

# **CIMUSET-IATM 2018 CONFERENCE**

PRELIMINARY PROGRAM

Ottawa, Canada  
October 15-18, 2018

# Welcome from the President of CIMUSET

Dear colleagues, friends and CIMUSET members,

I have the great pleasure to welcome you to the 46<sup>th</sup> CIMUSET annual conference in Ottawa. We are very happy to have this year a joint conference with IATM and Ingenium – Canada's Museums of Science and Innovation.

Since its creation in 1972, ICOM-CIMUSET continues to carry out a programme of activities related to the preservation of the cultural heritage within science and technology and dissemination of knowledge within this field. Our important purpose is to provide a forum for communication, co-operation and information exchange between museums, professional workers and others concerned with preservation of the cultural heritage within science and technology and dissemination of knowledge of the technical and scientific heritage.

We also support the aims and objectives of the International Council of Museums (ICOM).

This conference is based around a topical theme which concerns, not only scientific and technical museums, but all museum's community in the world. "Museums in a Digital World" is a highly topical issue which will, no doubt, stimulate a particular interest among all participants.

This conference will be an opportunity to our colleagues to discuss and exchange their ideas and their experiences and reflections. This meeting will be also a real forum dedicated to the study of the different aspects of technical and scientific heritage and an important opportunity for our colleague to promote their museums and science centres.

I hope that 2018 CIMUSET conference will be an intense moment of sharing and exchanges and an opportunity to discover the richness and diversity of the Canadian cultural heritage.

Yours sincerely,

Ech cherki DAHMALI  
CIMUSET Chairperson

# Welcome from the President of IATM

Dear Colleagues and IATM Members,

It is with great pleasure that I welcome you to my home town of Ottawa for the 2018 IATM conference. This year is a special year as we celebrate IATM's 50<sup>th</sup> anniversary.

As the museum industry continues to explore the vastness of the opportunities in the virtual realm, this year's conference promises to further expand our notions of the digital museum. The programme is filled with engaging key note speakers, panels, presentations and workshops. IATM Members will also have the unique opportunity to a specially curated visit ExpoRail – the Canadian Railway Museum.

IATM is pleased to continue its long standing tradition of providing excellent networking and professional development opportunities to its members. This year's special 2018 joint conference with ICOM-CIMSUET will provide even more opportunities to share knowledge and expertise with our museum colleagues from around the world.

I wish you all an excellent conference, and look forward to helping you discover Canada's National Capital, Ottawa.

With warm regards,

Stephen Quick  
President, IATM

# Welcome from the President and CEO of Ingenium

Dear Colleagues,

Welcome to Ottawa and to the joint CIMUSET–IATM 2018 Conference.

My colleagues and I at Ingenium – Canada’s Museums of Science and Innovation are pleased to host CIMUSET’s and IATM’s annual conferences this year.

The conference theme of *Museums in a Digital World* speaks directly to every museum professional as we find ourselves living in two worlds – the real and the virtual.

The goal of the Conference is to help you to bridge the gap between the two.

The strengths and advantages of digital – immediate access and worldwide reach, engagement, and participation – allow us to easily venture outside our four walls to enhance our relationships with our existing audiences and develop new connections and networks.

The City of Ottawa is in Canada’s Capital Region which spans the Ottawa River to include la Ville de Gatineau in the province of Quebec. The entire Region is a cultural and historical delight. You will not be disappointed if you arrive before the Conference or stay after.

Congratulations and thank you to the conference planning committee for an exceptional program that promises thought-provoking educational sessions, compelling keynotes, congenial social events, and fascinating outings and excursions.

My Ingenium colleagues and I wish you a rewarding conference and a pleasant stay in Ottawa. I look forward to meeting you while you are here.

