The application of multimedia and web 2.0 technologies in communicating and interpreting a cultural tourism product

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THE APPLICATION OF MULTIMEDIA AND WEB 2.0 TECHNOLOGIES IN COMMUNICATING AND INTERPRETING A CULTURAL TOURISM PRODUCT

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ABSTRACT

The purpose of this paper is to determine the extent to which museums as cultural institutions in the Republic of Croatia apply digital technologies and multimedia content for the interpretation of their museum material and the creation of new cultural and tourist experiences, but also the level of Web 2.0. technologies in presenting the same and communicating with visitors. Several methods of scientific research have been applied in the processing of the described problems, especially the method of documentation analysis, the inductive-deductive method, the method of analysis and synthesis, and the method of description and compilation. Questionnaires have been applied as a method for determining the factual situation, as well as insight and analysis of the available documentation on the websites of all museums registered in the Register of Public and Private Museums in the Republic of Croatia. The research found that almost all museums use their own websites to they present their offer. To be able to enhance their communication with their visitors, the museums also have a profile on at least one social network The awareness of the benefits of multimedia and its positive effects on the visitors is one of the reasons why museums use them to interpret their permanent exhibitions and through them convey their messages to the public, despite the fact that the web sites themselves contain somewhat less multimedia content. The aim is to enrich the visitors' experience by creating unique events, to attract guests, to provide information about the museum as well as for educational purposes. In addition to the positive effects of multimedia and web 2.0 applications technologies, museums are also aware of its negative aspects, such as the lack of social contact, the possible rejection of visitors who are reluctant to use digital technologies and the distraction from the real exhibit.
Keywords: multimedia, Web 2.0. technologies, cultural tourism, museums

1. INTRODUCTION

The application of digital technologies opens new possibilities for the interpretation of cultural tourist resources that can be multimedia presented and communicated in an online environment without space or time limitations, which can significantly affect the quality of interpretation of the tourist offer (Vidak and Bosnić, 2017). It gives us a greater opportunity to evoke emotions in visitors and provide a unique tourist experience by a better interaction and communication which increases the overall visitor satisfaction.

This paper discusses the application of multimedia and Web 2.0. technologies on the example of museums as cultural institutions that participate in creating the offer of cultural tourism. According to the Dictionary of Tourism, cultural tourism is "a form of tourism in which the interest in the demand for objects and contents of a cultural character prevails" (Vukonić and Čavlek, 2001, p. 86). The Action Plan for the Development of Cultural Tourism verifies the technical definition of cultural tourism according to which the term cultural tourism encompasses "visits to cultural and historical sites, museums and galleries, music and stage events and performances, festivals, sacred heritage sites, creative workshops and thematic routes and roads" (Tomljenović and Boranić Živoder 2015, p.7). The demand for cultural tourism offers in Croatia already exists and is most pronounced for tours of cultural and historical buildings and visits to museums and galleries (Tomljenović and Boranić Živoder, 2015). According to TOMAS Hrvatska 2019 research, culture and art take the sixth place (behind the sea, nature, city breaks, touring, sports and recreation) among the most important motives for tourists to come to the Adriatic, but also to Continental Croatia. If we analyze the activities of tourists during their stay in the desired destination, visits to museums and galleries are among the 10 main activities of tourists on vacation. This is particularly applies to Continental Croatia where tourists, "much more than average, spend their time in museums, galleries, exhibitions and visiting national parks/protected areas" (Marušić et.al., 2020, p.39). Consequently, museums may be considered as cultural tourist attractions significant for the further development of Croatian tourism. From this aspect it is necessary to determine the extent to which museums follow modern trends related to digitalization and multimedia as well as the application of Web 2.0. technologies.

