The moment is now for Enterprise Augmented Reality

For years the technology world has teemed with buzz words and phrases like Augmented Reality (AR), Virtual Reality (VR), Artificial Intelligence (AI), Machine Learning (ML), and 5G. Take a look at the 2019 Gartner Hype Cycle for Emerging Technologies you will see all of these terms and many more.

You may think that AR and VR are just hype, and that these are just buzz words that soon will be insignificant. If you look at the data through the lens of technology adoption by enterprises you could easily come to that conclusion.
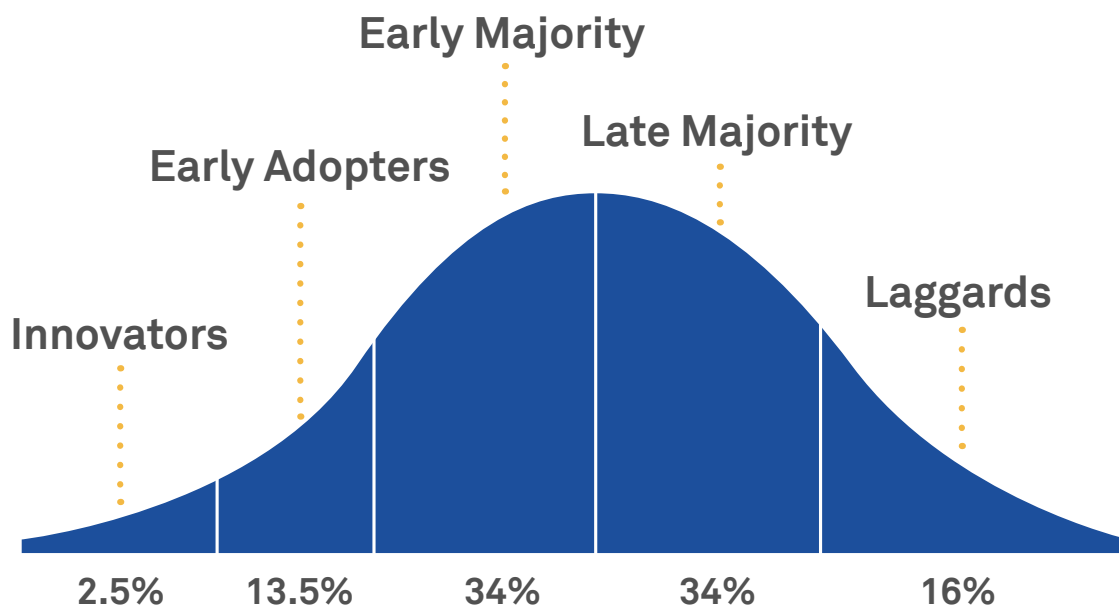
As of January 2020, few organizations had deployed AR and/or VR solutions at scale. Most organizations were at most exploring these technologies. This begs the question, if the expectation is that these technologies will change the world, why is adoption so low?

Peeling into this question, it is first important to understand that new technology presents risk for enterprises and each organization reacts differently toward this risk based on their innate characteristics. This is depicted through the Technology Adoption Life Cycle. Like many of us in our personal life, there are early adopter groups and there are groups that prefer to wait for technology to mature before investing.

But the innate risk-taking characteristics of an organization is not the only factor impacting adoption. The problem that the technology is trying to solve is also important. This is why decision makers often ask three important questions when determining where to allocate time, energy, and resources:

1. **Is the problem unworkable?** (i.e., what options and/or alternatives exist to solve the problem?)

2. **Is the problem unavoidable?** (i.e., is it driven by regulations, compliance, etc.?)

3. **Is the problem urgent?** (i.e., what are the implications of doing nothing?)

Technology Adoption Life Cycle

Early Majority

Late Majority

Early Adopters

Laggards

Innovators

| 2.5% | 13.5% | 34% | 34% | 16% |

In the case of AR and VR, the answer has almost indefinitely been no to each of these questions. The problems were workable, the problems were avoidable, and, the problems were not urgent. As a result, the use cases for AR and VR have primarily focused on problems that are both latent and aspirational. In other words, convincing your organization to invest in this space required missionary selling and a bit of luck.

But then the world changed. With the global spread of COVID-19, people, organization, institutions, and society as a whole were completely disrupted. New constraints halted travel, closed borders, and fundamentally altered the way we do business and interact with each other. In the context of AR and VR, the enterprise problems that were once latent and aspirational suddenly became blatant and critical.

In other words, the problems that AR and VR were trying to solve suddenly had few—if any—alternatives, became unavoidable, and were deemed critical.

For example, with travel restrictions and social distancing requirements:

- How will organizations provide onsite expert assistance to less-experienced employees?
- How will organizations deliver hands-on training to employees remotely?
- How will organizations perform in-person services and/or inspections without being in person?
- How will organizations help people socially distance and/or navigate in crowded spaces?

While the answer to each of these questions may seem daunting, the good news is that AR and VR, when coupled with mobile, AI, and ML, can address each of these challenges.

For example, leveraging mobile technology (i.e., video calls) with AR, organizations can deploy a simple yet powerful solution that ensures field teams performing a task have access to the information and subject-matter experts at the moment they need it to properly and efficiently perform the necessary tasks during an initial visit, without the need for additional trips and/or on-site support.

Building upon this simple solution by adding AI for object detection, curated procedures can be augmented over real-world objects to guide a user. And, if a user deviates from the prescribed procedure, the solution has the intelligence to alert the user to avoid non-compliance, or worse, a safety incident.

This translates to increased uptime for assets, fewer safety incidents, improved customer satisfaction, better utilization of experts, and a reduction in employee performance variability.

With the above example, we were focused on solving problems in the field. But, AR-based solutions can also be used to provide employees a safe environment to acquire new skills and/or hone in on their existing skills.

Whether an employee is working from home, the park, a hotel or wherever they may be, mobile devices that leverage AR technology provide users access to learning paths, assessments, and certifications for hands-on training with virtual objects that can be accessed 24 hours a day, 7 days a week.

By the numbers

Let's assume Acme Inc's field service organization has 190 field engineers, each costing $40 per hour (fully burdened). Each field engineer works on average 9 hours per day, 5 days a week, and 47 weeks in a year (factoring in holidays and vacation). And, that the average work day is 50% productive and 50% travel time. Last, let's assume Acme Inc. handles 100,000 tickets a year with a first time fix rate of 15%.

Based on this information, the average field engineer resolves 2.2 tickets per day with annual operating cost of $16M.

Leveraging AR, Acme Inc can increase the number of tickets resolved per day to 3 and can improve the first-time fix rate from 15% to 22.5%. As a result, the AR solution saves Acme Inc nearly $5M in the first year—freeing up 57 resources. And this doesn't even factor in the benefits from:

• Improved client satisfaction
• Increased asset utilization
• Lower travel cost
• Better quality and consistency
• Higher expert utilization
• Reduced safety incidents, or
• Decreased inventory carrying costs

How to get started

In the world of AR and VR, one of the single biggest challenges to accelerate time to value is collecting and onboarding the content and knowledge necessary to bring an AR and/or VR solution to life. In many cases, this can be the single most critical factor when an organization makes a go/no go decision for an AR and/or VR solution.

The good news is that significant advancements have been made in recent years to alleviate this pain point.

My advice: find a strategic partner that understands your industry/domain pain points, and has the capability to accelerate the onboarding of technical documents, subject-matter expertise, videos, images, and 3D models to build transformative experiences that merge the physical and digital world.

The moment is now, for AR in the enterprise.

About the author

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