Christina Tessier,  
President and CEO  
Ingenium – Canada’s Museums of Science and Innovation

## Conference theme

In a world of Alibaba, Netflix, Facebook and WhatsApp, where do museums fit in? Consumers want immediate, unfettered access to content; they want to participate; and they want to be engaged. The rise of mobile, the cloud and the internet of things has made digitization the core driver of digital disruption and it effects every industry, including museums. Those that are embracing the movement are moving forward. Those who ignore it are suffering the consequences. How are museums embracing the digital disruption movement?

The digital world will never be able to replace the artifact, the real thing. The challenge for museums is how do we engage on digital platforms, and have the users engage with their scientific and technological past, present and ultimately, their future.

# SUNDAY, OCTOBER 14

## Canada Science and Technology Museum

<b>17:00 – 19:00</b>	<b>IATM Meeting</b> This casual evening event is an occasion to meet or reconnect with fellow IATM members and supporters. Light canapés and cash bar is included.
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# MONDAY, OCTOBER 15

## Canada Aviation and Space Museum

<b>9:00 – 10:00</b>	<b>Keynote Speaker</b> Sylvain Laporte, <i>Canadian Space Agency</i>  Before being appointed as President of the Canadian Space Agency, Sylvain Laporte was the Chief Executive Officer of the Canadian Intellectual Property Office (CIPO). Previously, he held the position of Executive Director, Industrial Technologies Office (ITO) at Industry Canada, where he was responsible for managing financial contribution programs in research and development for the aerospace, defence, security and space industries. Before joining the public service, he worked for the Canada Post Corporation in various sectors, such as marketing, retail, logistics and information technology. Mr. Laporte gained extensive experience as an aerospace engineer over the course of his 20-year career with the Canadian Armed Forces. He earned a bachelor's degree in computer science from the Collège militaire royal de Saint-Jean, and a master's degree in computer engineering from the Royal Military College in Kingston.
<b>10:00 – 11:00</b>	<b>Opening the Vaults – Digital Asset Management in a Museum Context</b> Kristy von Moos and Adele Torrance, <i>Ingenium – Canada's Museums of Science and Innovation</i>  In 2016, Ingenium implemented a Digital Asset Management (DAM) system, with the aims of eventually organizing all media assets within the corporation (photos, video, audio), and making subsets available to the public. This presentation will discuss how Ingenium is using the DAM to promote access to archival collections, support museum activities, manage corporate digital asset use and creation (workflows, facilitating reuse), along with the challenges of undertaking such a project, both technologically and in a museum setting. Using the DAM has led us to think in a more focused way about providing access in digital space to our collections; it is part of a larger shift in approach centred on open access and digital citizenship.
	<b>Digital Collections – New Possibilities, New Challenges</b> Mikko Nykänen, <i>Finnish Postal Museum</i>  Digitizing museum collections opens new possibilities for research but at the same time it poses new challenges for museums. When planning for the digitization of collections, we need to assess carefully the possible benefits and risks. In the presentation the pros and cons of digitization will be highlighted through two current examples. First, we will look at a development-phase tool for automatic recognition of historical handwritten texts, Transkribus. Secondly we will see how data protection is an issue that needs to be taken into account especially with digital material.
<b>11:00 – 11:30</b>	<b>BREAK with refreshments</b>
<b>11:30 – 12:30</b>	<b>Rethinking the Role of the Science Museum: The Collective Process of Remaking the Danish National Museum of Science &amp; Technology</b> Jacob Thorek Jensen, <i>Danish National Museum of Science &amp; Technology</i>

