OSSERVATORIO

Building bridges to an accessible culture for all: integrating easy-to-read into virtual exhibitions

by Elena Loreto Olmedo-Pagés, Rosario Arquero-Avilés

Introduction

Constant technological development has now made virtual exhibitions a common reality in our day to day. GLAM institutions include them as part of their essential activities as it is an effective way of communicating that engages and attracts a higher number of users. Content, container and exhibition techniques are now contextualised in a world of data, a digital environment in which the experience of users takes precedence over the collection itself.

The metaverse, a concept that refers to an immersive and persistent virtual environment, has the potential to significantly transform virtual museum exhibitions. Eliminating geographical barriers can favour a significant increase in audience, as many people do not have the possibility to travel or physically access these venues within the established timetable. Besides, the possibility of accessing without time limits means that visits can be done according to one's pace. Thanks to the constant improvement in interactivity, these immersive experiences, which make use of virtual reality and augmented reality, allow users to participate in an enveloping activity in which they can interact with the objects exhibited and with other users present in real time, thus promoting the creation of a digital community with didactic and entertainment interests. This is the way in which this constantly developing technology has been conceived, but this is not all.

These new tools have an incredible inclusive potential as they make it possible to fully adapt and customise the space in which they are submerged with audio descriptions, subtitles and accessible navigation options. The principles of universality and democratisation on which this new environment is founded lead to the consideration of this as the ideal space in which the generate a link between GLAM institutions and a diverse audience they had hitherto found it difficult to reach. With this development, persons with disabilities, from different cultures or with varying levels of proficiency in the language can now enjoy a higher representation in the spectrum of library and museum audiences. These institutions must make use of the advantages offered by such spaces to draw the attention of this target audience and

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establish a link with them by creating unique, didactic and entertaining experiences in which the information transmitted is perfectly understandable.

The present article shows a case study of the creation of an inclusive space in the metaverse using Spatial.io, in which the IDEALab research group and the Library of the National archaeological museum joined forces to make the bibliographic heritage accessible to a target audience that requires the information to be adapted to the Easy-to read format.

Review of the literature

The development of information and communication technologies and new digital applications have led to talk of a paradigm shift in the nature of museums, which no longer focus on objects but on visitors, users and their experience, this being an increasingly marked trend[1].

Traditional museums have been cultural referents for the conservation and preservation of their collections, which are their main objectives, However, with this new transformation, the main objective of museums now is to create a unique experience for users, promoting a communication with them via the exhibition[2]. Moreover, the purpose is not only to reach users but to make them an active part of exhibitions, interacting with them, in a context of greater human participation[3].

The new offer of virtual exhibitions, the instant distribution of information and the implementation of customised user searches have revolutionised the relationship between museums and their audiences[4]. The digital environment in which this communication occurs could be the key to creating a meaningful experience for users visiting these spaces[5].

These technologies have a notable impact on the dissemination of cultural heritage collections. Their digitisation and promotion via social networks points to a considerable increase in the possibilities of access to this heritage, respecting the long-term preservation of the objects in question, as this prevents them from being continuously handled while exhibited, and allowing a higher number of people to know about and value them[6]. In other words, using the currently available digital methods for trans-

1 Hidle S. Hein, *The museum in transition: a philosophical perspective.* Washington: Smithsonian Institution, 2014; Eugene Ch'ng; Shengdan Cai; Fui-Theng Leow; Tong Evelyn Zhang, *Adoption and use of emerging cultural technologies in China' s museums*, «Journal of Cultural Heritage», 37 (2019), p. 170-180. DOI: 10.1016/j.culher.2018.11.016; Gail Anderson, *Reinventing the museum: historical and contemporary perspectives on the paradigm shift*. Walnut Creek, California: Rowman Altamira, 2004.

2 Vikki McCall; Clive Gray, *Museums and the 'new museology' : theory, practice and organisational change*, «Museum management and curatorship», 29 (2014), n. 1, p. 19-35, DOI: 10.1080/09647775.2013.869852; Max Ross, *Interpreting the new museology*, «Museum and society», 2 (2004), n. 2, p. 84-103, DOI: 10.29311/mas.v2i2.43.

