



# AR Museum--Let the cultural relics "live"



北京邮电大学

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# Contents

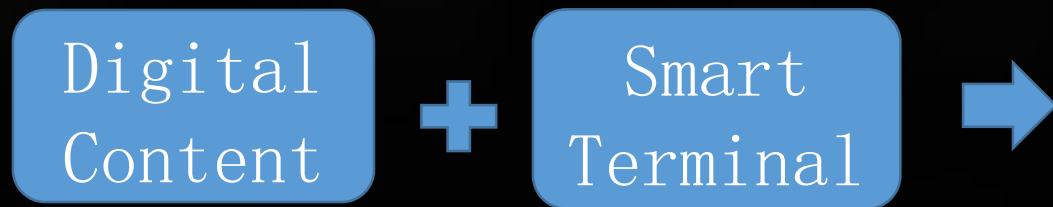
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- Introduction
- Pain point analysis
- Solutions
- Successful cases
- Challenge



# Introduction - telling stories behind cultural relics

Based on **AR (augmented reality)** technology, the cultural connotation implied the museum's cultural relics can be presented to the audience in the form of **smart terminal + digital content**, which will improve **the digital service level** of the museum; and AR cultural products will enhance museum's **long-term service capabilities**.



# Contents

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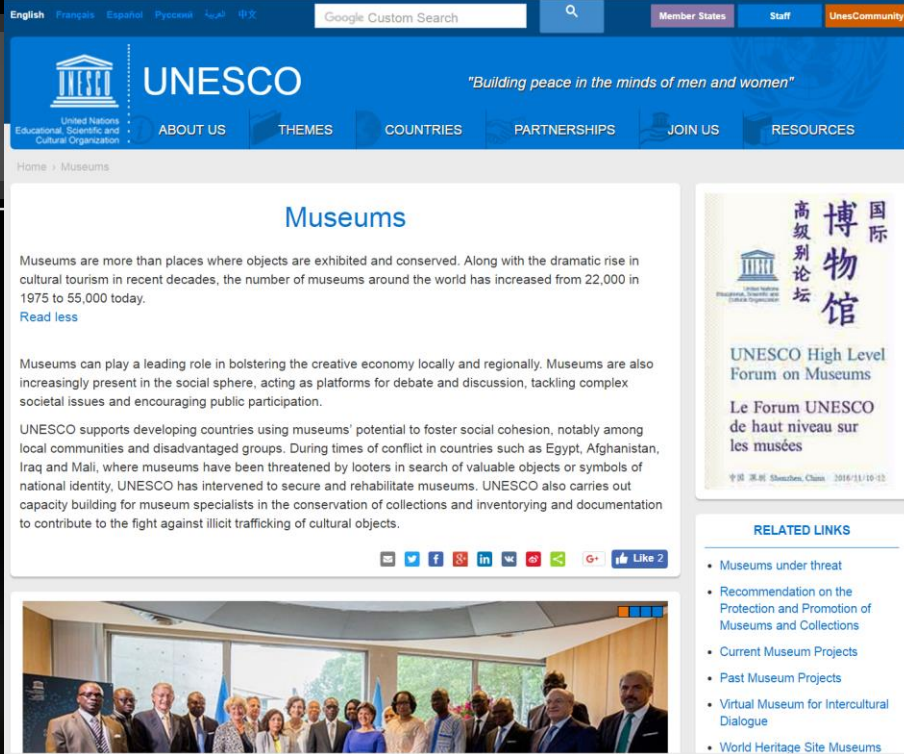
- Introduction
- Pain point analysis
- Solutions
- Successful cases
- Challenge





# About museums

- Museums are **more than places** where objects are conserved.
- The museum provides a comprehensive means of **understanding cultural heritage** and fosters an inheritance **relationship between creation and heritage**.
- The museum also enables the community, especially the local community, to re-recognize their **cultural roots** and **reach out to other cultures**.



