

Association
des musées
de l'Ontario



Ontario
Museum
Association

PROJECT SUMMARY

**“A Roadmap for Digital
Transformation of
Museums in Ontario”**

2021-2023

Project Context

Since the pandemic, many museums have returned to a focus on in-person visits and collection management, but effective outreach, local tourism (both online trip planning and “staycations”), and better customer service all require digital skills and transformation.

Supporting Ontario museum digitalization would give every museum the opportunity to produce digital content that meets the needs of its community.

Project Description

The project applied research and analytics to test digitalization transformation strategies, and understand the current state of digital literacy in the sector. It asked two key questions:

- What is the role of new technology in museum experiences as all aspects of our lives are changing?
- How can we use analytics to support strategic choices and digitally transform museums?

This project developed a digitalization tool kit that allows all museums in Ontario to:

- assess their current level of digitalization,
- identify peer groups to work with on their digital journey,
- collaborate with peer groups to develop and sustain digitalization transformation strategies

Project Goals:

- Highlight the digital gap among Ontario museums.
- Provide a sector-wide perspective on digitalization, but empower individual development
- Identify barriers to digital transformation
- Provide museum decision makers with better data to support a more inclusive environment and digital transformation and advocacy efforts.
- Demonstrate that museums are tourism/economic, education and community development drivers.
- Highlight the importance and value of non-traditional partnerships.



Project Methodology

Preliminary Research was conducted through a literature review and secondary analysis of existing survey research data collected by the Ontario Museum Association. The analysis included:

- Determined standardized terminology;
- Used descriptive statistics to measure current state of digitalization;
- Matched questions across surveys to provide some trends;
- Identified what makes a museum more likely to be digitalized);
- Created a Digitalization Index for respondents;
- Segmented museum visitors by digitalization to create personas; and
- Benchmarked findings.

Areas of Analysis:

1. determining how digitalization is transforming visitor engagement through visitor survey data;
2. generating a digital transformation Roadmap through stakeholder consultation (charrette);
3. generating visitor profiles through data analytics;
4. creating an Ontario Museum Digitalization Index (OMDI) through open-source data scraping; and
5. creating Toolkits for digitalization informed through OMDI analyses.

Five methods of research informed our work					
	Digitalization and Ontario Museum Visitors: How Digitalization is Transforming Engagement	Digital Transformation Roadmap: Vision of Museums in a Digitalized Future	Visitor Profile – Market Assessment with Environics Analysis	OMDI and Reporting	Toolkits for Digitalization informed by OMDI analysis
Research Method	Visitor Survey	Design Charrette	Environics Analytics (EA)	Open-sourced data related to website quality, social media usage, digital collections, digital experiences, educational programming offered by selected museums in Ontario	User group input
Timing	Aug 2022	Oct 2022	Aug 2023	Aug 2021 – Feb 2024	Mar 2024
Sample Population	1,570 Ontario Residents from AskingCanadians Panel	60 Industry professionals, museum professionals, and GBC student researchers.	EA data triangulated with visitor survey data and select insights from Vividata.	Focus on 631 museums out of total 1,858 heritage organizations. Dependent on open-source availability. See Sample Summary.	Three tool kits including OMDI assessment, benchmarking, and roadmap tool; online audiences; and schools and digital learning promotions.
Key Findings	Visitor experience is omnichannel (in-person and online). Digital drives in-person and online museum visits. Use of digital tools increases as visits increase	Local history is globally relevant. Informed the digital transformation roadmap.	Four unique personas: Ontario museum visitors, other museum visitors, digital natives, and underserved markets. Each with unique digital needs before, during, and after in-person museum visits.	Digitalization levers include the implementation and effectiveness of any website(s), social media, digital collections, digital experiences, and educational programming. Digitalization also depends on the strategy of individual museums and location.	Identified actionable insights to strengthen grant applications and tactical considerations for individual museums (or networks) to take to improve digitalization effectiveness.

Project Methodology continued...

The Ontario Museum Digitalization Index (OMDI)

The OMDI is a database that establishes a benchmark to measure “digital maturity,” based on digital experiences, social media presence, website presence and educational programming.

For the purposes of this project, the OMDI research focused on 631 small and medium (S&M) museums.

Stakeholder Consultation – Design Charrette

A charrette asked museum experts and visitors with a broad range of experience to create a vision of future museums from the perspective of three visitor types: “digital natives;” traditional visitors; and underserved communities.