	<p>This presentation will share experiences and knowledge on how we are reshaping the science museum by making it more socially and culturally inclusive. We are focusing on the cultural producing processes that take place during citizens' interaction with the physical museum or through online platforms. In doing so, we are coming up with new core narratives for the museum - taking its starting point from issues and problems related to people and society today. This also includes rethinking how we interact with our users and non-users to reflect and deal with topics relevant for different kinds of citizens.</p>
	<p><b>A “Slow Museum” in the Digital Age?</b>  Markita Franulic, <i>Technical Museum Nikola Tesla</i></p> <p>This presentation will examine how to connect the present state of the Museum (including social, economic and professional circumstances) with requirements of the public in the digital age. It will include the presentation of several projects that reflect the aspect of the digital museum as well as the examples of the aspect of a “slow museum” and will attempt to connect these two aspects. How does one affirm the existing values, collections and communication tools of a “slow museum” and be a museum of the digital age? – that is the question to which the presentation does not give an answer but will present ideas and projects that may lead to a solution for the strategic planning of “the museum for the 21<sup>st</sup> century”.</p>
	<p><b>In the Jungle of the Digital World</b>  Marina Bergström, <i>Finnish Railway Museum</i></p> <p>We want to be present in the digital lives of our customers, and think we need to be. The government, our funders and customers expect us to provide material, information and entertainment online – in our exhibitions and outside of them. We are a small museum with no expertise in digital content. Is there a way to deal with the digital jungle? Luckily, we have at least some ‘national’ solutions in Finland and some other co-operation; the Finnish Museum Association, The National Board of Antiquities, The National Library, some foundations, and our own transport and communication museums’ network Trafiiikki have done great work in some digital fields to help us gain our goals.</p>
<p><b>12:30 – 13:30</b></p>	<p><b>LUNCH (included)</b></p>
<p><b>13:30 – 14:30</b></p>	<p><b>Digitalization of Museum Collections and Archive Funds of the Slovak Museum of Nature Protection and Speleology</b>  Danka Šbová, <i>Slovak Museum of Nature Protection and Speleology</i>  Co-author: Ján Šperka, <i>Slovak Museum of Nature Protection and Speleology</i></p> <p>Digitalization of collections and fonds of the Slovak Museum of Nature Protection and Speleology was realized within 2 projects that were financially supported by the European Union, the Ministry of Culture of the Slovak Republic, and the Ministry of Environment of the Slovak Republic. Museum collections were digitalized by the national project Digital Museum in the all-Slovak digitalization centre. Within these 2 projects there were totally digitalized 497,792 museum collection items of 15 collections from 8 science branches, and were made 633,853 scans of archive collections and documents of 8 collections, and 2 fonds. This presentation will dive into the details of the projects.</p>
	<p><b>Digitalisation and Sharing of the Collection of the Cracow Saltworks Museum in Wieliczka – Theory and Practice</b>  Kinga Stabrawa-Powęska, <i>Cracow Saltworks Museum In Wieliczka</i></p> <p>Digitalisation as a modern instrument is intended for the documentation of collections, and at the same time serves to popularize knowledge about them. The case of Wieliczka shows that the digitalisation process dynamics depend largely on the type of facility and the place where it is located. The development of modern communication technologies has opened new perspectives, including offers concerning access to accumulated data. In spite of the difficulties arising from the mine’s particular characteristics, the Museum not only digitalises objects – it also makes them accessible. One of the examples of that may be participation in a project devoted to popularisation of collections, such as Małopolska’s Virtual Museums.</p>
	<p><b>Sounds of Changes – A Silent Heritage?</b>  Irena Marusic, <i>Technical Museum of Slovenia</i></p>

