

Himani Nigam

EDTC803

Assessment 1 – Using Secondary Data

Dr. Tracy Amerman

31st July, 2023

Infusing technology with a historical landmark

Nowadays more and more museums and heritage sites are coming up with interactive exhibits that gives the visitor an exciting experience while they journey into an unknown past. Rather than just reading the information posted next to the exhibit. these exhibits use digital technology in some form so that the user can explore and gain knowledge or information through their own experience (Koster, 2022). It would be interesting to see about how we can infuse technology with a historical landmark so that it becomes more exciting and enhances the experience of the visitor. The Pyramids of Giza in Egypt were chosen for this project as they have a sense of intrigue which draws people to them people. This project explores the ways technology can be used to enhance the experience of “seeing” them as well as understanding the historical, sociological, and anthropological aspects of Ancient Egypt.

The three monumental pyramids at Giza were built about 4500 years ago by Pharaohs Khufu, Khafre and Menkaure during 2550 -2490 B.C. (Handwerk). They are the most famous and only surviving wonders of the ancient world. The pyramids more than a tomb, they are part of a larger complex that has temples, other burial sites, boats pits and the mythical and massive statue of the Sphinx. There are tomb art and inscriptions on the tombs that give us an understanding of the life of the ancient Egyptians as well as their language and grammar. Much of the burial or grave goods that were buried with the Pharaohs have been looted during the ancient and medieval times. Being tombs, the pyramids were once sealed so that people would not enter them but today people can go inside them. There are many tours available where people can go visit the Pyramids as they are easily accessible situated on outskirts of the Egyptian city of Cairo. I would love to see how we can infuse technology so that visiting the pyramids could be a more hands -on and interactive experience.

However, infusing technology with such a landmark or historical sites comes with its own pitfalls. For an exhibit to be successful, it should be engaging and inviting so people will be drawn towards it. The Pyramids of Giza hold an immense amount of mystery and historical information that many people want to visit it. According to the Pyramid -of -Giza website, every year about 14 million people visit the Pyramids. So, it is imperative that the technology that enhances the visit must be accessible to all kinds of visitors regardless of their age, gender, education level, cultural backgrounds, or disabilities (Koster, 2022). When we introduce technology at any landmark, it should be simple enough for common people to understand and use. It should not have too many interactive options that leaves the user harried and overwhelmed (Allen and Gutwill, 2004). Ideally the controls must be easy and self-explanatory that it takes the visitor a few minutes to understand how to use it (Koster, 2022). It should not have too many controls or mechanisms that is difficult for common man to understand particularly when the features do not work together well (Allen and Gutwill, 2004).

One way to infuse technology with the Pyramids could be the use of Augmented Reality or AR. Augmented Reality is the use of technology to see the real world with an interactive experience and content that has been generated by the computer. It uses a smartphone or a tablet to change or enhance a picture that already exists through an app. When a visitor uses that app, it shows an altered version to the reality to them. (Coates, 2023). It can transport the users to another space and time providing a deeper connection with historical places or events that have occurred in the past. The app can recreate part of the pyramid complex, provide information about things in front of them and bringing objects or scenes to life. It can create animated creatures that provide a narration of daily life of the ancient Egyptians or how the building of the pyramids was undertaken. Some of the original writings and inscriptions have faded away but

using the AR technology, some of it may be recreated based on what has been preserved by old documents. The visitors can see virtual objects or artifacts in their natural surrounding through audio and visual elements delivered by technology. The app could have different sub - section like history, archeology, sociology, architecture, language, and the arts for people of each genre to explore their field of choice.

