

Analysis of Virtual Tourism Opportunities in Klaipėda, Lithuania

Akvelina Čuladytė
Klaipėda State University of
Applied Sciences
Klaipėda, Lithuania
a.culadyte@kvk.lt

Aleksandra Batuchina
Center for Social
Geography and Regional
Studies
Klaipėda university
Klaipėda, Lithuania
aleksandra.batuchina@ku.lt

Abstract. In the current article the possibilities of virtual tourism in the city of Klaipėda are analysed. Over the past few decades, digital technology has helped the travel and tourism industry increase its reach. As the world faces the COVID-19 pandemic, virtual tourism has become relevant when the pandemic has made it more difficult to travel in real life. Therefore, it is important to determine whether the prospect of virtual tourism is visible in the city of Klaipėda, and to determine the possibilities of virtual tourism in the city of Klaipėda. The article reviews the concept of virtual tourism and virtual tourism technologies, analyses the idea of virtual tourism products, identifies the classification of virtual tourism products. The trends of virtual tourism in the world and in Lithuania are reviewed. The analysis is based on a detailed analysis of scientific literature, journalistic articles and statistical data. A total of 137 publications were analyzed. Presenting virtual tourism products in Lithuania and the city of Klaipėda. The possibilities of virtual tourism and virtual tourism products of the city of Klaipėda are determined. Such results can be used as a positive role model of the small city virtual tourism attraction and system creation.

Keywords: innovation, thematic analysis, virtual tourism, virtual tourism product.

I. INTRODUCTION

Modern technologies allow us to look at the world around us more and more widely and experience more and more diverse experiences. It is when we face various troubles in life that we look for opportunities to diversify our daily life, broaden our horizons, and experience new experiences, and new technologies help us to do this. Over the past few decades, new technologies have helped the travel and tourism industry increase its reach by allowing tourists to easily access travel booking sites, travel videos, blogs and travel photography. As the world faces the COVID-19 pandemic, virtual tourism becomes relevant. Virtual tourism became relevant when the pandemic made it more difficult to travel in reality. In the period from 10/01/2020 to 03/31/2021, millions of tourists from all over the world visited the websites specialized in virtual tours and

the websites of the world's most popular museums and travelled virtually and viewed the expositions [1]. The effects of this pandemic were especially felt by the tourism sector. The economy declined sharply, tourism business, airlines, hotels, museums, travel agencies and other tourism-related activities suffered negative effects [2]. Due to the coronavirus pandemic in 2020 the number of international tourists decreased by 72 percent, and in 2021 – 71 percent compared to 2019 [2]. In 2021, Global Data's analysis revealed that it was virtual tourism that became especially popular. Virtual tourism was seen by the public as a “pandemic-friendly” alternative, as this form of tourism eased anxiety about various travel restrictions [3]. Virtual tourism emerged as an alternative to physical tourism to safely visit various attractions [4]. Considering the popularity of virtual tourism, it is possible to see the growth of this form of tourism all over the world, including Lithuania.

Klaipėda is the fifth most visited city in Lithuania [5], which can offer tourists many attractive and interesting places of interest that attract not only locals, but also tourists from other countries. Klaipėda - a city that was also called Memel, according to the date of its foundation, is one of the oldest cities in the territory of present-day Lithuania [6]. Therefore, the history of this city is very interesting, deep and wide. It would be interesting for everyone to look back to the past and see how the places of interest looked before. Since the needs, wishes and habits of tourists are rapidly changing, today's expectations to meet the needs of the tourist are significantly higher. In the presence of various unrest or lack of physical opportunities to travel, it is important for the city of Klaipėda to keep up with modern tourism trends, to keep pace with modern technologies, and accordingly to improve its opportunities in the field of virtual tourism. The city must maintain the image of an attractive tourist destination, therefore new measures are constantly being created to shape the image of the city as modern, comfortable and modern [7].

