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Beyond Sight: Revolutionizing Museum Accessibility with AI-Driven Voices and QR Codes

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Abstract

Nowadays, Artificial Intelligence (AI) has become a crucial part of people's lives and has played an essential role in various domains. However, it is not yet utilized appropriately in the field of archaeology, particularly museums' exhibitions. The problem of the research revolves around providing the best possible optimal experience for visually impaired visitors since they do not have similar chances of knowledge acquisitions as non-visually impaired visitors. Thus, the principal aim of the study is illustrated by employing artificial intelligence and QR code websites to generate audio labels along with written labels. The significance of the study is demonstrated in lending a helping hand to visually impaired visitors in obtaining information pertaining to the displayed artifacts through using AI and QR codes. There were two objects that represented the samples of the study. Additionally, there were two objects that represented the samples of the study. They had been brought from well-known virtual museums namely, the Egyptian Museum and the Islamic Art Museum. The study included forms of documentation and registration cards for the purpose of written data relevant to the selected objects so that the AI could articulate them in human-like voice to the visually impaired visitors. Prior to this process, a QR code has to be scanned so that the visitor can reach the object-relevant information.

Keywords:
Artificial intelligence- audio generating - QR code - Documentation Forms

1. Introduction

Since the end of the 20th century, information and communications technologies (ICT) have led to different majors of content, computing, telecommunications, and broadcasting. Also, have made differences in other majors, especially knowledge management and human resources development. Moreover, information and communications technologies (ICT) have been enhanced by the growth of the global network, known as the internet, that has affected the way businesses conduct business, knowledge sharing, facilitated learning, and generated global information flows [1]

"Information and Communication Technology," is abbreviated as "ICT," refers to the use the various sorts of technology to the management, processing, and transmission of information, as well as the facilitation of communication that combines in a wide range of instruments and technology encompasses computers, internet, mobile phone and software packages[2] Regarding UNESCO "ICT is a scientific, technological and engineering discipline and management technique used in handling information, its application and association with social, economic and cultural matters" [3]. Additionally, ICT includes several tools that aid in accessing information, and QR codes are one of these tools that are used for getting information privacy by advanced devices such as smart phones, iPads, and tablets [4]. The QR code is defined as "a two-dimensional barcode symbol, which provides a way to represent data in the form of a square matrix" and the invention dates back to 1994 and was accepted as an ISO worldwide standard in June 2000 by Denso, one of the key Toyota Group companies. Automotive part production control was its original intended application; ever since, its applicability has expanded across various domains, including healthcare data management, tourism experience enhancement, and public sector work. Moreover, QR code has diverse types of data, encompasses small text, detailed wide context, URLs, Pdfs, websites and multimedia such as audios, videos, map's coordination and a phone number or text contact. In order to read the encoded code sort of QR code, there are some requirements that importantly exist for interpreting the numeric digital encoded code by using advanced devices such as a camera such as a smart mobile phone, a tablet, a PDA, or even a laptop with a webcam and a global network, which means the internet [5].

Artificial intelligence (AI) has increasingly permeated citizens' daily lives in recent years. So much so that it is now essential in fields such as medicine, agriculture, engineering, and archaeology. Due to the services, it provides, processes have evolved, creating necessary distinctions as a result of simulating human thought [6]. Therefore, the second tool of ICT that is undoubtedly required is artificial intelligence. It is defined as "a branch of computer science that involves developing computer programs to complete tasks which would otherwise require human intelligence. Artificial intelligence algorithms can handle learning, perception, problem-solving, language understanding and logical reasoning" [7].

Artificial intelligence could be classified and breakdown into two main elements, Artificial General Intelligence (AGI) as well as Artificial Narrow Intelligence (ANI) while there are significant potential benefits and serious concerns about potential risks associated with artificial general intelligence (AGI). AGI is defined as "intelligence that can influence and understand a wide range of situations and environments and perform at an intellectual level comparable to at least average human performance" [8]. Everyone agrees that AGI has not yet reached its full potential; some even speculate that it may never reach its potential.

However, artificial intelligence will offer unexpected opportunities for museum visitors. It will provide all the necessary services, including presenting data on the museum's collections in engaging ways that attract both local and foreign visitors. Additionally, it will effectively display artifacts, using both argument and virtual reality techniques to enhance visits [9]. Based on modern technology, particularly artificial intelligence, museum antiquities can spread across the universe by relying on digital infrastructure to create a virtual digital museum [10].

The World Health Organization (WHO) has launched a definition of disability as "an exclusive term, covering impairments, activity limitations, and participation restrictions. Thus, disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he or she lives" [11]. Furthermore, the World Health Organization (WHO) reported that there are an estimated 285 million people with visual impairments worldwide, with 14% being completely blind and

approximately 86% having low vision. In spite of the contribution that countries have devoted to promoting and include them in various social domains, in particular political and institutional discourses to be equivalenced with other people, they still have some restraints to pass and overcome [12].

With continuous developments, social media has penetrated into our daily lives and has been exploited in uncountable realms. As a museum field, it is considered one of the most common domains that seeks to apply social media in a museum's exhibition to cater to people's needs, whether they are able or disabled. Furthermore, museum's strategies strive hard to make accessing artefacts' information easier for visitors [13].

