



## **PROGRAM CECA–International Committee for Education and Cultural Action**

**22 August – Monday**

### **CECA board meeting**

**8.30-10.30**

On-site

Moderator / chair: Marie-Clarté O'Neill

[Room 224](#)

### **CECA& AVICOM joint session**

**16.00 – 17.30**

[South Hall 2B](#)

Hybrid session

Invited speakers from CECA and AVICOM will discuss relationship of digital media and museum education. Digital media are an indispensable instrument of museum communication with the public. But which content and technologies are useful for information before, during and after a museum visit? How can museums, exhibits and collections be conveyed virtually to target groups? How has the digital commitment of museums developed in times of crisis? What is the significance of the digital for museum education? In their joint session, the two specialist committees discover and discuss their interfaces.

Moderator / chair: Marie-Clarté O'Neill & Michael H. Faber

*Digital Media for the Preparation, Implementation and Follow-up of the Museum Visit: Sense, Superfluity or Nonsense?*

(AVICOM) Dr. Michael H. Faber, Bonn (Germany), *President of AVICOM, State Museum Former Director LVR Open-Air Museum Kommern*

### **Communication and mediation: digital, analogue, personal? About Must-Have, Nice to Have and Nonsense**

Digital and social media promote the public perception of museums, pave new ways of outreach and enable a more intensive involvement of target groups in museum work. This makes the following questions all the more important: How can digital media be used sensibly? How can they make the original tangible? Have conventional mediation and communication had their day? After all, despite all the digitalisation, museums remain analogue.

(CECA) Marie-Clarté O'Neill, Paris (France) President of CECA, Ecole du Louvre  
**Before, during and after the visit : critical questions to orientate a choice, both of content and of technology**

Analysing the numeric offer of most museums shows that their proposals are not clearly designed for a specific use, depending of their moment of use. To go further than offering multifunctional numeric products, namely approximative in their use and efficiency, It is thentime to critically examine which media are suitable for the preparation, realization and follow-up of the museum visit in terms of their content, geographical position, methodology, didactics, design and technology.

(CECA)Diane Degreef, (Belgique) Musées et Société en Wallonie  
**Virtual museum mediation: a necessary adaptation of methods**

The sudden closure of museums in 2020 due to the rapid spread of thesars-cov-2 forced them to look for solutions to stay present to their public and be able to bring them relief during times of severe restrictions of social activities. Most of them set up digital propositions. However the lack ofknowledge and resources about virtual visits limited a lot of museums in their intent to reach out to their public and communities.

We are proposing online tutorials for providing better virtual mediation practices to museum professionals. After assessing different virtual mediation techniques, we will prepare several tutorials containing theoretical inputs and an applied virtual mediation visit example. These tutorials will be available freely. In this way we're aiming at helping museums to overcome temporary museum closure, to reach out to inaccessible audiences and to meet future needs of virtual programs afterthe sars-cov-2 pandemic by proposing adequate tested virtual mediationtools. This project is carried out within the framework of ICOM Solidarity Project 2021.

(AVICOM) Michael Eulenstein, Hildesheim (Germany) Artist, Master of Arts: Cultural Education/Mediation Université Aix\_Marseille and University Hildesheim  
**Digital museum educational offerings in times of crisis: Best practice examples based on website analysis. Results of the survey by the MPR-AVICOM-Project "The COVID 19 Challenge".**

The countermeasures to tackle the COVID-19 pandemic caused museums globally to close their doors. Lockdowns forced museums to reinvent themselves and to develop new formats in the field of cultural mediation and museum education. Some institutions had already invested in digital tools, which gave them a head start, while others adopted online strategies quickly. How does museum education work in times of rapid change and transformation? Which digital formats have been developed? Taking a look back at some best case practices can show us how the visitor journey has transformed and how cultural mediation might look like in the future.

(AVICOM) Wuyan Li., Shanghai ( P.R. China), Postdoctoral Researcher in Science Communication Center of Shanghai Science and Technology Museum  
**Discussing Children's Learning Effectiveness by Digital Media during Museum Visiting Based on an Empirical Survey of Museum Visitors**

Digital transformation is a solution that is highly valued by the global museum community. The endless emergence of digital technologies has brought many new possibilities to museum education. Large-scale museums have generally adopted technologies such as digital projection, touch screen, AR, and VR as auxiliary means of interpretation, enriching the learning experience of children. However, the application of technology often means

higher costs than traditional exhibit, so it is very important to examine the necessity and effect of its use.

By observing and interviewing 36 children and those who accompany with(peers) in the exhibitions of two Chinese science and technology museums, this study can preliminarily summarize the interactive learning behavior, learning effect and influencing factors of children's visitors with digital exhibits during the visit.

Angela MandersThe Netherlands, Manager director / owner of ArteKino – educational designer in art and cultural heritage projects and mobile exhibitions

### « Learning and engaging through digital technology » An example of the CECA Special Interest Groups

We are an international group of museum professionals, educational and digital developers, students and researchers from different parts of the world. We meet on a regular basis on ZOOM to exchange experiences, knowledge and opportunities in order to learn from each other and work together.

Digital experiences are profoundly shaping the way we interact with and comprehend ourselves, each other, and the world. What are the sets of new skills required by museum educators to lead in a digital world? What are the roles of museum educators in creating an institutional digital strategy, especially in small museums? How do we define reaching versus engaging versus impacting our audiences through digital experiences? How do we address the deepening socio-economical digital divide? How do we make sure that digital programs are inclusive and accessible?

## 23 August – Tuesday

### CECA extra session Increasing the power: Museum education and new technologies

#### 9,00 -12,30 National Pedagogical Museum and Library of J.A. Comenius

on-site session (oral presentations)

Národnípedagogickémuzeum a knihovna J.A. Komenského / National Pedagogical Museum and Library of J.A. Comenius

Address: Valdštejnská 161/20 118 00 Praha

Public transport: metro line A – Malostranská station + 5 minutes walk along Valdštejnská street

We're going to take a closer look at the relationship between new technologies and learning in museums and explore how to expand learning opportunities and empower audiences. The aim of this conference session is to promote dialogue, share examples and ideas as well as research.

#### 9,00-10,30

Market of ideas 7'

Chieh-Chyi Lin National Museum of Taiwan History Tainan Taiwan

### Upside Down Broom: A Case Study of NMTH Theatrical Project Collaborated with Youth with Intellectual Disabilities

The National Museum of Taiwan History (NMTH) is home to collection from a variety of cultural backgrounds and provide opportunity for youth with disabilities not only to learn about their cultural history, but also to take part in cultural activities. Although the COVID-19 epidemic has cut off the opportunity for youth to perform in front of the audience,

"Information and Communications Technology (ICT) helps to break through the lockdown and the inability to communicate face-to-face. This paper discusses a theatrical project collaborated with youth with intellectual disabilities in the NMTH, in order to examine how to cooperate appropriately with youth with intellectual disabilities, to preserve their identities, and to ensure quality and credibility of *museum education* work, the use of ICTs, and the use of museum space as a public one. The museum theatre project is a form of applied theatre performed inside the NMTH. The project's goal is to make youth with intellectual disabilities to be active within the NMTH, not the object behind the teacher or museum educators. In relation to museum education and social inclusion, these collaborative works offer the participants the right to speak and to take parts in the process of script production, while simultaneously collecting their life experience regarding the project. As a result, it is a first person interpretation performed by youth with intellectual disabilities in costume portraying living history the museum audience will be familiar with. In the performance, youth with intellectual disabilities turn the brooms upside down, symbolizing their passive image being converted to an active one. The use of ICTs *during* the global pandemic not only enables this theatrical project to hold an online premiere, to maintain social connections, but also allowed the youth with intellectual disabilities to watch the performance with their own eyes, to enhance self-confidence. Museums are beacons of contemporary values such as social inclusion, cultural equality, and creativity. The significance and possibilities of museums as public spaces should keep pace with the times.

Maia del Rosario Rodrigue, CONICET Parana, Argentina

### **The construction of the entrerriana identity through heritage and new technologies. The "antonio serrano" museum a meeting space with the community**

At the beginning of 2018, the reformulation and modification of the 5 rooms of Anthropology and Archeology of the Museum began in order to create a space of and for the community. Prior to this time, the rooms contained archaeological and ethnographic materials from all over the country and from neighboring countries. The current work with the rooms seeks the resignification of the entrerriano heritage, of the numerous identities that are within our province and that is integrated by aborigines, Afro and immigrants.

Tatevik Saroyan Matenadaran Research Institute of Ancient Manuscripts Yerevan, Armenia

### **The Trajectory of Coffee in the Museums of Armenia**

Because of the Coronavirus blockade and the 2020 war in Armenia, the activities of museums became very difficult. We were faced with difficult tasks, such as how to make the society try to overcome the situation.

The aim is to present how, due to Armenian merchants, coffee became known and loved in a number of European cities. International scientific sources made it possible to find out that in 17-18th centuries, Armenian merchants, having great connections with the major trade routes of Europe, imported various natural products from the east to Europe, including coffee. The first cafes were opened by Armenian merchants in London (1652), in Paris (1672), in Vienna (1685), in Prague (1708). The project includes an exhibition, educational programs, and publication of the catalog.

In 2021 we decided to organize weekly lectures about the prevalence of Armenians in the world of coffee; coffee in Armenian literature and fine arts; coffee in world cinema, music, fairy tales, etc..

The lectures that were intended for adults, included interactive hands-on components starting from coffee grinding, brewing, making clay cups to listening to lectures. This project is the first experience of inter-museum cooperation in Armenia, in which such a

large number of museums will be united under the roof of the Toumanian Museum; all due to the coffee exhibition.

### **Theme papers 15 '**

SofieVermeiren, M Leuven, Leuven, Belgium

#### **EXPERIENCE 'The Last Supper' by BOUTS: Art in holograms**

In 2020 M developed a unique and innovative visitor experience. Just around the corner from M Leuven, the restored St Peter's Church was the setting for this new sensory experience. The experience guides the visitors through the fascinating story of this Gothic church and helps them renew their acquaintance with its art treasures: outstanding works by Flemish Masters in their authentic context. Moreover, these treasures are brought to life as part of a powerful and innovative experience that the visitor is able to share thanks to unique digital tools.

Together with Studio Louter, the curators and educators of M developed a unique and innovative visitor experience for the HoloLens: when standing in front of twelve first-rate artworks you get to see spectacular 3D images and animations. You can watch Saint Peter's Church burning, walk along with Jesus and his disciples and look up close at the bones of the first Duke of Brabant. Or so it appears.