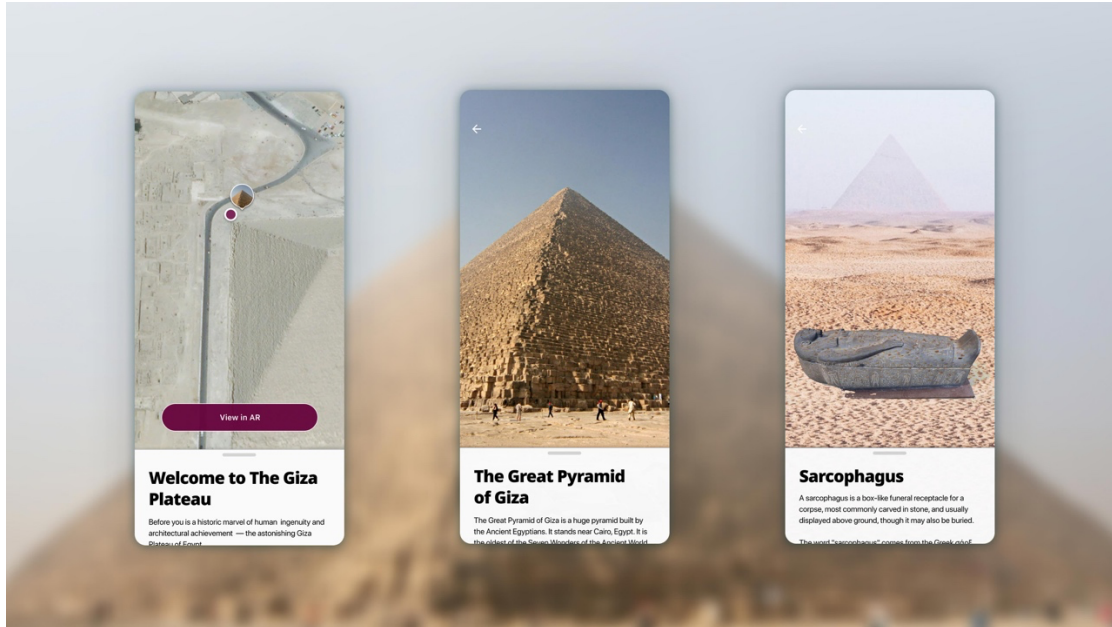
Using the AR technology, the app will be able to capture the minds of older and younger generation alike. Not only will it provide historical information, but it would also be beneficial to students of archeology, sociology, anthropology, architecture, and linguistics as well. It could be a fun and interactive way to learn the history of Egypt, or how society functioned in ancient Egypt. Since there will be different subsections of explorations, visitors will be able to explore a topic that they like best or want to know about. Not everybody likes a history lesson, some people would like to explore the art or the writing or inscriptions on the pyramids or the working of daily life and society in those times, the app can provide an immersive experience to all and may even draw more and more tourists to the Pyramids.

The cost of building an augmented reality app ranges from \$10,000 to \$200,00 depending on the complexity of the app (Bhatt, 2022). The app could be free and the some of the cost for the app can be built in with the cost of the ticket to the Pyramid complex or when purchasing individual tickets to each of the Pyramids. Even though the initial cost of making the app is high, given the number of ticket - purchasing tourists that the app will attract, the total cost will not be as prohibitive. Since the app will need to be downloaded on a smartphone, there would not be any hidden fees associated with it and will be safe to use. However, the content of the app needs to be maintained and managed and updated as and when necessary.

The app may provide information that may look like the images below.



Kototric, D. A window into the past — depicting the hieroglyphs as they originally appeared millennia ago. Damirkototric.com (<https://damirkototric.com/portfolio/giza-ar>)



Kototric, D. Conceptual designs exploring different features: a map guiding visitors through the plateau. A tour explaining each landmark and its points of interest. The ability to explore

different artefacts that were discovered at each of the landmarks. damirkotoric.com

(<https://damirkotoric.com/portfolio/giza-ar>)

While this is just a little snapshot of how Augmented Reality maybe used in infusing technology with a historical landmark, the field of AR is huge and ever changing. With new technological advancement in technology, AR can be successfully used as a tool to provide an immersive, interactive and compelling touring experiences of historical sites.

References

Allen, S. and J. Gutwill (2004). "Designing with multiple interactives: Five common pitfalls." Exploratorium. San Francisco.

<https://www.exploratorium.edu/sites/default/files/pdfs/designingwithinteractives.pdf>

Bhatt, T. (2022, June) How Much Does It Cost To Build An Augmented Reality App? Intelivita.

<https://www.intelivita.com/blog/ar-app-development-cost/>

Charr, M. (2020, May 27). What can AR do to bring heritage sites to life? Museum

Next.<https://www.museumnext.com/article/what-can-ar-do-to-bring-heritage-sites-to-life/>

Coates, C (2023, June 11). How museums are using augmented reality. Museum Next.

[https://www.museumnext.com/article/how-museums-are-using-augmented-](https://www.museumnext.com/article/how-museums-are-using-augmented-reality/#:~:text=The%20most%20straightforward%20way%20is,able%20to%20provide%20a%20narration.)

[reality/#:~:text=The%20most%20straightforward%20way%20is,able%20to%20provide%20a%20narration.](https://www.museumnext.com/article/how-museums-are-using-augmented-reality/#:~:text=The%20most%20straightforward%20way%20is,able%20to%20provide%20a%20narration.)

Kotoric, D. Giza AR. Creating an AR "window into the past" in collaboration with Harvard University professors, at Giza Necropolis, Egypt.Damirkotoric.com.

<https://damirkotoric.com/portfolio/giza-ar>

Handwerk, B. Pyramids of Giza. National Geographic.

<https://www.nationalgeographic.com/history/article/gizapyramids?loggedin=true&rnd=1690732457011>

Koster, A. (2022, April 07). Interactive exhibits for exhibitions and showrooms – 8 tips for concept and planning GARAMANTIS INTERACTIVE TECHNOLOGIES.

<https://www.garamantis.com/en/blog/interactive-exhibits-exhibitions-showrooms-tips-concept-planning/#>

Pyramid – of - Giza website <https://www.pyramid-of-giza.com/pyramids-of-giza-facts/>