# Accesibilidad en la nueva era de las comunicaciones

## Profesionales y universidad: un diálogo imprescindible

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# The museum (audio) guide as an accessibility enhancer

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## 1. Introduction

Concerns about accessibility in museums have started with the tendency for democratisation felt in Europe between the 60s and the 80s of the 20th century (Deshayes 2002a: 24; Lira 1999: 2), which have led to significant changes in the way museums presented themselves to their local communities and other audiences. Not only did they make an effort to advertise themselves, but also extended their range of activities to include less usual audiences.

Two examples of early advertisement concerns are Margaret Jackson, in 1917, in New York, who showed apprehension about the opening and closing hours of her museum; another by the Director of the Museum of Ancient Art (Museu de Arte Antiga), in 1926, in Lisbon, Portugal, who publicised the opening and closing hours of the museum in the local papers, emphasising the flexible opening periods of the museum to foreign visitors (cf. Lira 1999: 1).

As for new audiences, one of the most striking ones has been school groups. It was essential for museums to establish their learning services which have been dealing with educational and pedagogical issues related to children and youngsters at school. Museums started being regarded as an extension and a follow-up of the learning process developed at school. It is noteworthy the reference to this issue by João Couto, a Portuguese pedagogue, in 1961, in an article called "Extensão escolar dos mu-

seus" [Museums as a school extension], in which he expressed his views towards the need to create learning services in Portuguese museums, as the Museum of Ancient Art had already done.

Therefore, school visits became increasingly important in the development of museum resources, especially in the creation of learning resources for school groups, such as worksheets, treasure maps, activities oriented to drawing and painting, games and quizzes, and the like. It also presented itself as an opportunity for museums to (re)discover themselves by offering different and creative perspectives of and insights into their collections, objects or stories.

This increasing concern with opening the museum to everyone and attracting all sorts of people was a huge step away from the "temple of the muses" inscribed in the etymology of the word *mouseion*. It is worth remembering that museums started off as "cabinets of curiosities" gathered by private collectors and later, when they came to occupy entire buildings, they were not even supposed to be visited, but simply used to store artefacts. (cf. Simpson 2007: 125)

Besides schools, there are examples of this opening that could be mentioned: the special celebrations held on the International Museum Day on the 18th May and sleepovers at Museum Nights; free days, mornings or afternoons (although Britain is known for its free admissions to all museums); the opening of museums until late hours (8pm, 10pm, 12pm), normally once a week or once a month; Christmas, Easter or summer holidays for children and young people; birthday parties; the 48 hours (in a row) of the Museum of Serralves, in Porto, Portugal; among many others.

Having said this, museums of this new age had to comprehend a number of requirements, e.g. receiving visitors in a friendly and welcoming way, handing out brochures (with pre-determined tours around the museum), providing advice and suggestions (e.g. the highlights of the museum), captivating and engaging their audiences. Museums also began advertising their exhibitions and activities in local and national newspapers, radio stations and televisions, introducing themselves to citizens and demonstrating that they wished to be visited. They also enhanced

their spaces with cloakrooms, lockers, a coffee bar or a restaurant, a shop, documentation services, archives, a library, among others.

All the changes in the museum context referred to above partially overlap with what Dodd & Sandell (1998: 14) describe as barriers posed upon visitors' access. These obstacles comprehend several dimensions that museums must take into account in order to become accessible to all types of audiences, some of which are already common practice and others less recurrent.

To begin with, these authors speak of physical access, the need to ascertain if the museum building is physically accessible, whether it has ramps, handrails, lifts, seats, turning points for wheelchairs, (adapted) restrooms for disabled people. Access to information consists of the effective advertisement of activities, exhibition and services, communication with local communities and new audiences, the handing out of brochures with information and guidance or the development of learning services. As for cultural access, collections and exhibitions should attempt to reflect the interests and life experiences of their audiences, to develop an exhibition policy that reflects the stories of the community or even the repetition of exhibitions with appropriate mediation.

There is also the need to promote emotional access, making the museum environment welcoming and friendly, and train the museum staff to be open-minded towards diversity, such as being able to receive people with special needs. Financial access should also be considered in terms of the affordability of museum admissions, the cafeteria and the shop, and of the offer of free days, community activities or even occasional free transport.