3 Yue Wu [*et al.*], *What drives users to adopt a digital museum? A case of virtual exhibition hall of national costume museum*, «SAGE Open», 12 (2022), n. 1, p. 1-17, DOI: 10.1177/21582440221082210.

4 Shaochun Dong; Shijin Xu; Gangshan Wu, *Earth science digital museum (ESDM): toward a new paradigm for museums*, «Computers & geosciences», 32 (2006), n. 6, p. 793-802. DOI: 10.1016/j.cageo.2005.10.017.

5 Nur Nabihah Mohamad Nizar; Mohd Kkairezan Rahmat, *Examining the museum visitors' use of mobile technology through technology acceptance model (TAM),* «Journal of tourism, hospitality, and event management», 3 (2018), n. 11, p. 14-24.

6 Cristian Ciurea; Florin Gheorghe Filip, *The globalization impact on creative industries and cultural heritage: a case study*, «Creativity studies», 12 (2019), n. 2, p. 211-223, DOI:10.3846/cs.2019.7753.

forming existing physical collections into data lays the foundations for equal opportunities in accessing and enjoying cultural heritage, thus transmitting the values of this heritage and enriching visitors' experience through the internet[7]. In addition to promoting and adding value to cultural heritage, implementing these resources is a highly useful tool for attracting new users and increasing public interest[8].

A growth in audience entails a higher diversity, which means that motivations and information needs are also very disparate[9]. In order to guarantee visits and the communication created in virtual exhibitions, it is necessary to design them bearing in mind that these exhibitions must be informative, but also easy to understand and entertaining, with no loss in information quality and taking advantage of all available presentation methods[10].

A virtual exhibition inherently eliminates the physical and even geographical barriers of a physical exhibition, which allows it to reach a higher number of people who, for whatever reason, are unable to physically access the exhibition contents[11]. There are, however, many users who, while able to physically access an exhibition, fail to do so due to communication barriers. People with cognitive and hearing disabilities, people with reading difficulties or without a full grasp of the language are often excluded from the communication that museums offer users because they do not understand the texts that accompany the objects exhibited and generate the narrative that contextualises them. This is why the next obstacle to be addressed is that of the actual information contained in exhibitions and the manner in which it is arranged in a virtual hall that has already been designed with the present accessibility parameters.

The first virtual exhibitions used static presentation methods, with a text or images. It could be said they resembled digital catalogues. However, thanks to new information technologies and the different means available, it has been possible to create more dynamic, realistic and interactive environments. There is now considerable diversity in presentation methods in terms of visualization and user interaction, as is the case with high-resolution images, video and hypermedia presentation, Web3, virtual reality and augmented reality[12]. Such methods make it possible to get to know the exhibits in a different way.

7 Mette Skov; Peter Ingwersen, *Museum web search behavior of special interest visitors*, «Library & information science research», 36 (2014), n. 2, p. 91-98; Daniel Cunliffe; Efmorphia Kritou; Douglas Tudhope, *Usability evaluation for museum web sites*, «Museum management and curatorship», 19 (2001), n. 3, p. 229-25, DOI: 10.1080/09647770100201903.

8 Cristian Ciurea; Florin Gheorghe Filip, *New researches on the role of virtual exhibitions in digitization, preservation and valorization of cultural heritage*, «Informatica economica», 20 (2016), n. 4, p. 26-33, DOI: 10.12948/issn14531305/20.4.2016.03.

9 Paul Marty, *Museum websites and museum visitors: before and after the museum visit*, «Museum management and curatorship», 22 (2007), n. 4, p. 337-360, DOI: 10.1080/09647770701757708.

10 Stella Sylaiou [*et al.*], *Exploring the relationship between presence and enjoyment in a virtual museum*, «International journal of human-computer studies», 68 (2010), n. 5, p. 243-253, DOI:/10.1016/j.ijhcs.2009.11.002.