	<p>Sound has always been a part of our work and everyday life. Therefore, it is an important aspect of experiencing, exploring, reconstructing and understanding different landscapes, environments and our cultural heritage. Although sound is (or perhaps because it is) such a natural part of life, it is seldom caught, let alone recorded and documented. For this reason, six European museums decided to take the initiative to try to change this. Since 2013 we have been involved in two projects, supported by EU funds: Work With Sounds and Sounds of Changes. Both projects will contribute to preservation of this often overlooked intangible heritage and enable its integrated presentation in the future.</p>
<b>14:30 – 15:30</b>	<p><b>Transport Collections in a Changing Cultural Landscape</b>  Sharon Babaian and Fiona Smith Hale, <i>Ingenium – Canada’s Museums of Science and Innovation</i>; Jim Cullen</p> <p>Transport museums and collections are part of a rapidly changing cultural landscape. Their core functions remain the same – to collect, conserve, document, and interpret the material, textual, and oral history of transportation – but the context in which they carry them out is shifting. Demographic change, evolving educational norms and standards, new approaches to scholarship in transport history and museology, new communications technologies, and evolving attitudes to diversity, accessibility, accountability, sustainability, public value, and social inclusion are re-shaping the ways that museum professionals think about and do their jobs. This session will explore some of the ways in which museum professionals are confronting and embracing these challenges.</p>
<b>15:30 – 16:00</b>	<b>BREAK with refreshments</b>
<b>16:00 – 17:00</b>	<p><b>Rover Engagement : Museum Networks and Digital Space</b>  Dushan Horvat, <i>Algonquin College</i>; Ewan Reid, <i>Mission Control</i>  Moderator: Chris Kitzan, <i>Ingenium – Canada’s Museums of Science and Innovation</i></p> <p>Like the digital world they are competing with, museums need to be connectors to flourish. Connecting past, present and future. Connecting into the digital world in which we live. But most importantly, connecting communities and individuals. Isolation behind the walls is no longer an option. This panel discussion will provide an overview of the Aero/Space and Mobility network that the Canada Aviation and Space Museum is helping to build in collaboration with government, industry and academic organizations. Motivated by different objectives, but brought together by a common vision, the panelists will focus on the development of two collaborative digital pilot projects featuring space rovers -- as vehicles for capturing, influencing and engaging youthful wanderers.</p>
<b>17:00 – 18:00</b>	<p><b>Tour of the Canada Aviation and Space Museum</b></p> <p>This behind-the-scenes tour will give delegates the opportunity to explore the museum’s extensive aircraft collection, learn about Canada’s fascinating aeronautical and aerospace history, and converse with curators and interpretative staff.</p>
<b>18:00 – 20:30</b>	<p><b>Cocktails and Dinner</b></p> <p>Delegates are invited to a cocktail hour and three course plated meal amid the airplanes. Cash bar.</p>

