2. Organic connections and digital sustainability

The COVID-19 pandemic accelerated the digital transformation of cultural institutions and increased their focus on inclusivity, accessibility, and community engagement. These changes aimed to ensure that cultural experiences remained accessible and engaging.

Lessons from the COVID-19 crisis in terms of digital sustainability

Many of the systems and platforms that were used during the crisis had been adopted already before the crisis started, but they had been used only in a limited way. What happened during the COVID crisis itself was that museums started using those systems heavily, and they became much more central to their work than they had been previously. Remote work gained much more prominence than before, and new tools have been made available for it, and familiar to museum staff besides. Meetings facilitated for example by tools like Teams or Zoom gained a much bigger role than before.

When museums were physically closed to the public during the crisis, resources were often directed from customer service to work with collections, and to planning. This move towards using more digital tools in museum work included more emphasis on the digitisation of objects and making them better available to the public through joint platforms.

There was a certain tendency in museums to reduce investments and acquisitions during the COVID crisis, but investing in digital tools was one field where acquisitions even increased in some museums during the crisis years.

The opinion has been expressed by museum professionals that even more experimentation with digital tools could have been made during the crisis, as that might have led to new, fruitful discoveries. It was also noted that this might have required more resources than was practically available in the event, though, so it might not have been as realistic as it seems in retrospect.

No museum or memory institution responding to our questions said that the choices made to tackle the crisis with the help of digital tools would have been mistakes, they were rather seen as a logical response to a situation where museums' choices for amending the effects of the crisis were quite limited.

In terms of working remotely, as soon as the COVID crisis seemed to have passed, most museums saw a quick reduction in work hours done outside its physical premises. As of late, though, there has been also a backlash aimed at reducing remote work. It takes time until a new balance for remote work is reached.

The shift to using digital tools has happened faster and more forcefully in museums as it would have otherwise. But while the crisis period boosted museums' use of digital tools significantly, often it appears not to have changed their priorities in using them. It has rather reaffirmed views and priorities that were already in existence just prior to the beginning of the pandemic.

Digital sustainability: Improvement accessibility and audience engagement

Many museums have prioritised digital accessibility in the recent years, and especially bringing collections and materials available through the joint platforms. This is to improve their national and international availability, and to enhance accessibility for everyone interested in this content. This effort can make museums more resilient in the face of different crisis situations and disruptions, as it allows the audience engage museum services and content in various ways that are not necessarily dependent on their physical collections and exhibitions.

This effort includes different sides. Examples of improving accessibility and audience engagement includes:

- *Introducing new online activities*

- *New offers available for recipients remotely*

- *Increasing the activity of the institution in social media*

- *Modernizing the institution's website*

- *Increasing the number of digitized objects*

- *Purchasing equipment needed to record and stream events online*

- *Transition to remote communication (inside and outside the organisation)*

- *Acceleration of the digital circulation of selected documents and remote implementation of selected procedures*

- *Increasing employees' digital competences*

Forum Marinum Foundation implemented a pilot with a special focus on virtual exhibitions as a tool for improving digital sustainability from the point

of view of audience engagement. The pilot on virtual exhibitions yielded different lessons on how audience engagement can be improved when planning, creating, and using virtual exhibitions.

Perhaps the most important thing to remember is that museums should outline their goals for creating exhibitions in advance, setting up metrics for how the success of a virtual exhibition can be determined. It may be for example the number of users reached, a marked increase in audience satisfaction, or an increase of the museum's visibility online. Virtual exhibitions are not an end-all, but a means to an end, and it is important to see how they fit and complement the museum's general goals and the array of services provided by the museum.

Key recommendations for creating virtual exhibitions based on pilot:

- *Know your target audience(s): take into account who you are creating the exhibition for*

- *Know your audience's preferences in terms of subjects, content type, platforms, and systems (technologies) used*

- *Make exhibitions as accessible and easy to use as possible, taking into account that different audiences have different capabilities in using digital content, systems and platforms*

- *Choose a sustainable platform for the exhibition, with an emphasis on a high degree of continuity and institutional stability*

- *Choose reliable partners for creating the exhibition, and make sure that the terms of the partnership are agreed upon in advance (to ensure the visibility of digital services, as the survey showed, they would be used more if people knew about them)*

- *Be prepared to market new digital exhibitions in various platforms, as they are still a rather new concept, they do need more boost for their audience to find them*

- *Keep in mind, that although the costs of creating a virtual exhibition might not be as high as a regular exhibition's, one should also take in consideration the possible costs of the upkeep in the long term*

- *Make sure the museum has enough qualified staff appointed for managing the virtual exhibitions*

Focus on preparedness

Museums can only use digital tools to overcome crisis situations and times of disruption if they have adopted and created resilient digital systems before the onset of crisis. This demands resources to be used for choosing well-

functioning systems, for training staff in their use, and for maintaining and updating these systems regularly.

