The Expansion of a Scheme
About ACCESSIBILITY in Tourism
at the Cultural Sector

Eleni Chalkia$^{(\boxtimes)}$, Evangelos Bekiaris, Maria Panou,
and Matina Loukea

Center for Research and Technology Hellas, Hellenic Institute of Transport,
57100 Thessaloniki, Greece
{hchalkia,abek,mpanou,mloukea}@certh.gr

Abstract. Accessibility in the tourism domain is already and will be even more in the following years a "must"! Thus, ACCESSIBILITY PASS is an evaluation and certification scheme which has been developed with the scope of evaluating, clustering, analyzing and certifying the accessibility level of a hotel or a conference center taking into account its infrastructure, its offered services and its personnel's certified skills. This paper will explore the possibility of expanding ACCESSIBILITY PASS in the cultural domain buildings like museums, concert centers, etc. where accessibility is very important and it already implemented, but not widely evaluated or certified.

Keywords: Accessibility · Disabilities · Tourism · Infrastructure · Evaluation · Certification · Culture · Museums

1   Introduction

Tourism is a very popular way of leisure, especially in the Western countries, as well as a big industry and a major source of revenue, especially for traditional touristic countries like Greece, Italy and Spain.

Despite the fact that all people, without exception, should have equal opportunities in enjoying tourism, yet nowadays there are still restrictions or even exclusions concerning people with disabilities. For those people, travelling can often be a real challenge, since finding the necessary information on accessible touristic services or even booking a room with special access specifications can be difficult, costly and time consuming.

In order for this problem and inequality to be addressed, an evaluation and certification scheme, entitled **ACCESSIBILITY PASS**, has been developed with the scope of evaluating, clustering, analyzing and finally certifying the accessibility level of a hotel or a conference center taking into account its infrastructure, its offered services and its personnel's skills.

The aim of the **ACCESSIBILITY PASS** scheme is to provide structured and reliable information to people with disabilities globally, regarding the accessibility level of Hotels and Conference Centers, based on actual measurements (not

self-reported) by trained and accredited auditors, with the use of an especially developed application for both Personal Computer (PC) and mobile. The scheme has been designed and developed from a team of experts in accessibility issues and it conforms with the existing international accessibility requirements, while it has been designed for all types of hotel lodgings (regardless of their category).

One of the most important issues regarding **ACCESSIBILITY PASS** scheme is the fact that it focuses on a wide range of disabilities, providing the opportunity to a large rate of disabled people to enjoy equal privileges, during their vacation or business trips, as any other traveler. More specifically, the assets that are being assessed address access for people with motor, visual, hearing and cognitive disabilities, while key issues are also being reviewed for people with other special needs, such as allergic people, people with epilepsy of diabetes.

2   The Need of Accessibility in the Various Domains

2.1   About Disability

Disability is a physical or mental impairment which has a substantial and long-term adverse effect on one's ability to carry out normal day-to-day activities ([2, 3]). A disability may be physical, cognitive, mental, sensory, emotional, developmental or some combination of these. A disability may also be present from birth, or occur during a person's lifetime.

According to the World Health Organization (WHO), over a billion people live with some form of disability. This means that nearly 15 % of the world's population has very significant difficulties in functioning while rates of disability are also increasing due to population ageing and the global increase in chronic health conditions [1].

However, disability is not just a health problem. It is a complex phenomenon that reflects the interaction between the features of a person's body and the ones concerning the society that he/she lives in. Thus, in order for all these difficulties to be overcome, measurements should be received for the environmental and social barriers elimination.

2.2   Disability in the Tourism Domain

Misconceptions and stereotypes for people with disabilities are common. These incorrect assumptions regarding disability is a form of discrimination as it often causes barriers, mainly of social nature, to people with various forms of disability.

As mentioned before, people with disabilities are capable of fully participating in their community life and the same applies as far as the tourism field is concerned. People with disabilities have the same needs and desires for tourism as all others. They have the same motivation to travel as the rest of the population but they need to make a substantially greater amount of pre-planning to undertake travel than the non-disabled.

The general demand for accessibility in Europe exceeds 127 million people. This represents the 27 % of the European population and it has been estimated that 70 % of them have the financial capabilities to travel. If their friends, relatives and careers are included, this figure raises substantially with estimated tourism revenues exceeding €

80 billion [6]. If the members of their families are also included, there are approximately 2 billion persons directly affected by disability, representing almost the 1/3 of the world's population [7].