## TUESDAY, OCTOBER 16

### Canada Science and Technology Museum

<b>9:00 – 10:00</b>	<p><b>Invasion of the Digital Humanities – or why this might be a useful thing for your museum</b></p> <p>Shawn Graham, Carleton University</p> <p>Shawn Graham is a digital archaeologist interested in methods, teaching and generative art and games. He is currently Associate Professor of Digital Humanities in the Department of History at Carleton University, and also a Carleton University Provost’s Teaching Fellow. His major research project at the moment, ‘The Bone Trade’, uses computer vision to map out the visual</p>
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	<p>tropes, social networks, and cultural impact of the buying and selling of human remains over social media. He is founder and editor of the open access journal, <i>Epoiesen: A Journal for Creative Engagement in History and Archaeology</i>. He is also the lead author on a collaborative open access textbook with live computational environment for the teaching of digital archaeology, <a href="http://o-date.github.io">o-date.github.io</a>.</p>
<p><b>10:00 – 11:00</b></p>	<p><b>Small Experimental Digital Exhibitions in University Museum as a Platform for Intra-Academic Community Communication</b>  Jeng-Horng Chen, <i>National Cheng Kung University Museum</i></p> <p>The Cheng Kung University Museum has been playing a communications role between academics and the public. The museum also plays a communications role within the academic community by introducing scientific principles, methods, and common topics. Small experimental exhibitions using digital technologies is a low-cost, convenient, and transferrable method for curating new topics. Several cases in NCKU Museum will be reported. For example, an experimental exhibition on bio-medical images, 3D computer models, and printing technologies were explored. A mini desktop exhibition about university ranking also provided another perspective. Additionally, photogrammetry and 3D computer modeling were used for the digital recording of collections.</p> <p><b>New applications in the exhibitions of the Finnish Postal Museum</b>  Kimmo Antila, <i>Finnish Postal Museum</i></p> <p>I will present some case studies on the digital and physical exhibition solutions produced by the Finnish Postal Museum during the years 2014-2018 after the relocating and rebuilding of the museum. I shall give some examples on our criteria for the applications and their interfaces. I will share the successes and failures in these projects and present some cost effective ways to produce augmented reality applications, new interfaces and RFID applications for our use.</p> <p><b>The Digital Touch: Exploring Tactile Experiences in Medicine and Museums</b>  David Pantalony, <i>Ingenium – Canada’s Museums of Science and Innovation</i></p> <p>As part of the newly opened Canada Science and Technology Museum, an exhibit centered on medicine and the five senses was created. Visitors explore the role played by touch, smell, sight, hearing and taste in medicine of the past, present and future. During the winter of 2018, I taught a Digital Humanities seminar based on the touch section of the medical exhibit. Using 3D digital tools, students learned to scan the artifacts on display, as well as process, print and reinterpret these digital 3D objects at the UOttawa maker space. This case study will reflect on multisensory museums, digital skills, and teaching in museums and collections.</p>
<p><b>11:00 – 11:30</b></p>	<p><b>BREAK with refreshments</b></p>
<p><b>11:30 – 12:30</b></p>	<p><b>Gamification within the Framework of Modern Museum Environment</b>  Natalia Y. Kazakova, <i>A.N. Kosygin Russian State University</i></p> <p>A newly-coined but already quite widely-spread term "gamification" means applying fundamental principles and elements of game design in non-game context in order to channel a person's attentions to create an immersive experience. The introduction of this approach enriches the learning process or internalization of cultural values by submerging a gamer in an amicable and exciting game environment, thus facilitating the acquisition of new information. Although it is also technically possible to introduce physical elements of games in museums or various display areas, the digital game environment seems to be a much more viable option when it comes to enriching cross-cultural experience in an effective and enjoyable fashion.</p> <p><b>Museums and Games – Reaching the next Level!</b>  Annie Jacques and Renée Racicot, <i>Ingenium – Canada’s Museums of Science and Innovation</i></p>

	Digital products – whether they be video games, apps, or interactive exhibits – extend the limits of what can be presented and enhances the visitor experience at multiple levels. Yet the gaming experience is not only limited to the museum floor, as these digital products allow institutions to broaden their reach and disseminate content to users around the world. This presentation features game case studies from Ingenium that look at the use of new technologies and mainstream platforms that demonstrate how video games can be used in many diverse areas of museum practice. Following the presentation, participants will have the opportunity to try a selection of video games and discuss the challenges and opportunities surrounding the use of these digital products.
<b>12:30 – 13:30</b>	<b>LUNCH (included)</b>
<b>13:30 – 17:00</b>	<p><b>Study tour: Old and New Technologies in Canada’s Capital City</b> <i>The Rideau Canal and National Gallery of Canada</i></p> <p>Built in 1832, the Rideau Canal spans 202 km to connect the Ottawa River with Lake Ontario and the Saint Lawrence River. With an impressive network of 45 locks, the construction of the canal was a feat of engineering. Guides from the Bytown Museum will share their knowledge and stories of this iconic waterway and UNESCO World Heritage Site. At the National Gallery of Canada, delegates will discover the exhibit <i>Anthropocene</i>, a multi-disciplinary show that uses film, photography and new technologies to explore the impact of humans on Earth. Gallery staff share their experiences in planning and mounting this ambitious exhibit.</p>
<b>17:00 – 18:00</b>	<p><b>Visit the Canada Agriculture and Food Museum</b></p> <p>In the heart of the City of Ottawa, the Canada Agriculture and Food Museum is a uniquely urban working farm. Delegates will have the opportunity to explore the barns, meet the animals, and visit the exhibits.</p>
<b>18:00 – 20:30</b>	<p><b>Reception at the Canada Agriculture and Food Museum</b></p> <p>An evening centred on Canadian and indigenous food, delegates are invited to learn about and taste local delicacies at this reception. Cash bar.</p>

