



Digital Inclusion and ICT Accessibility in Museums

SURVEY REPORT

March 2021

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Introduction

THE ISSUE

About 15% of the world's population¹ are persons with disabilities (according to statistics, in Russia their number is approximately 11 million)²; however, 80%³ of them face multiple barriers to full integration into society, in particular, lack of accessibility to the physical, digital, cultural, and social environment. Furthermore, the world's population is aging, and more than 20% of people are expected to be over age 60 by 2050⁴. The situation requires all stakeholders to seek new approaches to planning and improving cities, buildings, and environments that allow for cultural and age diversity, as well as broader engagement of all members of society.

Article 9 of the UN [Convention on the Rights of Persons with Disabilities](#) establishes the accessibility of information and communication technologies (ICT) as a human right, and Article 30 requires Member States to ensure that persons with disabilities enjoy equal access to cultural life. National laws shall endorse the requirements of the Convention and relevant international standards in digital accessibility, including [Web Content Accessibility Guidelines](#) (WCAG 2.1), adopted in 2018, and the international standard [ISO/IEC 40500:2012](#) based on WCAG 2.0 version adopted in 2012.

According to the Digital Accessibility Rights Evaluation Index ([DARE Index](#)) released by the [Global Initiative for Inclusive ICTs \(G3ict\)](#), when policy makers neglect accessibility issues, this leads to a lack of progress in developing and adopting digital inclusion strategy and standards, insufficient funds for assistive technologies and a lack of technical and infrastructural capacity for developing such technologies where needed.⁵

While the world is progressively more active in moving toward digitalization, visitors expect museums to expand their capabilities for interacting with their collections through technological solutions. In that regard, the creation of a strategy for digital transformation of museums will allow to expand access to collections and improve user experience, as well as to accomplish the mission of museums, taking into account their technological resources.

The Russian museum industry is one of the most grandiose in the world and includes about 3,000 state and municipal museums, and a wide range of private, corporate, university, and other museums. [The International Council of Museums \(ICOM\)](#) and its Russian National Committee largely focus on diversity and inclusion issues, which, in particular, became the topic of the 2020 International Museum Day. In addition, starting

¹ https://www.who.int/health-topics/disability#tab=tab_1

² According to the Federal Handicapped Persons Register as of February 2021 there are 10,844 mln people <https://sfri.ru/analitika/chislennost/chislennost?territory=undefined>

³ The Tenth Session of the World Urban Forum. Cities of Opportunities: Connecting Culture and Innovation. <https://wuf.unhabitat.org/sites/default/files/2020-01/SE44.pdf>

⁴ Ibid.

⁵ https://g3ict.org/upload/accessible_DARE-Index-2020-Global-Progress-by-CRPD-States-Parties-ENGLISH.pdf

2017, ICOM Russia is implementing the Inclusive Museum project aimed at assisting museums in creating an environment that is equally accessible for all.

Studying the level of digital accessibility allows to assess its current state in Russian museums, especially, to determine whether this topic is something the management is focused on, whether it is covered by the development strategy, whether the management collaborates with organizations representing persons with disabilities, whether museum staff is aware of inclusion issues, whether data on visitors with disabilities is collected and analyzed, or whether accessibility is taken into account when deciding on purchasing and implementing technological solutions.

The results of this research can be used for developing a digital inclusion strategy in the museum industry and presented before ICOM Russia, the Russian Ministry of Culture and other stakeholders and organizations. In addition, the research identifies both successful practices and existing gaps in ensuring digital inclusion and ICT accessibility and determines the steps necessary to increase the digital inclusion maturity of Russian museums.

STATEMENT OF PURPOSE

The purpose of this research is to determine how Russian museums understand the importance of digital inclusion and accessibility of information and communication technologies (ICT), including identifying the most common barriers and means of overcoming them. The findings will serve as a basis for developing educational and methodological materials for museum staff and other persons interested in digital inclusion and ICT accessibility.

METHODS

In order to achieve this purpose, G3ict in close cooperation with ICOM Russia conducted an online survey among managers and staff members of Russian museums.

PERIOD OF SURVEY

The online survey covers the period from February 15 to March 14, 2021.