Visitor Profiles (“personas”)

Museum Visitor Survey (September 2022), Environics Analytics data, and secondary data sources were used to create four “personas” and understand the differences among them.

Museum Clustering

The study organized museums into distinct groups, based on their shared characteristics across key components, to assess the digital maturity of the museum sector within Ontario.



Key Research Findings

1) There is no common lexicon for digitalization for museums in Ontario, and this creates challenges for measurement. It is critical to standardize terminology to address a continuum of digitalization.

2) Digital transformation is a journey that includes three developmental stages or phases: digitization; digitalization; and digital transformation (see next section).

3) The museum is an omni-channel experience (meaning both in-person and online/digital engagements):

- Digitalization before, during and after a museum visit drives engagement
Technology use increases as in-person visits increase.
- Visitors prefer mobile phones over desktop devices to access museum websites.
- 67% of museum websites exceed 40% in their bounce rate (indicating low quality of websites)
- Only 43.1% of S&M museums in Ontario have an online collection
- The museum sector is lagging relative to other sectors and to the needs of existing and potential visitors

4) Museums with strategic plans have more capacity to digitalize, as do museums with consistent access to operating funding (CMOG and/or municipal funding).

5) Understanding target audience(s) is key to stronger engagement with visitors.

- Different visitors (personas) use digital resources differently.
- More research is needed on the role of technology in engaging audiences post-visit.



6) Location matters when determining a museum's omni-channel strategy:

- Location is an indication of funding options.
- Location is an indication of the capacity for digitalization.
- Location impacts physical accessibility for visitors.
- Proximity to other organizations affects partnerships, economic value and community impacts.
- Museums in urban centers have a higher OMDI score than museums in rural areas.
- Museums in the North are less digitalized than museums in the southern part of the province.
- 20% of Ontario museums are in locations where Tim Hortons will not open franchises.**
- 25% of schools are not in proximity to a museum.
- Museums located on urban/rural boundaries engage more with social media.

** Proxy for museums' viability, since metrics include high visibility and accessibility; strong vehicle traffic; proximity to both residential areas and workplaces; access to municipal utilities; and space for parking.
<https://realestate.timhortons.com/site-criteria.html>

Project Outputs

Standardized Terminology:

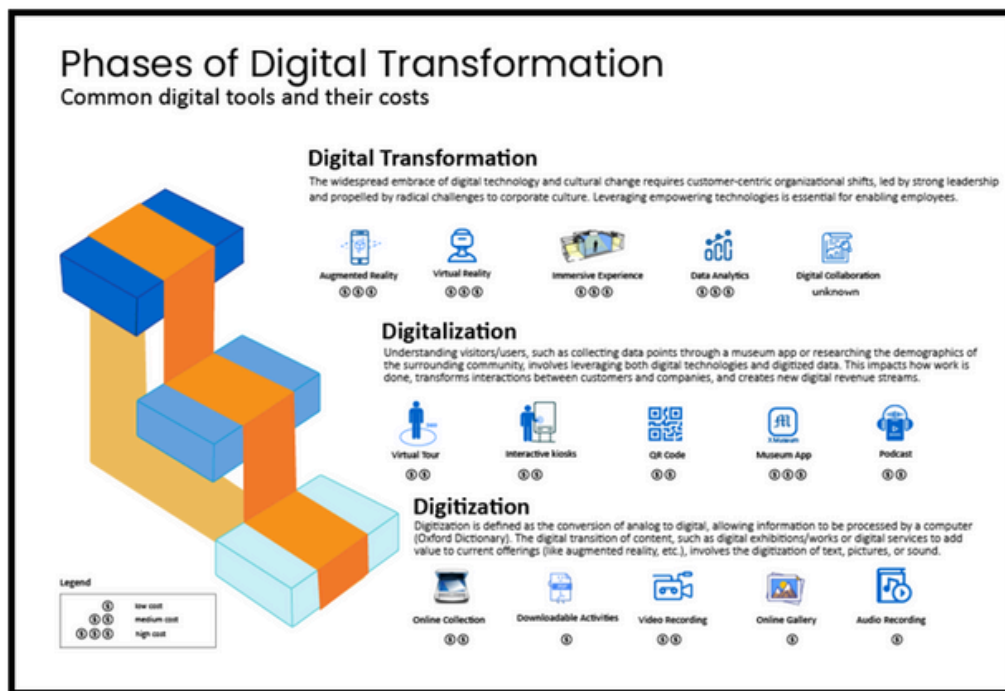
Three phases of digital transformation continuum were mapped.

