Wolfgang Walcher
The Sixth Wave of Computing
or why Augmented Reality is not just for Architects

Augmented Reality is gradually moving from early consumer hypes, like Pokemon Go, into broader adoption by business and enterprise users. As with all revolutionary innovations, there is widespread scepticism and only a handful inspiring use cases. This talk helps to develop a deeper understanding for the full potential of AR. The history of cars, from the first horseless carriages to Mars rovers and autonomous vehicles, provides an excellent historical example for how new technology can gradually transform the world. The same is true for computing. Drawing parallels to the waves of computing, as defined by Hermann Hauser, provides surprising insights. The REX platform of AR services is used as an example. Designed initially for architectural visualisation, it is quickly becoming the foundation for a wide range of applications, ranging from security and surveying all the way to professional sports.

Wolfgang Walcher graduated from TU Graz (applied mathematics and PhD in computer science). He spent most his career in the US, working on and leading commercial and government remote sensing projects. Working with the founders of Google Earth, Sketchup he approached Microsoft about 3D mapping. He spent the next 10 years at Microsoft, holding principal-level positions, in areas like Bing maps, the production of 3D cities and the HoloLens project. After returning to Austria, he founded "Robotic Eyes", a software house for engineering-grade Augmented Reality (AR) solutions. The company received funding from the European Space Agency incubator program (ESA-BIC) and has entered strategic partnerships with Autodesk, Microsoft and Google. Robotic Eyes provides the AR-platform REX, as well as consulting services and custom solution development to global enterprises. The combined revenue of these customers is over 200 Billion US dollars per year.