

AR AND INDOOR NAVIGATION; THE NEXT RETAIL BATTLEFRONT

Amongst all the announcements at Google I/O, there were a few key points made about [Tango](#), a Google technology that encompasses motion tracking, depth perception and area learning.

The announcements focused specifically around the Visual Positioning System (VPS), described by Google as a “service for developers to map indoor environments and then create location based AR experiences”. This essentially means you can navigate around a store turn-by-turn and then trigger an AR experience at any specific point.

This is the latest in a string of industry moves that will have huge implications for the retail sector. This year’s I/O proved that Tango is receiving huge investment from Google, transitioning it from a technology shrouded by hype to one that is becoming more and more commercially viable.

Retailers, heads up: Tango is coming!

THIS YEAR’S ANNOUNCEMENT

At this year’s conference Google focused on showcasing two things: firstly, the advances made in the Tango SDK and platform capability; and secondly, examples of where this is now being used in the real world to increasing effect.

PLATFORM CAPABILITY

From a platform capability perspective, one of the major advantages of Tango is that it doesn’t require retailers to invest in physical infrastructure to support experiences; the entry point from this perspective is relatively low. When combined with increasing numbers of Android OEMs supporting Tango, this means we’re likely to start seeing a massive disruption in this space.

There have also been updates to 3D visualisation, especially in areas such as illumination and occlusion, pushing the quality of Augmented Reality experiences to a surprisingly polished state—demos available in the Tango Sandbox environment look hugely promising.

Lastly, the advances made in Chromium and [Web AR/VR](#) are definitely worth acknowledging given the major implications they will have on cross-channel CX. Whilst Android Instant Apps have gone a long way in removing the install barrier, being able to support AR experiences directly within a browser exposes this type of technology to even more consumers add value to end users, our customers, and our organisation.

REAL WORLD EXAMPLES

More exciting though was the breadth and volume of work happening on the platform at the moment, especially with regard to how many parts of the consumer buying experience Tango can impact.

Lowe's, a large home-retailer in the US, has mapped out several of its stores with VPS, with plans to map several hundred more stores in the future. This complements work they have already done with Tango around visualising Lowe's product placement within your home, so consumers can literally now 'place' items in their homes, make decisions about what looks right, and then navigate to the exact same item in-store to complete the sale.

Pottery Barn has also created a 3D room view app based on Tango technology with similar use cases to Lowe's.

Lastly, Amazon was announced as a Tango Development Partner, although the details of Amazon's relationship with Google and Tango were kept quiet. Between this and the Amazon Go store announcement, it looks as if Amazon is set to become a major player in dictating the physical retail experiences we can expect to see in the future.

The Detroit Institute of Art and the ArtScience Museum in Singapore have also created groundbreaking Tango experiences, with the ArtScience Museum transforming the whole interior of their building into a gamified rainforest.

Google has hinted that they will be announcing more partners in the near future so it's exciting to hear there will be more and more experiences based on this technology.

UNLIMITED POTENTIAL

What's probably most fascinating about Tango is the potential this kind of technology has, especially when combined with the [Google Lens](#) announcement.

Indoor navigation and product-based AR experiences for consumers will definitely be game changing for retailers, but it's really just the beginning of what will be possible. As AR technology continues to advance, the opportunity for both gamified and personalised shopping experiences in physical stores will be huge. For those retailers that are quick to adopt, it will undoubtedly provide a competitive advantage in an industry where price has typically been the major differentiator.

We are at the beginning of massive disruption in retail, which will revolutionise the in-store experience. Watch this space very closely.

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