SURVEY SAMPLING

161 respondents participated in the online survey. They represented 125 museums of different status from 8 federal districts and 2 federal cities of Russia. Among them, there were museum managers, employees of departments that implement educational and cultural programs, deploy information technologies (IT), provide excursion services, keep records and archives, carry out research, implement marketing, PR or fundraising, and arrange exhibitions, as well as employees of other departments, regardless of their involvement in the implementation of inclusive programs.

Findings

RESPONDENTS

The online survey was conducted among 161 representatives of 125 Russian museums specializing in various fields; they were mainly general (history, literary, architectural art, local lore museums, museum ensembles and reserves, etc.) – over 43%, then art – about 20%, and history (archeology, ethnography, military history, etc.) – about 17%.

Museums of almost all statuses participated in the survey; they were mainly state (federal and regional) – about 73% and municipal – over 20%. They are located in all federal districts of the Russian Federation, from the North-West Federal District to the Far East Federal District. Most of the respondents were from Privolzhsky (over 40%), Siberian and Southern Federal Districts (8% each), and Moscow (15%).

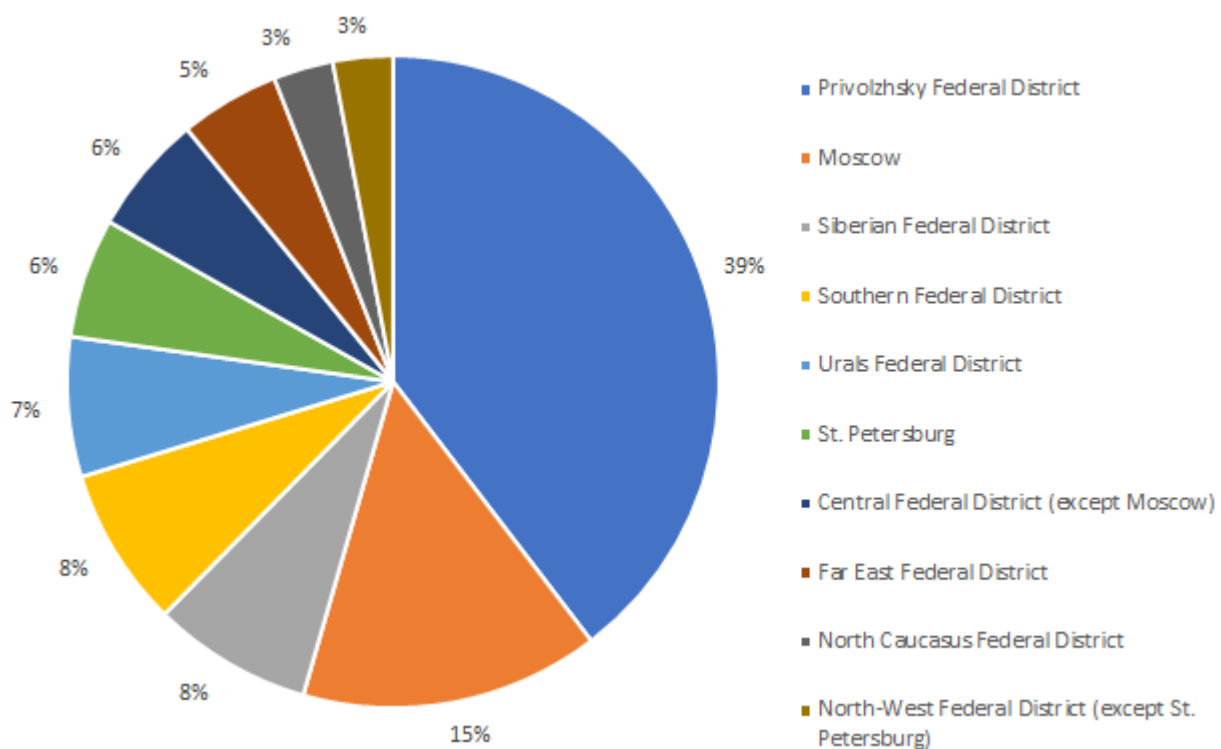


Fig.1

Most of the respondents working in museums combine different functions, in particular, engaged in general management (34%), providing excursion and visitor assistance services (34%), implementing educational and cultural programs (41%). 23% of the respondents are also engaged in ensuring accessibility and inclusion, and only 14% are responsible for deploying information technologies.