2. THEORETICAL CONSIDERATIONS
According to International Council of Museums (ICOM, 2007), 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. Also, it includes live museums. The above definition of a museum shall be applied without any limitation arising from the nature of the governing body, the territorial character, the functional structure, or the orientation of the collections of the institution concerned. In addition to institutions designated as 'museums' the following qualify as museums for the purposes of this definition: 1. natural, archaeological and ethnographic monuments and sites and historical monuments and sites of a museum nature that acquire, conserve and communicate material evidence of people and their environment; 2. institutions holding collections of and displaying live specimens of plants and animals, such as botanical and zoological gardens, aquaria and vivaria; 3. science centers and planetaria; 4. non-profit art exhibition galleries; 5. nature reserves; conservation institutes and exhibition galleries permanently maintained by libraries and archives centers; natural parks; 6. International or national or regional or local museum organizations, ministries or departments or public agencies responsible for museums as per the definition given under this article; 7. non-profit institutions or organizations undertaking conservation research, education, training, documentation, and other activities relating to museums and museology; 8. cultural centers and other entities that facilitate the preservation, continuation, and management of tangible or intangible heritage resources (living heritage and digital creative activity); and 9. such other institutions as the Executive Council, after seeking the advice of the Advisory Committee, considers as having some or all of the characteristics of a museum, or as supporting museums and professional museum personnel through museological research, education or training (http://uis.unesco.org/en/glossary-term/museum).

Modern museum is a complicated mechanism, made from several elements, with diverse goals and methods of work (Mosio, 2002). According to Croatian Museum Law, museum is a public institution or organizational unit of a public institution that permanently performs museum activity as a public museum and an institution, association, cooperative, foundation, company or their organizational unit and craftsman who permanently performs museum activity as private museums, in the service of society and its development, open to the public, and in accordance with the conditions prescribed by this law (NN 110/2015). Museums are also "places of protection, research and interpretation, places of memory, strongholds of knowledge, places of creativity and community development, places of lifelong learning, places of urban development, places of pleasure and enjoyment, places of prestige and intellectual exchange" (Klarić, Laszlo and Nevidal, 2011, p.8). Considering the above, museums can be considered important cultural tourist resources which, if the needs and preferences of tourist visitors are met, can grow into significant tourist attractions of cultural tourism of a particular tourist destination. In relation to tourism, museum institutions can be viewed from several different aspects. Museums can be places of primary interest for tourist visitors, and from this aspect they are considered as stakeholders in cultural tourism, but also pre-tours and post-tours of the congress industry, urban tourism, historical tourism, heritage tourism, archeological tourism, traditional tourism, science tourism and educational tourism. On the other hand, museums can be viewed as a stage, a stage-inspiring environment for events, congresses, gatherings and seminars, but also in the role of a generator of new tourist visitors (Klarić, Laszlo and Nevidal, 2011). In this context, the business strategies of museums in European cities are increasingly turning exactly towards the needs and preferences of tourists. So, "major arts exhibitions are now an important source of tourist flows in many cities, and the organisation of 'blockbuster exhibitions' has become an important part of the cultural tourism strategies of many museums" (Richards, 2014, p.3). Generally speaking, today museum needs reforms, such as new shapes of work and new approach as better answer to expectations of audience. That means challenge to modern museum, how to merge new shapes and new technics to represent collection of unique structure of museum. According to Klarić, Laszlo and Nevidal (2011) the main goal of the museum is to provide help to visitors in exploring some of the segments of cultural and natural heritage that the museum contains in its collections, encourage them to think about it and to refer them to explore other sites in the city. Without the above mentioned, an exhibition, event, publication, website does not make much sense. A museum can encourage visitors to find meaning in things or topics they see, hear and feel in a museum. It is important to arouse the curiosity of visitors, which is a prerequisite to recollect memories and to motivate them to experience more. Thus, the basic goal is the experience of identity and everything that is created for visitors in the museum, regardless of which medium is used, which concept of presentation of the object is chosen, which topics are covered. Everything should be subordinated to the wishes and possibilities of various types of visitors. "Museums of today are regarded not only as providers of knowledge but also as tourist attractions that have to supply their visitors with experiences. To become successful tourist attractions, museums have to get involved in the tourism industry like every other commercial attraction, which means they have to adapt to a touristic mode of production in the same way as they earlier adapted to societal changes" (van Aalst and Boogaarts, 2002; McPherson, 2006; Pred, 1991 cited in Johanson and Olsen, 2010, p.1). In order to successfully integrate into the tourism market, it is necessary, among other things, to rely on innovation and creativity in the interpretation of tangible and intangible heritage that will result in new experiences and emotions for tourism visitors. It is also stated in accordance with the main qualitative drivers of cultural tourism that might be summarized as (Richards, 2014, p. 3):

- "Growing interest in popular culture, or the 'everyday culture' of the destination.
- Growing consumption of intangible heritage alongside museums and monuments.

- Growing role for the arts in cultural tourism.
- Increased linkage between tourism and creativity, and the growth of 'creative tourism'.
- Growing omnivorousness of cultural consumption".