Museums are seriously considering visually impaired visitors and combating social exclusion, which means "lack of access to various social benefits for an individual or a social group." Social exclusion refers to marginalizing a group of people in society by throwing them out fully or partially from multiple systems: social, economic, political, and cultural. To avoid social exclusion towards blind visitors in cultural and educational foundations such as museums, museums sought hardly to adopt the idea of creating environments that match with disabilities and change their policies to be more accessible for handicap visitors [14].

On account of the concentration on visually impaired visitors, museums have adapted the responsibility towards visually impaired visitors to enjoy and obtain information. In terms of physical accessibility and orientation constraints on participation, visually impaired visitors have been hindered by a lack of access to data, which has generated negative accumulated experiences, according to visitors to museums. As well as the underlying causes of marginalization among blind people. "Blind people are constituted as a marginal group not because their blindness makes them so, but because the ocular centricity of museums and galleries ensures that non-visual engagement with art and artefacts remains virtually inconceivable in all but the most innovative of institutions" [15].

Depending on artificial intelligence, the curators at the museums could evaluate the visitor's interest by using both Unity and the WebGL websites to rearrange the exhibition's objects based on the guest's desire [16]. Indicating to the program "Dynamic Museums for Social Learning" was exploited to meet visitor's requirements

related to culture and emotion aspects affiliated with museum activities and dissemination of museum's objects [17].

In order to attract the attention of museum's visitors, museums tend to focus on the existence of technology based on visualization, motion, or verbal interaction, and for that notion, a hologram was used as an instrument [18]. The core of QR codes in displaying the objects inside the museum as well as the value of heritage management in terms of reference collections, research, and loans [19]. According to the importance of the QR code that appeared in the Porifera Collection at The Natural History Museum (NHM), London, due to record digital registration, specimens reached approximately 71,000 by QR code for the purpose of citing and figuring in bibliographical references [20]. The role of artificial intelligence has been varied, and it turned out to have the potential to revolutionize the archaeological realm by enabling the implementation of some methods and algorithms in the image processing of ancient artefacts [21].

Based on the researcher's knowledge and previously-mentioned studies, none has investigated artificial intelligence in museum exhibitions extending a helping hand for visually impaired visitors by creating human-like voice encoded audio labels. Thus, this paper aims to immerge QR codes and artificial intelligence for creating the records labels that contain the information about the displaying museum's collections. Also, helping the impaired visually people getting a chance for knowing the history of museum's collection as much as non-visually impaired visitors. Furthermore, this is considered a modern method to generate new labels for visually impaired visitors.

The study attempts to answer, how does integrating QR code and artificial intelligence work? How does smart displaying assist visually impaired visitors?

2. Methodology

This study is organized into multiple sections. Regarding the introduction, which contextualizes the research by both deep previous studies and research hypotheses. The primary focus of this study lies in methodology, which involves leveraging smart displays in museums through two distinct paths: Artificial Intelligence (AI) by Narakeet and QR codes as a reach-out tool. The study, also, delves deep into the historical context of specific objects, shedding light on the roles played by both AI

and QR codes in assisting visually impaired museum visitors.

The study employed a qualitative methodology, which encompassed several stages. It involved exploration, description, and the proposal of experiments concerning the documentation and registration of artifacts discovered in museums. Through the selection of specific items from museum collections, our objective was to interpret the various types of samples under examination. Additionally, we underscored the significance of accurate and reliable information pertaining to these artifacts. Moreover, we highlighted the importance of ensuring precise and trustworthy information regarding these artifacts. Also, we clarified the individual functions of the QR codes on websites and Narakeet in producing recorded labels for the artifacts. Lastly, the methodology section provided a detailed account of the proposed experiments and clarified the steps involved.

During the course of this study, the methodology part demonstrates the entire data collection process, examines the samples under study, and explores the utilization of AI as the initial step. Subsequently, the study examines the use of QR codes as the second step in museum exhibitions. Notably, the Virtual Egyptian Museum features a displayed Fayoum portrait in its second terminal and horse's saddle in Cairo Museum of Islamic Art as well.

Based on virtual museums, this study is being pursued to provide around three samples that have been carefully chosen. These samples are represented as follows:

The first sample is Fayoum portraits in Egyptian Museum, they have been interesting because of the power of their presence among other artefacts (Hamada et al., 2022). Aziz (2020) clarified that during the late period of the 19th and early 20th centuries, archaeological excavations revealed an outstanding collection of artistic portraits in Fayoum Oasis dated back to the Roman era. Actually, the discovered collections are estimated at hundreds of paintings that represent mummies' faces or whole bodies.

The digital Egyptian museum displays a diverse collection of artifacts in vitrines. Besides the collection traced to the Roman period, one of the Fayum portraits is shown in front of the showcase. That portrait of a young lady in garb typical of the Roman period, which is characterized by a loose

white dress with a color band on each shoulder and common hairstyle, dates back to 130 CE. It is important to clarify that the preceding portrait will be a research object.

-The second sample is a textile from the Cairo Museum of Islamic Art in Egypt; that object is backed by the Islamic era, specifically the Ottoman period (Cairo Museum of Islamic Art). Indeed, Islamic art was born from accumulated factors containing various styles such as Arabic, Mesopotamian, African traditions and Byzantine inspiration. As a result, Islamic art was composed, and its uniqueness was spread.