DEGREE OF DEPLOYMENT AND USE OF INFORMATION TECHNOLOGIES IN MUSEUMS

Only a little over 4% of the respondents noted that their museum spent more than 10% of the annual budget on IT development. It is interesting that there is no correlation either with a larger number of IT personnel or with the scale of IT implementation (both mainstream and leading-edge technologies). Museums that spend from 5% to 10%, compared to the museums that spend over 10% of their annual budget on IT, more often have an IT department (50% against 29%), more widely deploy mainstream technologies for internal use and interaction with the external audience (83% against 71%), and more frequently deploy leading-edge technologies (AI, VR/AR, etc.) (17% against 14%).

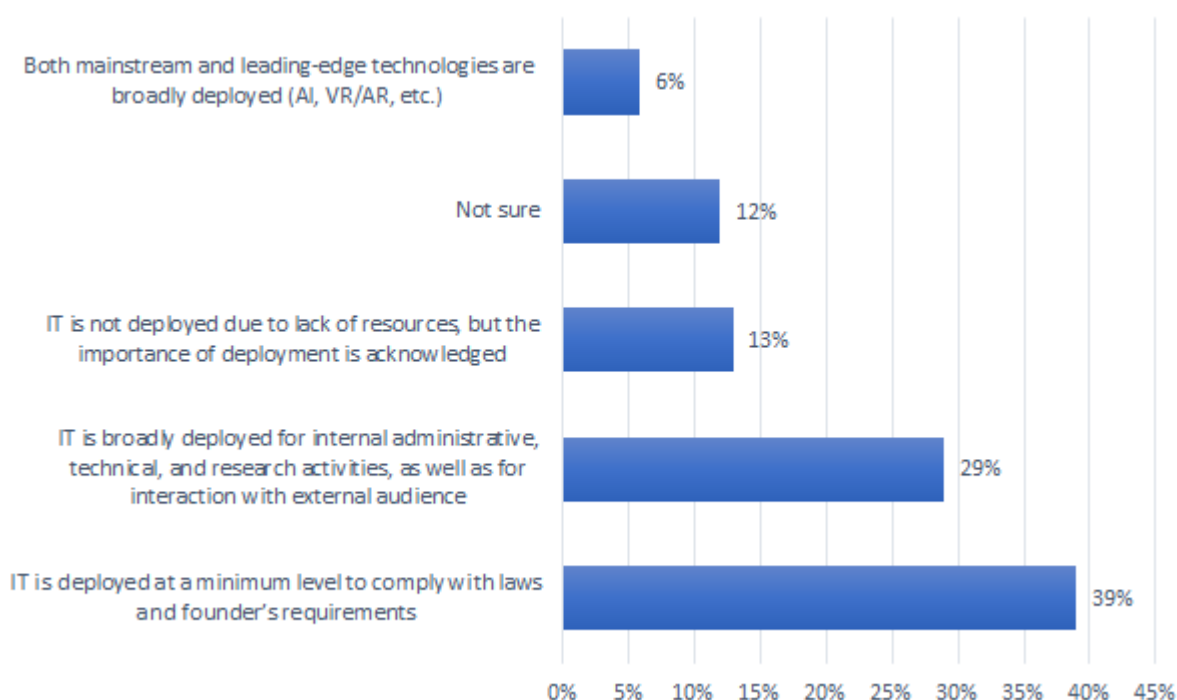


Fig. 2

On the other hand, museums that spend less than 1% of their annual budget on IT more often outsource IT services (in 30% of cases) or assign IT tasks to various staff members in addition to their other functions (in 33% cases). Such museums more often deploy IT only at the minimum level to comply with laws and the founder's requirements (in 52% of cases).

75% of the respondents named improving work efficiency and expanding access to culture as the main objectives of IT implementation in museums, 68% of them noted that it was also aimed at improving user experience and creating a more comfortable environment for visitors. And, finally, less than half, 44% of the respondents, regarded as a goal the compliance with legal requirements.