2.3   Cultural Domain

Closely bonded to the tourism domain is also the cultural domain. The majority of the people, who travel, want to visit some or all the cultural monuments of the place they are travelling too. This mostly refers to museums, galleries, open culture spaces but also other tourist attractions.

An Australia research [8] has revealed that people with a disability are supportive of museums and galleries. They are motivated visitors and see museums and galleries as excellent environments for learning, education and social interaction. People with a disability have strong networks and often visit in groups or with friends and family.

Likewise at the tourism domain, also at the cultural domain, the people, without exception, should have equal opportunities in enjoying the different elements of culture. For example, a visit to a museum, whether of art, local history or technology, is just as worthwhile for the people with disabilities like as it is for visitors without any impairment. Thus all cultural places should be committed to the diversity of all the individuals and communities of different races, countries of origin, first languages, beliefs, cultures, disabilities, genders, sexual orientation, age and income who use, support and work for it; and it recognize that:

- Equality of access for disabled people is integral to that diversity; and that
- Enhancing services for disabled people has a direct and positive impact on the quality of experience for all users.

Not much research has been carried out about the number of people with disabilities that visit museums. Nevertheless, a hint can be given by a Australian survey revealed that 72 % of Australians over the age of 18 with a disability (2.2 million people) had been involved in a community or sporting activity away from home in one year [9]. These rates indicate that people with a disability are an active audience. However, these rates indicate that participation rates decrease as barriers to activities become more pronounced since they are lower than similar statistics for the non-disability population. Thus accessibility barriers hinder people with disabilities in participating in activities outside their houses including cultural events.

3   The Accessibility Pass Scheme

3.1   General Description

Accessibility in tourism sector is of vital importance for people with disabilities. Given this fact, a global evaluation and certification scheme has been developed for the evaluation, clustering, analysis and certification of the accessibility level of a hotel or a conference center taking into account its infrastructure, its offered services and its personnel's skills; the so-called ACCESSIBILITY PASS scheme.

By term "accessible" within ACCESSIBILITY PASS we mean access to any hotel or conference center area or service that the guest with a disability may have unassisted by a third party (hotel staff, escort, carer, etc.); either on his/her own or by using his/her assistive devices, guide dog, etc. Disabilities that are being addressed by this scheme are as follows:

- Motor disabilities
- Visual disabilities
- Hearing disabilities
- Cognitive disabilities

The scheme has been designed and developed by a team of experts in accessibility issues and it conforms with the existing international accessibility requirements, while it has been designed for all types of hotel lodgings (regardless of their category). In the context of ACCESSIBILITY PASS, 4 different certification labels exist, denoting the accessibility level of the hotel/conference center regardless of stars or any other categorization of the facility:

- "CtA" (committed to accessibility)
- "A" (accessible basic services)
- "AA" (full accessibility except leisure and business areas)
- "AAA" (full accessibility)

3.2   Evaluation Procedure

The whole evaluation process of a hotel or a conference center, according to this specific scheme, is based on data and measurements performed by persons specially trained for this purpose, the so-called auditors.

More specifically, the necessary measurements regarding the infrastructure of the hotel or conference center are being taken for further analysis and prioritization, while the services offered in its context are also being taken into consideration (i.e. transport service or health service) for the overall evaluation of the facility's accessibility level.

A very important factor regarding the ACCESSIBILITY PASS scheme is that it assesses the level of service given to a client with a disability in relation to the same level of service offered to all its guests. Thus, only the available hotel/conference center assets, with respect to infrastructure, services and personnel skills, are being assessed (i.e. if a hotel/conference center offers no parking spaces to all of its clients, no accessibility issues for parking will be assessed).

Finally, another aspect of the ACCESSIBILITY PASS evaluation is the evaluation of the skills of its personnel exclusively as far as the service of people with disabilities is concerned. It is worth mentioning that within the overall framework of the ACCESSIBILITY PASS scheme, relevant training may also offered to the perspective staff of the facility, which finally leads to the corresponding certification of each individual.

After the evaluation of the facility's accessibility, for each one of the disability categories mentioned above, and the certification of this specific facility with the

assignment of the respective accessibility level, the facility will be entitled to a public registry to a database and a GIS map. This database will interface all the facilities audited and certified under the ACCESSIBILITY PASS scheme and will give the opportunity to all travelers interested in accessible tourism to select the hotel/conference center that best meets their needs.