Print ISSN 1691-5402
Online ISSN 2256-070X

<https://doi.org/10.17770/etr2024vol2.8038>

© 2024 Akvelina Čuladytė, Aleksandra Batuchina. Published by Rezekne Academy of Technologies.
This is an open access article under the [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

Taking everything into account, the aim of the current research to analyses Klaipėda city example as possible virtual tourism attractions city, in other words, are the prospect of virtual tourism is visible in the city of Klaipėda, and is it possible to determine the possibilities of virtual tourism in the city of Klaipėda. As a result, main research questions are: what is the concept of virtual tourism and virtual tourism technologies? What could be the main virtual tourism products and its classification? Also what are the trends of virtual tourism in the world and in Lithuania? Moreover, in current article we present virtual tourism products in Lithuania and the city of Klaipėda. As result, the possibilities of virtual tourism and virtual tourism products of the city of Klaipėda are determined. Such results can be used as positive examples of small city virtual tourism attraction and system creation.

II. MATERIALS AND METHODS

In order to analyze the possibilities of virtual tourism in the city of Klaipėda, a detailed analysis of scientific literature, journalistic articles and statistical data was carried out. Based on scientific sources, the concept of virtual tourism and the circumstances of its emergence, the idea and classification of the virtual tourism product are examined. In analyzing the trends of virtual tourism in the world and in Lithuania, scientific sources, journalistic articles and statistical data were used. EBSCOhost, Taylor & Francis, Emerald Management, Google Scholar databases were searched for scientific literature, and open access full-text scientific articles published between spring 2023 and 2024 January. A total of 137 publications were analyzed.

A systematic literature review approach was used to analyse the research articles according to the selected inclusion and exclusion criteria. The criteria were: 1) the scientific article is written in English or Lithuania; 2) the publication date of the scientific article was not later than 2019 3) The research article is an open access full-text article; 5) The research article analyses the situation in the context of Covid.

To see the distribution of virtual tourism products in Lithuania, created a map with ArcGIS Pro program, that reveals the distribution of virtual tourism products in Lithuania.

III. RESULTS

Virtual tourism is a form of alternative tourism. This type of tourism is a fairly new area, having become very popular precisely after the COVID-19 pandemic. Scholars Vermaa, Warriar, Bolia, and Meht (2021)[8] state, "It doesn't matter why, where, or how you travel. You can always discover something new and wonderful." Global trends show that alternative tourism, such as health, medical, cultural tourism, ecotourism, spiritual or sports tourism, are new areas of interest for tourists [8]. Namely in 2020 During the period of the COVID-19 pandemic, when there were travel restrictions, tourists had to radically change their travel habits, so a new form of alternative tourism - virtual tourism - gained increasing interest [9]. Virtual tourism became popular because individuals could visit any place in real time, anywhere in the world, using their smartphones [8].

When analysing virtual tourism, we must first clarify the concept of virtual tourism, the concept and the reasons for

its appearance in the scientific literature. Various concepts of virtual tourism can be found in the scientific literature and other sources. Ye, Cho, Liu, Yu Xu, Zhengzhi Jia and Jianyu Chen (2022) [9] claim that Virtual tourism is a new type of tourism, where tourists develop emotional attachment to the real tourist destination through interaction with three-dimensional spaces, seeing scenic areas in virtual space. Muhammad Shoaib Siddiqui, Toqeer Ali Syed, Adnan Nadeem, Waqas Nawaz, Ahmad Alkhodre (2022) [11] states Virtual tourism is a remote application that allows travelers to explore nature, attractions, various off-the-beaten-path sites, ruins, buildings and other travel destinations without the need for physical travel. to visit them.

A. Idea and classification of virtual tourism product

With the help of various modern technologies, it is possible to create various types of virtual tourism products. According to researchers Talafubieke, Mai and Xialifuhan (2021)[12] virtual tourism products enhance the tourism experience of tourists. Virtual tourism products are created and digitized using one or more virtual tourism technologies, which can be seen in

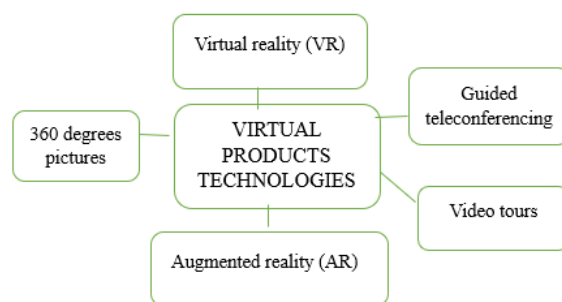


Fig. 1. Technologies of virtual products. [11]

With the help of these digital technologies, various virtual tours can be created products.