11 Sylaiou Styliani [*et al.*], *Virtual museums, a survey and some issues for consideration*, «Journal of cultural heritage», 10 (2009), n. 4, p. 520-528, DOI: 10.1016/j.culher.2009.03.003.

12 Bill Bonis [*et al.*], *A platform for virtual museums with personalized content*, «Multimedia tools and applications», 42 (2009), n. 2, p. 139-159, DOI: 10.1007/s11042-008-0231-2.

Various platforms are making use of these tools in order to generate spaces in what is known as the metaverse, this being an increasingly complex concept in the digital scene. It is a new experience that is built around such technologies as virtual reality and augmented reality, which makes it possible for the physical and the digital world to overlap[13]. And that is not all as, with the help of Artificial Intelligence (AI), which acts as an intermediary in the processing of natural language between humans and machines so as to make the latter understand what we want to achieve, now anybody can create a space in the metaverse. Besides, AI participates in computer vision and in the simultaneous location and mapping techniques, which aids an understanding of our physical environment and allows its digital simulation in order to generate highly realistic immersive experiences in which the user may interact and exchange multisensorial experiences by means of avatars[14]. Such complementary hardware as augmented reality glasses or haptic feedback systems, which make users' sensory experience complete, is being developed at great speed. These environments, however, are accessible from mobile devices and computers, which places them within anyone's reach[15].

This innovative infrastructure, in which GLAM institutions are highly present, is taking cultural experiences on the Internet to another level. It is not merely a matter of recreating the same physical space in a digital environment but of generating a new environment where narrative and educational tools are developed to submerge users in a new experience with which they can learn more about a particular topic. Furthermore, the incorporation of technologies such as AI, haptic technology or augmented reality, among others, opens endless possibilities to meet the needs of all users –regardless of age, interests, expectations or abilities– with Universal design[16].

The change of environment has generated a greater concern for narratives that draw users' attention and guide them through the hall. Storytelling has now taken over from the museum guide, creating an exhibition sequence in the virtual space with which the user intuitively reaches each one of the objects on display[17]. Moreover, it brings about an emotional impact in the user that generates a feeling of connection with the exhibition and the institution[18]. Numerous authors agree on the idea that storytelling is the key to achieving visitor participation[19].

There are already several recommendations to be taken into consideration when it comes to presenting information in a virtual exhibition. Simplifying the language,

13 Jesús Parada, *¿Qué es spatial?,* «Metaverse news», (2022), <https://metaverse-news.es/que-es-spatial/>.

14 *Ivi, passim.*

15 Yuri López, *El metaverso*, «Revista tribuna libre», 13 (2023), n. 1, p. 1-19.

16 Eleftherios Anastasovitis [*et al.*], *Enhanced inclusion through advanced immersion in cultural heritage: a holistic framework in virtual museology*, «Electronics», 13 (2024), n. 7, DOI: 10.3390/electronics13071396.

17 Jesús Ibáñez; Ruth Aylett; Rocio Ruiz-Rodarte, *Storytelling in virtual environments from a virtual guide perspective*, «Virtual reality», 7 (2003), n. 1, p. 30-42, DOI: 10.1007/s10055-003-0112-y.

18 Augusto Palombini, *Storytelling and telling history. Towards a grammar of narratives for cultural heritage dissemination in the digital era*, «Journal of cultural heritage», 24 (2017), p. 134-139, DOI: 10.1016/j.culher.2016.10.017.

19 Demetrius Lacet [*et al.*], *Digital storytelling approaches in virtual museums: umbrella review of systematic reviews*, «Journal of digital media interact», 5 (2022), n. 13, p. 23-44, DOI: 10.34624/jdmi.v5i13.29215; Anna Podara [*et al.*], *Digital storytelling in cultural heritage: audience engagement in the interactive doc-*

making the contents easier to understand by non-specialist users and defining technical terms if necessary, or expressing one idea per sentence and one theme per paragraph, for example, are some of the ways of making the information given accessible and avoiding information overload. What is favoured is a simple, accessible writing style, which focuses on exposing the most important information at the start and avoiding secondary lines of information that may confuse users and cause them to lose interest in the core theme[20]. In other words, the aim is that users make a minimal effort to understand what they see. Ultimately, it is obviously necessary to implement a method that applies guidelines on the writing of information and the way of presenting it.