3.3   Overview of the Assessment Tool

For the realization of the overall evaluation procedure described above, an on-line auditing application has been developed that the auditor has to use in order to insert the data that s/he has measured for every infrastructure element, service and staff category, in order to assess the accessibility level of a hotel. Data are being recorded and locally stored at the device (see Fig. 1).
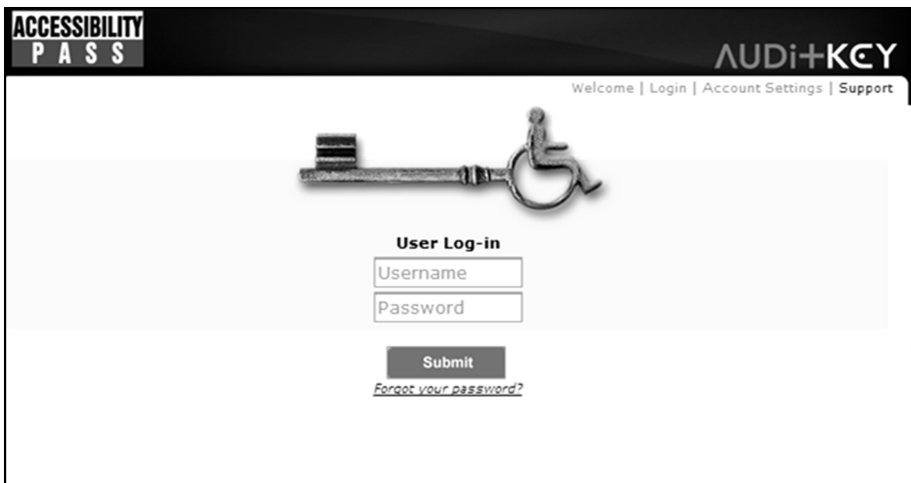
Fig. 1. Home page of the ACCESSIBLITY PASS auditing tool

The electronic auditing applications do not require specific installation and are in general self-explanatory. The system is available as a web application and as an android application. The web application requires only the installation of a web browser. In specific, compatibility has been ensured so far with Internet Explorer, Mozilla Firefox and Google Chrome.

The ACCESSIBLITY PASS electronic auditing system consists of four major components:

- Database: It consists of the questions/items of the auditing process and the auditor responses that are being stored during the audit.
- Evaluation Report Component: It is responsible for the consolidation of the recorded data and the calculation of the hotel's accessibility level (score).

Innovative, unique algorithms are running in the back-end, processing the data provided by the auditor.
- Web application: It is the front-end application which is running in a web browser.
- Android application: It is the front-end application which is running in an android mobile phone.

The different users and/or user groups and the respective authorization rights are as follows:

- Auditor: The auditor can access the web application and/or android application in order to fill in the questionnaires that are required for the audit process.
- Administrator: The administrator has some additional authorization rights, like:
  - Hotel management (the possibility to add/edit/delete information regarding the assessed facility).
  - Reports management (the possibility to add/edit/delete the reports generated by the application regarding the accessibility of the facility).

When the auditor inserts inside the tool all the necessary information (measurements and data obtained by the facility's auditing), the tool, through automated procedures based on algorithms, generates three reports. The first one contains all the questions and answers that the auditor has provided, while the second one includes only the answers that have failed according to the accessibility standards which have been set. The last report is the one in which the accessibility level of the whole facility is being assessed and presented for each one of the disabilities separately (motor, visual hearing and cognitive).

4   Extension of the Accessibility Pass Scheme to the Cultural Domain Needs

Cultural tourism plays an important role in efforts to integrate people with disability in the society. This is particularly stressed by Article 30 of the United Nations Convention on the Rights of People with Disabilities, ratified by Germany in 2008 and the EU in 2010.

People with a disability generally visit museums, and their majority they do this with family or friends, and sometimes this is due to the lack of their accessibility. Thus many visit, and even more would visit, independently when good access is assured. Many more would like to be able to visit independently and wish that more access services were available to make this possible.

The main barriers to access to cultural spaces arise because the needs of people with disabilities were not considered at the original design stage of the construction, or when refurbishments and improvements were planned. Limitations to access can also arise through high admission costs, lack of adequate accessible public transport, inadequate facilities, inhospitable public programs and difficult-to-access visitor information, in particular detailed information about access provisions. Three are main types of access that need to be taken into account in cultural spaces and they are the following:

- physical access
- access to services and staff awareness
- access to information.