Mostly, IT is used by the surveyed museums for the following tasks: online presence (web sites, social media accounts, mobile applications) – 80%, digitization of collections – 71%, safety and security arrangements and online visits – 65%, deployment of multimedia technologies (for exhibitions, lectures, etc.) – 51%, and finally, management/administration and automated collection management – 46%.

COMPLIANCE WITH INCLUSION AND ACCESSIBILITY REQUIREMENTS

The majority of the respondents (almost 95%) know about the UN Convention on the Rights of Persons with Disabilities; however, less than half of the participants (45%) have read it and fully understand the requirements it provides in terms of inclusion and accessibility for people with disabilities, including in museums. At the same time, fewer respondents (73%) know about Russian National State Standard R 52872-2019 that governs digital content accessibility, and a mere 32% of participants apply it in their work.

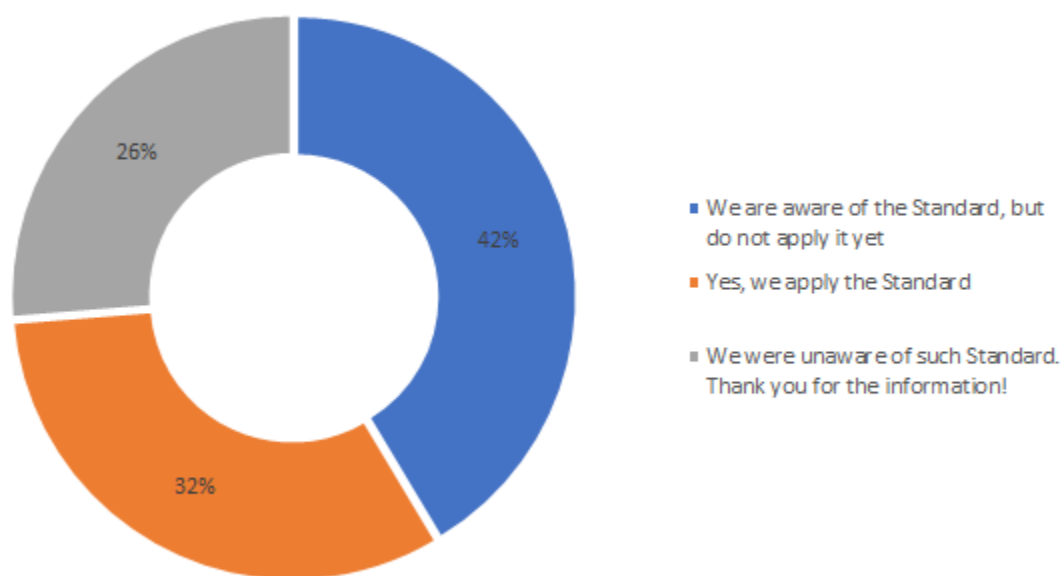


Fig. 3

Most of the museums that participated in the survey follow the requirement to ensure inclusion and accessibility for people with disabilities when they deploy IT and carry out projects. However, as a rule, this takes a limited number of directions, e.g. developing and implementing specialized services for people with disabilities (42%), designing exhibitions and creating a web site version for persons with vision impairment or low vision (39%), creating a section on the web site with information for people with disabilities (23%).

ENSURING INCLUSION AND ACCESSIBILITY IN MUSEUMS

More than 80% of surveyed museums aim to ensure inclusion and accessibility in some way. However, only 15% of the museums have a separate department managing these issues. In the remaining ones, accessibility-related work is overseen by other departments (e.g. the department responsible for popularization of science) or by particular employees in conjunction with their main duties. Very often, such functions are allocated between several departments. Mostly, this is caused by insufficient number of staff. For instance, some surveyed museums have only 1-3 employees.

At the same time, the surveyed museums rather actively cooperate with various organizations in order to implement inclusive programs. Over 60% of the museums contact disabled persons organizations; about 50% engage social protection authorities, specialized centers, schools, dedicated non-governmental organizations, and charity foundations. Approximately 30% contact colleagues from other museums and particular specialists. But only 11% of the respondents find opportunities to cooperate with commercial companies, including IT companies, for ensuring inclusion.