Quality interpretations that include appropriate equipment of the space, participation of tourists in the product itself, educational content, but also the introduction of catering and trade facilities, through which local / regional products can be placed can encourage tourist activity, and thus prolong their stays and consumption (Tomljenović and Boranić Živoder, 2015). One of the key roles in the interpretation of museum collections and exhibits is played by the application of multimedia and WEB 2.0. technology that enables the establishment of an interactive relationship between users and information systems, the activation of all the senses and opens the possibility of multimedia communication of cultural heritage without spatial and temporal limitations. "The environment in which it all takes place today became multimedia (lat. Comprised out of multiple media, which occurs through multiple media) (Riječnik hrvatskog jezika, 2000, p.621) environment and everyday life is enriched by content that includes text, image, sound, video, animation and interpretation (elements of multimedia content)" (Vidak and Bosnić, 2017, p.1117). According to Antoš (2000, p.34), "multimedia in museums has important documentary, educational and scientific value". "It includes interactive multimedia, hypermedia, image display programs, digital video, computer graphics, virtual reality, and computer-controlled interactive screens. Multimedia installations in museum galleries and spaces can range from just one interactive video kiosk in a separate exhibition to a fully integrated exhibition and a technologically designed information space" (Antoš, 2004, p.32-33). In connection with the above, Antoš (2000, 2004) emphasizes that museums are also developing an interpretive type of multimedia that serves educational purposes, such as the presentation of exhibitions or museums through programs that display permanent museum exhibits. Multimedia interpretive systems can provide a wider range of information on exhibition topics and enrich the visitor experience. Furthermore, through the information kiosk, multimedia has the function of attracting visitors, offering them information about the museum, orientation in space, showing where the individual objects are in the exhibition. Visits to museums are also enhanced by multimedia systems such as virtual reality, which emphasize the narrative content, ie. the experiential nature of visits to museums. An example of a means to encourage involvement in the museum experience is the invitation to visitors to use multimedia to play an active role in the exhibition. An interesting way to use multimedia, especially for younger users, are educational programs with games for visitors that enable competition in knowledge, with prizes and acknowledgments. The advantage of multimedia stems from the possibility of creating digital catalogs as a database with basic documentation and images of all exhibits, but also the fact that technology today can take over the function of real guides (example of the use of holograms). The use of multimedia must certainly be appropriate for visitors, it must communicate the value of cultural heritage and make the exhibition interesting. "Information technologies can also help museums in the presentation of their collections. The forms of presentation can be quite different – from producing high-quality digital copies of fragile works (e.g., documents or graphic works), which can be displayed as part of permanent exhibitions, to creating virtual exhibitions shown online and providing access to museum collections for remote users, and solving the issue of expanding the museum's audience through attracting Internet users" (Tolstaya et.al., 2014, p.5). "Web 2.0 technologies enable audiences to access and interpret museum information in their own time and on their own terms and to add their personal stories and memories to this body of knowledge, liberating collections from their academic and institutional context in the traditional museum space"(Verboom, Arora, 2015, p.8 cited in Richani, Papaioannou and Banou, 2016, p.1).