Since the 1960s, with the Scandinavian easy-to-read initiative, that linguistic text adaptation that aims to make it easier to read and understand written information, has become a widespread practice and been increasingly applied in more diverse areas[21]. Since the 1968 publication of the first easy-to-read book, created by the Swedish national board for education through the Centre for easy-to-read, this type of adaptation has spread to all areas of knowledge[22]. Libraries, which actively participate in the easy-to-read network by promoting awareness and information exchange regarding this concept, are also a leading agent in the creation of such materials of this kind[23].

A text that is easy to read and understand is characterised by being written in a logical, direct and concise manner, using simple sentences to explain complex relations. As for appearance, a clean and attractive layout with wide margins is recommended. Furthermore, it is suggested that the text be divided into sections, with a limited number of lines per page, a simple sentence per line and large, clear typography[24].

At a European level, Inclusion Europe has been working since its foundation in 1988 on the accessibility of meetings, conferences and other events, especially for persons with intellectual disabilities, thus facilitating their inclusion. In its guide *Information for all. European standards for making information easy to read and understand*, easy-to-read is defined as information that is written in a way that can be easily understood by persons with intellectual disabilities. The guide offers a series of recommendations to be followed for the creation of easy-to-read texts, ranging from typography to grammar. Interestingly, the document itself is written in easy-to-read. Mention should also be made of the section on the creation of accessible websites, which offers guidelines for simple navigation[25].

umentary new life, «Sustainability», 13 (2021), n. 3, p. 1193, DOI: 10.3390/su13031193; Stella Sylaiou; Panagiotis Dafiotis, *Storytelling in virtual museums: engaging a multitude of voices*. In: *Visual computing for cultural heritage*. Cham: Springer, 2020, DOI: 10.1007/978-3-030-37191-3_19.

20 Serena Castellotti [*et al.*], *Psychophysiological and behavioral responses to descriptive labels in modern art museums*, «PLoS ONE», 18 (2023), n. 5, p. e0284149, DOI: 10.1371/journal.pone.0284149.

21 Sandra Sánchez-García; Santiago Yubero, *Función social de las bibliotecas públicas: nuevos espacios de aprendizaje y de inserción social*, «El profesional de la información», 24 (2015), n. 2, p. 103-112, DOI: 10.3145/epi.2015.mar.03.

22 *Ivi, passim*.

23 IFLA, *Guidelines for easy-to-read materials*, revision by Misako Nomura, Gyda Skat Nielsen and Bror Tronbacke. The Hague: IFLA, 2010. (IFLA Professional Reports; 120).

24 *Ivi, passim*.

25 Inclusion Europe, *Information for all. European standards for making information easy to read and understand*. Brussels: Inclusion Europe, 2017.

Numerous museums are now incorporating easy-to-read into their permanent and temporary exhibitions as they are aware of the importance of establishing effective communication with this specific public[26].

This method, at first, was conceived with a clear focus on persons with reading comprehension difficulties linked to a cognitive disability, but it can also be beneficial for everyone in general, regardless of one's characteristics. Such is the basis of the project presented below, in which a virtual exhibition has been created from scratch and following all physical and digital accessibility parameters, all with the purpose of designing a fully inclusive space in the metaverse that allows all users to access the cultural heritage of GLAM institutions.