The image shows a screenshot of the UNESCO website's 'Museums' page. The header features the UNESCO logo and the tagline 'Building peace in the minds of men and women'. Below the header, there is a navigation menu with options like 'ABOUT US', 'THEMES', 'COUNTRIES', 'PARTNERSHIPS', 'JOIN US', and 'RESOURCES'. The main content area is titled 'Museums' and contains several paragraphs of text. The first paragraph states that museums are more than just exhibition spaces and that their numbers have increased significantly since 1975. The second paragraph discusses the role of museums in the creative economy and social sphere. The third paragraph highlights UNESCO's support for developing countries in using museums to foster social cohesion. Below the text, there are social media sharing icons and a 'Like 2' button. At the bottom of the page, there is a photograph of a group of people, likely participants in a UNESCO forum, standing in a modern, well-lit room with large windows. To the right of the main content, there is a sidebar with a vertical banner for the 'UNESCO High Level Forum on Museums' and a 'RELATED LINKS' section listing various museum-related topics.

# Pain points in e museum visit

- The cultural experience shall be in-depth experience, but the static exhibit is insufficient to interpret the culture!
- What the audiences of the museum commonly interested in is that "why is it precious?"

The signs on exhibits following certain standards give out insufficient information





# Pain points in museum visit

- Cultural creative products are disconnected with cultural entities (purchasing after visit), and the market is inactive!
- Audiences of museums commonly ask “Which is better to take home?”

Disconnecting with cultural entities!  
Weaker consumption impulse!



# Contents

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- Introduction
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- **Solutions**
- Successful cases
- Challenge





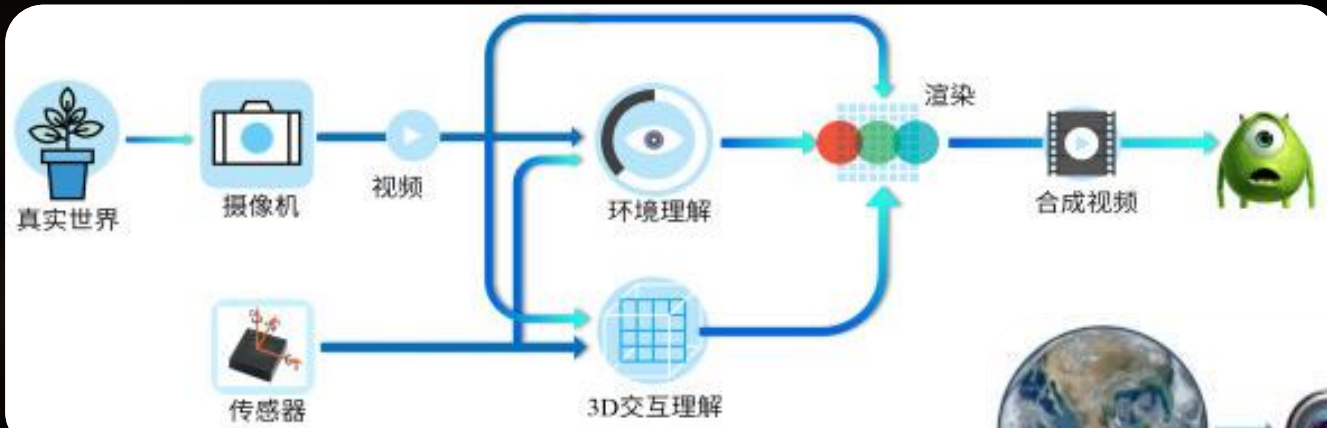
# Solution-source of inspiration

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- Night at the Museum
- All cultural relics have “spirit” and they will come alive at right time!

# Solution — Principle



AR - Augmented Reality



Augmented Reality = Real Scene  
+ Virtual Images or videos

# Solution — AR effect in museums



- Make collections **alive** with AR! Show the **stories behind the collections** vividly.