One of the most widely spread Islamic items is the horse's saddle cover. In this vein, the virtual museum of Islamic art in Cairo has displayed a saddle cover composed of a silk velvet pile with embroidered silver thread, dating back to the Ottoman period, which is the 10th A.H./16th A.D. century. For reservation code, it has been preserved in MIA no. 12027." Moreover, this saddle serves as a tangible example of how important compassion is in Islam. In the same spirit, Islamic art has created a plethora of additional objects intended to care for and save various animals. Consequently, the artisan who created it labored to adorn it with velvet, silk, and silver threads despite the fact that it was only intended to cover a horse's back. This unequivocally illustrates the Islamic Civilization's philosophy of beauty, charity, and compassion for all living things.

3. Data Collection

Data collection aims to provide widely and guaranteed information that is considered the bulb of research paper, and it includes the documentation schedule of antiquities (registration card), the Narakeet website, and the QR code website. Certainly, the entire given data are detailed to handle each point.

3.1 Documentation Schedule of Antiquities (Registration card)

As it is known, stages of documentation objects represent the most widely used and important in the archaeology field, in particular conservation specialization. Therefore, this portion is going to provide pertinent information about the types and inertial items of the tables. Additionally, tables are titled with documentation and a registration card. Consistently, the following tables have discriminations based on fill-in-the-gap proposals that serve the documentation process, following the appendices that are included (antiquities registration card in

museum, restoration registration card, object documentation card, antiquities registration card and application for registration of antiquities) at the end of the paper (see Appendices A, B, C, and E). The previous Documentation and Registration cards were received from Mervat Ezzat, Director General of the Department of Registration and Archaeological Committees.

3.2 Narakeet Website

Artificial intelligence spread rapidly and covered several fields, which became part of each domain, and Narakeet is one of the artificial intelligence websites linked to https://www.narakeet.com/. The objective of the Narakeet website is to create audio recordings of humans' voices, whether they are women or men. Furthermore, this website has a cover page that represents the news page, which gives information to users. Fortunately, it introduces a wide range of choices that help users with any inquiries.

The cover page is the first page that appears to users. On the top of the page, there are many labels related to the website, which contain: (Tools- Use Cases- Voices- Help- Pricing- News- My account- sign up). For the first utilization, users have to create a new account by clicking on the sign-up icon. Automatically, the website is offering three ways to register: a private Google account, a private Amazon account, or another account by filling up suggestions such as username, name, email, and password. Lastly, the user clicks on the sign-up choice.

As for the second page, it shows a welcome for the users and some choices that are set by the website in order to accommodate people's needs. Additionally, the page comprises four choices: open a recent project, create a new audio file from a script, create a new video from a presentation, and create a new video from a markdown. During the second choice, the page moves to a new window called "Text to Audio," which specializes in generating sections and has language, voice, script, and create audio. After completing the previous steps, audio is uploaded, built, and downloaded to the user's device (Figures 1, 2, 3 and 4).

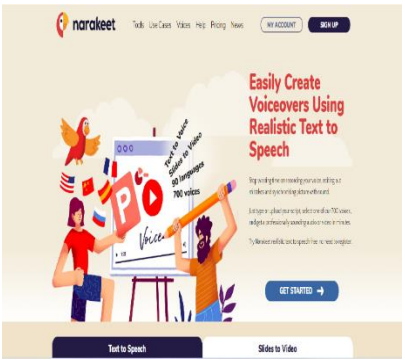


Fig 1. The main page of Narakeet Website

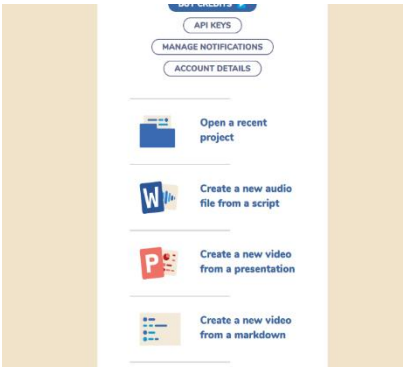


Fig 2. Selecting "create a new audio file from a script

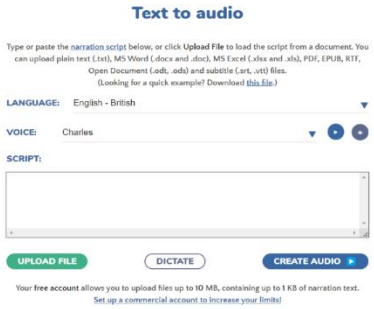


Fig 3. Adding script, choosing language, selecting voice

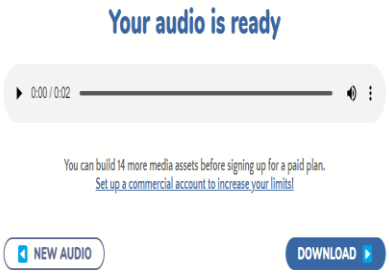


Fig4. Finally, the audio will be ready

3.3 QR code website

Rouillard (2008) stated that QR code is a rapid way to encode and decode data by using camera phones in order to read the dimensions of QR code, which stocks a huge amount of information that appears easily on smartphones. As for websites that are concerned about the QR code, there are several free websites, but in particular, I recommend one of the most helpful and efficient, which is named QR Code Generator and linked to https://www.qr-code-generator.com/. In terms of the first page, it is considered a definition page that provides guidelines for visitors to treat with a website.

