

Podcast Name: *ACM ByteCast*

Episode: Episode 63 - Alvin Graylin

Welcome to the *ACM ByteCast* podcast, a series from the Association for Computing Machinery! The podcast features conversations with researchers, practitioners, and innovators at the intersection of computing research and practice about their experiences, lessons learned, and visions for the future of computing. In this episode, host Rashmi Mohan is joined by Alvin Graylin, Global VP of Corporate Development at HTC and a leader in the virtual and augmented reality industries. He is also the President of the VR Venture Capital Alliance, Vice Chair of the Industry of VR Alliance, and Chairman of the Virtual World Society. Additionally, he is a distinguished professor at Beihang University and author of the acclaimed book *Our Next Reality*.

To begin, Alvin shares his journey into technology, highlighting his focus on making technology serve humanity rather than just profitability. His passion for tech began after immigrating to the U.S. from China. His journey started when he and his brother saved money from multiple jobs to buy their first computer, which became the foundation of his fascination with computing and programming. In college, he juggled studies with building and selling computers and software to fund his education. While majoring in electrical engineering, Alvin worked at the Human Interface Technology Lab at the University of Washington, the first VR-focused research lab outside the military. At the time, devices were bulky, costing hundreds of thousands of dollars, and offered limited usability.

Alvin discusses his contributions to the consumer PC and mobile industries in China. In the mid-1990s, he helped establish Intel's China office, introducing affordable consumer PCs in a market where devices cost ten times the average annual salary. Later, he played a pivotal role in China's mobile internet revolution by founding the country's first mobile search engine in 2005. Reflecting on his career, Alvin emphasizes the importance of spotting and capitalizing on opportunities. Alvin reflects on how his prior experiences, both in academia and earlier startups, played a crucial role in navigating the challenges of this emerging industry. His background in NLP and AI at the University of Washington and MIT equipped him with the technical expertise to address the complexities of Chinese as a language for mobile search. He also recounts his experience as the official mobile search provider for the 2008 Beijing Olympics, a milestone for his company.

After selling his company, Alvin found himself unexpectedly drawn back into the VR space. A serendipitous recommendation led to an opportunity at HTC, where he was tasked with leading their VR business. While Alvin was impressed by HTC's advancements, he recognized that the technology represented incremental progress from the early VR systems he had encountered decades earlier. Early limitations, such as the need for high-end PCs and tethered headsets, hindered widespread adoption of VR. However, he predicts that within three to five years, the VR market could achieve hundreds of millions of devices, moving closer to mainstream acceptance.

Then, Alvin discussed the advancements in XR technology and its journey toward mainstream adoption. He noted the emergence of glasses-form-factor devices that are far superior to earlier prototypes like Google Glass, which were bulky, had limited battery life, and lacked social acceptability. While initial users engage heavily with XR devices, interest often wanes after a few months due to limited content variety. He is optimistic that advancements in generative AI are set to transform this dynamic. Education emerged as one of the most promising applications for XR, offering transformative potential for immersive and experiential learning. Alvin highlighted that humans are wired to learn best in 3D environments where they can see, interact, and physically navigate through experiences. This makes XR particularly suited for educational and training purposes, and doesn't subtract from the power of schools. His hope is that schools bring in AI to support learning, rather than keeping it out as a way to preserve jobs.

In closing, Alvin explains why he believes we are now at a very pivotal point of adopting and embracing immersive technologies. He believes that both technologies will mature at the same time and learn from each other. AI often gathers its real-world information through virtual simulations. Alvin highlights the fact that AI will continue to eliminate jobs, and many of these displaced professionals will find new roles and upskilling within VR.

Key takeaways:

0:00 - Welcome to *ACM ByteCast*.

1:29 - Alvin's introduction and early motivation into computing.

7:08 - Challenges and early VR exploration.

9:53 - Pioneering Innovations in China.

16:07 - Partnering with the Beijing Olympics.

20:20 - Transitioning to HTC and the resurgence of virtual reality.

26:48 - Exploring the potential of XR for mainstream adoption.

28:22 - VR's potential in the education space.

32:29 - The pivotal Point of adoption for immersive technologies and AI.

40:06 - Ensuring that positive adoption is encouraged.

Links

Learn more about [Alvin Graylin](#).

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