The last three dimensions of accessibility comprehend less frequent aspects, namely access to the decision-making process, intellectualaccess and sensory access. Access to the decision-making process encompasses the consultation of museum visitors and external stakeholders in order to appreciate their input, enquiry of regular and potential audiences, the creation of a volunteer bank and the establishment of partnerships with other institutions. Secondly, intellectual access covers work done to allow people with learning difficulties or simply with limited background

knowledge to have access to the museum and its exhibitions, preventing the exclusion of certain groups, and also their involvement in the design of new exhibitions. Finally, sensory access is related to the appropriateness of museum exhibitions, events and facilities to the needs and requirements of people with sight and hearing impairments and whether the museum provides a variety of mediation means, such as hearing induction loops, audio guides, touch tours, information in Braille or large print, subtitled audiovisual materials or interpretation in sign language(s).

## 2. Museum audio guides

Audio guides fit this overall tendency of museum opening and new ways of cultural mediation, whose first experiments date back to the period between the 30s and the 60s of the 20th century, notably in the Netherlands and in the USA. According to Vilatte (2007: 2), these guides are portable equipment similar to a mobile phone, carried around the museum by visitors, offering commentaries and descriptions about the exhibitions, rooms and other artefact, as well as aiding on their interpretation and comprehension. However, it was only later that their potential as an accessibility tool for people with special needs was acknowledged.

Audio guides enable the enhancement of the museum experience for everyone, not only for children and families, general public or foreigners, but also for the blind and visually-impaired or people with intellectual disabilities. They allow a story to be told according to Anne Hornsby, Director of Mind's Eye Description Service (online).

As far as equipment is concerned, audio guides may be of various types. Gebbensleben, Dittmann and Vielhauer (2006: 4) speak of audio guides with number pads; PDAs used by means of a touch screen and/or a number pad; and mobile phones, with which the visitors may photograph an object (with a 2D code bar), send it by MMS to a specific phone number and, after a few minutes, receive photos, animations, sound and text to help them understand the exhibitions (e.g. the cases of the Musée des Arts et Métiers in Paris, France, and an experiment conducted by the Museum of Ancient Art in Lisbon, Portugal, in 2006). Mobile phones can

also be associated with infra-red or bluetooth technology, so as to allow visitors to have access to images, texts and videos which can be downloaded on site or previously at home.

To these, Vilatte (2007: 12-16) adds four others: audio guides may also be based on infra-red technology, which allows the audio channels to be activated on approaching the objects, display cases or rooms bearing a commentary; interactive audio guides are electronic devices that include an mp3 memory, a number pad, some keys, and a speaker; the RFID (i.e. radio frequency identification) chips are linked to intelligent tags and similar to the interactive guide – once the device approaches a sensor, it initiates the reception of information; and, at last, iPods which surpass the adaptability of mobile phones by offering a wider range of technological output.

Bearing in mind these different types of equipment in use in various museums around the world, one could possibly refer to them as museum guides. Audio guides are restricted to the infra-red, number pad and RFID guides, which may be strictly based on audio information, though not exclusively, whereas interactive guides, PDAs, mobile phones and iPods allow for the combination of information in different formats. Thus we could suggest that museum guides are a concept in mutation and in the future the equipment might even be disposed of.

It now becomes necessary to discuss the various advantages and disadvantages of museum guides from a sociological point of view, considering both visitors' opinions and museum professionals' perspective. This discussion shall be based on a survey conducted by the French scholar Sophie Deshayes and the Association "Publics en Perspective" in 2002, sponsored by the Département des Publics de la Direction des Musées de France, and a report by Vilatte from 2007. Both reports focus on the issue of audio guides for sighted visitors and not specifically for the visually-impaired.

Deshayes (2002) and Vilatte (2007) emphasise the fact that audio guides enhance an independent visit to museums, attempting to replace the traditional guided visit, which is often highly constrained, because visitors are dependent on a pre-registration, a fixed hour for the visit, the

group itself and even on personal constraints, such as being short or having sight problems. They also play an essential pedagogical role not only by teaching visitors to look at museum exhibitions, artefacts, artwork and heritage, but also by translating the knowledge contained in these into accessible information to everyone, ranging from the more knowledgeable people to the less acquainted with museums. Moreover, audio guides also allow visitors to simultaneously observe the objects around them and listen to the audio commentaries, exempting them from reading the labels, since those frequently include the information contained on these labels. All in all, audio guides enable visitors to enjoy a more positive, engaging and enduring museum experience.