Museums communicate with visitors and general public mainly through websites, social networks and mobile applications. "At the beginning, museum websites were mostly used as brochures to invite the public to visit, to promote new exhibitions and inform about collections and activities. Later on, photographs of museum artifacts started to be included in museum websites along with some information" (Walker, 2008 cited in Richani, Papaioannou and Banou, 2016, p.2). "Currently, almost all museums have or seek to have their own websites, and many of them extensively use social networks for promotion and providing information about their activities to a wider audience" (Tolstaya et.al., 2014, p.5). "The best examples of museum websites show that the website becomes an alternative opportunity to get acquainted with the museum and its collections for the users for whom it is hard or impossible to come to the museum (disabled people, users from other cities or countries, etc.). In this regard, it is especially important to include the maximum number of digital images of museum objects on the website, which can result not only in a growing number of virtual visitors (i.e., those visiting the museum online), but also in new opportunities for cooperation between museums" (Tolstaya et.al., 2014, p.7). In the last decade, museums have begun to use the benefits of social networks more intensively. "Social media indeed gives museums additional opportunities to build online communities, both on their own websites and on popular international networks like Facebook or Twitter, which potentially can extend their cultural outreach beyond national borders" (Grincheva cited in Richani, Papaioannou and Banou, 2016, p.3). Also, in the last few years museums entered the world of mobile (smart)phones, tablets, applications and services. "The current rise in the popularity of mobile technologies such as smartphones and tablet devices forces cultural organizations, especially museums, to think strategically and creatively about how to best use these networkedcommunication tools to be more effectively connected with the audience" (Senxton, 2014, p.15 cited in Vucetic, Cingula and Bunja, 2018, p.518)."The use of mobile apps opens up new channels of communication between the cultural institution and the user, which extent to his or her personal space and go beyond the boundaries of the museum's walls" (Economou cited in Richani, Papaioannou and Banou, 2016, p.3). According to Tolstaya et. al. (2014, p.5) "the contemporary museum cannot be imagined without many technical and technological achievements. The use of information and communication technologies at the beginning of the second decade of the 21st century became necessary not only for large museums, but also for quite small, and even municipal ones." "Today, museums have to accept Web 2.0's claim that if you are not present on the Internet, you do not even exist. As regards museums, this implies digitization in every function. It does not only call for investment in new technologies, but also requires more comprehensive and expansive ways of working and thinking "(Levay, 2014, p.27 cited in Vucetic, Cingula and Bunja, 2018, p.518). In other words, museums face the challenge of applying digital technologies that will present cultural, historical and natural heritage to their visitors in an interactive and interesting way, in the museum space, but also outside the museum walls.

3. METODOLOGY

The purpose of this paper is to determine to what extent and in what form museums as cultural institutions in the Republic of Croatia use multimedia and Web 2.0 technologies for the interpretation of museum material and communication with visitors, which are positive and negative sides of Web 2.0. technologies in the interpretation and communication of cultural heritage and how visitors react to the more intensive application of multimedia and Web 2.0 technology. Several methods of scientific research were used in the processing of the described issues, especially the method of documentation analysis, the inductive-deductive method, the method of analysis and synthesis, and the method of description and compilation. For the purposes of obtaining primary data, a survey method using a survey questionnaire and analysis of available documentation on websites were applied.

The sample included 161 museums registered in the Register of Public and Private Museums in the Republic of Croatia, which is kept at the Museum Documentation Center. The survey was conducted in the period from April 26 to May 9, 2021. The survey questionnaire was created using the Google Forms tool. The survey questionnaire was distributed via e-mail available on the museum's official website, and the data required for the research were collected online by filling out the survey questionnaire. The questionnaire consisted of 28 open-ended and closed-ended questions. The questions included the following topics: the purpose of using multimedia, web 2.0 technology and social networks, the types of multimedia content used to interpret cultural heritage in museums, the positive and negative sides of the application of Web 2.0. technologies and multimedia in the interpretation and communication of cultural heritage, characteristics and satisfaction of visitors and their reactions to more intensive use of multimedia, attitudes about the impact of multimedia on visitors' emotions and the creation of cultural tourism experiences and the level of use of multimedia and Web 2.0. technology for the interpretation of space, presentation of the offer and communication with visitors. On the other hand, the analysis of available documentation on the museum's websites included an analysis of basic ICT elements such as the official website, presence on social networks and Google maps, basic information about the institution and photos on Google maps, Facebook and TripAdvisor reviews, but also availability virtual tours of the museum on websites, virtual exhibitions and digital collections, then the existence of digital catalogs, online educational corner, 3D presentations of exhibits, virtual lectures and web tracks.

4. SURVEY RESULTS

The survey questionnaire was sent to 161 e-mail addresses, of which 155 were valid. 41 respondents answered the questionnaire, which is 25.4% of the total sample. 58.5% of general museums participated in the research, while the remaining 41.5% were respondents from specialized museums. The survey showed that the majority of respondents (78%) use multimedia for the purpose of attracting visitors and providing information about the museum, as well as for the purpose of educating and interpreting exhibits that enrich the visitor experience. Multimedia has been predominantly used since 2015 (only 29.2% of surveyed museums introduced some of the multimedia content before 2015). Of the multimedia content used for the purpose of interpreting the museum's cultural heritage, the most common are entertainment and games, virtual exhibitions, digital collections, QR codes for the presentation of objects and virtual walks (Chart 1).
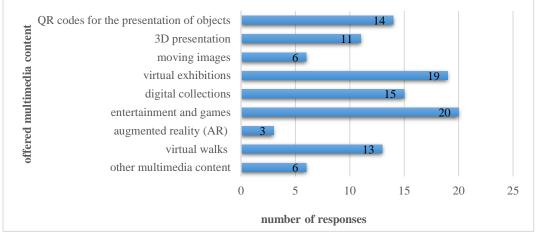