With this new, innovative technology, we are appealing to new audiences, without having to sacrifice information about the works of art. We literally bring the works of art and the city of Leuven to life through this experience. In this way, we break out of the museum walls and create visual links with the environment outside the church.

Fernanda Santana Rabello de Castro, CECA BRAZIL Rio de Janeiro, Brazil

#### **In the middle of the way there was a Pandemic: advances and challenges of digital museum education today**

In this presentation, based on Brazilian experiences, we intend to reflect on what are the innovative technological environments for the field of museum education, which allow educators to appropriate their actions of mediation and curation, thinking about cyberspace and the daily work in institutions. In this sense, we will start from the analysis of examples in the use of: social networks, wikis, whatsapp, repositories of institutional collections and other digital exhibition/educational spaces in museums.

We will point out some national examples that emerged before and after the Covid-19 pandemic, prioritizing the field of museum educational practice, analyzing its advantages and limitations, but also indicating academic and professional studies that address the topic. We will also approach, in this context, the issue of accessibility in educational actions carried out in the environments presented.

For this, we will make use of research carried out at the national and international level, with emphasis on those that address the Brazilian reality, in addition to reports of experiences by members of CECA Brazil.

Younsoo Lee Museum Education Department Hanyang University Seoul, Korea

#### **The expansion of Active Museum Education through Technology with Museum Users during the Passive Changes in COVID-19**

The museum passively provided various types of technology to visitors in the internet space due to COVID-19. In the current environments, museums are not only actively using technology, so they are meeting new users according to changes in media and devices. As the digital environment of museums has been expanded over time, the participation of individual users has expanded, and complex educational materials have been developed and empathy has been shared beyond knowledge transmission.

This is because, although museum education was conducted based on the museum materials, due to the closure of the museum from February of 2020 to present, many

contents related to museum education that are conducted online confuse even the concept of the real museum materials. Before visiting the museum, many museum users were looking for basic information about the museum through the internet for information retrieval. But, now our lives in the COVID-19 environment, museum users can browse museums through the internet. It is time to understand more holistically the people who use the museum by revealing this process and results through the research method. Therefore, this research is expected to be a useful qualitative research method that can systematically study the internet space, a cultural phenomenon, and emphasizes the necessity of expanding research ways with new technology. in the change of museums and museum education. In an environment where museums had to formulate plans and strategies and track users' appearances, the contents of the phenomenon had not been sufficiently studied. Changes in the existing environment had to reset the approach to museum users under new technological environments. Moreover, it is important to help users to have digital literacy to read museums through diverse technology within digital, and all users should use museums so that digital divides do not occur.

Aoi Takahashi, Kobe University, Kobe, Japan

### **The possibilities of online workshops for parents and children in science museums: A case study of the National Museum of Nature and Science in Japan**

Our research project tries to identify the possibilities and challenges of online workshops for parents and children in science museums through case studies. In this presentation, we report the possibilities of online workshops. This study focuses on online workshops held in ComPaSS that exhibition space for children aged 4-6 years and their parents at the National Museum of Nature and Science in Japan.

In October 2020, semi-structured interviews were conducted with two museum staff involved in online workshops in ComPaSS. Staff were asked about the possibilities and challenges of online workshops for parents and children.

Study results were as follows. (a) Online workshops for parents and children in science museums are in demand. (b) Online workshops can reach a different audience than previous visitors. (3) Online workshops effectively link museum experiences with learning at home.

In the future, we will conduct a detailed investigation into the challenges and innovations specific to online workshops and compare them with face-to-face workshops and how online workshops should be cooperated with learning support in the exhibition room.

**10,30 – 11,00 break**

**11,00 -12,30**

**Market of ideas 7'**

ZsanettAbonyi, Aquincum Museum, Budapest, Hungary

### **Play to Learn: Playground in the Museum – Not Just for Children**

This paper investigates aspects of learning in museums through entertainment. Fun has a positive effect on motivation levels, determining what we learn and how much we retain. Learning isn't a one-off event. It requires repetition and dedication. If the experience is fun, learners will stay curious and keep coming back for more. The success of the games developed over the past years in the Aquincum Museum - such as scavenger hunt games in playful narratives - underlines the significance of the entertainment within the walls of cultural institutions. Mystery stories are favored for this type of games and offer a new context in which museum exhibits are integrated. In contextualized scavenger hunts visitors as players can connect the exhibits and other contents of the museum with broad scientific fields (such as mathematics, models, communication) and they have the chance

to engage with the details of some exhibits and to think more broadly about multiple exhibits (combining depth and breadth). The self-forgetting time spent in the museum ensures positive association relating to the theme or the institute and long-lasting preserving of memories.

Due to the pandemic the visitors take their decision before the museum visit on the base of new criteria, such as social distancing or preference of outdoor activities. The games offered by the Aquincum Museum respond well to the new challenges, the tasks can be solved on the territory of its Archaeological Park regardless of the theme, played as an individual or collaboratively in teams. This offer for edutainment enjoys widespread popularity amongst school classes and adult visitors. The success justifies our position, that programmes built on education and entertainment can go hand-in-hand if we strike to achieve an appropriate balance between providing useful information and the effort required to obtain it.

Eloisa Casadei, Politecnico di Milano, Milan, Italy

### **Education of new technologies in museum contexts: the experience of non-profit organisation una quantum inc, Italy**

Since 2017, the non-profit organisation Una Quantum Inc has conducted several collaborations with cultural institutes, leading projects about inclusivity and accessibility in museums through education activities, and developing research on the enhancement of museums with digital open-software technologies. The aim of Una Quantum Inc is to contribute to the sustainable development of museums and their territories, following the guidelines proposed by the Faro Convention and promoted by ICOM. In particular, Una Quantum Inc is collaborating with three small civic museums located in the internal area of Central Italy, and two more are now at the planning stage. The three museums are Museo Rodolfo Lanciani di Guidonia (RM), Museo di Riofreddo (RM), Museo Civico Archeologico di Collelongo. The subjects taught are related to 3D reconstruction, virtual tours, GIS and WebGIS software, highlighting the role of open software and open workflow in the framework of cultural heritage research and management. The positive impact of the Una Quantum Inc education activities is multiple. On the one hand, the activities resulted in an important increased number of visitors, not only during the project cycle but also in the months immediately after. The engagement of local people working in the museum is also having the positive effect of stimulating interest in the use of free libre and open source technologies in cultural management. On the other hand, the teaching method used by Una Quantum is developing the capacity building of youth, involving new teachers that can work also with the museum curators to highlight new needs. Finally, Una Quantum is conducting a real-time data monitoring system to test the results of every project cycle

Kazuyoshi Sasaki, National Ainu Museum, Shiraoi, Japan

### **How to interpret and have a dialogue with visitors of the National Ainu Museum in order to bridge gaps in knowledge concerning indigenous people and culture**

The National Ainu Museum, located in Shiraoi, Hokkaido, Japan, opened in July 2020 as the first national museum that focuses on Ainu culture. Ainu people are indigenous people who lived mostly on Hokkaido Island, Sakhalin, and the Kuril Islands. In 2019, the Japanese government recognized the Ainu people as indigenous people by law.

Our mission is to spread proper recognition and understanding concerning Ainu history and culture worldwide and contribute to creating and sustaining new Ainu culture.

But in a 2018 survey, only 40.0% of Japanese answered they knew "Ainu suffered assimilation policies during the past 150 years" and only 34.3% of Japanese were able to answer "Ainu people live in Japan with similar lifestyles as most Japanese and they live all over Japan".

We are often asked by visitors to our permanent exhibition room questions like, “I never knew that Ainu people still live now”; “Did you come back home from the mountains today?”; “You are very good at Japanese language” and so on. Almost all visitors do not have ill intentions and they say so because of a lack of awareness about discrimination. Faced with these situations, our museum has to overcome the gaps in knowledge between Ainu, indigenous people and Wajin, ethnic Japanese through the experience of exhibition and daily educational activities. We focus on the fact that a continuous dialogue is very important in order to forge a bridge between both ethnicities in Japan and museums have a social role and the power to change current misunderstandings. In this paper, we introduce how to bridge these gaps with our daily interpretation and dialogue with visitors in our permanent exhibition room and other educational activities. The paper also shows how our educators interact with visitors and school groups by using the educational exhibition “Interactive Station tempatempa”.

## **Theme papers 15’**

Senem Bas, George Mason University, Fairfax, USA

### **Digital technologies and inclusion in museums: Museum educators' perspectives**

In the 21<sup>st</sup> century, museums have been transformed from being strict and elitist institutions to being active, innovative and participatory institutions. Therefore, the current discussions in the museum world have focused on creating more diverse and inclusive museum practices; becoming more socially responsive; and meeting the needs and expectations of a diverse population of visitors. In response to new trends in museology and with the technological advancements, museums are introducing engaging and participatory educational programs using digital practices. To contribute to the scholarship in this field, this research study will examine the concept of “inclusive museums” and how new technologies impact inclusion in museum education by interviewing three museum educators. With in-depth interviews and data analysis, this study will investigate the different understandings of inclusion and its digital educational practices and ways of enhancing professional and institutional inclusion in museums.

Mark Osterman, Lowe Art Museum | University of Miami, Coral Gables, USA

### **Digital Decisions to Evolve, Change, and Adapt**

The COVID-19 pandemic and recent nationwide protests in the United States and other countries against police violence have exacerbated what were already important issues of diversity, equity, inclusion, and accessibility (“DEIA”) facing our communities. This has resulted in a demand for the cultural sector and its leaders to act with greater urgency than they have to date to address these matters directly. In addition, the field has experienced enormous disruption from the pandemic including layoffs, furloughs, financial distress, and public closures. As a result, people's relationship with technology has deepened as we rely more on digital connections for work, cultural experiences, education, health care, and social interactions. To handle this disruption, many museums are attempting to increase their capacity for digital experiences. An investment in digital capacity can help with the challenges organizations face to reach new and expanded audiences while addressing relevancy, social impact, and DEAI. This paper explores how arts institutions can use technology to evolve, change, and adapt to proactively address these challenges.

As museums continue to focus more on visitors, community, and co-participation, their education departments have a lead role to play. Museum educators have training, knowledge, experience, and networks that can help build relevant and impactful experiences. As stated in AAM’s *Excellence in Practice: Museum Education Principles and Standards*<sup>[1]</sup>, “Museum educators are specialists who help museums fulfill their educational mission. They recognize that many factors affect the learning that occurs in museums.



Educators seek to promote the process of individual and group discovery and to document its effect. On museum teams, museum educators serve as audience advocates and work to provide meaningful and lasting learning experiences for a diverse public.” With a focus on accessibility, accountability, and advocacy, the role of museum educators in holistic digital transformation within museums should be central.