# Solution — AR effect in museums



● Make collections **alive** with AR! Show the **stories behind the collections** vividly

# Solution — Real-time perception

- Provide location service and guidance on visiting route
- Trigger the guide mode on the spot, enabling listen, view and walk simultaneously





# Solution —Bring culture home

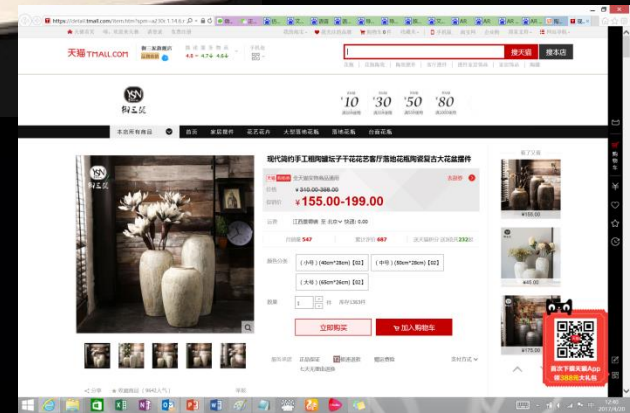
Breaking the traditional buying habits, combining the sales of cultural and creative products with the accompanying navigation process, **mobile e-commerce**



Purchase after ~~X~~ visit



Purchase during visit





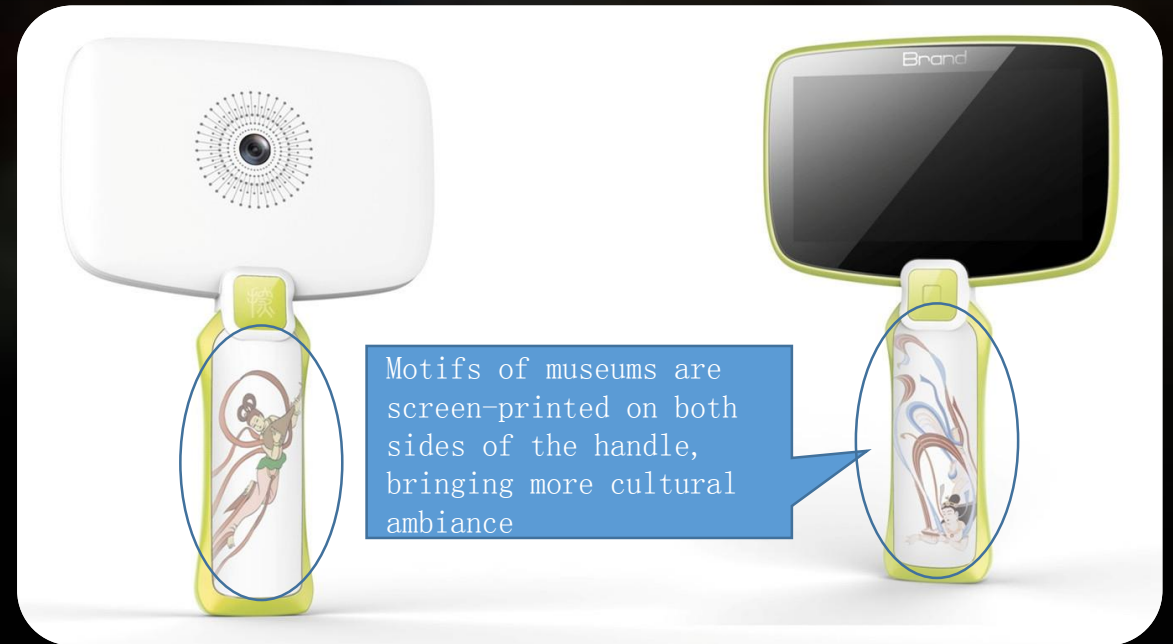
# Solution — Dedicated handheld terminal

**AR Exploration Glass**, the specially designed handheld terminal, is better in ergonomics and **easy to hold**, adding more fun to the experience.



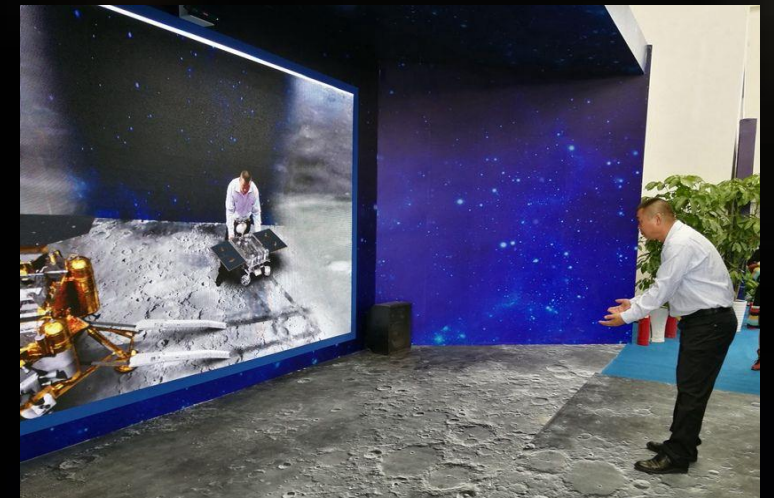
# Solution — Dedicated handheld terminal