· Phase 1: **Digitization** – defined by the conversion of analog to digital – where information and content can be processed by a computer.

· Phase 2: **Digitalization** – involves leveraging both digital technologies and digitized data, impacting how work is done and transforming interactions between audiences and organizations.

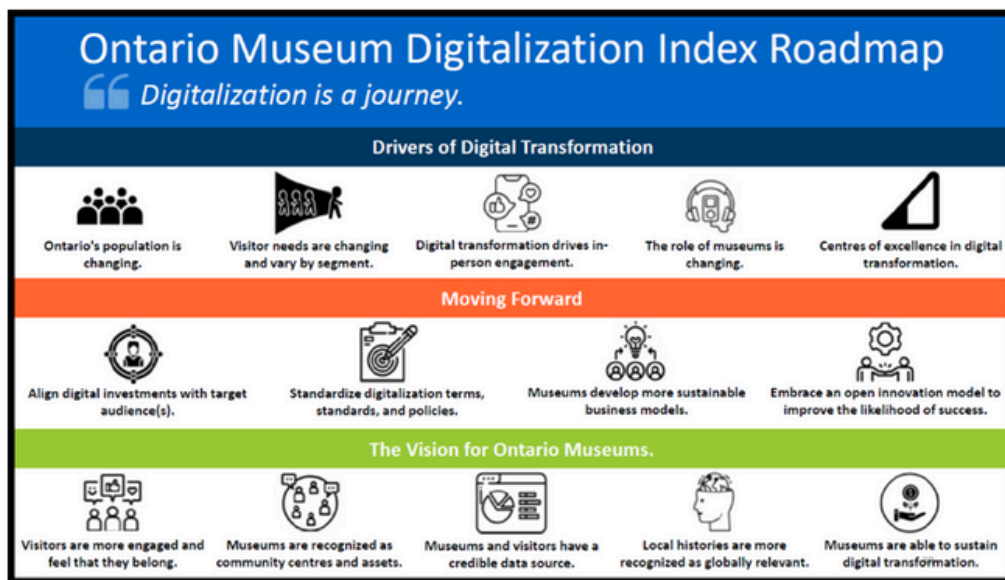


Phase 3: **Digital Transformation** – defined by innovation and the widespread embrace of digital technologies and cultural change, including audience-centric organizational shifts, strong leadership and radical challenges to previous corporate culture.



Digital Transformation Roadmap

The Digital Transformation Roadmap defines the digitalization of Ontario museums and identifies key barriers and enablers.



Using Data to Understand the Audience: Grouping Visitors and Potential Visitors





Creating data-driven personas can help museums understand their target audiences, based on the online and offline channels/technologies they use to engage with a museum before and after a visit. Museums can then tailor experiences and initiatives to current and potential visitors and enhance their overall experience.

Four visitor personas were identified:

- **Digital Pragmatists** look for and create inspirational learning experiences and emotionally stimulating activities for family and friends.
- **Digital Operators** want to grow connections and relationships that benefit their personal and professional interests.
- **Digital Natives** are looking for activities that help shape and display the best image of themselves and others.
- **Digital Avoidants** value natural experiences and learning outside technology.

The role of digital touchpoints in the omni-channel journey varies based on visitor preferences.

Given their differences, it is then important to decide on a primary target and customize the expected museum experience to grab their attention, reduce possible barriers to visit and match their values or motivation, first.

Ontario Museum Visitors  Facilitator	<ul style="list-style-type: none">• Strong social media user• Uses more communication platforms• Motivation: community engagement	Digital Natives  Experience Seeker	<ul style="list-style-type: none">• More actively engaged in a variety of online activities, including social media• Most capable in navigating digital resources and finding information online• Motivation: personal interests
Other Museum Visitors  Explorer	<ul style="list-style-type: none">• Strongest social media user• Engages in a variety of platforms• Motivation: grow their network	Other Museum Visitors  Rechargers	<ul style="list-style-type: none">• Least active online• Averse to tech and digital• Motivation: family connection



Using Data: Grouping Museums and Province-wide Assessment Using the OMDI Dashboard

The Ontario Museum Digitalization Index (OMDI) measures where organizations are starting from and the effectiveness of their digital transformation investments. It:

- measures the differences where museums are in the Digitization and Digitalization process;
- enables analysis to identify and prioritize key digital transformation initiatives;
- enables analysis to estimate costs of select digital transformation initiatives; and
- empowers museum professionals to create informed digitalization strategies.

