

WHAT IS XR AND WHY DOES IT MATTER?

Extended reality, or “XR,” refers to immersive and spatial computing technologies including virtual, augmented, and mixed reality. Collectively, these are the core technologies that will enable virtual worlds (i.e. the metaverse). As a foundational element of the next generation of computing, XR will transform the way we work, play, learn, deliver essential human services, and engage with the world around us. And this impact is only amplified by the powerful combination of XR and AI.



Much like the early internet, nascent immersive technology needs talent, capital, predictable and supportive regulatory conditions, and a large market in which to innovate and grow. U.S. competitors are already incorporating XR into their strategic visions for achieving critical objectives like strengthening manufacturing and increasing productivity; training and upskilling their workforce; improving education and healthcare outcomes; enhancing advanced military capabilities; and ensuring climate resilience and dynamic disaster response.

U.S. government agencies list XR as a critical technology, imperative to both economic growth and national security. Despite that, the U.S. has not shown the initiative that other nations have in developing a strategy to grow and leverage it. As we enter a new era of immersive computing, now is the time to take concrete steps to ensure the United States leads the world in the development, use, and governance of the next computing platform.

XRA’S STRATEGIC OBJECTIVES:

In 2023, XRA published a white paper examining what governments in Europe and Asia are doing to develop and implement strategies around immersive technology, and where the U.S. stands in comparison. Among the governments considered - South Korea, the European Union, the United Kingdom, the U.S., and China – the United States ranked last. XRA’s Strategic Objectives for 2024 aim to position the U.S. as the world’s leader in XR technology innovation, integration, and governance. Specifically, XRA’s priorities include:

- Ensuring that the U.S. is at the forefront of developing the industrial metaverse, thereby advancing America’s economic competitiveness and national security.
- Positioning the U.S. as a leader among like-minded allies in shaping the rules and standards that will govern the XR technology ecosystem.
- Fostering a regulatory environment that protects individual rights and incentivizes innovation.
- Developing legislation to maximize the benefits of XR across all sectors.

CALL TO ACTION

XRA's 2024 Call to Action outlines 7 concrete initiatives the U.S. should pursue in partnership with industry, civil society, like-minded allies abroad, and other stakeholders.

1. Congress Should Authorize an Advisory Committee on U.S. Leadership in Immersive Technology.

This multi-stakeholder committee should be tasked with developing a comprehensive national strategy on immersive technology aimed at supporting its responsible development and integration into the U.S. economy.

2. The Administration Should Convene a Global Summit on International XR Governance.

The Departments of State and Commerce, and the U.S. Trade Representative should host an international summit for likeminded allies to determine the principles and standards that will govern virtual worlds.

3. Congress Should Pass Legislation to Accelerate the U.S. Government's Use of Digital Twins.

The Departments of Transportation and Health and Human Services, and FEMA should develop digital twin test beds to accelerate societal objectives including sustainable urban planning; enhanced healthcare delivery; access to education; and efficient disaster response.

4. Congress Should Fully Fund the CHIPS and Science Act.

Congress should fully fund the amounts that have been authorized for NIST and the NSF. Currently, the "science" portion of the CHIPS and Science Act is facing over \$7 billion in funding shortfalls.

5. Congress Should Pass Legislation to Help Americans Prepare for the Future of Work.

Congress should pass [H.R. 3211](#), the Immersive Technology for the American Workforce Act to support community colleges' and technical education centers' use of XR for skills training in underserved communities.

6. Congress Should Pass Legislation to Expand Access to High-Quality, Technology-Based Healthcare.

Congress should pass [S. 723](#), the Access to Prescription Digital Therapeutics Act, which would expand Medicaid coverage to prescription digital therapeutics and broaden patient access to cutting-edge therapies.

7. Congress Should Create a National Privacy Standard.

Congress should pass a comprehensive federal data protection law that clearly delineates the rights and responsibilities of both the individuals that provide data and the entities that collect, analyze, and control it.



XRA promotes the responsible development and thoughtful advancement of virtual, augmented and mixed reality.