This initiative lies within the R&D&i project known as *El patrimonio cultural y bibliográfico en el contexto GLAM = Cultural and bibliographic heritage in the context of GLAM (Libraries, Archives, and Museums)* (reference: PID2020-113405RB-I00), which is financed by the Ministry of science and innovation, the State research agency of Spain. It has been carried out in collaboration with the IDEALab research group for the purpose of participation in the third edition of *Built with Bits*, an original project of the Europeana Foundation (an initiative of the European Commission that seeks to disseminate European cultural heritage in the areas of research and education), in collaboration with the Macedonia team and the support of the AIDI community. This third edition is co-financed of Spain's Ministry of culture and has the support of various national aggregators (Hispana and Carare), as well as participating public institutions.

Methodology

This project promotes the use of open-source programmes and low-code/no-code platforms, promoting the use of resources under Creative Common licences and the reuse of 3D modelling. It is for this reason that, in order to create a fully inclusive space, use has been made of *Spatial.io*, a platform that allows any person to create a unique, customised space by means of virtual reality, immersive environments that users can access via their avatars and in which they can interact with objects and people from all over the world in real time. Moreover, it permits access from different devices, which increases its possibilities of use by the audience.

The creation of this virtual exhibition has been carried out taking into account the planning proposal favoured by Arquero, Marco and Cobo (2023)[27]. According to this, the steps to be taken are the following: (1) the formulation of a starting idea motivating the creation of the exhibition; (2) planning, during which the objectives to be met are considered, among others tasks; (3) treatment and development, during which the narrative giving shape to the exhibition is built, the objects are selected and the design is adapted; (4) organisation, which entails the arrangement of the contents within the virtual space; (5) opening and dissemination of the exhibition for the enjoyment of the public; (6) evaluation of the impact results obtained; and (7) maintenance, in this case, of the virtual space with its corresponding future implementations. Since this is an ongoing project, in this article we shall focus on the first 4 stages.

26 Museu nacional d'art de Catalunya, *Lectura Fácil: un museo para todos*, «Blog: Museu nacional d'art de Catalunya», (2020), <https://blog.museunacional.cat/es/lectura-facil-un-museo-para-todos/>.

27 Rosario Arquero; Gonzalo Marco; Silvia Cobo, *Exposiciones virtuales del patrimonio cultural en instituciones GLAM. Propuesta metodológica y estudio de caso de promoción y divulgación del patrimonio bibliográfico y documental*. In: *Patrimonio e instituciones GLAM, Galerías, Bibliotecas, Archivos y Museos. Innovación, gestión y difusión*. Gijón: TREA, 2023, p. 347-365.

The main sources from which the digitised objects of the exhibition have been extracted are the Library of the National archaeological museum and the museum itself, Europeana and the already existing virtual exhibition of ExpoIDEALab[28]. Once the materials were recovered, the next step was to adapt the texts of each exhibit label and the additional explanations to easy-to-read, so as to guarantee that the information given is understandable for all audiences in general, and our target public in specific. Also, there is now an easy-to-read version of the full catalogue of the exhibition, which users may download to access all the complementary information on the exhibition *La Biblioteca de la Dama de Elche* [The Library of the Lady of Elche].

Results

The conceptual idea that has motivated the creation of this virtual exhibition is that of providing an inclusive space in the metaverse which one can create a link between the bibliographic heritage and a wider audience by means of adapting the information presented to easy-to-read.

This initiative, which lies within the above-mentioned R&D&i project, uses the collection of the Library of the National archaeological museum (MAN, from its Spanish initials), which is part of the Network of Museum libraries (BIMUS, ditto)[29] as its subject for study.