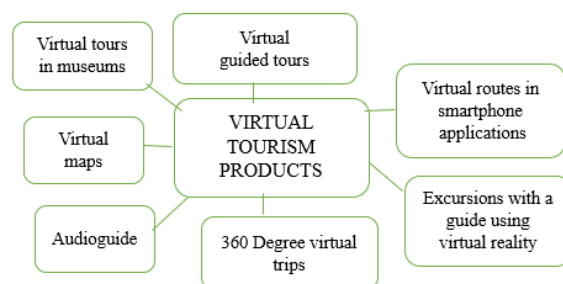


Fig. 2. Virtual tourism products. [19]

Thus, it can be said that virtual tourism products can be created using various virtual reality technologies, such as 360-degree photos, guided teleconferencing, virtual reality, augmented reality, and video tours. With the help of these technologies, unique tourism products can be created that facilitate the nature of tourist travel. You can choose from the following virtual tourism products, such as virtual museum tours, virtual maps, 360-degree virtual tours, guided tours using virtual reality, virtual itineraries in smartphone applications, virtual guided tours.

B. Virtual tourism trends in the world and Lithuania

In 2020 the global COVID-19 pandemic has changed the tourism sector and negatively affected the global travel and tourism industry [2]. The tourism sector had to look for ways to maintain tourists' interest in a tourist destination. It was decided to use various programs. One of them is the Ascape application for smartphones. An app that offers 360-degree videos that offer virtual tours of popular tourist destinations and facilities [13]. The virtual reality provided through this application allows tourists to see the three-dimensional (3D) environment as if they were actually there [14]. One of the most popular destinations in Ascape is Hawaii. Tourists planning to visit the island can use their smartphone to preview the future attraction, take a virtual tour, take a virtual walk, look around, and feel as if they are already in Hawaii [13].

Analysis by GlobalData, a social media analytics (SMA) platform that identifies and tracks emerging trends, has shown that "virtual tourism" is the most popular form of tourism. Because in 2021 it was still the quarantine period, tourists did not travel much for adequate and obvious reasons, and they chose the safest, cheapest, and at that time the easiest way to travel - virtual tourism.

There is a clear trend in the world to use virtual reality technologies to create and implement digital content virtual tourism products. With the help of virtual technology, museums are being digitized so that users can get up close and personal to view the presented exhibits. Various places of interest are also transferred to the virtual space, so that users have the opportunity to visit the attractions virtually.

Virtual tourism is perfectly applied in Lithuania as well. Virtual tourism products are created and implemented on their websites by tourist information centers, museums, visited objects, hotels, etc.[1].

In 2022 the modernization of the Lithuanian Integrated Information System of Museums (LIMIS) was completed, during which new electronic services for museums and visitors were created, the digital collection management subsystem for museums was improved, and the main LIMIS public access was basically updated [15]. More than 110 Lithuanian museums and other institutions provide data in this system. It provides one of the electronic services "Virtual museum tours". This electronic service provides an opportunity to virtually familiarize yourself with the expositions and exhibitions of Lithuanian museums. Users can see the expositions in the museum, images of the spaces, exhibits included in the virtual tours, read information about them or listen to audio and video recordings related to the exposition [16].