Logos of museums are screen-printed on the terminal, highlighting individual features and characteristics



Motifs of museums are screen-printed on both sides of the handle, bringing more cultural ambiance

# Solution — Large AR interactive screen





# Solution — AR telescope



# Solution —AR' S cultural & creative products of museums



AR cultural & creative products which **can tell stories:**

AR card, AR picture book, AR T-shirt, AR desk calendar, etc.





# Contents

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- Introduction
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# Successful case

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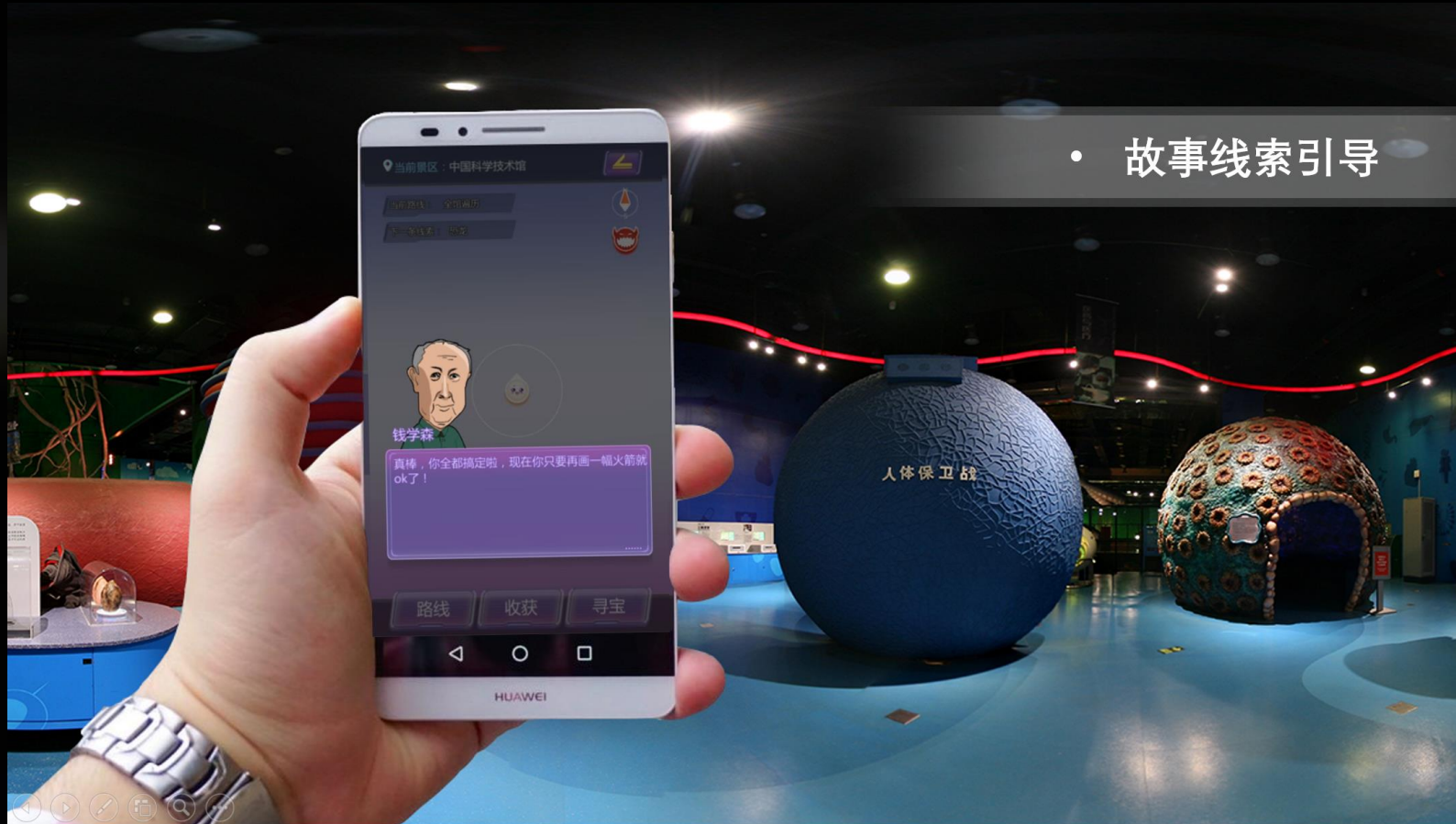