It is important to note that about 30% of the surveyed museums include the accessibility requirement in procurement terms of reference and/or incorporate accessibility solutions in grant budget estimates. Approximately 20% of the respondents cooperate with partners, providing them relevant recommendations, which may, in general, have a positive impact on the entire museum industry.

DEGREE OF ACCESSIBILITY OF IT, PROJECTS, AND DEVELOPMENT PLANS BEING IMPLEMENTED

When replying to the question “How often do people with disabilities ask your museum to provide accommodation (audio description, subtitles, sign language translation, special devices, etc.),” 43% of the respondents said that they had never received such queries or encountered them once a year at most. Over 43% admitted that even after having been asked, the museum never or almost never provided such accommodations.

Probably, this is the reason why 92% of the respondents assessed the degree of accessibility of IT, projects and development plans being implemented by their museum as medium, low or very low, and only 8% said it was high or very high. Such results can likely be explained by the absence of feedback options for people with disabilities and no information on their needs and accessible technologies; however, in some cases, accessibility is assessed formally based on documents and rules existing in a particular museum.

How do you assess the accessibility for people with disabilities of information technology, ongoing projects and development plans being implemented in the museum?

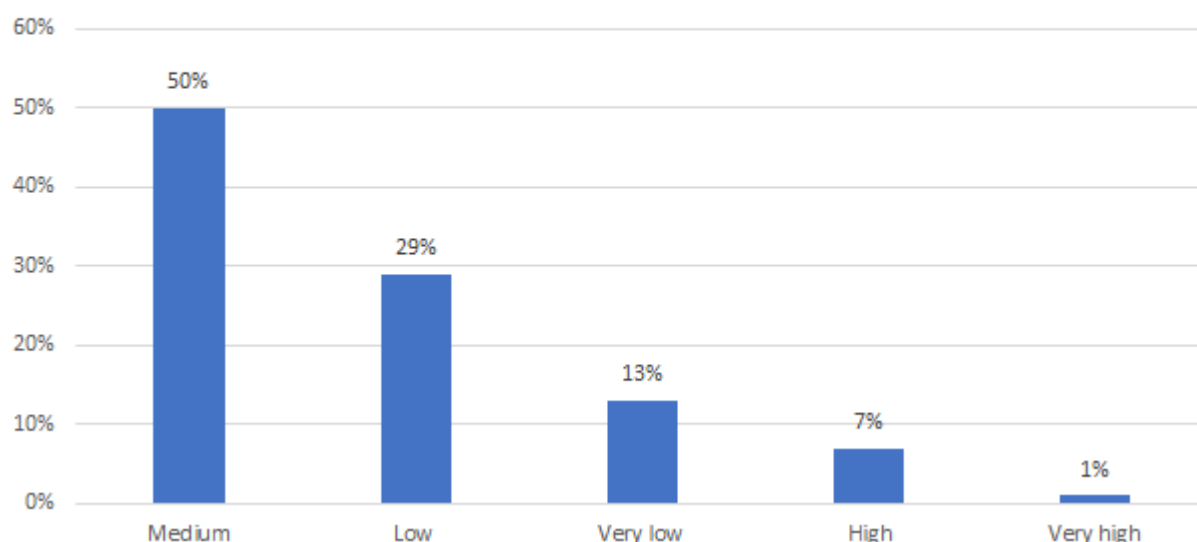


Fig. 4

Only 29% of the surveyed museums have an allocated budget for ensuring deployment of accessible IT, which is mainly sourced from the founder's funds, grants, sponsorship contributions or donations. Nevertheless, museums find the opportunity to use a diverse range of technologies, solutions, services, and procedures to increase accessibility and inclusion of people with disabilities. More than 60% of the surveyed museums have premises that are accessible for visitors with disabilities; over 50% have online visits available in various formats or provide individual assistance to people with disabilities in their museum; more than 40% have audio guides, create accessible web sites and provide online access to collections.