As far as the disadvantages of audio guides are concerned, these were gathered from questionnaires done to visitors and museum professionals alike. According to Deshayes (2002) and Vilatte (2007), the main disadvantages are the fact that the equipment are usually fragile, demanding constant maintenance, expensive and appealing, not to mention the use of headphones, which arise hygiene problems. Another drawback pointed out regards the constraints posed upon visitors' personal thinking and feeling – audio guide commentaries may be felt as prescriptive by imposing the interpretation and views of museums, instead of simply aiding overall comprehension.

They are also said to prescribe a pre-determined route, because visitors may be led to follow the numbered path suggested by the audio guide. However, this is not always the case, since museums layout may also encourage this determination, and visitors may simply choose the commentaries concerning the objects they are interested in and prepare their own personal visit either previously or in loco.

Finally, audio guides are believed to be incompatible with group visits, encouraging a sense of isolation, although many visitors uphold that they are able to establish social interaction with their group around the audio commentaries, promoting other moments of socialisation.

A final issue is related to the types and levels of audio guides. On the one hand, Poole (2003: 24-25) proposes three types of audio guides: those considered standard, oriented towards the general public; a detailed des-

tined for people with disabilities; and a conversational one prepared for people with intellectual and learning disabilities or for immigrants. In some European museums, one can already find different museum guides on offer; for instance, Tate Modern, London, UK, presents visitors with the choice of an ordinary guide, as well as a conversational guide for children and families and also a guide for the blind and the visually-impaired.

On the other hand, Vilatte (2007: 16-17) states that audio guides should present different levels of information, in order to cater for different needs, i.e. a first level for general information, compulsory for a first visit to the museum and focusing on the highlights; a second level with more detailed information to satisfy visitors' curiosity; and a third level for more knowledgeable visitors.

In conclusion, museum guides present themselves as an added value made available to sighted visitors, whether national or foreign, and at the same time they have great potential for the blind and visually-impaired. By translating what is apprehended by the eye into the verbal comment, they accomplish their role of cultural mediators, integrated into a wider context of cultural democratisation. In the words of Deshayes (2002: 29), these guides allow for the translation of the information available in museums, leading to the vulgarisation of knowledge and the enhancement of accessibility.

## 3. Portuguese museum context

The definition of museums in Portugal is enshrined in law no. 47/2004, called Lei-Quadro dos Museus Portugueses, and it reflects ICOM's view:

> [a] museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment. (ICOM: online)

This classification is also taken into account by Statistics Portugal (Instituto Nacional de Estatística), the national body that has been gathering data on museums since 1946. It currently issues an annual questionnaire

about these institutions, their facilities, human and financial resources, collections and inventory, visitor-oriented activities, monthly and yearly number of visitors, and type of visitors. It also collects data about the total constructed area, public places, technical and administrative spaces, computer resources, partnerships, publications, rules and regulations, and action plans every 3 years.

At present, museums must follow five main criteria, in order to be considered for statistical purposes: they must hold at least one exhibition room or space; be open to the public permanently or seasonally; have at least one curator or one non-academic member of staff; prepare an annual budget, and produce an inventory.

Therefore, based on these requirements, Statistics Portugal (INE, IP 2010: 3) considered 363 institutions: 343 museums, and 20 zoos, botanical gardens and aquariums for statistical purposes in 2009. Portuguese museums are further classified into art museums, archaeology museums, natural sciences and natural history museums, specialised museums, history museums, mixed and multidisciplinary museums, territory museums, and others.

In terms of visitors, Portuguese museums, zoos, botanical gardens and aquariums had 12.9m visitors – 2.9m came from schools; 3.4m were foreigners; 4.3m comprised free entrances; and the remaining 2.3m were non-specified. The most visited ones were Zoos, Art museums, History museums and Specialised museums. (cf. INE, IP 2010: 4)

The collection of data from Portuguese museums was until recently complemented by the Portuguese Institute of Museums (*Instituto Português de Museus*), which has been extinct. This institute also included the National Network of Museums (*Rede National dos Museus*), which still supervises 137 museums, of which 5 are national palaces, 28 are museums in mainland Portugal, 14 are situated in the islands of Azores and Madeira and 90 achieved this status by application.