# Successful case — China Science and Technology Museum

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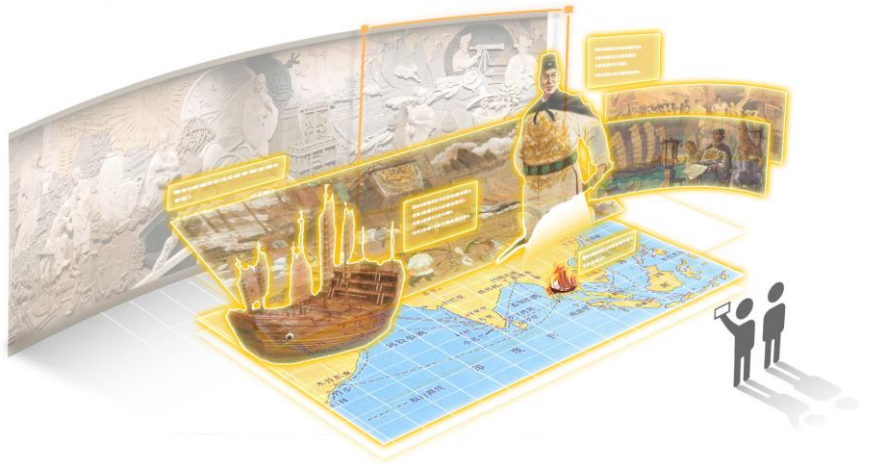
# Successful case — China Millennium Monument

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# Successful case — China Millennium Monument