At the same time, video with audio descriptions, multimedia navigation, tools for checking web sites and documents for accessibility, mechanisms for evaluating and collecting feedback on the effectiveness of services provided to people with disabilities are being implemented by an insignificant number of museums. And only one respondent noted that the museum has a published IT accessibility strategy.

BARRIERS TO IT ACCESSIBILITY AND DIGITAL INCLUSION AND WAYS TO OVERCOME THEM

The vast majority of respondents acknowledge that IT can improve access to cultural life for people with disabilities, and that they intend and feel inclined to implement IT in their museum in order to achieve this objective (97%). At the same time, they face a number of obstacles to this.

In the respondents' opinion, the main barriers to IT accessibility and digital inclusion for museums are insufficient funding (75%), lack of knowledge about accessible technologies (43%), and absence of a digital inclusion strategy (32%). Interestingly, some respondents noted a lack of business case for inclusion and accessibility as an obstacle (13%), which opens up opportunities for further development of such a case together with museums.

Procurement of accessible IT required for effective digital inclusion in museums falls outside the competence of most of the respondents. 72% of them found it difficult to answer whether the museum procurement department was familiar with the IT accessibility requirements and whether it applied the relevant criteria when selecting technology products, services, and suppliers.

Another important aspect in assessing the level of accessibility in a museum and planning further steps is sources of data on the needs of people with disabilities when visiting a museum. Most of the respondents rely on the following data: preferences of people with disabilities (76%), preferences of parents, teachers, other persons accompanying people with disabilities and recommendations from special literature, conference or specialized event materials on museum inclusion (53%), experience of other museums (52%), own observations (48%), recommendation of invited experts (33%). It is important to note that the answers to this and other questions do not allow us to determine whether there exist procedures for systematic collection of feedback from people with disabilities, which is one of the criteria showing successful interaction with this category of visitors.

Most respondents acknowledge that museum staff needs training on disability and accessible technologies (98%) and is interested in joining the international professional community providing such training and a platform for sharing experiences (88%).

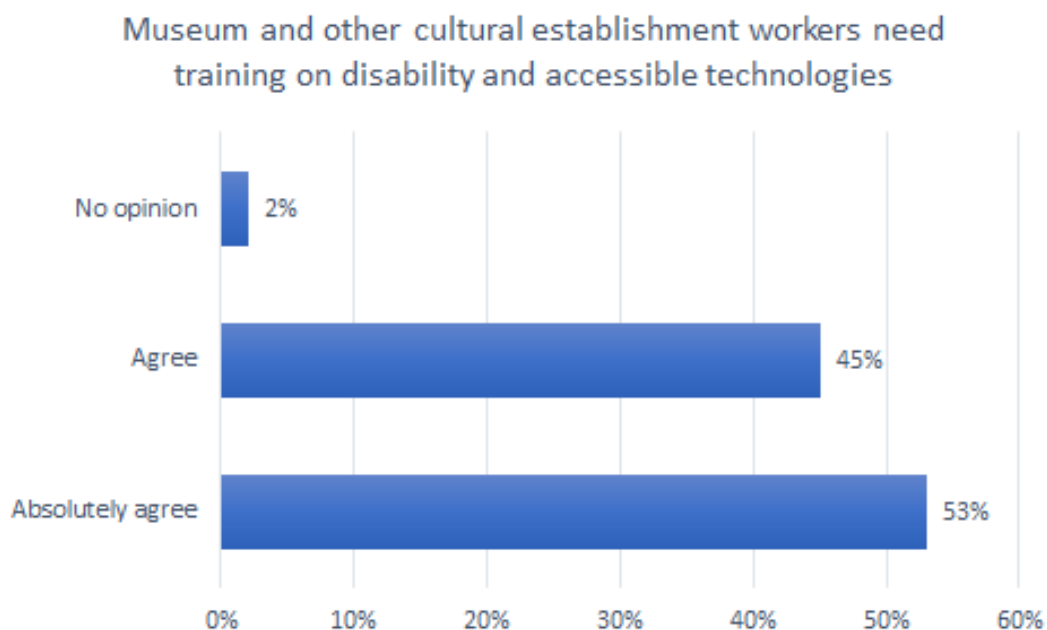


Fig. 5

"THE PEOPLE SPEAK"

On the importance of the topic

"Thanks a lot for the survey; it helped to understand the need to develop digital inclusion in my museum and identify points that must be taken into consideration."