## **WEDNESDAY, OCTOBER 17: CIMUSET PARTICIPANTS**

### **Canada Science and Technology Museum**

<b>9:00 – 10:00</b>	<p><b>Keynote Speaker</b></p> <p>To be confirmed</p>
<b>10:00 – 11:00</b>	<p><b>AR Technology Application in Science and Technology Museum - 'Roaming in Science and Technology Museum' of China Science and Technology Museum as an Example</b></p> <p>Qianqian Hao, <i>China Science and Technology Museum</i></p> <p>This presentation uses the app 'Roaming in Science and Technology Museum' of China Science and Technology Museum as an example of how the exhibition hall 'Science Paradise' utilizes AR technology to achieve strong participation, interaction and sharing. It summarizes operation problems and lessons learned, such as a reluctance to download apps, more sophisticated AR scene design, and interaction increasing game design etc. Finally, this paper analyzes several application scenarios of AR technology in science and technology museums such as AR museum guiding, virtual instructors, exhibits' full-display, interactive operation of exhibits, AR virtual games, AR culture and creative products, and so on.</p>
	<p><b>Three 'R' in Science Wagon</b></p> <p>Chen Jian, <i>China Science and Technology Museum</i></p> <p>As an important component of China's modern science and technology museum system, Science Wagon plays an important role in China's Rural Vitalization Strategy and the development of rural science literacy. The China Science and Technology Museum (CSTM)</p>

	<p>uses Science Wagon to carry out science communication work in rural areas. In order for the rural public to connect with leading technology, CSTM has made some exhibits using virtual reality (VR), augmented reality (AR), and mixed reality (MR) technologies, such as AR Jacob's Ladder and MR 'Jiaolong' (China's manned deep-sea submersible). This presentation will introduce the application of VR, AR, and MR technologies in Science Wagon.</p> <p><b>The Impact of Interactive Distant Museum Approach on Learning Outcomes: A Case Study</b> Abdelraham Othman Masoud Elsayed, <i>Egyptian Museum</i></p> <p>The Egyptian Museum, as a social and educational institution, attempts to strongly engage its communities. Digital technology is one of the best opportunities we've had in decades to really reach and engage the public and visitors of different ages to study, explore and enjoy. This presentation will discuss one of the innovative initiatives that was applied in Egyptian museums to encourage student visitation. This initiative, called My Museum in Your Classroom, is a distance learning field trip hosted by the Egyptian Museum and narrated by curators through Skype or similar applications. Find out how the Egyptian Museum uses this technology to break down geographic, economic and political barriers to bring museum education to classrooms.</p>
<b>11:00 – 11:30</b>	<b>BREAK with refreshments</b>
<b>11:30 – 12:30</b>	<b>CIMUSET Annual General Meeting</b>
<b>12:30 – 17:00</b>	<b>FREE AFTERNOON</b>
<b>17:00 – 18:00</b>	<p><b>Tour of the Canada Science and Technology Museum</b></p> <p>After an unexpected closure in 2014, the Canada Science and Technology Museum reopened in November 2017. This private tour of the all-new museum will share the story of its rebuilding and will give delegates the opportunity to dive into Canada's scientific and technological history.</p>
<b>18:00 – 20:30</b>	<p><b>CIMUSET Closing Dinner</b></p> <p>This evening will open with a reception amid the museum's impressive trains. Delegates are then invited to enjoy a three course plated meal. Cash bar.</p>

## WEDNESDAY, OCTOBER 17: IATM PARTICIPANTS

### Excursion Day

<b>9:00 – 19:00</b>	<p><b>Excursion to Exporail</b></p> <p>IATM delegates will travel to nearby St-Constant for a specially-designed tour of Exporail, the Canadian Railway Museum.</p>
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## THURSDAY, OCTOBER 18

### Excursion Day

<b>9:00 – 19:00</b>	<p><b>Excursion to Montreal</b></p> <p>Details to be confirmed.</p>
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