For the first time, individuals need to sign in to have their own account, and registration could be through a private Google account or another private account such as Outlook, Amazon, or Yahoo. As soon as registered, the website supplies users with various types of QR codes: website, pdf, Instagram, app, videos, 2D barcode, MP3, feedback, vCard Plus, social media, images, business page, events, feedback, coupons, and ratings. Furthermore, it follows by selecting one of the previous suggestions based on the requirement, then pressing on next to move on to a new window with many screens titled "Upload PDF, Design & Customization, Basic Information, Welcome Screen, and Trace by clicking on next.

During the production process, QR code shows a bunch of QR code's shapes, which makes users select one that is suitable for them and download it. Fortunately, the account of the website saves the entire QR code that was generated by it **(Figures 5,6,7,8,9 and 10).**

Fig 5. The main page

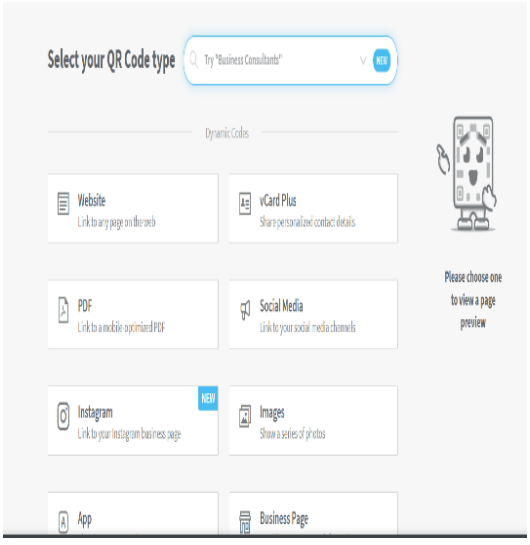


Fig 6. Selection of QR code type

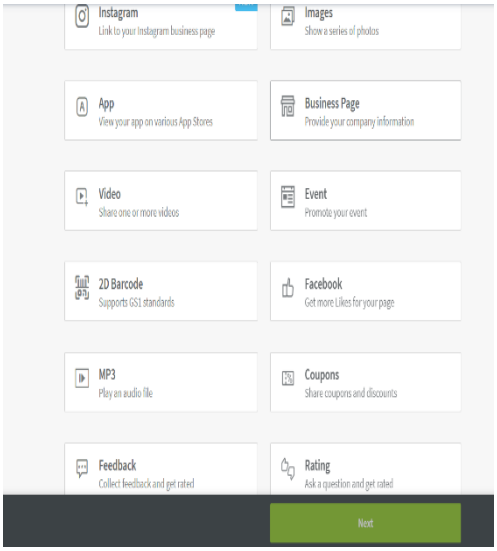


Fig 7. Types of QR code uses

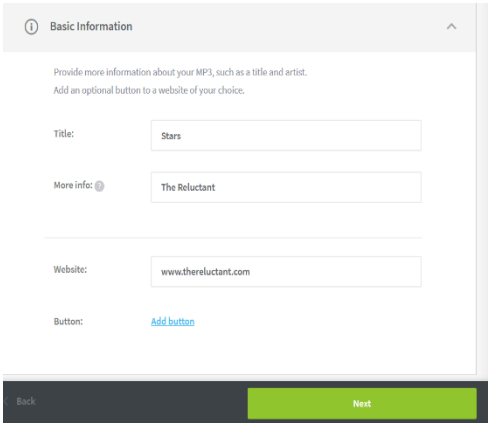


Fig 8. Inserting basic related information such as title

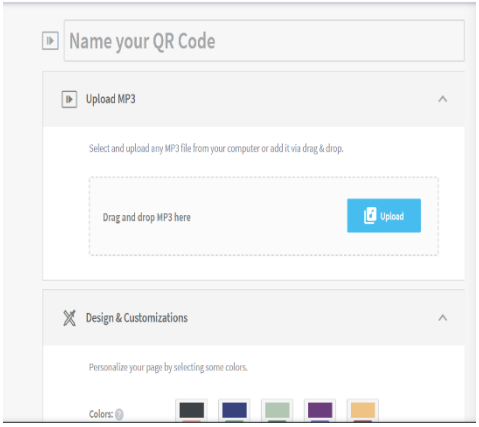


Fig 9. Dragging and dropping Audio file (MP3)

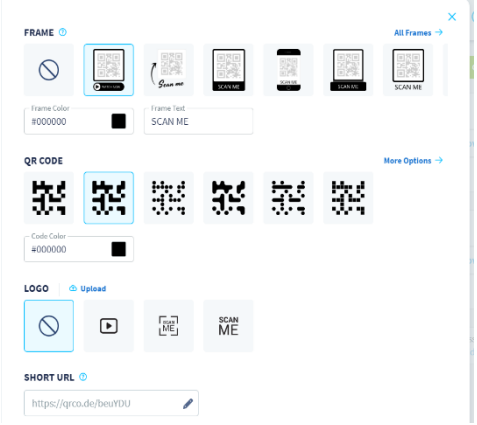


Fig 10. Choose the QR code shape

4. Stages of the Experiments

In terms of the proposed experiment, which tends to utilize each preceded stage to fulfill the production of audio labels, both significant websites were called Narakeet and QR Code Generator. Firstly, the whole data about the horse's saddle cover and Fayum portrait registered in one of the documentation form types of "object documentation card." Afterwards, wrote any data related to the object on the Narakeet website as explained before, following every step regularly, and then created a QR code for the automated audio.

