

MANAGING THE FUTURE

VR/AR ASSET MANAGEMENT

Augmented Reality (AR) and Virtual Reality (VR) transform asset management in enhancing decision-making, engagement, and training workflows. AR provides users with real-time data and visuals, facilitating training and skill development productivity. On the other hand, VR builds an immersive digital environment, for users to achieve planning and spatial analysis during interactive stimuations. For instance, dynamic learning experience and eliminate training costs. AR and VR optimizes asset performance, and increases more skilled employees, leading a significant increase in production efficiency (SUSTINNOPS, 2024).

CHALLENGES IN MANAGING VR/AR ASSETS

- **Data Overload:** Overwhelmed traditional assets management systems when managing massive VR/ AR content.
- **Technical Complexity:** Implementing VR/AR compatible tools, firewalls, data security and protection can be costly.
- **Merging Systems:** Most standard digital assets management systems are interactive content incompatible, so integrating VR/AR technologies with current workflows cause various issues (HIVO, 2023).
- **Accessibility:** Ensuring VR/AR technologies are full accessible for the entire team or department can be challenging.
- **Data security:** Storing sensitive data in VR/AR devices could put the company in danger of cyber threats and unauthorized access (AIXR, 2024).



OPPORTUNITIES IN MANAGING VR/AR ASSETS

- **Digital Preservation:** Create digital replicas of cultural assets ensuring long-term accessibility of fragile artifacts (Banfi et al., 2023).
- **Dynamic Experiences:** Virtual reality and augmented reality technologies create an immersive circumstance where the general public can interact with cultural heritage assets to create dynamic experiences.
- **Collaboration:** Allow remote collaborations in solving problems faced by on-site employees.
- **Scalability:** As VR/AR technologies continue evolve, it becomes more profitable and expandable, providing long-term productivity increase.
- **Documentation:** VR/AR creates more detailed documentation of cultural heritage, allowing assets to keep in 3D models for archiving, research and retrieval (Banfi et al., 2023).



TOOLS & TECHNIQUES FOR VR/AR ASSETS

- **Digital Asset Management Solutions**
 - Using Digital Assets Management (DAM) systems to organize or store VR/AR assets, making it easy to access, manage metadata and versions.
- **Easy Retrival for Metadata Tagging**
 - Using metadata tagging to ensure establish efficient search and assets categorizing, for qucik access through keywords, types of content or project. VR/AR assets would be tagged with information such as formats, intended purpose, season, etc.



References

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