Create a digital strategy for using different kinds of digital tools in both ordinary times and crisis times. This strategy includes organising responsibilities for using, developing and maintaining digital tools in the museum, and making plans to improve information security and for example the long-term storage and management of data and information on the museum's collections. Such a digital strategy would preferably go hand in hand with practical crisis planning in the museum, for such things as fire preparedness or the evacuation of staff and collection items during dangerous situations.

Improving museum employees' digital competences across the board is a good and perhaps necessary way to improve digital resilience for both ordinary days as well as times of crisis and disruptions. This includes ensuring a level of basic competences for practically everyone in the organisation, as well as specialised competences for those employees who are in charge of systems as administrators. Digital competences are also important on the level of decision-making, as they allow the museum leadership to better determine what kinds of strategies and tools the institution can and should wield to improve its preparedness and resilience.

Cooperation and networking with other institutions/museums are essential for retrieving new information and knowledge. Networking in finding solutions that have been proven useful and adopting the best practices already in use in other organisations.

Strengthen institutional capabilities and organic connections

Digital systems and platforms will often become inadequate or obsolescent in time and need to be replaced with new and more advanced, more widely adopted, or easier to use systems. The financial and organisational strain of doing this is a challenge for museums, and the smaller a museum is, the more demanding it will be to keep its digital tools up to date and functional. Thus, museums with smaller resources of their own, and a smaller staff that might not be well-versed with the demands of IT systems would benefit significantly from institutional support from public and state authorities.

For example, when museums move to use new systems of collection management, often several different such systems are being used within a country or even a city. There would be room for consolidation in collection management systems, so that a smaller number of systems could be used as something of a national standard.

Working with different stakeholders like NGOs and volunteer associations provides museums structural support in ordinary times, and it allows them to also draw upon these organisations in times of crisis when museum staff might be short-handed or their opportunities to continue their ordinary work is limited. Getting the support of volunteers will also help for digital resilience, as additional pairs of hands are potentially as useful online or using various digital tools as they might be physically in museums.

The role of different museum associations and joint organisations should be to contact and put pressure on the authorities to improve their ability to support museums in getting ready for extraordinary times.

The national, regional, and local authorities are in a central role for making plans and preparations for times of disruptions and crises. Museums' own preparation can only go so far if the institutional basis provided by the authorities is not strong and consistent.

"The most important thing about digitisation and virtual exhibitions is increasing accessibility."

The COVID-19 pandemic accelerated the digital transformation of cultural institutions and increased their focus on inclusivity, accessibility, and community engagement. These changes aimed to ensure that cultural experiences remained accessible and engaging.

Increase digital sustainability:

- *Introduce online activities.*

- *New offer which is available for recipients remotely.*

- *Purchase of equipment needed to record and stream events online.*

- *Increasing the activity of the institution in social media.*

- *Modernizing the institution's website.*

- *Increasing the number of digitized objects.*

- *Transition to remote communication (inside and outside the organisation).*

- *Acceleration of the digital circulation of selected documents and remote implementation of selected procedures.*

- *Increasing employees' digital competences.*

- *There are some signals that institutions will decrease the number of digital events since the audience is no longer interested in them. They would like to organize more outdoor events or expand publishing activities instead. On the other hand, some institutions stated that the online activity should be expanded even further.*

- *Directing resources from customer service to work with collections, and to planning. This was part and parcel with an ongoing shift towards digitalization. A move towards using more digital tools in their work, centring on.*

- *More emphasis on the digitization of objects and making them better available to the public through joint platforms.*

- *A move towards more remote work during the crisis*

Many of the systems and platforms that were used during the crisis had been adopted already before the crisis started, but they had been used only in a limited way. What happened during the COVID crisis itself was that museums started using those systems heavily, and they became much more central to their work than they had been previously. Remote work and meetings facilitated for example by tools like Teams or Zoom gained a much bigger role than before.

There was a certain tendency in museums to reduce investments and acquisitions during the COVID crisis, but investing in digital tools was one field where acquisitions even increased in some museums during the crisis years.

No respondent said that the choices would have been mistakes, they were rather seen as a logical response to a situation where museums' choices for amending the effects of the crisis were quite limited.