Concerning the internet, acquiring information via QR code is constructed on the internet. From this angle, everyone has to own the internet on their smartphones to be capable of receiving information completely and simply. Additionally, it is worth mentioning that some historical and maintenance places, such as museums, potentially have no internet, which is considered one of the limitations.

5. A Proposed Experiment

That experiment was conducted by inserting available data that concerned the young lady Fayoum's portrait and horse's saddle in the schedule of documentation and registration sort of documentation object card, which have been included as basic items. However, previous stages of the Narakeet website have been adhered to to create audio labels. Consequently, uploading the audio labels on the QR codes that pertain to the website of the QR Code Generator **(Tables 1 and 2).**

Table 1. Documentation card of Fayoum portrait

Antiquities Museum **registration card**					
Object's name	Fayoum portraits, young lady				
Registration number	_____				
Museum	Egyptian Museum				
Classification	Organic object, compound artifact				
Description	That portrait of a young lady in garb typical of the Roman period, which is characterized by a loose white dress with a color band on each shoulder and common hairstyle, dates back to 130 CE				
Dimensions					
Length	Width		weight		material
Object Techniques	The component of the artefact is wood, textile, gypsum layer and color				
Distinctive signs of object	_____				
other information	_____				

Table 2. Documentation card of Horse's saddle cover

Antiquities Museum **registration card**					
Object's name	Horse's saddle cover				
Registration number	MIA no. 12027				
Museum	Cairo Museum of Islamic Art				
Classification	Organic object, textile				
Description	that object is backed by the Islamic era, specifically the Ottoman period, which is the 10th A.H./16th A.D. century				
Dimenasion					
Length	Width		weight		material
Object Techniques	A saddle cover composed of a silk velvet pile with embroidered silver thread				
Distinctive signs of object	the artisan who created it labored to adorn it with velvet, silk, and silver threads despite the fact that it was only intended to cover a horse's back. This unequivocally illustrates the Islamic Civilization's philosophy of beauty, charity, and compassion for all living things				

Meanwhile, proceeding with the steps of the experiment, building audio files using the Narakeet website is considered the second step. Consequently, the entire previously described phases were applied accurately and carefully. Therefore, it was completed by generating a QR code for accomplishing the mission, containing the key and sub-elements of displayed objects. It is important to note that the mission's duration is estimated to be

less than 30 minutes. As a result, archaeologists at the museum have an opportunity to create numerous audio labels in order to cover all the artifacts displayed at the museum **(Figure 11).**

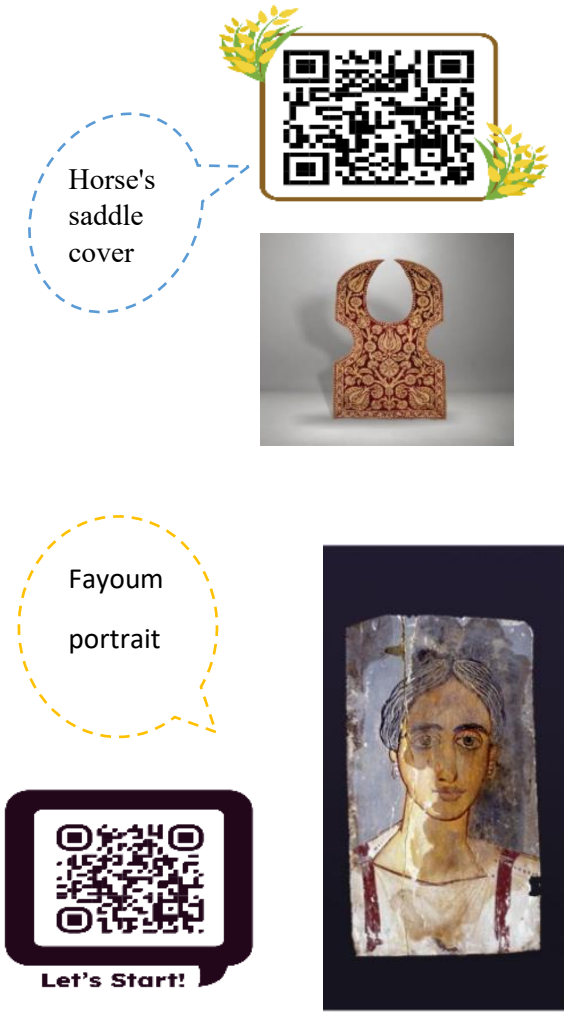


Fig 11. QR codes for audio labels

Despite the fact of information that has been written on labels at museums is easily accessible to ordinary people, On the contrary, it represents an obstacle that hinders visually impaired visitors. From this vantage point, this study targets people who are visually challenged to obtain artifact's information as much as healthy people without missing any word. Therefore, audio's labels facilitate this process efficiently and proficiency.

Regarding limitations, that signifies the barriers faced by scholars who are striving to accomplish satisfying results. However, the limitations could be listed in:

1. Narakeet is considered a paid website; it just allows users to trial free experiments within limits, creating audio does not exceed one minute.
2. This study relied solely on the proposed experiments because the locations were too far away and not available. Therefore, this study was built on objects that were displayed in both virtual museums: Islamic art museum and Egyptian museum.
3. Absence of internet in historical locations such as museums, which is considered the primary cause of

access to QR codes, especially audio labels.

