[The Augmented Telegrapher at Porthcurno Museum](https://www.scienceopen.com/hosted-document?doi=10.14236/ewic/HCI2018.135)

Citation - Michael James Scott, Alcwyn Parker and Edward J Powley et al. Towards an Interaction Blueprint for Mixed Reality Experiences in GLAM Spaces: The Augmented Telegrapher at Porthcurno Museum. DOI: 10.14236/ewic/HCI2018.135

A research done in 2018 with Microsoft HoloLens to find out which UI would be easier to work with in AR found that users should be given time to learn how to use the HoloLens before they are asked to perform more complex tasks. They also acknowledge that prolonged gesturing can lead to fatigue.

Another research between tangible and gesture-based interface in AR devices citing the research above also came with the following conclusion

- Using the tangible interface is preferable in contexts that are either time-sensitive or accuracy-sensitive.

- Interim feedback, such as visuals cues mediated by the mixed reality, are likely necessary to reduce the interaction gulf.

- and the gesture-based interface might see improvement by carefully positioning visual elements according to field of view, whilst also devising alternatives to a gaze-based cursor.

[Reflecting on Research: a Virtual GLAM Proposal](https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9815949)

---

[AR in Museums](https://static1.squarespace.com/static/51d98be2e4b05a25fc200cbc/t/5908d019f5e2314ab790c269/1493749785593/Augmented+Reality+in+Museums.pdf)

Citation - Ding, M., 2017. Augmented reality in museums. *Museums & augmented reality–A collection of essays from the arts management and technology laboratory*, pp.1-15.

People have already been accustomed to holding up their smartphone and other mobile devices to take pictures. Thus, scanning an AR object with the device can easily fit into the museum experience.

According to the findings by the Samsung Digital Discovery Centre at the British Museum, United Kingdom, young children might have trouble holding the phone or tablet steady with one hand while tapping the screen with the other to scan the displayed work. However, after seeing the interaction modelled by adults, children will also easily master the scanning process. They will enjoy a sense of accomplishment when they succeed, and their imaginations and curiosities may expand when using the live camera view.

One of the most well-known AR apps that has been designed and developed by art museums is the ArtLens 2.0 by [Cleveland Museum of Art](https://www.clevelandart.org/artlens-gallery/artlens-app).

The Blanton Museum of Art at University of Texas in Austin is a university museum that places priority on implementing new technologies.

The museum felt it was necessary to tell stories of the artwork in an informative and engaging way, since each plate displayed in the show had descriptions in three different languages – Persian, Judeo-Persian, and Latin, and it would be hard for English-speaking visitors to gain deep understanding of the art by simply looking at the labels.

Galleries - auctions, mini games, more info

Libraries - app to scan and read, options to borrow physical copies with credit score inbuilt.

[The Experience “Mondrian from Inside”. An Immersive and Interactive Virtual Reality Experience in Art](https://link-springer-com.libproxy.abertay.ac.uk/chapter/10.1007/978-3-030-87595-4_20)

Citation - Toscano, J.J.R., Fondón, I., Sarmiento, A. (2021). The Experience “Mondrian from Inside”. An Immersive and Interactive Virtual Reality Experience in Art. In: De Paolis, L.T., Arpaia, P., Bourdot, P. (eds) Augmented Reality, Virtual Reality, and Computer Graphics. AVR 2021. Lecture Notes in Computer Science(), vol 12980. Springer, Cham.

[Experiencing immersive virtual reality in museums](https://www.sciencedirect.com/science/article/pii/S0378720618310280)

However, the issue of authenticity has been a contested issue in the context of the museum. Several researchers have asserted that museums should protect their value by adhering to authenticity, which is the heart of a museum’s value and the element that distinguishes it from other museums [26]. On the other hand, some researchers have insisted it is important to reconcile authenticity with inauthenticity because inauthentic experience is also a part of the experience in today’s museums [62,27]. Realistically, it is difficult to adhere to authenticity because of the degradation of artifacts resulting from both nature and humans [32], economic costs [27], and general shifts of museums’ mission from focusing on collections to focusing on visitors [28]. In this context, authenticity can be achieved to some degree by developments in information technology (IT) because such technology enables visitors to fully explore and appreciate museums moving beyond time, space, and language barriers [33]

* Define the problem (what is the issue that you need to resolve, and why is it an issue?)
* Define the impact (what is the scale and significance of the problem?)
* Identify existing strategies (what initiatives and/or policies are in place to mitigate the problem, and how successful are they?)
* Identify gaps (what more needs to be done to solve the problem?)

Explain more about the creative brief related to the question How can immersive technologies be used to bring exhibits and landmarks to life?

* **Issue:**

Immersive technologies like AR and VR are being regarded as the next big step in technological innovation and a lot of research is being put into their use cases and where they could be helpful. One such use case being researched is to bring exhibits and landmarks to life.

The main problems faced by GLAMS regarding immersive technologies are related to authenticity and adding education and immersive content for their audiences. From being just places of interest to view and gather some information to using that information to bring the exhibit to life for a better experience and more accessibility to people who might not be able to visit the exhibit.

* **Impact:**

To create such exhibits, a lot of research and technical skills are required to recreate the same things in a virtual environment while keeping it authentic like the original. Also, VR headsets are usually quite expensive and huge deals must be made between both companies for them to be available to a wide number of people and on the store.