Some of the challenges for museums in developing digital transformation, identified in the Knight Foundation’s 2020 report *Digital Readiness and Innovation in Museums: A Baseline National Survey*<sup>[2]</sup> include limited dedicated digital staffing, siloed digital projects, outcomes that are poorly tracked, audience insights that are not robust and/or poorly integrated, and emergent or undefined digital strategies. Museums are also challenged by a large digital divide in our local communities and around the world. 3.5 billion people (almost half the world’s population) remain unable to access the Internet<sup>[3]</sup>. Many lower socio-economic neighborhoods in the United States have limited access to technology exasperating a digital divide as communities are now challenged to live and work online. Digital technologies have also created new challenges for museums developing viable business models that can be monetized

Maria Bhavani Dass, National Heritage Board / Indian Heritage Centre, Singapore, Singapore

### **Emerging Technologies for In-Pandemic & Post-Pandemic Museums**

Google’s Jonathan Rochelle mentioned that “technology can’t transform education on its own,” and as such, museum educators must understand the skills students possess and select the appropriate technology and environment for the learning to take place. To cater to needs and interests of the 21<sup>st</sup> century digital learners, Singapore’s Indian Heritage Centre (IHC) developed robust and deep learning experiences for children aged 5 to 16 using and/or aided by technology such as gamification and interactive microsites. The use of such technology in turn made museum visits more fun and exciting. More importantly, it empowered the young audience (and at times their family members) to take ownership of their learning journeys.

This presentation will highlight how IHC was guided by Bloom’s Digital Taxonomy (2001) when developing digital education content and share two of IHC’s technology-aided programmes comprising: “Jewel Hunt”, a gamified app to encourage exploration of its permanent galleries; and *Pongalo Pongal!* - an interactive learning portal with an array of fun quizzes, engaging videos, and craft activities for teachers and students to learn more about the Indian harvest festival. It will also focus on the challenges of adopting new technologies, and discuss how technology supported continual transmission of museum, heritage and cultural content during COVID-19.

**23 August Tuesday, 14.30 – 16.00**

[South Hall 1A](#)

**Hybrid session Increasing the power: Museum education and new technologies**

We’re going to take a closer look at the relationship between new technologies and learning in museums and explore how to expand learning opportunities and empower audiences. The aim of this conference is to promote dialogue, and share examples and ideas as well as research

Moderator / chair: Anne-Marie Émond, CECA secretary

Julie Rose, Université du Québec à Montréal, Montréal, Canada

Anik Meunier, Université du Québec à Montréal, Montréal, Canada

### **Museum access during COVID-19: Building an online repertory of museums digital educational programs to sustain cultural approach to teaching**

For the last 20 years, the Quebec Education Program has given teachers the role of cultural mediators: they have the main role in the actualisation of the cultural approach with their students. More recently, the Ministry of Education and Higher Education (MEES, 2018) launched its cultural policy *Culture, Everywhere* in which the relationship between culture and education is described as a real vector for educational success. The policy emphasises the beneficial effects on students of attending cultural venues. However, no specific training or measures are offered to support teachers in this role.

The context of COVID-19 did nothing to facilitate the frequentation of cultural spaces and the use of educational and cultural resources by teachers and students. Despite the gradual reopening of cultural venues, teachers are not able to carry out cultural outings as they planned. Nevertheless, museums made, and are making, great efforts to provide teachers with resources for developing teaching-learning situations to foster a cultural approach to teaching. These resources, available through the museum's website, take multiple forms and are not always visible by teachers who are unaware of their availability. As the pandemic endured, it urged museums to keep offering content online to its publics as a way of keeping in touch, but, once more, the multitude of activities was often not known by teachers. To add to the wide variety of the offer, little effort to compile these activities has been made.

We wanted to assess if the propositions were only made because of the feeling of emergency at the time, or if they were genuinely useful for teachers. To this end, we created a repertory targeting primary and secondary level scholar programs and used an educational model (SOMA) specifically conceived in regard of museum education practice and research to analyse their relevance.

We built a dataset starting with the Société des Musées du Québec. Within its website, we identified 94 digital educational programs that were accessible throughout the pandemic. Our analysis shown museum professionals use four categories of actions to propose these educational programs to teachers: transposition, enhancement, provision of resources and personalisation. The process and the results of this project will be presented in this communication. The project was developed within the Research Group on Education and Museums (GREM-UQAM) and is supported by a research grant from the Science Education Faculty of the University of Quebec in Montreal in 2020-2021. It allowed the creation of an educational resource (the repertory) that federates all the information required for teachers wishing to fulfill their role as cultural mediators in the perspective of the cultural approach in teaching.

Alvin Tan, National Heritage Board, Singapore

### **COVID-Proofing Museum Education: A Case Study of Singapore's Virtual Museum-Based Learning Experience Packages**

In recent years, the National Heritage Board (NHB) of Singapore, together with our national museums, heritage institutions and community galleries, has actively strived to provide key touchpoints in every student's education lifecycle. In 2020, NHB collaborated with Singapore's Ministry of Education (MOE) to co-develop the first ever cohort-wide Museum Based Learning (MBL) programme which features artefacts on display at our institutions and aims to instil a deeper appreciation of Singapore's history and cultural diversity, and build a sense of belonging and pride in the younger generation. The MBL programme is part of the national curriculum and aligned with the social studies syllabuses for primary school students (ages 10 to 12) and with the history syllabus for secondary school students (age 14). During the COVID-19 pandemic, schools in Singapore suspended learning journeys to museums, and to ensure continued accessibility to museum education

content, NHB and MOE embraced digital technology and co-developed the MBL Online Learning Experience packages. These packages comprise virtual MBL sessions facilitated by museum educators to engage students and complemented by digital resources at MOE's Student Learning Space portal for both teacher-directed and self-directed learning. This presentation will provide an overview of Singapore's MBL programme, share more details about NHB's MBL Online Learning Experience packages (including feedback from teachers and students), outline the key learning points from NHB's virtual MBL programme experience (including advantages and limitations), and share post-pandemic plans for NHB's MBL programme.

Anne- Sophie Grassin, Musée de Cluny - national museum of Middle Ages, Paris, France  
**Déjouer l'écueil technologique de la médiation culturelle par une "médiation sensible" au service de l'œuvre**

Dans les musées et centres d'art du monde entier, nous mesurons quotidiennement les effets d'une crise de la sensibilité aux œuvres d'art. Certes les visiteurs viennent, et parfois même en masse, mais la durée moyenne d'observation de chaque œuvre y est de plus en plus courte, aujourd'hui réduite à une poignée de secondes. Beaucoup passent à côté d'une expérience esthétique forte, et peu sont en mesure, en capacité d'établir une synthèse élaborée de ce qu'ils ont pu saisir des œuvres.

À l'heure d'une ère dite de "post-médiation", on assiste au développement illimité du numérique dans les salles du musée, allant des tablettes aux expositions immersives, des dispositifs sensoriels aux réalités modifiées. Tous ces dispositifs promettent à leurs publics une expérience de visite augmentée. Au nom de la démocratisation de l'art, la médiation muséale glisse vers une ludicisation de ses dispositifs, au risque d'une spectacularisation de l'art et au profit d'expériences-visiteur exclusivement conduites par les nouvelles technologies sans nécessaire production de sens.

Les dispositifs numériques remettent par conséquent en question le paradigme et les enjeux de la médiation: sont-ils destinés à démocratiser la culture ou un levier au service d'une rencontre individuante aux œuvres? Face à cette question, émerge en parallèle un véritable "tournant sensible" de la médiation culturelle comme antidote permettant de recréer du lien et du sens face aux œuvres et d'en augmenter la réception.

Nous défendons cette nouvelle médiation inclusive et sensible, qui permet de renouveler le paradigme relationnel à l'œuvre, par un décloisonnement des approches et une diversification des formats.

Cette "médiation sensible" considère en effet le corps pensant du visiteur, sa cognition incarnée comme principal outil de la médiation dans un face à face direct à l'œuvre originale. Elle est centrée sur une approche holistique du visiteur et implique une diversité de registres. Cette approche consiste à considérer l'individu-visiteur dans sa globalité d'être humain, capable d'éprouver une œuvre non seulement par l'intellect, mais également par ses facultés émotionnelles, intuitives, mentales et sensorielles. Dénuée d'effets spéciaux, la "médiation sensible" sert une rencontre individuante et plus authentique à l'œuvre. Ces dispositifs de "médiation sensible" ne recherchent par l'effet mais la production d'un sens élargi, affiné, au service des œuvres. Ainsi, les nouvelles technologies peuvent ouvrir des possibilités à conditions de continuer à être au service des œuvres et non au service d'elles-mêmes.

À travers quelques exemples dans plusieurs musées internationaux, nous confronterons une technologie qui change le rapport à l'art avec une technologie au service de l'art.

Cheung-on Tam, The Education University of Hong Kong, Hong Kong (remote presentation)

**A Teacher-curator Pedagogy: Creating Connections Using a Virtual Gallery Platform**

This paper will present a study that aims to answer the questions using: Can art teachers assume the role of art museum curators and construct an online exhibition to facilitate student learning? How should teachers be prepared to adopt such a 'teacher-curator'?

pedagogy? Can the thematic approach and presentation of exhibitions broaden students' horizons in considering artworks? Will learning through virtual exhibitions increase students' motivation to learn and improve their skills in using online resources? What will be the effectiveness and impact of this way of conceptualising, organising and constructing visual arts learning opportunities a design-based research. Three primary and three secondary school teachers and their students participated the study. The first phase of the study focused on the training of teacher participants in the teacher-curator pedagogy. The second phase was the implementation stage. With the support of the investigator, the teacher participants developed two virtual exhibitions and relevant face-to-face, museum visit and online learning activities. The third phase was the evaluation stage. Data on the impact and effectiveness of the teacher-curator pedagogy were collected through student and teacher questionnaires and interviews.

The study was conducted in the particular cultural context of Hong Kong. Museum+, the new museum of visual culture, opened in 2021, and the renovated Hong Kong Museum of Art re-opened in late 2019 and the Hong Kong Palace Museum is scheduled to open in 2022. Besides having state-of-the-art facilities, we would like to see members of our society become regular museum visitors and be culturally literate. By actively using artworks from museums to teach, the study will help to build up a critical audience for the cultural establishments in Hong Kong in the long term. Through the formulation of exhibition themes, the selection of connected artworks and the design of relevant learning activities, the study will enhance the autonomy and capacity of teachers. With a focus on using digital technology, the results of the study will contribute to developing an effective pedagogical practice in general and one that promotes online learning in visual arts in particular.