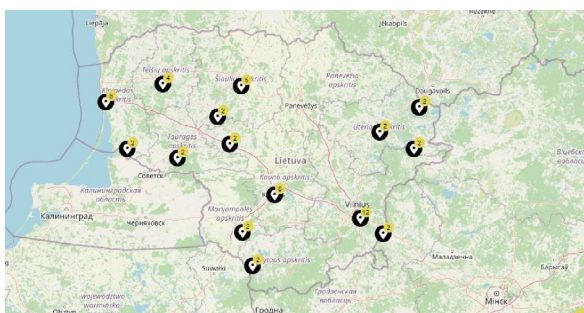


Fig. 3. Virtual tours in museums. [15]

Most municipalities in Lithuania have virtual maps with places of interest located in the city. One of them, the sights of the Akmenė district. It can be seen in the image below:

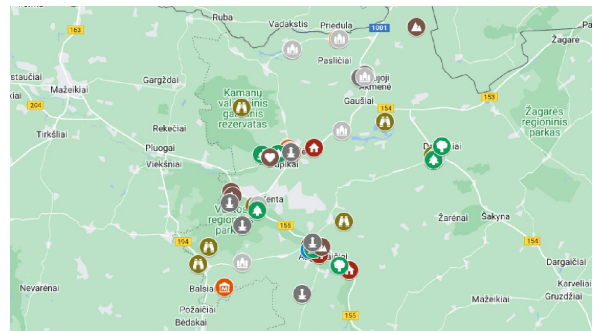


Fig. 4. Places of interest in Akmenė district. [17]

Many Lithuanian municipalities have installed mobile applications for smartphones. For example, visitAkmenė, a mobile tourist guide, is for smartphones app for devices. The mobile guide with the help of GPS helps to orientate while traveling and provides information about places of interest in the municipality of Akmenė district. The app also provides pedestrian, bicycle and car routes with links that tourists can use to get to know Akmenė region [17]. Anykščiai district municipality also offers to discover Anykščiai using your phone.

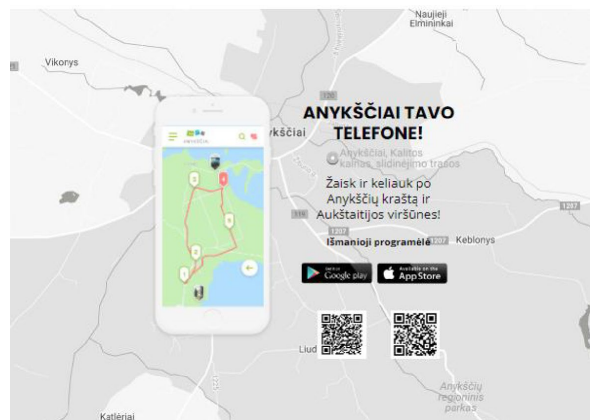


Fig. 5. Anykščiai on your phone. [20]

Below is a map of Lithuania, where you can see the location of virtual tourism products in Lithuanian municipalities.

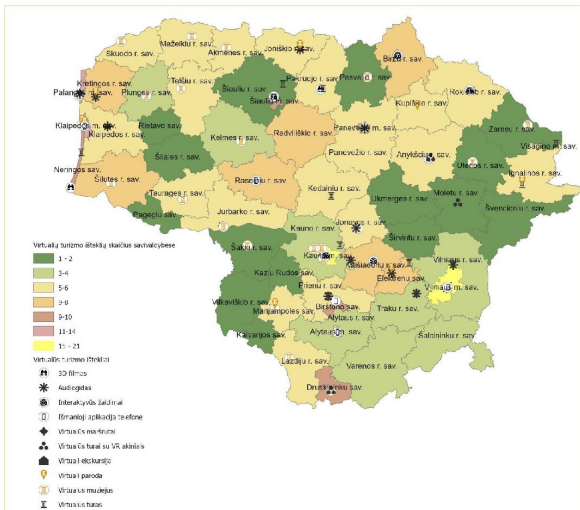


Fig. 6. Virtual tourism products in Lithuania

It can be seen that the largest cities of Lithuania - Vilnius and Kaunas - have the most virtual tourism resources. The big cities of Lithuania are characterized by an abundance of interesting tourist attractions, which have integrated and virtual reality. These are the cities that attract the most tourists. Last year alone, in 2022 1.195 million people visited Vilnius. Kaunas - 586.6 thousand tourists from all over the world [18]. Cities can offer a variety of virtual tourism resources. You can find many virtual tours of museums, virtual routes, smart apps, and audio guides created in museums. Virtual tourism products that can be found in the virtual space may seem attractive to many tourists, so there is a desire to come and see the objects in reality. The municipalities in the east and southwest of Lithuania, marked in dark green on the map, have the fewest virtual tourism products. Most of them are Lithuanian district municipalities located on the border of the Republic of Lithuania, or district municipalities that receive the least amount of tourists. These are municipalities that make less use of their tourism resources, which is why they are not characterized by an abundance of virtual tourism products.