Chart 1: Application of multimedia content for the purpose of interpretation of the museum's cultural
(Source: Author's research)

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In addition to the offered multimedia content, respondents have in the category of "other multimedia content" also mentioned an audio guide, info kiosk, hologram, QR codes for additional content in the exhibition, Youtube video content, interactive installations and a video wall showing the material. Since only one respondent pointed out that they do not use multimedia, it follows that respondents (museums) recognized the importance of multimedia in attracting visitors, but also for the purpose of education and interpretation of exhibits that enrich the visitor's experience and apply various forms of multimedia to interactive approach enhancing the overall visitor experience. Accordingly, the majority of respondents (58.5%) rated the impact of multimedia on the creation of cultural tourism experiences as very good (4)[1]. Respondents also confirmed the thesis that multimedia affects the emotions of visitors (95.1%) and agree that it is profitable to invest in multimedia equipment. Related to the positive aspects of Web 2.0 application technologies and multimedia in the interpretation and communication of cultural heritage, respondents highlighted the communication without spatial or time limits, better interpretation of content and easier filtering of information of interest to visitors as the three main advantages. On the other hand, they point out as a negativity the lack of social contact, the rejection of the technologies by visitors reluctant to use digital technologies and the distraction of the visitor's attention from the actual exhibit (Table 1). This is also pointed out in the literature as one of the dangers of the increasingly intensive application of digital technologies in the interpretation and presentation of museum exhibitions.

POSITIVE (+)			NEGATIVE (-)		
Indicators	n	%	Indicators	n	%
Communication without spatial or time limits	30	73,2	Lack of social contact	31	75,6
Quality of the interpretative content	24	58,5	Recjection of visitors who are reluctant to use digital technologies	27	65,9
Easier filtration of interesting information	21	51,2	Distraction of visitors attention to the actual exhibit	24	58,5

Table 1: Positive and negative aspects of the application of Web 2.0. technologies and multimedia
(Source: Author's research)

The structure of visitors to the surveyed museums consists mainly of domestic visitors (75.6%), of which the most prominent are individual visits of adult visitors (82.9%) and primary school ages in groups (80.5%). Visitor satisfaction is to a larger extent not examined by museums (61%), but the majority of respondents (65.9%) believe that the application of multimedia and Web 2.0 technology has a positive effect on the growth of the number of visitors. Respondents also pointed out in the questionnaire certain reactions of visitors to the more intensive application of multimedia and Web 2.0 technology, such as: "positive reaction; showing interest; very good; they seem satisfied with the content offered; younger visitors are more interested than older ones; in most cases they are more satisfied because it is more approachable to the users for using and getting to know the cultural heritage; younger visitors have a more positive attitude, older ones prefer a classic approach; younger age groups of visitors are intrigued by multimedia and retain their attention, while older age groups of visitors still prefer to visit the museum in real space and time; secondary school and primary school students respond to multimedia better than to the museum object itself, which is sometimes

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[1] available rating ranged from 1 (helps almost nothing) to 5 (extremely helps)