A total of 6 primary and secondary visual arts teachers and 331 students participated in the study. A preliminary qualitative analysis was conducted on the data collected from interviews and questionnaires. It was found that the teacher-curator pedagogy has impacted students' learning in four major ways: 1) broadened the scope of art appreciation, 2) encouraged self-investigation into artworks, 3) facilitated conceptual development in art making and 4) connected classroom to museum learning. The limitations and challenges of the pedagogy include 1) intensive preparation work, 2) identifying appropriate artworks, 3) control and use of devices in the classroom and 4) problems of virtual navigation.

Kaya Munakata, Kanagawa, Japan (remote presentation)

### **Collaborative Inquiry at Art Museums Enhanced by Technologies: Cases of Japanese Young-Adult Visitors**

Many young adults make their art-museum visits often with friends, partners, or family members as part of their outings and fun interactive opportunities. As young adults are naturally familiar with and skilled at using technologies in their day-to-day doings, the incorporation of technologies as interactive communication tools at art museums should increasingly play a key role in attracting them as visitors and making their art-museum experiences meaningful, particularly their collaborative inquiry. The author interviewed six Japanese young adults in their early 20s about their recent art museum visits. They reflected on the art-museum experiences that they had with peers in the semi-structured interviews conducted by online video chat. The transcribed interviews were then analyzed by the thematic analysis method and the following prominent themes were identified. First, all these young adults actively utilized their camera phones to capture the fun moments of their interaction at art museums and in front of works of art and their collaborative inquiry about works of art. Also, more unique use of technologies for collaborative inquiry was observed; one interviewee and her friend used online translation tools to deepen their understanding of artworks with foreign languages written on or video works in foreign languages through conversation; also, another interviewee and his friend viewed artworks

together, listening to the audio guide that they were sharing, then discussed the artworks. In addition to the on-site use of technologies, all the participants effectively relied on them in their pre-and post-visit activities as well. For example, they collected information about art museums, artists, or exhibitions of their interest and sought someone to go together through social networking tools before their visits. They reflected on their art-museum experiences later by going through the photos of their art-museum experiences saved in their camera phones alone or with the person(s) who had those experiences together or by posting the photos on social media as memorabilia. In this study, technologies such as those available in personal gadgets and those provided by art museums enhanced young adults' collaborative inquiry at art museums and pre-and post-visit communication. Further investigation of more cases with more young adults will contribute to legitimating the possibilities of technologies for such purposes. Nevertheless, technology-mediated interactive opportunities at and outside art museums are appreciated by technology-savvy young-adult visitors.

**23 August Tuesday 16.30 – 18.00**

[South Hall 1A](#)

**Hybrid session** **Increasing the power: Museum education and new technologies**

We're going to take a closer look at the relationship between new technologies and learning in museums and explore how to expand learning opportunities and empower audiences. The aim of this conference is to promote dialogue, share examples and ideas as well as research.

Moderator / chair: Željka Jelavić, CECA board member

Emma June Huebner, Concordia University, Montréal, Canada (remote presentation)

### **A New Horizon: Using Social Media as a Museum Educational Tool**

The COVID-19 pandemic has forced museum educators to invent new resources, which has led to the increased use of social media as an educational tool in the museum context. This presentation will discuss a descriptive qualitative study that explored museum education through social media using an adapted museum education theoretical model (Allard & Boucher, 1998; Meunier, 2011) and considered theories of connectivism (Siemens, 2004). The more specific aim was to address the approaches, experiences, and objectives of museum educators who use social media, and how youth aged 18 to 24 years respond to it. The overarching research question that guided the study was: *How does using social media as an educational tool lead to new museum education practices?* Twenty-eight art museum educators answered a qualitative survey, and fifteen youth participated in in-depth focus groups. The results provide an overview of museum education through social media through a thematic analysis and suggest that social media is a new horizon for museum education which can take many forms; that short-form videos are an effective tool for teaching and learning about art in museums; that the notion of a connection between educators and visitors is complicated via social media; and that the balance between high and low cultural practices is hard to strike. The study also provides practical recommendations for educators who wish to consider young people's experience of museums' social media content in their future utilization of networking platforms for educational purposes. This research builds a foundation for forthcoming explorations of teaching and learning mechanisms on social media platforms.

Esteban Torres Hormazábal, Museo Violeta Parra, Santiago, Chile

### **First Braille Reading and Writing Scholarship - Museo Violeta Parra and Fundación Chile Música y Braille**

The Violeta Parra Museum and the Chile Music and Braille Foundation developed an alliance to create an unprecedented scholarship for a museum in the country and Latin America, with the objective of training the participants as readers and transcribers of their own materials in Braille, using traditional tools -such as the scales and stylus- and software for Braille digitization. All this, through teachings and practical activities using the life and work of Violeta Parra as an example.

We defined the creation of a joint free training program, which would provide the necessary tools to people with or without disabilities throughout Chile, to learn and disseminate the life and work of Violeta Parra, deepening our commitment to inclusion, also fulfilling our institutional objective.

The program of the training scholarship addressed the history and explanation of the Braille system, presentation of the series of letters, mathematical signs, special characters and Braille formats.

In addition to imparting knowledge about the digitization of braille and the tools necessary for its correct use, all of them open source and accessible with the screen readers used by the attendees, permanent practices were carried out to evaluate knowledge and reinforce what was learned throughout the course.

Each scholarship holder was sent a strip of paper and a stylus, physical Braille reading material on the work of Violeta Parra, in order to facilitate the practice and be able to evaluate more effectively the work of each of the students.

We used free braille reading and writing software such as NVDA; braille writing plug-ins; text editors, among others. These tools facilitated the learning process for teachers and students.

NalinnathDeesawadi, Silpakorn University, Bangkok, Thailand

### **The Scent Experience Design: A case study on Siamese Court Clothing Gallery at Bangkok National Museum, Thailand**

The Bangkok National Museum has been a center for learning historical, artistic, and cultural information about Thailand for over a century. Today, the mechanisms and methods of presenting information have been developed to suit modern use. It seems to us a museum is not only ready to be a learning center but also can build on the innovation of learning in the museum. In addition, innovation and technology have contributed to the development of models for offering a more diverse and impactful learning experience.

However, at the core of learning, innovation is not just a technology. It also means stimulating new learning adaptations that affect intelligence and mental faculties. Recently, 'sensory experience' is one innovation in learning increasingly being used in many Thai museums, including the Bangkok National Museum. The researcher has focused on 'sensory experience' and researched 'scent experience' (experience design using smell), a collaboration of the human senses. The researcher has created a model for the initial scent experience design through a case study of Siamese Court Clothing Gallery at Bangkok National Museum, which expects to create a prototype of experience design using scent to utilize for innovative learning in museums. To expand learning that focuses on the learner's experience as the main, this research will explore how to connect different areas of study such as arts, design, and science. The researcher collect the audience data only in the Siamese Court Clothing Gallery's exhibition room at Bangkok National Museum ,to build a model of the experience design by using scent to create innovative learning based on the concept of phenomenon-based learning (Phenomenon-Based Learning). The researcher analyzed and synthesized the study results which found that the important observations in the royal court of Siam are featured with complete information. There are valuable objects

on display including Thai traditional fragrances on clothes. The costumes and fabrics of the royal court were presented correctly, but people spent less time viewing the exhibitions. Still, most of the audience was very interested in the Thai traditional fragrance display. This gives the scent experience designers more opportunities to enhance their activities in this section of the room. In addition, it is wise to connect the content of the history of cloth in the royal court with objects on display. Moreover, to solve problems and improve the audience's learning experience, the exhibition should emphasize the story of royal Thai traditional fragrance and cloth through sensory activities. This can well convey the meaning of the royal way of life, in the past.

Hana Lamatová, Muzeumumění Olomouc, Olomouc Czech Republic

### **Creatively and critically. The use of digital technologies in the art museum exhibition**

The Olomouc Museum of Art is not a newcomer in the field of digital mediation of historical and cultural heritage. It supports its approach with a critical view of this phenomenon, which to a large extent defines its own method and subject matter that can be communicated in this way. In both education and museum presentation, the art museum has successfully tried out several different ways of working with modern technology. In addition to exhibiting artwork captured in digital media that represents a distinctive work of art, the museum is also able to use the digital medium as a means of communication and an interpretive tool. It offers it as a guide both inside and outside the museum walls. It works with it actively in creative art making and uses it as a tool to express the visitor experience. The way to such a wide use of technology in the art museum was opened in 2017 by the mobile application *The Dream of Bishop Charles*, launched in the exhibition of the Olomouc Archdiocesan Museum and the Kroměříž Archdiocesan Museum (one of the outputs of the project NAKI II: For Temple, City and Homeland. Olomouc Bishop Karel of Lichtenstein-Castelcornin the midst of Baroque Europe). At the beginning of 2020 it was followed by the publication of three volumes of methodologies for creating, implementing and evaluating the quality of mobile digital applications created for gallery and museum interpretation called *Kunstkomora in a tablet I, II, III*. And let us name other digital outputs that demonstrate the creative and critical approach of the art museum to this phenomenon. Together with Palacký University was created the app *Actionbound: Olomouc Jewish*, which functions as an urban game. Educational exhibition entitled *Attempting the Maximum Approach to KE7131 O96*. The spatial interpretation of still life presented in a concentrated form essentially all of the above mentioned processes. During the pandemic period, the museum created several online educational projects, including a series of animated videos called *Edu on a Wire* to motivate artistic activity. The museum is currently striving for a functional combination of online and face-to-face art mediation that combines the best of both approaches, and has implemented two flagship projects to this end: the monthly multimedia *Project Piombo*. *Madonna without a veil* and an experiential installation within the SEFO 2021 Triennial Concert for 3 Grand Pianos.

**24 August – Wednesday 9,00 -11,30**

**CECA extra session(oral presentations + poster presentations)**

**Holiday Inn Prague Congress Centre**

Na Pankráci 15/1684, 140 00 Praha 4-Nusle  
Metro line C to Vysehrad Metro Station

We're going to take a closer look at the relationship between new technologies and learning in museums and explore how to expand learning opportunities and empower audiences. The aim of this conference session is to promote dialogue, share examples and ideas as well as research.