In Lithuania, we see a clear trend of growth of virtual tourism products. Lithuania can offer a wide variety of virtual reality tourism products created by modern technologies, which everyone can discover. In the virtual space, you can virtually travel around various museums in Lithuania, travel along various created virtual routes, and with the help of virtual reality technologies - virtual reality, you can return to the past. Smart mobile applications prevail in Lithuania, which have been installed in most cities, where you can find all the necessary information. Various virtual educational-cognitive programs, interactive games, and flight simulators are also offered.

II. DISCUSSION

Klaipėda is a port city with its deep and rich history and cultural environment that attracts tourists. The city's maritime heritage, various tourist attractions attract tourists from all over the world to experience unique, unforgettable experiences in Klaipėda. The city's maritime past is evident in the old town, historical buildings create a wonderful atmosphere. The Clock Museum, which exhibits a fine collection of clocks, and the Castle Museum, housed in a

restored 13th-century building. in the castle, provides an insight into the city's history and heritage.

In Klaipėda, you can find virtual tours of museums, such tours have been implemented by the Museum of Clocks, the Gallery of Pranas Domšaitis. Virtual exhibitions are offered by the Museum of Little Lithuania, the Lithuanian Maritime Museum. The Klaipėda Audioguide smart app was created by the Klaipėda State Seaport Directorate, and its use is distributed by the Klaipėda Tourism Information Center. A virtual map with places of interest can be found on the Klaipėda TIC website. The city of Klaipėda also offers virtual tours with guides, which are placed on the Internet, and you can walk around the city of Klaipėda using virtual reality technology - 3D format.

The Klaipėda Tourism Information Center offers the route "Talking Sculptures". This is the Klaipėda sculptures dubbing project. Metal plates with the name of the sculpture and a QR code are attached next to each listed sculpture, which you can scan to hear how the sculpture will tell its story (KTIC, 2023)[7]. A map of the talking sculptures can be seen in the image below.

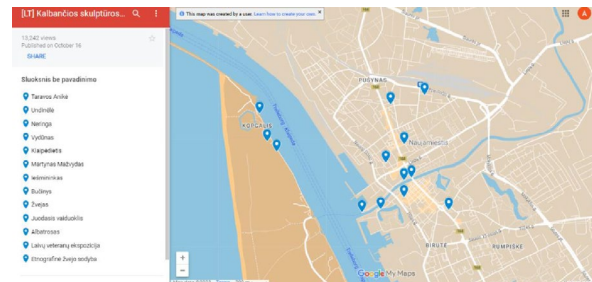


Fig. 7. Map of talking sculptures. [7]

The Klaipėda Tourism Information Center provides a virtual map with places of interest.



Fig. 8. Virtual map with places of interest. [7]

Most virtual tourism products can be found online and used on your smart devices. All described virtual tourism resources of the city of Klaipėda are difficult to represent cartographically, since they do not have their specific physical location. Most of them are found in the virtual space, but seven physical places have been selected, including museums, libraries and the Klaipėda Tourism Information Center, these places are represented on the map that can be seen below.