With the clear objective of generating an inclusive space for the dissemination of the bibliographic heritage of this institution and, for this purpose, exploring new accessible routes for all users, specifically for those requiring adaptations in the manner of presenting information, use has been made of the material made available at the virtual exhibition previously created for the 125th anniversary of the Discovery of the Lady of Elche[30], an Iberian figure that is exhibited on the ground floor of the National archaeological museum. *La Biblioteca de la Dama de Elche*, as the existing virtual exhibition is known, has three rooms containing the works of the Library of the MAN that deal with the Lady of Elche, the Iberians and other exhibits related to this culture. It also includes a catalogue of the Exhibition and other reusable materials that serve as the basis for learning about the history of the figure in question and even for creating a separate exhibition. The new virtual exhibition has been conceived as a parallel, complementary space in which the materials placed at the disposal of the whole public are employed to invite users to learn about this centre of interest in a didactic and inclusive manner. The purpose here is to connect the collection exhibited at the Museum with the collection of its Library, which is for professionals and scholars to carry out in-depth research, but which is now opening a line of communication for all interested persons. The selection of the part of the collection of the MAN Library that bears on this specialised subject matter, as well as the complementary materials and informative panels created by the IDEALab research group for promoting and disseminating the bibliographic collection of this library on the

28 Biblioteca del Museo arqueológico nacional, <https://www.man.es/man/estudio/biblioteca.html>; Europeana, <https://www.europeana.eu/es>; ExpoIDEALab, *La Biblioteca de la Dama de Elche*, <https://expoidealab.es/s/biblioteca-dama-de-elche/page/portada>.

29 Red de Bibliotecas de Museos BIMUS, <https://www.cultura.gob.es/cultura/areas/museos/mc/bimus/quienes-somos.html>.

30 ExpoIDEALab, *La Biblioteca de la Dama de Elche* cit.

internet, thus increasing its visibility and impact on society, in this case serves the purpose of articulating a narrative that can reach a larger and more diverse audience.

Figure 1 – Room 1 of *La Biblioteca de la Dama de Elche*

Figure 2 – Room 2 of *La Biblioteca de la Dama de Elche*

Figure 3 – Room 3 of *La Biblioteca de la Dama de Elche*

The choice of *Spatial.io*[31] for creating a virtual exhibition meeting such parameters is based on the universality and democratisation of the tool. With this device, using a simple registration process, one can create a space that takes advantage of the already available models or constructs one from scratch.

In addition to making it possible to import one's own 3D models, it has a direct connection with other sources, such as *Sketchfab*[32], a website in which 3D contents are shared online, thus making high-quality digitisations that can be downloaded under Creative Commons licences available to all users.

The use made of such advantages has resulted in a building that simulates the space of a physical exhibition, taking into account the physical accessibility standards of buildings for greater realism. The contents exposed are articulated in three halls that tell the story of the Lady of Elche, relating this to the bibliographic selection in question. There is this a succession of different multimedia elements, images, videos, 3D models and digitisations created or reused on the basis of the collections of the IDEALab exhibition, of the MAN Library and of Europeana.

All objects exhibited have been arranged in such a way as to ensure that the information can be transmitted in a complementary way and with a clear informational hierarchy. Each element contains a label or alternative text and all information therein contained is adapted for easy-to-read purposes. The narrative designed from the very first moment with this inclusive approach guarantees an effective communication with the target audience.

Users can navigate through the rooms, interacting with each element and thus constructing the narrative told. All the studies included, as well as many of the objects exhibited, make it possible to use a link to access the origin webpage, usually related to the parallel exhibition of IDEALab, the MAN and Europeana, so that there is always a direct relationship between them that allows users to learn more about the object in question. Additionally, as an added value, a document that has been created gives an accessible easy-to-read translation format of the IDEALab exhibition catalogue containing the whole selection of the MAN Library collection with east-to-read explanations of the contents, which may be downloaded in the virtual exhibition.

The functions of *Spatial.io* also allow user interaction, which favours the construction of digital communities that help this target audience to actively participate and increase their sense of being an important part of this exhibition and the institution, as is the ultimate purpose of virtual exhibitions.

Conclusions

New technologies have enriched the way in which GLAM institutions relate with their public. Thanks to the constant development of the platforms and to accessories that offer access to virtual exhibitions, these visits have become an enriching, didactic and fun experience, in which users interact with the objects, with space and with other users. It is thus that digital communities are created and the link these visitors have with the institution becomes reinforced.