4. Lack of information regarding displayed objects at virtual museums.

6. Results and Discussions

The study's findings revealed that an exploratory experiment was carried out to generate audio labels for two objects from distinct virtual museums: Art Islamic and Egyptian museums. and the result led to the success of creating two audio labels by an artificial intelligence website named Narakeet and a quick response code (QR Code Generator). The two previously mentioned websites were integrated to produce a completed project for supporting visually impaired visitors as well as providing them with the same information as normal people. Artificial intelligence has proven its efficiency in the archaeological domain, particularly in museums' exhibitions, which achieved the mission successfully by designing labels for guests who are blind. The whole data about two objects was registered on the Narakeet website. Afterword, the labels have been created according to the user's desire in terms of the data entered, the language, and the sort of voice, whether male or female.

Moreover, the QR code has played a crucial role in continuing the mission through uploading data via QR code. The website of QR Code Generator has been used to execute that task by following many steps, as explained previously. Additionally, the website demonstrated that the ability of generating audio's QR codes. The process has been sought to employ artificial intelligence and QR codes in museums and provide fruitful assistance to visually challenged visitors. And, it was featured to serve visitors who have vision loss by providing audio labels for artefacts in order to preserve them consistently on their phones. When it comes to visit museums, blind visitors will have the same privileges as other visitors at the museums, which, include gaining information and listening it through scanning QR codes that are attached to artefacts and make a list of it. That process has not completed without the tour guide that is accompany them through their trip inside the museums. he is a pillar of that operation which in visually impaired or blind visitors see the historical background in museums trough his vision.

This study has utilized two different objects from two different virtual museums in Egypt. One of them, "Fayoum Portrait,"

was obtained from the Egyptian Museum, and the second object, "Horse Saddle," was obtained from the Islamic Art Museum. The entire data about the mentioned objects has been collected and then inserted solely in two tables related to each object. Afterward, the helpful websites used to perform their role, which meant Narakeet and QR code.

7. Conclusion

The study employed two integrated methods identified by artificial intelligence and QR codes in order to design audio labels for visually handicapped visitors. And by combining the previously mentioned techniques, the project was carried out professionally and smoothly. Additionally, the study's significance illustrated the importance of focusing on visually handicapped visitors.

Artificial intelligence and the QR code have been employed to generate audio labels describing artifacts in museums. To hold the websites, artificial intelligence used the Narakeet website, while QR code utilized the website of the QR code generator. The combination among those websites contributed to the creation of audio labels that stick with the objects. Visitors are capable of opening a QR code by scanning it using their smart phone, and it is important to access the internet according to their own internet or the museum's internet. Therefore, they could preserve the recodes that were scanned forever.

Due to the distance of the artefact's site, two objects were used from the virtual museums. one of these objects from the virtual Egyptian museum, which was known as a Fayoum portrait for a young lady, dates back to the Roman era, and the second one from the art Islamic Museum; additionally, the object was a saddle dating back to the Ottoman period. However, the main challenge faced by scholars is the limitation of storage size on Narakeet's website. It is unable to record more than five minutes of information. Additionally, there is a scarcity of data related to specific objects. Firstly, the physical distance of the object's museums, situated in Egypt's capital, poses an obstacle. Secondly, virtual museums often lack comprehensive data about the displayed artifacts. Consequently, our study proposes the development of a handheld device to enhance the experience for visually challenged visitors.

8. References

1. Tamilselvan, N. Sivakumar, N & Sevukan, R. (2012). Information And Communications technologies (ICT). *International Journal of Library and information Science.* Volume 1, Issue 1. Pp. 15-28.
2. Opara, E., Mfon-Ette Theresa, A., & Aduke, T. C. (2023). ChatGPT for teaching, learning and research: Prospects and challenges. Opara Emmanuel Chinonso, Adalikwu Mfon-Ette Theresa, Tolorunleke Caroline Aduke (2023). ChatGPT for Teaching, Learning and Research: Prospects and Challenges. Glob Acad J Humanit Soc Sci, 5.
3. Ratheeswari, K. (2018). Information Communication Technology in Education. Journal of Applied and Advanced Research, S45–S47. https://doi.org/10.21839/jaar.2018.v3iS1.169
4. Hernández, V. G., & Fast-Berglund, Å. (2015). Web application+ QR codes: an ICT tool to ease access of information and support standardized work. In Proceedings of the 25th International Conference on Flexible Automation and Intelligent Manufacturing FAIM (Vol. 1, No. 46, pp. 274-281).
5. Crompton, H. LaFrance, J & Hooft, M. (2012). International Society for Technology in Education (ISTE). P 22.
6. Marrone, S., & De Donato, L. (2020) Deep Learning for Audio Detection and Video Analysis in Railway Applications.
7. Saleh, z. (2019). Artificial Intelligence Definition, Ethics and Standards. Journal of Artificial Intelligence. P4.
8. Vidu, C., Zbuchea, A., & Pinzaru, F. (2021). Old meets new: integrating Artificial Intelligence in museums' management practices. *Strateg. Shap. Future Bus. Econ*, 830-844.
9. Badawy M. Ismail. (2021). A Modern Vision for the Applications of Artificial Intelligence and Emerging Technology in Museums and Cultural Heritage. International Journal of Artificial Intelligence and Emerging Technology. volume 4, issue 2, p56 – 72.
10. Wang, B. (2021). Digital Design of Smart Museum Based on Artificial Intelligence. Mobile Information Systems, 2021, 1-13.
11. Poria, Y., Reichel, A., & Brandt, Y. (2009). People with disabilities visit art museums: an exploratory study of

obstacles and difficulties. *Journal of Heritage Tourism*, *4*(2), 117–129. https://doi.org/10.1080/1743873080236650 8.