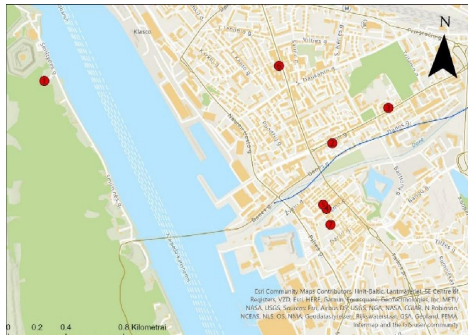


Fig. 9. Virtual tourism products in Klaipėda

It can be seen that a map of virtual services has been presented, seven objects in Klaipėda have been selected, which are shown on the map of virtual tourism services in Klaipėda. Most of the virtual tourism products in the city of Klaipėda, such as virtual maps, a smart app on the phone, or virtual tours that are placed on the website, all these created products are in the virtual space, they do not have a specific physical location that can be represented cartographically. For this reason, the selected objects that can be seen on the virtual tourism services map of Klaipėda city have a physical location, where virtual tourism products are created, created and installed.

There are 128 attractions in the city of Klaipėda. The city must offer many tourist facilities, educational and entertainment excursions, a variety of educational programs, active leisure entertainment and activities [21]. However, virtual tourism is not yet strongly developed. In order for the city of Klaipėda to become a center of attraction for internal and incoming tourism, there is a lack of advertising, and virtual tourism would help to create it. There are modern museums and exhibition halls in Klaipėda, the city has a unique heritage, and virtual tourism products installed in the virtual space would help popularize all of this. It would become a marketing tool to make the tourist want to come to a certain place. And for people living in other cities, it would be easy to reach the attraction.

Taking into account the empirical part, we can see from the answers of the research participants that a clear reason emerges, due to which virtual tourism products become a challenge for tourism-related companies. This is a lack of funding and expensive equipment. Since these are not cheap products, it would cost a lot of money to create something smart, modern and virtual. Such products should not be developed by individual companies, but by the city as a whole. By receiving funding from the municipality or collaborating with several organizations and implementing various projects, virtual tourism products would be easier to implement. A great example is the virtual tour created in the Watch Museum, it is a joint project with LIMIS, in which they offered to participate, and the creation of this product was not only very useful during the pandemic period, but also brings further benefits - after taking the virtual tour, users come to the museum to see real exhibits.

When users see virtual tourism products in the virtual space, they have the opportunity to plan their route in Klaipėda in order to visit one or another attraction. An interactive virtual map with places of interest and integrated panoramic photos would be very useful for this. Currently, the map created by the Klaipėda Tourism Information

Center only marks the places of attractions, but if an interactive map is integrated with panoramic photos, it would be possible to see a real view of the area and its surroundings.

The attractions in Klaipėda city are not fully utilized in order to increase the tourist potential. The analysis of the conducted research showed that by integrating virtual and augmented reality, attractions would look more innovative, modern, and attract more people. Since Klaipėda has lost many historical buildings during wars and fires, augmented reality would be useful, during which certain historical people living in that period would be restored and revived. We should immerse ourselves in different historical eras, for educational processes, both 360 degrees and augmented reality, virtual reality, all these technologies would attract more people to museums. In general, everything that is created in the city and in the museum could be brought to the virtual world, since the new generation wants less and less contact with a person, they want to be independent, individually interested in tourist objects. An excellent example is in the German city of Lübeck - in the Günter Grass-House Museum. This example could be applied in Klaipėda by taking tourists virtually to the city's past. Viewers would use virtual reality goggles to watch images of the past as the city changed over the years.

In summary, it can be said that three things are needed to develop virtual tourism in the city of Klaipėda. Advertising, financing and new virtual, interactive virtual tourism products, such as an interactive city map with places of interest or virtual tourism products with virtual reality glasses. In order for the city to remain modern and up-to-date, interesting, innovative virtual tourism products must be constantly created, which would provide users with informational and cognitive benefits and create unique experiences.

IV. CONCLUSIONS

1. After examining the concept of virtual tourism and the circumstances of its emergence from a theoretical perspective, it can be concluded that virtual tourism is a new form of tourism, inseparable from digital technologies, virtual and augmented reality technologies, which provide users with unique experiences and the opportunity to browse and travel without leaving home. This new form of tourism emerged as an alternative to the usual traditional tourism and its emergence and popularity was caused by the COVID-19 pandemic situation.