"Nowadays digitalization is very prevalent, and museums should not neglect inclusion, since all people deserve to receive full-fledged services and information. Thank you for the opportunity to participate in your survey."

"I think the topics raised in your survey fully reflect the essentials in the work of a modern museum, which is an open and inclusive environment accessible to anyone."

"It was very interesting and useful for us to fill out your questionnaire. For the first time, we calculated the percentage of funds spent on IT in terms of inclusion; it turned out to be 11.9 (!). We were surprised that it was so high. Thank you so much."

"We are trying to make our Museum accessible and are very delighted with our achievements in this direction; we are ready to share our experience and absorb any knowledge. Thank you for your work."

"Engaging experts from among the blind or sign language speaking communities, people living in psychoneurological centers, and wheelchair users to create an inclusive environment should become everyday practice for the administrations of cultural establishments."

"Our museum has been successfully servicing visitors with disabilities offline for a long time. Since the 1990s, we have a separate department and special programs developed for all categories of visitors, including museum and art therapy. We have training for specialists and volunteers. As to IT technologies, currently our museum is short on equipment, but we are looking for new opportunities."

"Thank you for the survey; your questions and new angle were interesting. Our department has been involved in ensuring an inclusive environment in the museum for many years, but we do not have enough knowledge of IT and the opportunities it brings. We will address this issue, thank you."

"The topic of your research is vital for the existing cultural environment, but many issues require clarification. It is very important to convince the management of museums and higher authorities of the significance and necessity of introducing this material. I wish you success in this!"

"Conditions for people with disabilities must be improved; we will continue to work on this issue, including using grants."

"This is a very good project. After all, there are people around us who want to get information and live a full life, but are prevented from doing so due to disabilities."

Sometimes, healthy people fail to notice these problems, because for them everything is easy and simple. I really like that lately our government and cultural facilities have been paying more attention to people with disabilities.”

“I believe the topic of inclusion is very important for the modern world. But at this point, our organization and I personally are not even ready to start discussing this topic in our work. The priority tasks are completely different: legal, status, and financial. But I hope that in the near future this issue will be taken into consideration for designing updated exhibitions.”

On insufficient financing

“The main disadvantage in our museum is the lack of financing.”

“People with disabilities are indeed visitors, they need to study culture, feel and enjoy all the grace and beauty of art as well, and our museum really wants to help them, but sometimes we lack financing...”

“There is lack of financing for comprehensive inclusion. That’s why we purchase any necessary equipment and technical devices extremely rarely.”

“On the territory of our museum, excursions and presentation of cultural values are also important for people with disabilities. At the same time, providing workshops is more crucial, so we can teach them some type of craft. A photo studio or a kiosk for selling the crafted products may be fruitful. I have a cousin with Down syndrome. She will soon turn 45. She is keen on napkin embroidery. Another girl knits socks. Unfortunately, I have little knowledge of the financial intricacies of applying for grants. Therefore, it is difficult to move forward without good financing.”

“Our museum is now actively working under the Sounding Color project based on a grant. We conduct excursions and workshops for people with hearing loss or impairment (adults and kids), develop a video guide, install an interactive kiosk, and arrange art classes for kids on making stage decorations. All these activities are financed by a grant, and it is a pity that a budget is not allocated for purchasing necessary facilities and technologies for people with disabilities.”

“The work in this direction is very weak; the main reason is insufficient financing.”

On lack of staff

“As a rule, regional and municipal establishments lack the staff for developing inclusive activities; the few employees are so busy with their main duties that they do not have enough energy and time for gaining additional knowledge and skills.”

“For implementing IT in the museum, experts in this area are needed, but small municipal museums do not have any.”

“Unfortunately, even though our museum aims to improve servicing visitors with disabilities, the process is poorly organized. I believe this task should be assigned to a specialized department, rather than allocated among all departments, because there were cases when implementation of projects was seriously delayed due to employees working on more crucial and significant projects.”