However, outside this context covered by this national network and Statistics Portugal, there are hundreds of other museums, house museums, culture centres and the like, most of them dependent on city councils or local parishes (*juntas de freguesia*). This fact can be attested by a

survey conducted in 1999 by Portuguese Institute of Museums and the Observatory for Cultural Activities (Observatório das Actividades Culturais) that comprehended 530 museums scattered around the country.

In order to characterise the museum national context in terms of accessibility, we shall take into account 2 surveys: one conducted by the Portuguese Institute of Museums and the Observatory for Cultural Activities in 1999 and Neves's survey to the 120 museums supervised by the National Network of Museums in Portugal in 2006 (a number that has now increased to 137).

On the one hand, the 1999 survey (Santos 2000: 194) focused on 530 museums spread throughout the country and intended to gather information about them, in line with what has been done by Statistics Portugal since 2000. In terms of accessibility, the data collected revealed that 45% museums had architectural obstacles at the entrance of the museum, 28% had the same barriers throughout the visit route, 55% recognised they had no signage throughout the museum and only 18% said they had access for disabled people.

On the other hand, the survey conducted by Neves' (2010: 110) analysed accessibility conditions in the 120 museums overseen by the national network. From these, only 37 declared to be accessible, which represents 31% of this sample. All museums declared to be accessible to disabled people, but not all of these have adapted cloakrooms. This fact is highly controversial, because how can museums state to be accessible to disabled people if they do not even have adapted cloakrooms?

Other results include the following: three said to be prepared to receive blind visitors, whereas none felt capable of receiving deaf and hard-of-hearing visitors; all museums stated to have received visitors with special needs and to have made adapted visits according to the needs of the moment. Again another paradox: if they declare, on the one hand, that they are incapable of dealing with deaf and hard-of-hearing, how can they, on the other hand, agree on arranging tours for all visitors with special needs? Is it because they find dealing with visitors with disabilities, either than deafness, less demanding? Is it related to the fact that to communicate with deaf and hard-of-hearing they must know sign language?

Despite this rather negative scenario, the letter of the law in Portugal (DR I-A 2004: 5386) acknowledges that museums must support visitors by providing them with information that enhances the quality of their visit and fulfils their educational role (article no. 58). Visitors with special needs are entitled to special support, so that basic conditions for equality in cultural enjoyment are secured (article no. 59).

## 4. Case study: Portuguese audio guides

Our case study is primarily focused on ascertaining the number of museums and other cultural institutions that offer audio guides in Portugal and analysing them according to a number of criteria in order to map the mainstream practices in Portugal. Secondly, it is our intention to test their resourcefulness in serving people with sensory impairments, namely the blind and visually-impaired.

Bearing Dodd and Sandell's accessibility dimensions in mind, we will attempt to develop a holistic approach to museum accessibility, which we expect to see reflected in the future development of our empirical work.

As mentioned above, to deal with sensory access, several museums around the world started offering audio guides. However, sensory access cannot only be restricted to audio guides, it is regularly complemented with tactile pictures and panels, replicas and 3-D models, information in large print and Braille, oriented hands-on workshops. It may also resort to guided visits done by museum staff or volunteers.

Our case study is still an ongoing project and has so far focused on a sample of 8 museums situated in: Porto – Museum, House and Gardens of Serralves; Douro Region – Douro Museum (*Museu do Douro*); Batalha – Interpretation Centre for the Battle of Aljubarrota (*Centro de Interpretação para a Batalha de Aljubarrota*); Council Museum of Batalha (*Museu da Comunidade Concelhia da Batalha*); Lisbon – National Museum of Tiles (*Museu Nacional do Azulejo*); Museum of the Presidency of the Portuguese Republic (*Museu da Presidência da República*) and Fado Museum *(Museu do Fado)*; online – the House of Stories of Paula Rêgo (*Casa das Histórias de Paula Rêgo*).

In order to map the current practices in terms of audio guides in Portugal, an analysis grid was devised partially based on Gebbensleben, Dittmann and Vielhauer's criteria (2006). These authors state that the ideal audio guides must cumulatively gather a number of features divided into two criteria: technical criteria focused on the institution side (include purchase, access and distribution of the equipment; the placement of activation sensors for automatic audio guides and information about outdoors and indoors and the need for additional equipment); and usability criteria, more visitor-centred, are related to the need to make the equipment user-friendly and the visit pleasant and agreeable.