2. After analyzing the idea and classification of a virtual tourism product from a theoretical perspective, it was found that virtual tourism products are created using one or more virtual tourism technologies. The two most popular virtual tourism technologies are distinguished - virtual and augmented reality, which offer interactive images and provide new experiences. With the help of these digital technologies, various virtual tourism products can be created, such as virtual museum tours, virtual maps, 360-degree virtual tours, guided tours using virtual reality, virtual itineraries in smartphone applications, virtual guided tours. The most popular

virtual tourism products are 360-degree virtual tours and virtual museum tours, while less popular are guided tours using virtual reality.

3. After analyzing the trends of virtual tourism in the world and in Lithuania, it was found that the popularity of virtual tourism is growing rapidly both in the world and in Lithuania. With the help of ever-improving digital technologies in 2020. virtual tourism products with digital content are developed and implemented more intensively, museums and other places of interest and objects are digitized so that users can view the exhibition up close and virtually. In Lithuania, it can also be observed since the beginning of the COVID-19 pandemic in 2020. a clear trend in the development of virtual tourism products. The largest concentration of virtual tourism products is in the big cities of Lithuania. The municipalities in the east and southwest of Lithuania have the fewest virtual tourism products. Most of them are Lithuanian district municipalities located on the border of the Republic of Lithuania, or district municipalities that receive the least amount of tourists.

4. After analyzing the virtual tourism resources and services of the city of Klaipėda, it was found that virtual tourism in Klaipėda is an integral part of general tourism. In the virtual space, you can find virtual city walks, virtual tours of museums and galleries, as well as virtual guided tours, which are placed on online platforms, and places of interest can be found on the provided virtual map. Klaipėda city as well must offer a mobile application Klaipėda Audioguide. The largest number of virtual tourism products has been created by one of the most visited museums in Lithuania - the Lithuanian Maritime Museum, which has to offer various virtual tours and exhibitions. The majority of virtual tourism products do not have their specific physical location, they are found only in the virtual space, but the largest tourist objects of Klaipėda city: Lithuanian Maritime Museum, Clock Museum, Pranas Domšaitis Gallery, Imanuelis Kant Public Library, Klaipėda County Public I. Simonaitytė Library, Klaipėda Tourism the information center and the Museum of Little Lithuania have installed one or more virtual tourism products.

5. After determining the possibilities of virtual tourism and virtual tourism products of the city of Klaipėda, it was determined that it would be appropriate for the city of Klaipėda to focus on the presentation of the city's rich past when creating virtual tourism products. It is appropriate to increase the advertising of virtual tourism products by differentiating according to the target audience, and thus create the image of a modern, attractive city with the help of digital technologies. It is also important to implement mobile applications with integrated audio guides for increasing the accessibility of tourist information. In order to reduce the financial burden and when creating digital content products, it is appropriate for museums and other objects to join joint projects.

