector executives speaking at the Reuters Media and Technology summit said most interest for their products came from the publishing industry and e-commerce.

Sweden's Ikea, famed for its low-price flat-pack furniture, has an app that lets you point a camera at a spot in your room and overlays an image of the furniture you are thinking of buying. Assembly is still down to you.

Heavy hitters are now throwing their weight behind the concept. Qualcomm, the top wireless chip maker, has bought up AR assets and opened its platform for software developers in 2010. ARM is also adding AR features to the chips it designs.

Chipmaker Intel has invested \$14 million in Layar through its venture arm and is looking to add AR features to its chips.

Intel anticipated that ways of controlling a phone without touching it, such as by voice or by gesture, would be the next big developments.

The challenge is to make money out of those features.

"We would certainly anticipate a sharp rise in service adoption, although we would suggest that, given the continued uncertainty surrounding optimal monetization models, 2015 revenues are unlikely to exceed the \$1.5 billion," said Juniper Research director Windsor Holden.

Laurence Tetrel Poupart, chief operating officer at Total Immersion, one of AR's front runners, agrees.

The company has been around since 1999 and expects to double sales this year to 20 million euros, but Tetrel Poupart said the technology has a little further to go to become a reliable money-spinner.

"We would definitely like to go for the virtual trying on of clothes, but some technical issues need to be resolved," she said, adding that the company needed faster chips to make the 'virtual dressing room' take off.

"We don't want you to see whether the clothing suits you but that it actually fits. We

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don't want it to be a gimmick, we want to have true usage, to reduce the return rate for the e-commerce merchants."

TRY BEFORE YOU BUY

Simpler applications have found their way to consumers, and businesses are very keen to use them.

Thomas Alt's Audi manual is one example. Another is a Layar application that helps publishers more easily link print and digital content. By pointing their smartphones at a magazine, readers can get information about products featured in articles, and go on to buy them.

"At the same time, companies get loads of feedback about consumer behavior, which they can use for marketing purposes," said Alt, who has also developed a similar product for German magazine Stern, owned by Bertelsmann's Gruner + Jahr publishers.

Currently more than 10 million German magazines with AR features hit the shelves every month, including titles from publisher Axel Springer.

Companies are lining up to use the technology, said Tetrel Poupart. "But we are now in a phase that we need to discourage companies from going for another gimmick."

Total Immersion has seen strong interest in its software, which allows consumers to try on glasses without physically touching them.

There is still a long way to go before augmented reality catches up with the movies, however; it is nearly three decades since Arnold Schwarzenegger as the Terminator viewed mission-critical data and images projected on the inside of his aviator shades.

Google has launched what it has dubbed "Project Glass" to develop such features, but it is viewed as a long shot.

"Since I started, this has been the ultimate dream in the industry. I don't buy it so much," Tetrel Poupart said.

"It makes you dizzy. I think we should use augmented reality in a more simple way and use the tablet. The tablet is a key device. It is here."

Eventually she expects traditional television screens - connected to the Internet with a built-in camera - to be a significant driver for both AR and the e-commerce industry.

"You use your television set as a mirror, trying on and ordering your clothes from your home."

Buyer beware - if the trend continues, you'll have nowhere to go to wear them.

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