Colette Dufresne-Tassé, Université de Montréal, Montréal, Canada

## **À la recherche de l'émotion et de son rôle dans l'expérience du visiteur**

Le mot expérience semble être devenu populaire dans le milieu muséal il y a une dizaine d'années. Le sens qu'il acquiert dans ce milieu ne paraît pas très différent de celui qu'il avait il y a un quart de siècle dans le monde du spectacle et de la publicité où l'on parlait déjà d'économie de l'expérience (Pines et Gilmore, 1999). Il s'agissait, grosso modo, des sensations de plaisir ou/et de bien-être que procurent certaines situations. Ces sensations seraient à ce point désirables qu'on les préférerait de loin à celles qui accompagnent l'acquisition d'objets fortement désirés. Les toutes dernières années semblent confirmer cette éventualité de façon si spectaculaire qu'on n'hésite pas, dans certaines universités au moins, à parler "d'âge de l'expérience", comme on y parle d'âge glaciaire ou d'âge du capitalisme triomphant (Hunnicut, 2020).

Cette conception de l'expérience a bien entendu pénétré le milieu muséal, à la différence qu'on y a étroitement associé le terme d'émotion. L'émotion devant alors, selon le professionnel qui s'exprime, le contenu même de l'expérience ou encore sa condition, sa cause. Si l'on veut comprendre l'expérience, il faut donc au moins définir l'émotion et décrire comment elle intervient. Le milieu muséal ne possédant pas cette définition (cf. le Colloque international Culture et émotions tenu à Lyon, les 12 et 13 mai 2022), il faut se tourner vers les "Affective Sciences" (voir par exemple : Damasio, 2012; Davidson, Scherer et Goldsmith, 2003; Sander et Scherer, 2009). Mais ces dernières tirent leurs données de situations tout à fait différentes de la situation muséale, de sorte qu'on ne peut leur emprunter l'une ou l'autre de leurs définitions. Une équipe de recherche travaillant tantôt à l'Université de Montréal, tantôt à l'École du Louvre, a tenté de relever le défi et d'offrir une définition adéquate au moins pour la situation du visiteur qui parcourt une exposition.

La communication soumise propose cette définition et sa justification ; la façon de réaliser la recherche empirique inductive qui a permis de la produire ; les types d'émotions présents lors d'une visite d'exposition et la place qu'elles tiennent dans l'expérience du visiteur.

Heidi Weber, Université du Québec à Montréal, Montréal, Canada

## **The encounter between an object and the visitor: creating a model**

The way the visitor considers the object exhibited in a museum differs according to the experience he is having. Depending on his experience, the visitor will call on various resources to apprehend what is in front of him. In this research, two types of information were seen as influencing the visitor during a meeting with the object, specifically while experiencing a psychological immersion: the personal knowledge and the knowledge imparted by the museum. In this presentation, we will ask the following questions: (1) where does the visitor find the information he uses? And (2) is the information used during an immersive experience the same as the information used during a non-immersive experience?

To answer these questions, we analyzed the immersive and non-immersive experiences of 20 visitors (30-64 years old) in the permanent exhibit of a history museum. This study focuses on the 20 objects that triggered the most immersion. The meaning-making process of each visitor is analyzed according to the following aspects: the presence or not of immersion (as indicated by the visitor); the type of information used by the visitor; the mental operation responsible for the meaning-making; how these operations are performed; and their psychological orientation (cognitive, imaginary or affective).

The results highlight the importance of understanding how the visitor uses the two different types of information to better apprehend and understand the object in front of him.



Fusako Kusunoki, Tama Art University, Tokyo, Japan

## **Designing a collaborative app system using AR technology in a historical museum**

The field for this study was the Hyogo Prefectural Museum of Archaeology in Japan. This museum mainly exhibits archaeology. Visitors to this museum can learn about the history of Japan. The exhibition method of the Hyogo Prefectural Museum of Archaeology is mainly a combination of diorama-type and presentation-type exhibition methods. Real objects and reconstructed models are exhibited, and their knowledge is explained through diagrams and text on panels. However, there are limitations to explaining exhibits in words and diagrams, and it is difficult for visitors to understand them without hearing the curator's explanations. In this study, we developed an application system aimed at improving this situation. The story of the game is that there is a "spirit of the jar" in the exhibition space. The spirit of the jar (character) is looking for a jar that fits his or her taste in terms of period, use, and shape. Players listen to the stories of the spirits (characters) that appear on the screen and use AR technology to solve the riddles and advance through the game. The entire application system uses the Unity game engine and AR technology with spatial recognition.

The developed application system realizes a playful riddle-solving game that deepens communication between parents and children. Players experience the game on two devices. The main player 1 participates in the game with the game application system developed for children, and player 2 participates in the game with the AR application system. The child's role is to cooperate with the characters in the app to complete the quiz. Parents discover information about the exhibits in the AR app based on their children's information and search for the answers together. Parents and children then view the exhibit together, analyze and combine the information to determine the answers. To verify the effectiveness of the developed application system, user testing was conducted with 28 parents and children at the workshop. The results clearly showed that the game-like approach, in which parents and children use two application systems with different roles, is effective for learning about exhibits and for communication between parents and children.

### **Market of Ideas 7'**

Yun-hee Park, National Museum of Korea, Seoul, Korea

## **Three educational implications from taking advantage of new technologies in the Children's Museum at the National Museum of Korea**

This presentation will address the 3 educational components we emphasized and how new technologies were applied to enhance the hands-on displays and further enrich the children's learning experience.

First, to nurture the subjectivity of children, we installed 'conversation' spaces for children and their parents to communicate their own ideas using artifacts in the museum. Participants first selected one of the animal family paintings displayed in the Museum's collection, and were then encouraged to fill in a speech bubble with their impressions of the painting they chose.

Secondly, we prepared 'play' spaces including interactive media to improve the children's autonomy. These zones were specifically laid out not only to promote looking at visual backgrounds, but also actively interacting with them. The media panels were programmed to change screens whenever they were touched. For example, when a child touched the soil on the display, the screen automatically converted to blooming flowers. And when a child rubbed the trees on the display panel, fresh fruits appeared. In this way, interactive media is a helpful vehicle to motivate children to act and serves as a starting point for learning and developing greater autonomy.

Lastly, new technologies were incorporated in the 'presents' section to help children share their feelings with others and develop greater empathy. We developed a digital match game called "presents parents want to give vs. presents children want to receive". This game was designed to encourage the children to put themselves into other people's positions and understand their perspective, thus promoting greater mutual understanding. The digital game table also included a chart showing the ranking of various presents chosen by other children, further allowing them to consider other people's ideas and preferences.

IremAlpay, Koç University, Istanbul, Turkey

### **The Museum Game: A Virtual Space for Learning and Socializing**

The online gaming environment is a field of possibilities where interaction, creativity, curiosity and exploration can be put into practice. The transformation from physical to virtual gaming not only changed the mechanism and experience of games but also made social networking essential by enabling interconnectedness. Over the decades, it became an undeniable part of the popular culture. Even though games are one of the tools utilized by many museum educators to facilitate exclusive learning experiences for children, the rapid development of digital technologies made it harder for museums to implement changes for online gaming activities. Eventually, this became a necessity for museums to acknowledge and take an action in ways that support their role as a public institution in the service of society since maintaining communication with the public in the most accessible way possible turned out to be quite challenging, especially during the mandatory lockdowns because of the COVID-19 pandemic. For several months, children were forced to stay at home due to the curfew order for under 18 years old. Even though their learning activities somehow proceeded virtually, there was less room to socialize with their peers, which is crucial for the development of their social cognition. Starting with the context of socializing, Ayşe Bağırıcıoğlu, the museum educator of Rahmi M. Koç Museum, initiated a continuous digital game event and named it "the Museum Game", which was aimed to be both informative about museum collections and entertaining that included the use of virtual meeting programs for creating an environment for children to socialize among themselves. Although there were financial limitations from the museum budget, Bağırıcıoğlu encompassed various free of charge digital tools such as Popplet, Miro, Padlet, Quizziz, Kahoot, Educandy and more to create a unique digital game event. The event was offered free of charge and accessible through a variety of digital tools to promote accessibility and inclusivity. 903 students between the ages of 7-12 participated in this 34-week event. After each event, feedback, and evaluations of children and their parents were received to improve the content of event as well as to cherish the communication with the community. While digital tools and technological facilities became an important instrument to sustain the mission of the museum during the times of physical constraints, online gaming became a medium for learning and socializing experience for children to perform a co-creation that was lead by the museum educator.

Ani Nazaryan, National Gallery of Armenia, Gyumri, Armenia

### **Facing new challenges: the Changing Nature of Art Museums**

Art museums are playing an important role is attracting cultural tourists to global cities and regions. Traditionally, art museums were primarily known for their didactic role, but now they have also come to play a greater role in gentrification projects and cultural precincts.

This is because they are ideally suited for tourist-centric environments. Nowadays visitors want to find out more about the outside world. They want to test the new things and increase their knowledge. This phenomenon has been allied with the changing function of

art museums: from didactic institutions to entertainment or experience centers, and this development has greatly enhanced the cultural and economic standing of these museums because they help attract global tourists to experience scapes.

My topic focuses on the role of art museum on revival of local products, traditional arts and tourism development.

The challenge for museums is to understand the needs of diverse audiences and provide experiences that meet these in an environment of increasing competition and enormous social and world change.

Michaela Feurstein-Prasser, xhibit.at, Vienna, Austria

### **The Presence of the Absence - A Webapp for the discovery of the Jewish History of Vienna's Second District**

The big advantage of "The Absence of the Presence – A Walk through Jewish Vienna" app is that the content for different versions can be fed with the content from the same database. The game author has only to define which content will be shown in which version of the game.

The web app, usable on each visitor's own digital device, allows showing more pictures, before- and after-illustrations, audio as well as video files. A web-based application has the advantage of not having problems with outdated technology or incompatibility.

With this technology I can design games for different target groups, with different grades of gamification or information.

At the moment the app offers three options: a group game, an audio guided tour and a chronological tour. All three versions offer the possibility to collect points by finishing the different stations by answering all questions – so they all have a gaming element. For groups there is a very interesting tool that allows to collect users comment to certain questions on a website, which the group leader can use to discuss participant's answers after the tour. As the second district of Vienna is the district with the highest Jewish population, until the Holocaust, but still nowadays, it was evident to start the project in this area.

It was a big challenge to convert a book to an app, first because the format of a book allows more content than an app, which should be consumable in within a certain amount of time. The app also offers many different possibilities and different levels of gamification, which need a different approach than a book.