REFERENCES

- [1] J. Daubarienė, „Virtualaus turizmo vystymo ypatumai“, 2021. Available: https://www.utenoskolegija.lt/upload/file_manager/visuo_menei/jzvalgos/2021nr1/3%20j.%20daubariene_%20virtualaus%20urizmo%20vystymo%20ypatumai.pdf
- [2] UNWTO „Impact assessment of the COVID-19 outbreak on international tourism“, 2023 Available: <https://www.unwto.org/>
- [3] N. Atri and N. Atri, (2023, March 15). Virtual tourism is the most popular type of tourism in 2021. Travel and Leisure Asia Available: <https://www.travelandleisureasia.com/in/news/virtual-tourism-popular-type>
- [4] A. Peštek, and M. Sarvan, Virtual reality and modern tourism. Journal of Tourism Futures, 7(2), 2020, pp. 245–250. <https://doi.org/10.1108/jtf-01-2020-0004>
- [5] N. R.-. E. Činga and N. R.-. E. Činga (2019, April 8). Lankomiausi Lietuvos miestai ir rajonai | We love Lithuania. We love Lithuania. <https://welovelithuania.com/lankomiausi-lietuvos-miestai-ir-rajonai/>
- [6] Klaipėdos apskritys Ievos Simonaitytės viešoji biblioteka. (2022). „Raudonų plytų Klaipėda“. Available: <http://www.krastogidas.lt/marsrutai/80-raudonu-plytuklaipeda>
- [7] Klaipėdos turizmo informacijos centras (KTIC). (2020). Available: <https://klaipedatravel.lt>
- [8] Sanjeev Verma, Lekha Warriar, Brajesh Bolia, Shraddha Mehta „Past, present, and future of virtual tourism-a literature review“, 2022 Available: https://www.researchgate.net/publication/36117916_Past_present_and_future_of_virtual_tourism-a_literature_review
- [9] M. Mahdikhani, „Predicting the popularity of tweets by analyzing public opinion and emotions in different stages of COVID-19 pandemic“, 2021. Available: [Predicting the popularity of tweets by analyzing public opinion and emotions in different stages of Covid-19 pandemic | Request PDF](https://www.researchgate.net/publication/36117916_Past_present_and_future_of_virtual_tourism-a_literature_review)
- [10] D. Ye, F. Liu, D. Cho and Z. Jia, Investigating switching intention of e-commerce live streaming users. Heliyon, 8(10), 2022. e11145. <https://doi.org/10.1016/j.heliyon.2022.e11145>
- [11] M. S. Siddiqui, T.A. Syed, A. Nadeem, W. Nawaz, and A. Alkhodre, Virtual Tourism and Digital Heritage: An analysis of VR/AR Technologies and applications. International Journal of Advanced Computer Science and Applications, 13(7), 2022. <https://doi.org/10.14569/ijacsa.2022.0130739>
- [12] M. Talafubieke, S. Mai, and N. Xialifuhan, Evaluation of the virtual Economic Effect of tourism Product Emotional Marketing based on Virtual Reality. Frontiers in Psychology, 2021. <https://doi.org/10.3389/fpsyg.2021.759268>
- [13] J. Kim, T. Shinaprayoon and S.J. Ahn, Virtual tours encourage intentions to travel and willingness to pay via spatial presence, enjoyment, and destination image. Journal of Current Issues and Research in Advertising, 43(1), 2021, pp.90–105. <https://doi.org/10.1080/10641734.2021.1962441>
- [14] F. Biocca, The Cyborg’s Dilemma: Progressive Embodiment in Virtual environments [1]. Journal of Computer-Mediated Communication, 2006, 3(2), 0. <https://doi.org/10.1111/j.1083-6101.1997.tb00070.x>
- [15] Lietuvos integrali muziejų informacinė sistema. (2023). Available: <https://www.lndm.lt/struktura/limis/lietuvos-integrali-muziejju-informacine-sistema/>
- [16] National State Enterprise of Lithuania Museum of Art, (2023). <https://www.lndm.lt/en/>
- [17] Akmenės turizmo informacinis centras (2023). Available: <https://www.akmene.lt/sveciui/lankyti-objektai/128>
- [18] The State Data Agency (Statistics Lithuania) (2023) becomes the competent authority for the implementation of the Data Governance Act - Asset Publisher. (n.d.). https://osp.stat.gov.lt/en_GB/web/lsd/home/-/asset_publisher/lbrXvLVHX2ln/content/valstybes-duomenu-agentura-tampa-kompetentinga-istaiga-igyvendinant-duomenu-valdymo-akta/
- [19] J. Oškiniš, „Pakvietė keliauti laiku: virtualioje realybėje leido pasižvalgyti po išnykusį Aleksotą“. 2022. Available: <https://www.lrytas.lt/it/ismanyk/2019/11/06/news/pakviete-keliauti-laiku-virtualiojerealybeje-leido-pasizvalgyti-po-isnykusi-aleksota-1245054>
- [20] Tourism information center of Anykščiai (2023). Available: <https://www.visitanykscai.lt/anykscai-tourism-and-business-information-center/>
- [21] Klaipėdos miesto savivaldybės 2021-2030 metų strateginis plėtros planas (2021). Available: <https://www.klaipeda.lt/data/public/uploads/2021/05/ksp-projektas-20210524-galut.pdf>