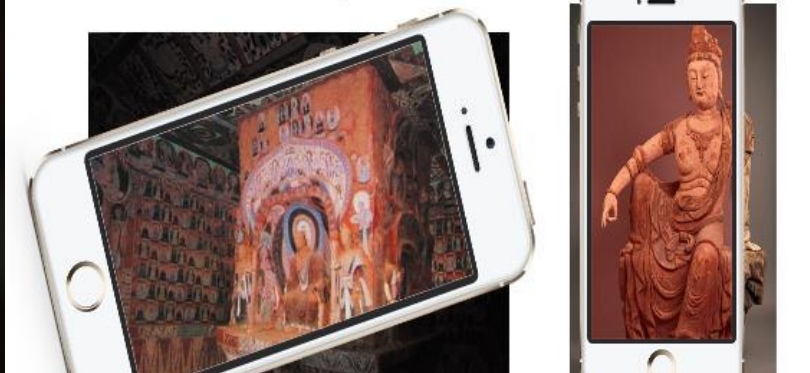
全息影像





# Other cases — Dunhuang cultural tourism

给你一场虚拟与现实的交织体验



展开探索历史的全新冒险，寻找最终的大秘宝

定位与增强现实游戏全新玩法，完成后续任务，跟着将军一起揭开神秘宝藏



一场虚拟与现实的交织体验

实地体验跨越时空的历史交融



展开探索历史的全新冒险，寻找最终的大秘宝

当地历史战役，随你挑选

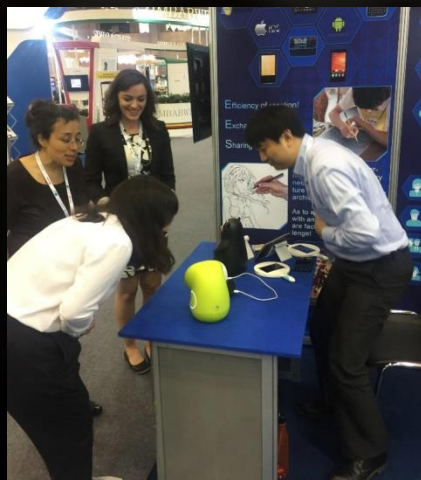


主线任务1：抗击匈奴  
任务完成，去找将军





# International Exchange - ITU Telecom World



# Contents

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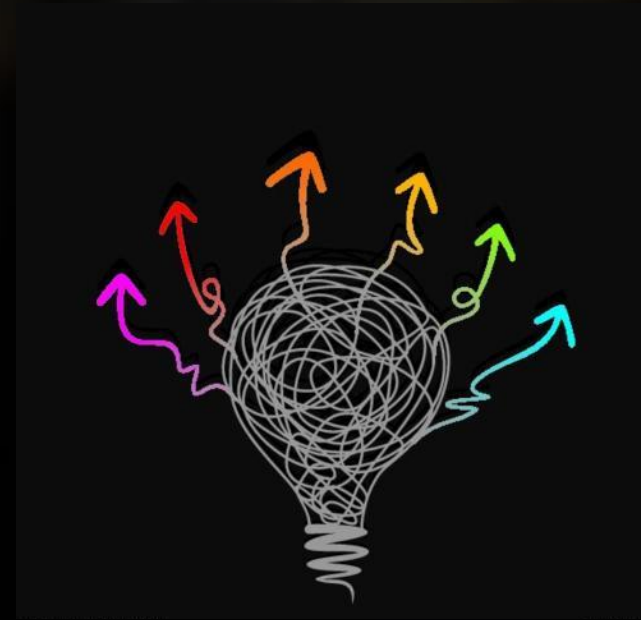
- Introduction
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- Challenge



# challenge — Application framework

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- Each museum is independently developed and applied, bringing a lot of repetitive work.
- A lot of time is spent on programming, not creative expression of content

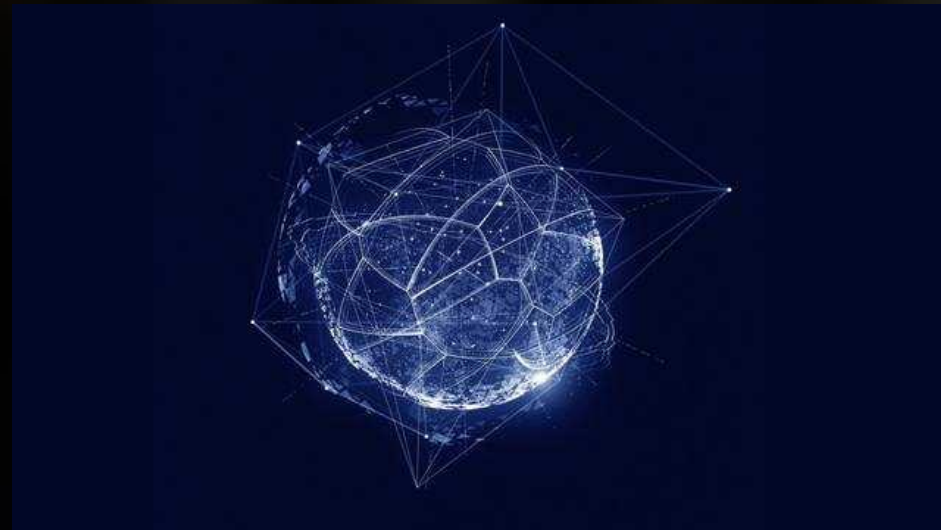




## challenge — 资源共享

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- Currently, content from different AR museum apps cannot be shared
- This situation has caused application localization and limited the generation of global applications.
- Resources that cannot be shared are actually a waste



# conclusion

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- The museum is an important place for cultural exchanges.
- Traditional display methods have defects in insufficient information
- AR technology can provide the ability to “tell the story implied artifacts “
- Some successful cases of AR technology applied in museums have appeared in different parts of the world.
- We still face the challenge of lacking an application framework and sharing resources.
- In order to meet these challenges, standardization-related research is necessary!

# Thanks



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