The first two types are covered by ACCESSIBILITY PASS scheme. The physical access guidelines in a museum should cover for example, exhibition spaces, labels, lighting levels, hanging heights, audio-visual and interactive experiences, etc. All these are fully covered by ACCESSIBILITY PASS scheme which is actually a hyper-set that covers also the accessibility of spaces which are not meet at a cultural space. Additionally, the access to service is also covered by ACCESSIBILITY PASS, since both the accessibility of the given (electronic) information services and the accessibility of face to face services is covered by the scheme which has a whole part devoted to how people with disabilities should be treated by the staff that is providing the services to them.

The part that is missing from ACCESSIBILITY PASS scheme for the evaluation and the accreditation of cultural places is the access to information. Access to information includes the following issues:

- Provide Auslan interpreting for lectures or have script or synopsis available.
- Provide live captioning for lectures and public talks.
- Provide touch-tours for the blind, deafblind and visually impaired community.
- Provide
  - touch-tours for people with intellectual disabilities, as well as the blind, deafblind and visually impaired community.
  - guided tours specifically for people with intellectual disabilities.
- Provide museum introduction sessions for people with a range of disabilities or access needs.
- Provide privileged costs entrance for people with disabilities and their companions
  - Provide a disability membership price
- Provide options for tours outside of normal visiting hours or at quiet times in the museum.
- Provide captions or signs for the films projected.
- Ensure all lectures/talks/public programs are held in fully accessible venues.
- Promote the museum as space for a social occasion for people with a disability; encourage social groups of people with a disability through the provision and promotion of access services.
- Ensure exhibitions are laid out using a simple, easy to navigate floor plan.
- Provide audio alternatives to all visual material.
  - Provide audio descriptions of spaces, objects, and exhibitions.
- Provide captions or text alternatives for all audio-visual material.
  - Ensure audio-visual material does not dominate the exhibition space, perhaps provide dedicated areas for audio-visual material.
- Ensure all information technology equipment is easy to access, including keyboard settings and design, and is located in a physically accessible environment.
- Provide the option of tours for people who are unable to access written information.

Most of the above are already included in the ACCESSIBILITY PASS scheme as guidelines for hotel open or private spaces. What has to be done is to rearrange the content of the scheme in order to fit the needs of the cultural spaces we would like to include and evaluate.

5 Conclusions

In an ever-developing society, the elimination of marginalization of people with disabilities is an objective to which priority should be given and since the area of tourism and culture is one of the society's key sector, the accessibility of all venues (either for leisure or for business) should be considered as a vital issue.

The ACCESSIBILITY PASS scheme comes to meet this shortcoming, providing the opportunity to people with motor, visual, hearing or cognitive disability to be able to choose and visit accessible facilities, according to their specific needs and preferences (i.e. the scope of their travel). This could and should encompass cultural places also. Ensuring people with disabilities access needs are met offers the potential for cultural places to increase both visitor numbers and the diversity of their audience. In addition, by finding better ways to meet the needs of visitors with disabilities, museums and galleries will be improving the visiting experience for all visitor groups.

The ACCESSIBILITY PASS, being a global evaluation and certification scheme, complies with internationally acknowledged standards of accessibility and aims to help the sector of tourism to be transformed to a more compatible and friendly field for people with disabilities and explore further, at the same time, significant business potentials. This makes this scheme very flexible and extendable to other domains also.

References

1. 10 Facts on Disability. World Health Organization
2. Disability Discrimination Act (1995)
3. Equality Act (2010)
4. http://ec.europa.eu/enterprise/sectors/tourism/accessibility/index_en.htm
5. Improving information on accessible tourism for disabled people. European Commission (2004)
6. OSSATE: Accessibility Market and Stakeholders Analysis (2005)
7. United Nations Convention on the Rights of Persons with Disabilities (2008)
8. Landman, P., Fishburn, K., Kelly, L., Tonkin, S.: Many Voices Making Choices: Museum Audiences with Disabilities. Australian Museum, National Museum of Australia, Sydney (2005)
9. Australian Bureau of Statistics: Community and Sporting Involvement of People with a Disability. Australian Bureau of Statistics, Canberra (2002). http://www.abs.gov.au