Taking these criteria into consideration, we put forth a tentative framework for analysing audio guides according to four different criteria: institutional, technical, usability (or visitor-oriented) and content-based criteria, which are still ongoing work.

Firstly, institutional criteria refer to issues dependent on the museum, its decision-making bodies and human resources, including the type of museum, the existence of explicit information on the website, the possibility of performing a virtual visit, the offer of information about means of cultural mediation in the museum, staff's knowledge of audio guides and the fee paid to make use of audio guides (see table 1).

| Institutional | MHGS | DM | ICBA | CMB | FM | NMT | MPPR | HSPR |
|---|---|---|---|---|---|---|---|---|
| type of museum | Art/ Architecture | Territory | Historical site | Territory | Music | Art/ History | History | Art |
| info on website | yes | no | yes | yes | yes | yes | yes | yes |
| info in loco | no | no | yes | no | yes | yes | no | NA |
| staff's k | yes | yes | yes | yes | yes | yes | no | NA |
| payment | no | yes (1.5€) | yes (5€), except if BVIP | no | no, included in fee | yes | no, included in fee | no (free online) |

Table 1. Analysis of institutional criteria for museum audio guides in Portugal.[1]

1    BVIP stands for the blind and visually-impaired, whereas NA for non-applicable.

Many of the museums in our case study have information about audio guides on their official website, but it is difficult to reach it; In most, there is nothing at the welcome desk stating that they offer audio guides and sometimes staff is not even acquainted with their existence. We can provide two examples. In Douro Museum, when the audio guide was asked for, they immediately enquired why I wanted such a tool, since I was Portuguese and could read the labels and remaining information. On the other hand, in the Museum for the Presidency of the Portuguese Republic, their first answer to my asking for the PDA was that they did not have any. Only after making some phone calls did they confirm its existence and was I given permission to use it.

Secondly, technical criteria comprehend two different aspects: those related to the equipment itself, such as the need for infra-red or bluetooth sensors, the type of equipment, type of manipulation and use of headphones; and those concerned with the company rendering the audio guide service, on which the authorship of the audio guides, the testing with focus groups, the voices and the sound effects used are dependent. These are particularly important, because, in Portugal, the type of equipment is generally associated with the company rendering the service. The main Portuguese companies rendering this service are FCo, which usually offers number-pad guides, and Realizasom, providing infra-red pens and multimedia guides. Texts are invariably produced by the institutions requesting the service with few resorting to focus groups, and voices and various sound effects are used throughout in a rather repetitive manner.

Thirdly, usability (or visitor-oriented) criteria encompass features which enable the museum tour to be more visitor-friendly: availability of foreign languages; guidance in the manipulation of the equipment; information about facilities and services; information about the museum building, exhibition rooms, collections, pieces; orientation inside (namely around the building and exhibition rooms) and outside the building; reference to hazards, warnings and seats; request for feedback (e.g. questionnaires); multi-sensory translation (audio description or sign languages); and interaction with other senses (large print, Braille, relief plates, maps or images, 3D replicas, touch tours, among others).

Finally, content-based criteria focus on the structure of the narrative offered by the audio guide, i.e. the existence of a welcoming text, the audio guide text type (a typology still under construction), the type of factual information given and the organisation into levels.

Bearing in mind our case study and the data gathered by the two surveys mentioned above, we can estimate that between 25% and 40% of all museums, zoos, botanical gardens and aquariums in Portugal offer audio guides, though this percentage is not very likely. Our current survey lists 58 audio guides on offer in Portugal, including city tours, which do not comply with the same concerns and requirements as those for museums, galleries or historical sites. Our long-term purpose consists of analysing all of these guides in Portugal according to the set of criteria presented above, as well of critically describing the mainstream practice as far as audio they reflect.

## 5. Conclusion

Despite the fact that this is still an ongoing doctorate project, there are some tentative conclusions to be made. It is clear that many museums still believe that accessibility equals to ramps, lifts or adapted cloakrooms, which was already refuted in 1998 by Dodd and Sandell, who spoke of eight types of access to be identified in museums and galleries.