“I understand the importance of this issue, and it would be useful to deploy new technologies in small museums, where there is only one employee!!!”

“I think the topic of this project is very important. It is necessary to develop this area in museums and other cultural establishments. At the same time, municipal museums need help because of insufficient staff and financing. We have no specialists.”

“The effectiveness of work in this direction, firstly, depends on whether there are interested and trained employees in the museum. And only then on financing.”

On necessary training

“I would be interested in getting more information on how other museums are implementing this. To gain experience and knowledge.”

“We need offline events with all museum employees involved and concerned!”

“I would love to undergo additional training in digital inclusion.”

“I believe that museum staff should be provided with more information on inclusion aspects and training.”

On necessary government support

“The issue of museum accessibility is very important. Museums need government support in this matter.”

“We are at the initial stage of addressing this issue. The number of people with disabilities is growing. Therefore, a centralized program is required to create good conditions for individuals living in rural areas.”

“It is necessary to develop a federal program that includes supplying the technical means to regional museums, creating programs to ensure accessibility and organizing a series of educational seminars on working with various groups of visitors with disabilities.”

“We need government financing and understanding. Our city has a specialized school, and we work with it quite well. But this is team work.”

“To solve this issue, we need our government to allocate funds for this purpose. Otherwise, even elementary requirements cannot be met.”

“In the course of developing IT inclusion projects, it is important to pay due attention to technical and informational support for people with disabilities, especially in rural areas. As I can see, only a few have the equipment and knowledge or ability to use it. Mainly, we focus on people with disabilities, who have active relatives with some free time and extra money. People in specialized institutions usually do not have access to digital museum products at all. So we need a comprehensive program that provides for the purchase of equipment not only for a museum, but also for specialized institutions, training of employees and people with disabilities.”

Findings

1. Most of the museums that participated in the survey are deploying information technologies (about 75%) to some extent. On average from 1% to 5% of the annual museum budget is spent on IT implementation. Approximately 10% of the respondents noted that their museum does not deploy IT, mainly, due to lack of resources.
2. The vast majority of respondents are familiar with the UN Convention on the Rights of Persons with Disabilities and Russian National Standard R 52872-2019 on digital content accessibility. At the same time, less than half of the respondents have read the Convention, and less than a third apply the Standard. Nevertheless, many museums offer special services for people with disabilities, follow the universal design principles when creating information resources, create a web site version for persons with vision impairment or low vision, and take accessibility into account when designing exhibitions. However, the museums avoid doing so in other daily activities, e.g. when updating information on the main web site or creating internal documents. Obviously, in order to increase the efficiency and accessibility of daily activities, it is necessary to provide museums with methodological recommendations and training.
3. In order to ensure accessibility and inclusion of people with disabilities, museums frequently include the relevant provision in procurement terms of reference, send appropriate recommendations to partners and incorporate solutions for ensuring accessibility in the budget estimates for grants. Such actions undoubtedly improve the overall situation with ICT accessibility and digital inclusion in the museum industry, but they must be taken systematically and on regular basis.

4. The vast majority of museums that participated in the survey do not have a specialized department in charge of inclusion, accessibility and socio-cultural integration. However, more than half of the surveyed museums actively address this issue through engaging other employees, from the museum director to the junior researcher, who often do not possess special knowledge and skills. This demonstrates that museum staff needs training in disability and accessible technologies in order to improve their efficiency and the quality of interaction with people with disabilities.
5. According to the respondents, the main barrier to IT accessibility and digital inclusion for museums is insufficient financing and lack of knowledge of accessible technologies. In some cases, museum staff expresses doubts about whether people with disabilities are themselves interested in visiting museums, whether they are able to get to the museum, or whether it is possible to ensure physical accessibility in historical buildings. Further study of, and work with, such doubts for dispelling them and raising awareness of museum staff about accessibility issues seem to be urgent for changing this situation.
6. The majority of respondents agree that IT could improve access to cultural life for people with disabilities, expressing an intent and readiness to implement IT in the museum for this purpose. However, they understand that museum staff needs training in disability and accessible technologies matters, and that is why they express interest in joining an international professional community providing such training and a platform for sharing experiences.

Acknowledgements

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