12. Mesquita, S., & Carneiro, M. J. (2016). Accessibility of European museums to visitors with visual impairments. *Disability & Society*, *31*(3), 373–388. https://doi.org/10.1080/09687599.2016.1167671.
13. McMillen, R., & Alter, F. (2017). Social media, social inclusion, and museum disability access. *Museums & Social Issues: A Journal of Reflective Discourse*, *12*(2), 115–125. https://doi.org/10.1080/15596893.2017.1361689.
14. Dimitrova Radojichikj, D. (2017). Museums: Accessibility to visitors with visual impairment.
15. Vaz, R., Freitas, D., & Coelho, A. (2020). Blind and visually impaired visitors' experiences in museums: Increasing accessibility through assistive technologies. *The International Journal of the Inclusive Museum*, *13*(2), 57–80. https://doi.org/10.18848/1835-2014/cgp/v13i02/57-80.
16. Jo, S., Bae, G. T., Song, H., Jung, S., Kang, Y., Shin, J. S., ... & Park, J. W. (2022). Artificial Intelligence Curation System for Museums. *TECHART: Journal of Arts and Imaging Science*, *9*(3), 6-10.
17. Rovetta, A., Rovida, E., Zafferri, G. (2017). Heritage by Dynamic Museums Project with New Artificial Intelligence Suggestions. In: Ceccarelli, M., Cigola, M., Recinto, G. (eds) New Activities for Cultural Heritage. Springer, Cham. https://doi.org/10.1007/978-3-319-67026-3_26
18. Caggianese, G., De Pietro, G., Esposito, M., Gallo, L., Minutolo, A., & Neroni, P. (2020). Discovering Leonardo with artificial intelligence and holograms: A user study. *Pattern Recognition Letters*, *131*, 361-367.
19. Sendino, M. C. (2013). Use of QR Code Labels in museum collection management. *Collections*, *9*(3), 239-254.
20. Sendino, C. (2020). The Natural History Museum Fossil Porifera Collection. *Collections*, *16*(4), 363-380.
21. Radak, M., & Akhgar, A. (2023). Image processing on images of ancient artifacts with the help of methods based on artificial intelligence. *Journal of Archaeology and Archaeometry*, *2*(1), 27-39.

9. Appendices

Appendix A

Antiquities registration card in museum					
Registration number					
Location in the museum					
floor		room		corridor	
Classification					
Dimenasion					
Length		Width		Height	
size		Diameter		Depth	
Material					
Object Techniques					
Date					
Discovery site					
Discovery team					
Discovery time					
Circumstances of discovery					
Discovery Condition					
Type of documentation					
Has it been restored?					
Type of restoration					
other information					

Appendix B

Restoration registration card							
Registration number							
Classification							
Description							
Dimenasion							
Length		Width		weight		material	
Object Techniques							
Discovery site							
Discovery team							
Discovery time							
Circumstances of discovery							
Distinctive signs of object							
Manifestations of damage							
Methods of examination							
Eye examination				Microscope examination			
Radiation examination and type of rays				Inspection methods applied to detect damage			
Treatment stages							
Previous restorations							
Type of restoration							
Pre-restoration and post-restoration documentation							

Appendix C **Appendix D**

Object Documentation card	
Discovery site	
Discovery team	
Discovery time	
Material	
Object condition	
Dimenasion	
Object Techniques	
Object's location	
Inscriptions	
Color	
Era of object	
Beginning of restoration	
End of restoration	
Publishing	

Appendi

Antiquities registration card							
Registration number							
Classification							
Description							
Dimenasion							
Length		Width		weight		material	
Object Techniques							
Discovery site							
Discovery team							
Discovery time							
Circumstances of discovery							
Distinctive signs of object							
other information							

x E

APPLICATION FOR REGISTRATION OF ANTIQUITIES	
Name of the applicant (person or firm)	
Address of the applicant (person or firm)	
Identification and description of object with three copies of photographs in postcard size or quarter size	
Material	
Size	
Approximate date	
Source of acquisition	
Where the applicant has come into Ownership, control or possession of any antiquity which is already registered under the Act, registration number of such antiquity and the name of registering officer, who had registered it.	
Date of acquisition	
Mode of acquisition	
(a) Present Location, and : (b) Condition or preservation and security	
If the antiquity is already registered under the Act, whether its registration certificate has been attached	

I declare that the above information is correct and complete to the best of my knowledge and belief. I also undertake to observe the provisions of the Antiquities and Art Treasure Act, 1972, and the rules made thereunder.