A way to enhance accessibility in museums is through the offer of audio guides. However, the name 'audio guides' might be regarded as an outdated designation, since the technology demonstrates that most of this equipment is not simply based on audio information. A possible name would be museum guides, comprehending the various types of possible equipment. Therefore, museum guides are defined as a means of breaking down the barriers to information access, though they can also be an invaluable tool to allow access to people with sensory or intellectual disabilities, not to mention less knowledgeable people, foreigners or immigrants. They bring about a fairly new and potentially creative way of mediating between visitors and the knowledge museums enclose.

Nonetheless, visitors, volunteers and stakeholders must be involved in the making of these audio guides, as well as in the production of new

exhibitions, or simply in the re-interpretation of previous exhibitions to fully endorse culture democratisation. Staff is a key element in this equation and needs to be trained in and sensitised to different types of visitors, their different requirements and what is expected to make them feel welcome and comfortable.

As a final note, I will quote Donald's words (1988): "designing for flexibility helps"— the more flexible the work done, the more people it can cater for.

## References

Couto, João (1961). Extensão escolar dos museus. In *Museu – Revista do Círculo Dr. José Figueiredo II: 2. Porto: Círculo Dr. José Figueiredo and Museu Soares dos Reis.*

Deshayes, Sophie (2002a). Audioguides et musées. In *La Lettre de l'OCIM* 79, 24-31 and [online]. <http://doc.ocim.fr/LO/LO079/LO.79(5)-pp.24-31.pdf> [Consultation: 5th January 2012].

Diário da República (I Série-A) (2004). Lei n.º 47/2004. *Lei-Quadro dos Museus Portugueses*, 5379-5394 and [online]. <http://dre.pt/pdf1sdip/2004/08/195A00/53795394.pdf> [Consultation: 5th January 2012].

Dodd, Jocelyn and Richard Sandell (1998). *Building Bridges: Guidance for museums and galleries to develop new audiences.* London: Museums and Galleries Commission.

Donald, Norman (1988). *The Psychology of Everyday Things.* USA: Basic Books.

Gebbensleben, Sandra, Jana Dittmann and Claus Vielhauer (2006). *Multimodal Audio Guide for Museums and Exhibitions. Technical Report.* Otto-von-Guericke University of Magdeburg: Institute of Technical and Business Information Systems.

INE, IP (2007). *Classificação Portuguesa das Actividades Económicas Rev. 3.* Lisbon: INE.

INE, IP (2010). *Estatísticas da Cultura 2009.* Lisbon: INE.

Jackson, Margaret Talbot (1917). *The Museum – A Manual of the Housing and Care of Art Collections.* New York: Longmans, Green and Co.

Simpson, Moira. Um Mundo de Museus: Novos Conceitos, Novos Modelos. In *O estado do mundo.* Lisbon: Fundação Calouste Gulbenkian and Tinta da China.

Neves, Josélia (2010). Museus acessíveis… Museus para todos?!. In *Turismo Rural, Territórios e Identidade*. Maria da Graça Poças dos Santos (ed.), 107-121. Porto: Afrontamento.

Electronic references

Deshayes, Sophie (2002b). *Les audioguides, outils de médiation dans les musées – Rapport d'étude commandité par le Département des Publics de la Direction des Musées de France.* <http://doc.ocim.fr/LO/LO079/LO.79(5)-pp.24-31.pdf> [Consultation: 5th January 2012].

FCo. – *fullservice company in multimedia.* <http://www.fco.pt/> [Consultation: 13th April 2012].

Lira, Sérgio (1999). *Do museu de élite ao museu para todos: públicos e acessibilidades em alguns museus portugueses.* <http://www2.ufp.pt/~slira/artigos/domuseudeeliteaomuseuparatodos.htm> [Consultation: 5th January 2012].

*Mind's Eye Descriptive Services.* <http://www.mindseyedescription.co.uk> [Consultation: 6th January 2012].

Poole, Nick. (2003). *Resource Disability Portfolio: Using Technology.* London: The Council for Museums, Archives and Libraries. <http://www.mla.gov.uk/what/support/toolkits/…disability/~/…/dis_guide07.ashx> [Consultation: 5th January 2012].

*Realizasom, produção áudio lda.* <http://www.realizasom.com/index.php> [Consultation: 13th April 2012].

Vilatte, Jean-Cristophe (2007) *Audioguides et musées.* <http://www.lmac-mp.fr/telecharger.php?id_doc=111> [Consultation: 5th January 2012].