There were some comments to the effect that even more experimentation with digital tools could have been made during the crisis, as that might have led to new, fruitful discoveries. It was also noted that this might have required more resources to begin with, so it might not have been as realistic in the event as it seems in retrospect.

In terms of working remotely, as soon as the COVID crisis seemed to have passed, most museums saw a quick reduction in work hours done outside its physical premises. Remote work has gained more prominence than before, and new tools have been made available for it, and familiar to museum staff besides. As of late, though, there has been also a backlash aimed at reducing remote work.

Conclusions of the pilot of the Forum Marinum Foundation – pilot

Pilot at Forum Marinum Foundation proved issues that have serious importance of using digitalization in sustainable way.

The bulk of material available online is massive and continuously growing. It makes the work of the researchers easy and convenient: one does not have to travel physically to the archive to work with the materials, but they are accessible online, from your desk. However, the materials do not contain a register or similar. In other words, the title of the digitized archival document could be quite broad, such as "Correspondence between X and Y, 1919-20" – it means that the researcher still must go through the document page by page to find out what the correspondence is about, who, which locations or events are mentioned etc. It takes a lot of time and effort. And even if the researcher develops a register, it will be mainly individual (the next researcher will have to go through a similar process).

The latter problem has been partially overcome my crowdsourcing initiatives where several researchers have the possibility to work on making a register for an archival document (for example "Personal name indexes of registers of parishioners" (https://www.ra.ee/dgs/addon/nimreg/index.php) or "Estonians in WW I" (https://www.ra.ee/ilmasoda/index.php/site/index) or "Estonian in the "War of Independence" (https://www.ra.ee/vabadussoda)). But these online registers mainly focus on collecting the names and personal data of the persons concerned, but they are not relational and there are frequent duplicates in the register.

The goal of the pilot project is to improve the situation by making a relational and duplicate-free-to-improve crowdsourcing-based online register on the information provided in the (bi)weekly journal "Sõdur" ("Soldier", 1919-40, https://et.wikipedia.org/wiki/S%C3%B5dur_(ajakiri)). This micro historic approach brings into use and research the information about and provided by also by junior ranks.

Changed priorities

While the crisis period boosted museums' use of digital tools significantly, it appears not to have changed their priorities in using them. It has rather reaffirmed views and priorities that were already in existence just prior to the beginning of the pandemic.

The shift to using digital tools has happened faster and more forcefully in museums as it would have otherwise.

"Digital solutions are not just a national matter; you have to see the audiences on an international level."

Where do you find information?

- *In cooperative forums with other museums and collaborators. Cooperation and networking with other institutions/museums are essential for retrieving new information and knowledge.*

- *Networking in finding solutions that have been proven useful and adopting the best practices already in use in other organizations.*

- *Many museums have prioritized digital accessibility in the recent years, and especially bringing collections and materials available through the joint platforms. This is to improve their national and international availability, and to enhance accessibility for everyone interested in this content. Just pay attention that despite the interest in digital content among the young adults group, finding one's way to these services is always a challenge. The most significant barrier to using digital content was perceived to be a lack of awareness about its existence.*

- *Some museums are also moving to use new systems of collection management, and one negative issue brought up was the fact that several different such systems are being used. There would be room for consolidation in collection management systems, so that a smaller number of systems could be used as something of a national standard.*

"We could have tried out even more different digital tools during the crisis, perhaps new and even permanent solutions could have been found that way".

Other comments

- *The importance of preparedness. Museums can only use digital tools to overcome crisis situations and times of disruption if they have adopted and created resilient digital systems before the onset of crisis. This demands resources to be used for choosing well-functioning systems, for training staff in their use, and for maintaining and updating these systems regularly.*

- *Digital systems and platforms will often become inadequate or obsolescent in time and need to be replaced with new and more advanced, more widely adopted, or easier to use systems. The financial*

and organisational strain of doing this is a challenge for museums, and the smaller a museum is, the more demanding it will be to keep its digital tools up to date and functional. Thus, museums with smaller resources of their own, and a smaller staff that might not be well-versed with the demands of IT systems would benefit significantly from institutional support from public and state authorities.

- *The national, regional, and local authorities are in a central role for making plans and preparations for times of disruptions and crises. Museums' own preparation can only go so far if the institutional basis provided by the authorities is not strong and consistent.*

- *The role of different museum associations and joint organisations should be to contact and put pressure on the authorities to improve their ability to support museums in getting ready for extraordinary times.*