With the creation of these spaces, institutions make their way into the metaverse, a digital world reaching a greater and more diverse audience. It is for this reason that, when planning these processes, all relevant accessibility measures must be taken into account from the very first phase to guarantee that their exhibitions are inclusive

31 Spatial.io, <https://www.spatial.io/>.

32 Sketchfab, <https://sketchfab.com/>.

and that all users may enjoy the experience. Moreover, as it has different customisation options, this experience can be unique.

The virtual environment constitutes a new form of collaboration between the different institutions, favouring connection between their collections and the promotion and reuse of digitised materials. This is undoubtedly a potential tool to make cultural heritage widely known. For this heritage, furthermore, to be perfectly understandable, the information accompanying it must be clear and concise. Easy-to-read thus emerges as an undisputed ally in virtual exhibitions, where it is necessary to focus on the way in which information is transmitted in the interests of an effective communication with users.

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Costruire ponti verso una cultura accessibile a tutti: l'integrazione di easy-to-read nelle mostre virtuali
I progressi tecnologici hanno invaso, senza fare eccezioni, tutte le sfere della nostra vita quotidiana comprese le istituzioni GLAM (Gallerie, Biblioteche, Archivi e Musei). Queste istituzioni si sono evolute verso una maggiore attenzione alla comunicazione soprattutto attraverso mostre virtuali, infatti, grazie alla creazione di spazi digitali, è possibile garantire l'accessibilità a tutti gli utenti. Uno strumento prezioso che può facilitare la comprensione delle informazioni è la loro disponibilità in formato easy-to-read, che crea un ambiente completamente accessibile a tutti gli interessati, compresi quelli con disabilità, difficoltà di comprensione della lettura o limitata conoscenza della lingua. Alla luce di ciò, il presente studio descrive un'iniziativa realizzata nell'ambito del progetto Cultural and bibliographic heritage in the context of GLAM (Libraries, Archives, and Museums), in collaborazione con il gruppo di ricerca IDEA Lab dell'Università Complutense di Madrid (Spagna). Questa iniziativa prevede la creazione di una sala virtuale che ospita parte della collezione libraria della Biblioteca del Museo archeologico nazionale di Spagna. Ogni oggetto di questa collezione è accompagnato da un'etichetta tradotta in lingua inglese easy-to-read. Questo articolo illustra il processo di adattamento dei contenuti scritti della mostra e descrive nei dettagli la creazione della mostra virtuale nel contesto della terza edizione di "Built with Bits". I risultati dello studio suggeriscono che l'implementazione di easy-to-read nelle mostre virtuali può migliorare notevolmente l'accessibilità e l'inclusione, consentendo a un pubblico più eterogeneo di impegnarsi, apprezzare e comprendere il patrimonio bibliografico.

Building bridges to a culture accessible for all: integrating easy-to-read into virtual exhibitions

Technological advances have permeated all spheres of our daily lives, and GLAM (Galleries, Libraries, Archives, and Museums) institutions have not been an exception. These institutions have evolved towards a greater concern for communication with their users, especially through virtual exhibitions. However, the creation of these digital spaces also requires ensuring accessibility for all users. A valuable tool that can facilitate the understanding of the information included is its availability in easy-to-read, which creates a fully accessible environment for anyone interested, including those with disabilities, difficulties in reading comprehension, or limited proficiency in the language. In light of this, the current study proposes an initiative carried out within the framework of the Cultural and bibliographic heritage in the context of GLAM (Libraries, Archives and Museums) Project, in collaboration with the IDEA Lab Research Group of Complutense University of Madrid (Spain). This initiative involves the creation of a virtual room housing part of the library collection of the Library of the National archaeological museum in Spain. Each item within this collection is accompanied by a label translated into easy-to-read. This paper outlines the adaptation process of the exhibition's written content and details the creation of the virtual exhibition within the context of the third edition of "Built with Bits". The study's findings suggest that the implementation of easy-to-read in virtual exhibitions can markedly enhance accessibility and inclusion, enabling a more diverse audience to engage with, appreciate, and comprehend bibliographic heritage.