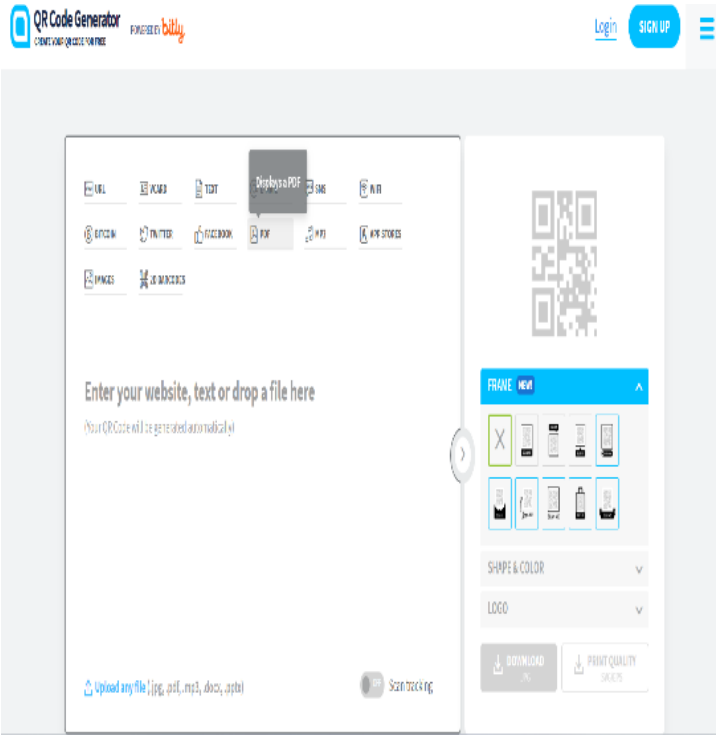
Seal of the Organization

Place — Signature

Date: — Name of the Applicant

1. If the application is on behalf of an organization the name thereof should be given.
2. If the application is on behalf of an organization on the signature should be that of the head of that organization.

Antiquities musuem registration card							
Object's name							
Registration number							
Classification							
Description							
Dimenasion							
Length		Width		weight		material	
Object Techniques							
Distinctive signs of object							
other information							


QR Code Generator
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Link to your social media channels
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Images
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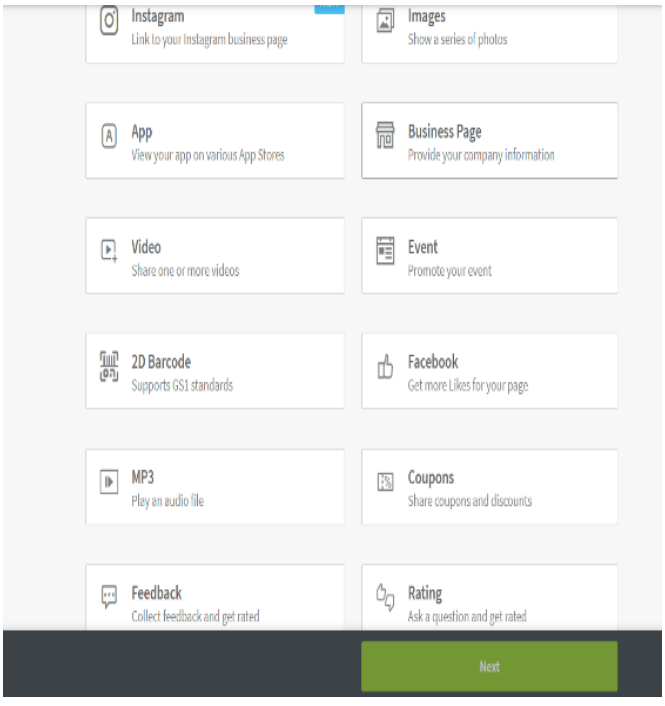
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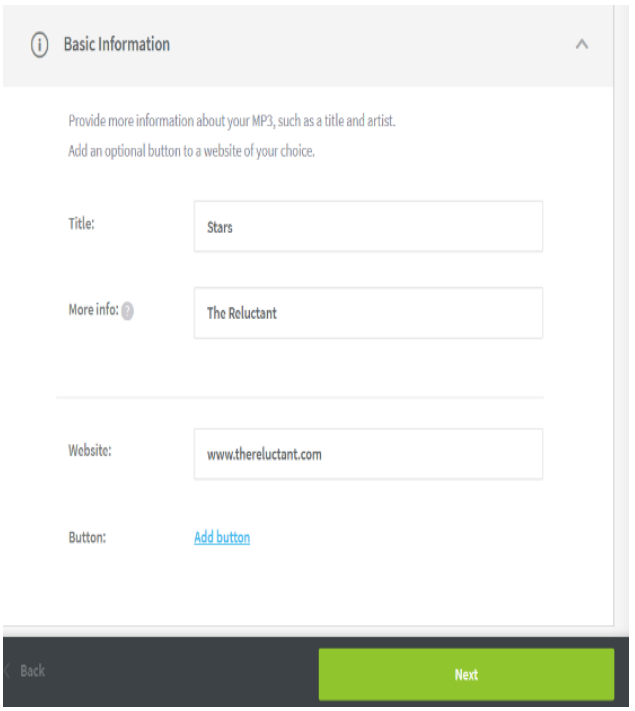
Link to your Instagram business page
Images
Show a series of photos
App
View your app on various App Stores
Business Page
Provide your company information
Video
Share one or more videos
Event
Promote your event
2D Barcode
Supports GS1 standards
Facebook
Get more Likes for your page
MP3
Play an audio file
Coupons
Share coupons and discounts
Feedback
Collect feedback and get rated
Rating
Ask a question and get rated
Next


Basic Information
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