### **10,30-10,45 coffee break**

### **Poster session 10,45 -11,30**

Lucia Perez-Perez, EAE Business School, Madrid, Spain

### **Skills and Art**

The World Economic Forum (WEF) in 2020 report "The Future of Jobs Report 2020" pointed out the skills that are considered emerging and future in the labor market. This comes as a result of the transformation operated in the digital society in which we are immersed. The document also highlights an obstacle that global companies face when taking advantage of the growth potential that the adoption of new technologies brings, and that is precisely the lack of soft skills. As a consequence of this lack, it is estimated that 50% of all employees will need to retrain by 2025, more human skills than technological. The study and analysis

of data carried out determine a set of ten desirable abilities and skills: 1. Analytical thinking and innovation. 2. Active learning and learning strategies. 3. Complex problem-solving. 4. Critical thinking and analysis. 5. Creativity, originality and initiative. 6. Leadership and social influence. 7. Technology use, monitoring and control. 8. Technology design and programming. 9. Resilience, stress tolerance and flexibility, and 10. Reasoning, problem-solving and ideation.

To respond to this demand, we propose the elaboration, development and assessment of a comprehensive project of skills training through art. The artistic fact contains the optimal conditions for the development of skills that are properly human; and using it as a tool contributes to experiential learning that encourages critical and creative thinking.

The project involves the study of these skills and the development of instruments to implement them in organizations, managers and workers, and also in the unemployed population or at risk of exclusion. In addition, once these instruments have been tested, it contemplates the possibility of undertaking knowledge transfer actions.

In this context, art is positioned as an ideal tool for preparing proposals. Art and culture are not a simple didactic instrument, but an essential part of the education of the human being as a person and of the society to which he belongs (Tavira, 2007). The artistic elements provide the possibility of questioning, contemplating and dialoguing with reality. This is why contact with the artistic act contains the optimal conditions to be able to develop skills that are properly human. The classical philosophical tradition from Aristotle to the present has always maintained that beauty is something attractive that as such affects the person, does not leave him indifferent. Contact with art, as intellectual wisdom, achieves greater perfection than simple technique (Pérez-Izarbe&Lázaro, 2000). And not in vain, eight of the skills that we have referred to as the most demanded in organizations are thinking skills. This fact shows a lack of culture in people and institutions, and art is postulated as the optimal tool for its assimilation. The museum space thus becomes the setting for this project to implement skills through art. Having the artistic element as a tool has some gamification, arouses emotions, forms an experiential learning that awakens critical and creative thinking, as well as imagination

Chen-Ching Lin, Graduate School of Arts Management and Cultural Policy, Taiwan  
University of Arts, New Taipei City, Taiwan

### **Digital Experiences in the+D84:D91 Children's Gallery**

Facing the advent of the age of technology, what impact will the digital display in museums have on children? The National Palace Museum established the Children's Gallery in 2008. After half a year in 2020 to renovate the space, it equipped its educational content and marketing strategies with digital tools. Applying advanced digital technology to display and to integrate game-based learning methods, the museum has created a new environment for children's visiting experience. Based on children's cognitive development theory and on-site observation, we have found that young children interact well with static digital projections. They do observe and reason through digital interactive displays, they do learn how to operate the system easily. It is also found that children of different ages demonstrate different patterns of visiting behavior due to their stages of cognitive development. As an example of thinking in action, children do interact with digital displays through their body's movement.

Digital Children's Gallery attracts children's attention with high senses and interaction contents. It surely developed new digital experiences with appropriate display design. However, digitalization relies on hardware facilities such as display equipment. If the machine fails, the gallery will lose its function. Digitization is both an advantage and a

limitation. Therefore, it is also found that display assisted by physical objects can better implement children's visiting experiences.

Yenshuo Chen, National Museum of Taiwan History, Tainan City, Taiwan

### **Digital Public Participation of a Museum: Taiwan Cultural Memory Bank**

Taiwan's national digital transformation policy presents museums with numerous questions. How should museums make use of their professional nature? How should they promote creative methods of preservation and activation of cultural assets? Furthermore, how are museums to draw the public into a form of mutual participation in cultural heritage initiatives and make cultural identity diverse and democratic? The National Museum of Taiwan History tells the story of Taiwan. In 2021, the Digital Innovation Center was established as part of an organizational restructuring. This center carries out the Ministry of Culture's national-level plan for what is known as the Taiwan Cultural Memory Bank. Although the initial aim of this project was to assist with standardizing the acquisition and opening of the museum's collection, over the course of the project, it transformed into an effort to link with local resources and promote organic community collaboration. Even more so, it allows for greater flexibility and facilitates diverse communities in collectively considering and imagining the implications of the Taiwan Cultural Memory Bank. All of this is done in hopes of breaking down the museum's boundaries and launching a form of cultural asset usage that is both "cool" and "alive".

Hsuan-Chu Hsiao, National Museum of Taiwan History, Tainan City, Taiwan

### **Reapplication of mature technology: A case study of Mission NMTH**

The National Museum of Taiwan History's (NMTH) "Mission NMTH" is an activity that combines fun games and competitions to introduce museum exhibits to medium- and large-sized student groups that visit the museum. The activity provides groups with a customized experience by utilizing fairly mature technology such as platforms, websites, and question banks, allowing different groups to choose various kinds of content, difficulty levels, and the scope of the event. Furthermore, by operating cost effectively and with minimum manpower, the program thereby enhance the feasibility of long-term operation through the power of technology.

This activity was in its planning stages and tested with handbooks for nearly a year. After confirming the various needs of the activity, a platform, website, and flexible control system were built, based on previous experiences. At the same time, the content of the question bank was gradually expanded so that the questions were more diverse in terms of difficulty, field, and nature. With the high degree of freedom in setting the question groups and a flexible control system allowed the Mission NMTH to adjust its content and details to suit groups of different ages, regions, number of participants, and time. In addition to working with the average medium or large sized group, this flexibility enables cooperation with the museum's cultural equality policy to provide customized activity experience for groups with special needs. In 2019, when the museum was closed for renovation and then later for the pandemic, there were also attempts to add online and outdoor versions of the activity to try and open up more possibilities. This presentation discusses how simple but relatively mature technology and equipment can help an educational activity to achieve its initial design concepts and goals to narrow the distance between the museum and students, challenging the image of museums as a stiff education institution, and serving large visiting groups of the museum. It also gives visitor groups the chance to choose different elements of the activity that make up their own customized and diverse experience.

Haryany Mohamad, Penang State Museum Board, George Town, Malaysia  
**The Unsung Hero Project**

*The Unsung Hero Project* can evolve differently and it now makes the discovery process more exciting. The 10 steps below are basic steps and are open to interpretation, allowing anyone to create and unfold their own project by using their freedom to create. Studying lesser-known figures would give the target audience (e.g. students ) a clear sense that ordinary people can be agents of change. Learning about unsung heroes would create a more inclusive understanding of our history. As one can find inspiration anywhere, I would like to start off the project by choosing **Dr. Wu Lien Teh**. He was born in Penang, Malaysia, on 10 March 1879. An alumnus of the University of Cambridge in the UK, he was awarded the prestigious degree of M.D. Dr. Wu was recruited to work on a deadly disease outbreak in north-eastern China in December 1910. The Malaysian epidemiologist pioneered the use of face masks to control an epidemic more than a century before the advent of Covid-19. Wu produced a mask made from cotton and gauze, with extra layers of cloth. Dr Wu returned to Malaya in 1937, resumed his private medical practice and finally retired at the age of 78. In mid-January 1960, he moved back to Penang where he was born but died a week later on January 21st, 1960. Wu was also the first Malayan nominated for the Nobel Prize in Medicine in 1935. A true unsung hero, one that has contributed generously but was never mentioned in our history books. This project would finally give him the recognition he truly deserved.

Ryohei Egusa, Chiba University of Commerce, Ichikawa, Japan  
**Gaze Behavior Analysis in Reading Four-panel Manga for Supporting Visitors' Appreciation of Exhibits in Science Museums**

Text-based explanatory materials are not suitable for visitors who are not comfortable reading large amounts of text, such as children and foreigners. As a result, they often end up looking only at the objects and fail to understand the content.

Therefore, we focus on four-panel manga, which are comics consisting of four frames of the same size. four-panel manga is characterized by a concise story and a reduced amount of text. This feature makes them suitable as interpretive materials for visitors such as children and foreigners, who can intuitively get an overview of the exhibition before viewing the displays.

Based on this hypothesis, it can be assumed that the adoption of characters and speech balloons will change the following user behaviors when reading four-panel manga. First, it is expected that the order of eye movement with regard to text and illustrations will be optimized. Reading text and illustrations will be sequenced in accordance with the character's guide, as intended by the four-panel comic designers. Second, it is expected that gaze duration in text and illustrations will be prolonged. The characters and callouts will reduce the amount of time the user's gaze wanders to determine where to read next, which in turn should increase the percentage of the total time that the gaze remains on the text and illustrations.

By clarifying these effects, we can show that the use of characters and speech balloons is effective in four-panel comic interpretive materials. In addition, we can indicate appropriate design principles for four-panel manga for conveying information.

In this study, we asked 33 participants to view four-panel manga with character and speech balloons, and four-panel manga without them. The participants' gaze will be measured and analyzed concerning the location and duration of fixation.

Alena Štěrbová, National Gallery Prague, Prague, Czech Republic  
**NGP ON/OFFLINE, Public Programme Lines and Dramaturgies**

Like many galleries globally, the National Gallery Prague (NGP) began broadcasting online lectures, discussions, presentations or performances at the beginning of the pandemic. The dramaturgies of the cycles were created gradually and focused on ongoing exhibitions, museum collections, and topics reflected in contemporary art and architecture. Despite all the negatives associated with the closure of cultural institutions, it was possible and welcomed to create online accessible and inclusive programme series with a much higher reach than ever before. On the other hand, online programmes place new demands on museum and gallery staff regarding strategy, dramaturgy and content implementation. Later, when the museums and galleries were reopened, whether in the restricted or standard model, it became necessary to find a balance between live and online programme lines or seek hybrid formats. Based on data and social media statistics related to past events, the un/suitability of the online interface for certain types of existing or utterly new programme series will be discussed. The poster will raise questions about finding sustainable ways of balancing various programmes to reach a more comprehensive audience.

Rasa Pranskuniene, VMU Agriculture Academy museum, Kaunas, Lithuania  
**Between digitalization and sustainability: smartness and museum education**

The aim of this presentation is to consider the changing meaning of smartness in the context of nowadays challenges, analysing different scientific sources. Debating smartness, the following questions are opened up: how smartness notion is interpreted in nowadays museum education? How is smartness interrelated with digitalisation and sustainability challenges? How is smartness interrelated with growth and degrowth challenges? How is smartness related with the global health crisis solutions? All these questions lead to rethink the meaning of smartness and calls to a broader discussion for the future development of museum education research. This integrative review approach was adopted to undertake the discussion about smartness in museum settings considering digitalization, sustainability and pandemic crisis. It will be five stages for this review: identification of the problem, a search of the literature, evaluation of the data, analysis of the data and presentation. The critical aspects of smartness (smart museum education interrelation with digitalisation and sustainability challenges, smart museum education relation with the global health crisis solutions) lead to rethink the meaning of smartness phenomenon.