counterproductive… " Consequentially, it can be concluded that the application of multimedia and digital technology has a positive effect on visitors, the overall experience of the visitors and their satisfaction with their visit. However, care should be taken in the application of multimedia and digital technologies so as not to distract the visitor from the actual exhibit. The level of use of Web 2.0 technology and multimedia for the purposes of interpreting space, presenting the offer and communicating with consumers, a third of respondents rated very good. Among the social networks, most respondents use Facebook (100%), YouTube (56.1%) and Instagram (53.7%). The purpose of using social networks varies from one institution to another, but most surveyed museums (97.6%) use social networks for the purpose of presenting the offer (museum settings, exhibitions…), then for the purpose of establishing communication with visitors (92.7%) and equally for the purposes of advertising (41.5%) and collecting feedback from visitors (41.5%). According to TOMAS Hrvatska 2019 research, since 2017, the Internet has become the main source of information for tourists coming to Croatia (55% of guests rely on the Internet). Tourists who collect information via the Internet also visit social media in large numbers (48.1%). If the same indicators are analyzed from the aspect of the main motive of travel, then it can be seen that 49.5% of visitors motivated by culture and art use the Internet as a source of information when traveling to a destination (Marušić et.al., 2020). Regarding this, and taking into account the fact that the importance of the Internet as a source of information is growing, an additional analysis of available documentation on the museum's website was conducted, which included an analysis of basic elements of information and communication technologies (ICT) and multimedia content. Of the total number of museums in the sample (161), 130[2] have their own website as a basic communication tool, and further analysis will be conducted on them. Museums that do not have their own websites are present mainly on the websites of tourist boards, cities, public open colleges and cultural centers. Also, 18 of them (60%) have a profile on Facebook through which they can communicate with their visitors, present the offer and current events. The analysis of presence on social networks showed that out of the total number of museums that have their own websites, 125 of them (96.15%) have a profile on Facebook. In addition to Facebook, Instagram (36.92%) and Twitter (30.76%) are among the slightly more used media, while other social networks such as Tik Tok, Pinterest, Linkend and Google + are significantly less represented (less than 10%). It should also be noted that 52 (40%) museums have featured links to videos located on the YouTube channel on their websites. Furthermore, almost all museums (98.46%) have a prominent location on Google maps and accompanying photos and reviews of previous visitors. Likewise, 50% of the museums provide information on the location, institution data, and reviews on TripAdvisor. Regarding the authenticity of multimedia content on the website, by which exhibitions, permanent exhibitions, individual exhibits and the space and activities of individual museums in general are presented, the largest share of museums (57.69%) provide detailed descriptions of collections and permanent exhibitions accompanied by pictures and photo gallery, 26.92% of them have a separate photo gallery on the website, while 17.69% of them provide posted video materials. Among other multimedia contents, the availability of virtual exhibitions and digital collections (18.46% of museums) as well as virtual walks through the museum space (15.38% of museums) stands out. Some museums also provide interesting interactive entertainment, educational content and games on its website (9.23%), exhibition catalogs (6.92%), brochures and / or information materials for tourists (8.46), 3D presentations of exhibits (3.84%), the possibility of downloading audiovisual guides through the museum (3.84%) and available virtual lectures and workshops (3.07%). On the websites of some museums, multimedia content is grouped together under the name of a virtual museum (10%), while others have them separately highlighted.

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[2]The Museum Documentation Center - a public institution established in 1955 as a documentation, information and communication point of the Croatian museum network was excluded from the analysis.

In addition to the above, 10% of museums also have a web shop for the sale of souvenirs and various publications related to the activities of the museum. The analysis also showed that although most museums have prominent ticket prices for various groups of visitors, only four of them provide the possibility to buy tickets online.

5. CONCLUSION

In conclusion, museums are aware of the importance and benefits of digital technologies, Web 2.0 and multimedia for the interpretation, as well as of the presentation of their permanent exhibitions and exhibitions, encouraging visitors to interact and to influence their emotions. In this way museums are able to create and convey the overall experience and satisfaction to their visitors and develop a better interaction with them. Research has also shown that the COVID-19 disease epidemic has influenced the faster development of digitization. Museums had to adapt quickly to the new situation, which led to the creation of new websites, the introduction of blogs, increased social media activities, introduced digital exhibitions and events, created virtual walks, set up mobile videocast musemophony (an online format in the form of conversations in which guests comment cultural topics) and established digital communication with visitors. In the coming period, museums should continue to work intensively on strengthening the digital presence on social networks, improving multimedia content on their own websites, but also in museum spaces, because research has shown that multimedia through an interactive approach enriches the cultural and tourist experience and has a positive impact on the visitors and their impressions during the museum visit. Despite all the positive sides that multimedia can attract to museums, it is important that the presence of multimedia creates a sense of connection with the museum space, which can usually be achieved through various virtual walks, 3D displays, live broadcasts, reels etc. In that way people can in the comforts of their home have the feeling as if they were in a museum, in a real space. Nonetheless, there is stil a group of visitors who still strive for a traditional tour of the museum without the intensive use of multimedia content, so this should not be neglected. For this special group of people, it is necessary to maintain the level of quality of service and social interaction based on personal approach and social contact ("face to face"). The key is to set a balance that will lead to maximum visitor satisfaction because future museum visits, whether virtual or actual visits, will depend on the preferences and trends set by visitors of various profiles.

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