Lisa Zuliani, Unimore, Parma, Italy  
**The use of cultural heritage for social inclusion. The case of some places of worship in the province of parma**

The project ParmARTEfice di CITTADINI was developed during the second wave of Covid-19 and took shape starting from the hypothesis that the use of the local cultural heritage, offered by the Baptistery of Parma, the facade of the Cathedral of Fidenza, the Benedictine Abbey of Santa Maria della Neve Torrechiera, the Correggio Dome in San Giovanni Evangelista, the frescoes of Santa Maria della Steccata, the Certosa di San Girolamo, the Bernabei Dome in Santa Maria del Quartiere, the Cycle of Santa Margherita in Santa Maria Assunta Pieve in Fornovo and the Convent of San Francesco del Prato, through museum didactic strategies, could favor social inclusion and the development of transversal citizenship skills provided by the Council of Europe in the Competences for democratic culture document: *Living together as equals in culturally diverse democratic societies*. The

research carried out in May 2021 saw the participation of 211 students from two Lower Secondary Schools in the Province of Parma. Following the ICOM Best Practice model of Marie-Clarté O'Neill and Clette Dufresne-Tassé, the research involved the use of didactic strategies such as the Inquiry Approach, Maria Lai papers, Visual Thinking Strategies, Object Based Learning and Digital Storytelling in order to allow the use of the cultural heritage present in nine places of worship in the Province of Parma to evaluate its impact on the development of critical thinking and citizenship skills of the students involved. Since the use of places of worship was not possible in first person, due to the legislative provisions regarding the containment of the viral pandemic, it was necessary to rethink it within the classroom of a school through the use of technological tools and, consequently, museum didactic strategies have also been revisited, adapting them to the context. The data was collected by using quantitative assessment tools, the Social Inclusion Scale (Ceri & Secker, 2015) and the KSAVE model skills grid (Griffin & Care, 2015). The results of innovative approaches in museum education have highlighted how cultural heritage is a valid tool to be used as a source and opportunity to develop specific educational projects aimed at soliciting meaningful learning that takes place thanks to the positive interdependence that is created within work groups and the collective construction of knowledge, capable of allowing interaction with the other to be experienced as an opportunity and source of knowledge. Recognizing the material produced, validated by the results obtained, the site [www.parmarteficedicittadini.altervista.org](http://www.parmarteficedicittadini.altervista.org) was created to reach schools, wishing to undertake interdisciplinary educational paths of social inclusion, and the Department of Culture of Parma, to propose opportunities for social inclusion in order to increase the territorial offers aimed at improving the quality of life of citizens and the enhancement of the local heritage identified in the chosen places of worship.

Nikolas Kramar, Valais Museum of Nature, Sion, Switzerland; Gil Oliveira, University of Geneva, Geneva, Switzerland

### **Development of a digital game in a natural history museum based on the metaphor of our relationship with nature**

GEOME is a mixed-reality game dedicated to school visits in a natural history museum (Valais Museum of Nature, Switzerland). Geome was designed during a design-based research project financed by the Swiss National Science Foundation. The collaborative methodology involves secondary school teachers, researchers (University of Geneva), museum scientists and educators, computer scientists and a designer. The design and the assessment of the game is grounded on an iterative process. Improvements are gained at each step by the contributions of the different stakeholders. Although the use of digital technology is often considered as an opportunity in order to set up original learning experiences and to foster the visitors' interactions with the museum exhibition, the implementation of game-based school visits implies addressing complex issues. Indeed, game design is not limited to adding "game elements" such as rewards or leaderboards to a learning situation (gamification). It merely consists of changing the meaning of the learning situation so that it becomes playful (Sanchez et al., 2020). This process, named ludicization, also consists of the integration of a learning content into a game thanks to its metaphorization, i.e. building a metaphor of the knowledge to be learnt by capturing the essence of the knowledge to be taught.

For GEOME, the main metaphor is the relationships between humans and nature. It consists of a two-parts game played with digital tablets and lasting approximately 90 minutes, including an introduction, the game itself and a debriefing. During the first part of the game, the students play the role of a wildlife expert who is stuck in the valley because of the snow. During the second part, the wildlife expert is released from the bad weather conditions and expected to solve fake news, rumors or polemics related to environmental



issues. For both parts of the game, the narrative aims to elicit different emotions and let them live an epistemic experience.

The study is based on the collection of data including digital traces automatically produced when the players interact with the tablet (learning analytics) and video recording during the school visit. The analysis shows an improvement of the interactions of the students with scenography and items of the Museum. However, we also found that, despite the apparent students' engagement, they merely play a quest game rather than an inquiry game, giving so few meanings to the museum's items. These results are now taken into account for the re-engineering of GEOME.

Kateřina Mesdag, Petra Šobáňová, Department of Art Education, Faculty of Education, Palacky University, Olomouc, Czech Republic

### **Virtually Together – an unexpected journey of museums and galleries towards their visitors since March 2020**

with technology, and the question is certainly no longer whether we should take technology into account, whether we should use it or not, but rather to what extent and for what purpose. Measures related to the coronavirus pandemic in the Czech Republic from March 2020 to May 2021 kept us in isolation behind the doors of our homes, schools, museums and galleries and other cultural institutions for more than a year. The Coronavirus pandemic was an opportunity for pedagogical innovation not only in formal education but also in museums. Online sharing, as one of the main ways in which museums could stay in touch with visitors at that time, has highlighted the various educational strategies and approaches being developed in museums, as well as confirmed the need for meaningful use of digital technologies.

In this conference paper we would like to acquaint the participants with a research project conducted between March 2020 and March 2022 by the authors at the Palacky University Olomouc in the Czech Republic. The primary objective of the research project was to analyse the production of educational departments of galleries and art museums of the Czech Republic. In particular, we focused on online accessible educational resources that art museums and galleries have begun to create mainly as a response to the pandemic situation and the closure of museums, galleries and schools. In our research, we also reflected on the ways these resources can be presented to the public, and the ways they can be used by art teachers for distance teaching of art education not only in the time of coronavirus but hopefully also as an inspirational sources for face to face art classes of art education in the future.

DenisaBrejchová, Marketa Formanova, West Bohemian Museum in Pilsen, Pilsen, Czech Republic

### **Educational project**

Individual visitors and organized school groups will learn about the form of various diseases and epidemics in history and the methods of their treatment with emphasis on archaeological finds and historical sources in the city of Pilsen. Each epoch is represented by one branch of the museum - prehistory in the main building (exposition Archeology - archaeological and anthropological reconstructions and methods of healing in prehistory), the Middle Ages in the Museum of Ecclesiastical Art (the role of monasteries in medicine, healing, nursing and education - paradise hospital) and the modern age in the Puppet Museum (development of medicine in the modern age, the influence of humanism - baroque spa courtyard). More broadly, the project should contribute to raising public awareness of the forms and extent of epidemics in history and the possibilities for

combating their spread, highlighting the ways in which people have dealt with epidemics in the past, and outlining what epidemics have meant for socio-cultural development horizon.

Project goals:

- To increase historical and cultural awareness, to offer knowledge of cultural and historical development of individual important architectural objects (Puppet Museum, Museum of Ecclesiastical Art of the Pilsen Diocese, Main building of the West Bohemian Museum in Pilsen and archaeological artifacts related to Pilsen in an entertaining and attractive way
- To support cultural and folk traditions - work with authentic historical sources from Pilsen, a reference to folk medicine, folk customs associated with health care, the role of the church and faith in medicine, etc.
- Offer the possibility of using the virtual environment in case of restrictive measures in connection with the COVID19 pandemic

Claudia Martins Ramalho, Social Service of Industry – SESI, Brasilia, Brazil

### **SESI LAB - development of innovations to create the futures**

SESI Lab is an art, science and technology center located in the heart of Brasília, in the Federal District, installed in Oscar Niemeyer's building and designed to be a space inspired by the Social Service of Industry - SESI and the National Learning Service - SENAI, entities linked to Brazilian industry, capable of arousing interest in science and innovation in their audiences, through artistic, scientific and technological processes.

Held in partnership with the Exploratorium of the main art, science and technology museums, considered one of those that helped to spread the pedagogical approach. The focus is on understanding scientific phenomena through an exhibition that explores the demonstration of concepts through interactivity.

SESI Lab was conceived to make an industry legacy for Brazil and an opportunity to expand the performance and visibility of the entities' actions in Brazilian society.

The challenge arises of becoming an agent of social transformation that reinvents itself as forms of collaboration with society, connecting it with new demands from the industry and as changes with tools that are being incorporated. This will be done through research, educational and educational programs inspired to offer an interdisciplinary and interdisciplinary approach.

The role of education as a center of art, science and technology perspective is to integrate experiences into a conception of meanings, so as to become dialogic as well as accessible to visitors, allowing for the themes presented. The conceptual premises of the Museological Plan are anchored in contemporary educational concepts such as the C TSA - Science, Society and Environment and STEAM, in addition to articulating with the principles of the National Common Curricular Base - BNCC, it will allow the combination between the different programs to the pedagogies educational. The SESI Lab Program is, therefore, one of the public and communicational areas of the institution, but a possibility of deepening the expository educational actions and not just each segment of complement of educational complement. This debate encourages engagement in the appropriation of decision-making mechanisms on scientific and technological topics

Sofia Paschou, Georgius Papaioannou, Department of Audio and Visual Arts, Ionian University, Corfu, Greece

### **Addressing Museum Digital Atmosphere: the SOR model and the contributions of application developers**

The museum environment and the museum atmosphere play important roles in the museum experience (Bradbourne, 1999; Pitts, 2003) and the museum learning process. A satisfying experience is linked to cognitive and affective motives; it is affected by

numerous space- and visitor-related variables, such as mood or fatigue (de Rojas & Camarero, 2006). Note that the term 'atmosphere' relates to the emotional mood caused by various factors as well as the corresponding response of the public to them. In recent years, the term museum atmosphere has been metaphorically used to describe human interaction within specific places and situations, and the resulting emotions.

Research on museum atmospherics has so far focused on the physical museum spaces and exhibits. Ongoing research by the authors introduced and explored the existence and the notion of the Museum Digital Atmosphere (MDA) in the museums of Greece applying the SOR model (Paschou, 2019). The MDA is addressed as an emotional state emerging by the presence and use of digital applications and technologies. In this paper, we highlight the perceptions of digital technologies specialists and professionals on the features and characteristics that museum-used digital technologies need to have in order to evoke emotions and add to the museum experience and education. The research methodological approach has been qualitative by using semi-structured interviews. The findings were evaluated via content analysis. The research sample consists of museum professionals and digital applications developers in Greece.

Martina Freitagová, Barbora Škaloudová, Kunsthalle Praha, Prague , Czech Republic  
**Kunsthalle Praha: Digital Learning On- and Off-site**

As a new institution (opened in February 2022) we have considered implementing new technologies in learning from the very beginning with the understanding that the shift in traditional education is quick and inevitable. It was important to us to start with a relatively straightforward approach without developing complex applications that might lead to passive consumption of spectacular content that is difficult and demanding to develop. Instead, we were looking for ways to make use of the benefits of new technologies while acknowledging that the personal art experience and active creation remain paramount. We focused on expanding the gallery beyond its physical location, offering an information platform for teachers, students and the general public with the aim to foster community and dialogue, and also using new technologies directly in the gallery space to offer a new and unique visitor experience.

For the opening exhibitions we have introduced four different lines of using digital technologies to increase participation and learning on- and off-site: firstly, a digital exhibition guide which not only helps visitors as they walk through the exhibition, but also serves as an important resource for those preparing for a gallery visit or looking to continue learning afterwards. Secondly, a custom-made nine-metre-long LED wall, a permanent element fostering creative engagement in the gallery space which allows visitors to draw with light while directly reacting to and interpreting the exhibition contents. Thirdly, in our workshop *Storytelling with Sound*, created specifically for the *Kinetismus* exhibition, we use special devices that record electromagnetic waves. Without differentiating between age groups, we invite everyone to explore the various forms of sound, learn from each other and co-create.

Finally, a line of digital learning functions via our online platforms (website + social media) where we regularly post creative open calls related to our exhibition programme. These allow our audience to learn about various artists, the development of specific periods or styles and to present one's own creative work. Works are sent to the gallery and selected pieces are subsequently shared online; their creators are later invited to a personal meeting offering an opportunity to discuss and enrich one another, as well as to meet the Kunsthalle Praha team. Furthermore, digital content is free for teachers to share or adapt to create their own materials, thus making the gallery an ever-developing and living organism. The pandemic made the application of new technologies quicker and more efficient and it is our aim to keep the digital a vital element of gallery learning.

Jakub Halaš, MuzeumŘíčany, Říčany, Czech Republic

### **Hands-on museum and regional textbook**

MuzeumŘíčany has developed virtual "regional textbook" with media content including storymaps and videos. The resources are designed to be used during both at school and out of school activities, as a part of outdoor education carried out by museum educators and are co-authored by experienced teachers. The aim is to raise the place attachment of the pupils, knowledge about local history monuments, nature including geology, support the competence in science (using maps and inquiry), cultural awareness (involving local sculptures, ornaments and intervention in public space) and skills for active citizenship.

Programmes on specific themes for pupils from 6 to 15 years old were created and piloted. Teachers were asked to cooperate in the programme design, to observe the parts led by the museum educator and to reflected on the learning outcomes.

Acquisition of new knowledge was documented using the pre/posttests. Increased competence in science or cultural awareness was recorded using observation sheets. Self-assessment and peer assessment have led to higher motivation among teenagers. Young children appreciated outdoor and hands-on activities, teenagers were motivated by discussion with local authorities and shooting videos about potential changes in public space.

Cooperation of educators from regional museum with experienced teachers leads to programmes joining local history and nature, outdoor and hands-on activities with effective methods for reading and maths. Young children appreciate learning outdoors, using replicas of ancient tools, historical photographs and audio-taped memories about childhood of locals. Teenagers were motivated by role play and by the opportunity to express opinion on changes of public space eg. through participatory budgeting project.

OldřichBystřický, Ida Muráňová, National gallery Prague, Prague, Czech Republic

### **Art collections of National Gallery Prague as source for creative learning**

Can visual art motivate to autonomous learning and individual creative activity outside the gallery or art museum? How can visual art become a source of inspiration in the relation to new technologies? Unlimited possibilities of a digital environment can be very helpful in the process of education and creative learning. Artworks and other impulses for a creative activity that are available online does not need to be separated from the everyday life. They can be part of our everyday experience and can be used at home or at school as well. Our presentation will introduce examples of good practice of current online projects based on a dialogue with the audience and inspired by artworks from the rich collection of National Gallery Prague, ranging art pieces from antiquity to present day. Our thematic paper will also evaluate the impact of these activities with examples of the creative work of the audiences

Frederike van Ouwkerk, Breda University of Applied Sciences, Rijswijk Zh, The Netherlands

### **The power of museums: measuring social impact**

Breda University of Applied Sciences in cooperation with several museums conducted research to arrive at useful quality criteria for social impacts of city museums and to draw up a practical toolkit with which (city) museums and other institutions within the cultural sector can better show their qualities and give museum employees tools to investigate the

quality of the museum in a convincing way and to communicate it to stakeholders such as the municipality and other subsidy providers.

The toolkit contains ways to evaluate (even in co-creation) what does the museum stand for, how does it manage with various partners, what is the value for audience, reach, appreciation, impact. Functions as narrative, reflective, participatory, collective, educational, collaborative are put in a so called 'function range'. In this function range evaluation methods are added as are ways to give evidence for the outcome of the evaluation.

A training has been put together to practice with the toolkit. New technologies are involved.

Alice Saracchi, Angela Maria Sugliano, University of Genova, Genova, Italy

### **The ICOM Glossary as a tool to support the design of a museum education laboratory: the case of Festival dellaScienza 2021 for the Galata Museo del Mare**

The adoption of digital technology for the preservation, documentation and communication of cultural heritage is a topic of attention in the museum sector. The thematic commission on Digital Technologies for Cultural Heritage of the Italian section of ICOM (Council of Museums) testifies to this attention with several actions, including the creation and editing of the ICOM Glossary: a constantly updated object that collects and explains the terms of museum language and is intended to support "museum designers and directors in choosing the most suitable technologies for their own context".

The present work illustrates the design of the museum didactics laboratory realized for the Genoa Science Festival 2021 in the framework of the collaboration between Galata Museo del Mare, the EPICT Italia Association, the DIBRIS Department of the University of Genoa and LIGURIA- ICOM. The project foresees the use of some of the technologies and methodologies indicated in the ICOM Glossary: augmented and immersive reality tools with a storytelling that intends to propose a dialoguing approach with the works on display and that includes elements of gamification.

## **25 August –Thursday 9:00 – 18:00**

### **Off-site meeting Learning from each other**

Národní pedagogické muzeum a knihovna J.A. Komenského / National Pedagogical Museum and Library of J.A. Comenius

Address: Valdštejnská 161/20 118 00 Praha

Public transport: metro line A – Malostranská station + 5 minutes walk along Valdštejnská street

Moderator / chair: Marie-Clarté O'Neill

#### **9.00-9.15 Arrival**

#### **9.15-9.30 Welcoming**

**9.30–10.30** 2 presentations National Pedagogical Museum (Auditorium + Foyer) :

Markéta Pánková, director/ National Pedagogical Museum and Library of J.A. Comenius

Jakub Seiner, curator/ National Pedagogical Museum and Library of J.A. Comenius

#### **10.30 – 10:45 Coffee break**

10.45 – 12.45 CECA Best Practice award winning projects presentations (Auditorium + Foyer)

- Margarita Laraigée, CECA Best Practice coordinator "**Ten years of CECA Best Practice competition: review and perspectives.**  
Delphine de Bethmann, Musée de la musique of the Cité de la musique of Paris /France, "**La Boîte à musique, un dispositif de médiation à l'hôpital** ».
- Sock Mun Chan, Sun Yat Sen Nanyang Memorial Hall of Singapore "**Data-driven Chatbot Interactive Gam**".
- **Joanne Chen** The National Heritage Board of Singapore "**Virtual Heritage Trail Programme for Specialised Schools**".
- Haryany Mohamad Penang State Museum Board of Penang/Malaysia "**Talking Object; Seeing Through Young Eyes**".
- Yanni Cheng, Han Yangling Museum in Xi'an, Shaanxi, China "**Here Comes Shanshan: a 2000-Year-Old Beauty**"

### **12.45-13.00 Ceremony**

### **13.00- 14.00 Lunch break**

### **14.00– 15.30 Workshops**

- Professional development of museum educators –Auditorium (English)

Coordinator :WenckeMaderbacher

Topic: enjoyment at work, working around enjoyment

- Surveying audience reception of educational and cultural programme –Foyer (English, French)

Coordinator: Katy Tari .

Topic: Visitor-museum relations and survey dynamics in the digital age

- Learning and engaging digitally – Classroom (English)
  - Coordinator: Angela Manders and guest speaker: Jody Steiger (Costa Rica)
- Topic: Evaluation of online programs - After two years of experiment, how to proceed?

- Applied research workshop Caffe (Spanish)

Coordinator: Rosa María Hervás Avilés

### **15.30 -16:00 Coffee break**

16:00-17.30

### **Workshops**

- Sensitive mediation- Foyer

Topic: using all senses

Coordinator: Anne Sophie Grassin (French)

- Museum Education and Decolonization – CECA LAC – Classroom

Topic: Migrations and education

Coordinator: Silvana Lovay (English, Spanish, French)

- Migration will be approached from the perspective of decoloniality in the museum field. Using these criteria, a museum will be built in which decoloniality will encourage the real participation of migrant groups.
- Research group annual meeting Auditorium

**On-line posters:** <https://icomprague2022.gcon.me/topics>

## CONTACTS

ROLE	NAME	SURNAME	EMAIL
<b>INTERNATIONAL COMMITTEE</b>			
Chair of IC	Marie-Clarté	O'Neill	<a href="mailto:oneillmarieclarte@gmail.com">oneillmarieclarte@gmail.com</a>
Other contact person from IC	Željka	Jelavić	<a href="mailto:zelavic@emz.hr">zelavic@emz.hr</a>
<b>ICOM CZECH REPUBLIC / ORGANISING COMMITTEE BUREAU</b>			
International Committees coordinator – ICOM CZ	Alžběta	Horáčková	<a href="mailto:horackova@icom-czechia.cz">horackova@icom-czechia.cz</a>
IC Assistant	Anna	Fišerová	<a href="mailto:fiserova.anna@gmail.com">fiserova.anna@gmail.com</a>
<b>COLLABORATING INSTITUTION IN PRAGUE – National Pedagogical Museum and Library of J.A. Comenius</b>			
Technical and production support Scientific programme –museum contact person	Jakub	Seiner	<a href="mailto:seiner@npmk.cz">seiner@npmk.cz</a>