Four museum segments were identified based on the OMDI.

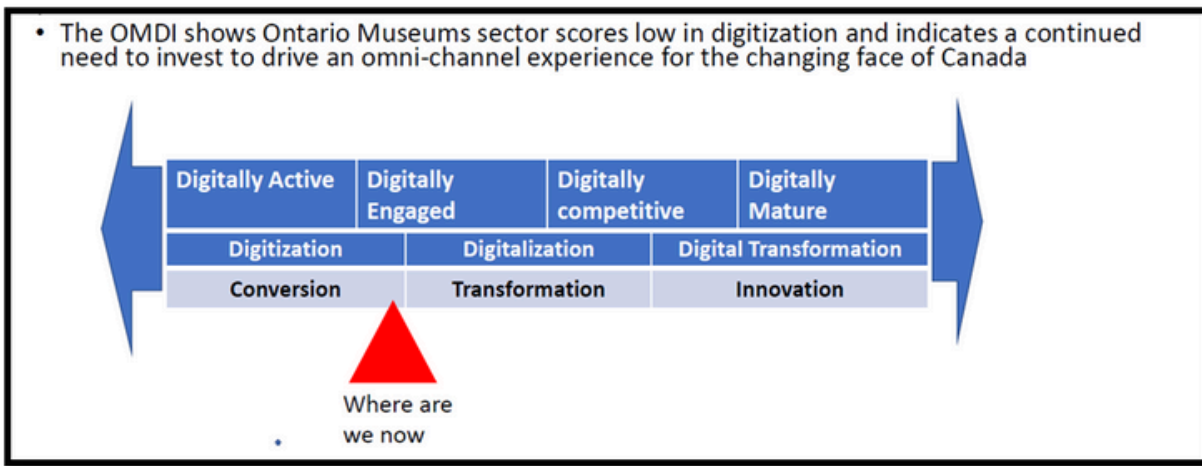
• **Digital Innovators** (14.74%) have the highest overall scores across all indices. They are predominantly located in urban areas and have significant funding and membership support. These museums use technology to enhance visitor experiences and educational outreach.

• **Digital Explorers** (23.45%) show balanced scores across all indices. These museums are also mostly urban but have some rural presence. They receive some funding and have membership in professional associations.

• **Digital Novices** (25.67%) have a very low social media presence but perform well in website indices. These museums are primarily urban and represent a large population. They have less funding and fewer memberships in professional associations compared to Digital Innovators and Explorers.

• **Digital Other** (36.14%) have the lowest scores across all indices. These museums are a mix of urban and rural but have the highest rural presence among the segments. They lack funding, strategic planning, and professional memberships. Digital Other museums require significant support to enhance their digital capabilities and overall engagement.

OMDI scores indicated that Ontario Museums currently sit at the lower end of the digitalization continuum and accordingly, are missing critical points of engagement with audiences at digital touchpoints.



Toolkits

Three toolkits were designed and developed to assess and identify digital transformation opportunities.

Toolkit #1: OMDI Assessment, Benchmarking, and Roadmap Tool

This toolkit provides museum experts with a simulated OMDI score, an understanding of how the score was developed, and the characteristics/attributes of similar and higher-scoring museums. It allows museum professionals to assess their current state of digitalization and plan for digital success.

Toolkit #2: Online Audiences

This toolkit is a non-interactive tool that provides museum professionals with an easy-to-follow approach to understanding the motivations, desires, and behaviors of the four museum visitor personas. It will enable museum professionals to select digital projects to reach different target audiences.

Toolkit #3: Schools and Digital Learning Promotions – Proximity Analysis

A Power-BI dashboard that allows museums to assess the potential of their local market for curriculum-linked educational programs. The toolkit will enable museum professionals to design curriculum-linked educational programs. The toolkit was informed by the educational programming component analysis.



Project Team

George Brown College (through collaborating schools across GBC and led by the Centre for Business), with funding support from the National Sciences and Engineering Council (NSERC) – through its Community and College Social Innovation Fund (CCSIF) -- led this multi-year research initiative, with the Ontario Museum Association (OMA) and Museums and Heritage Services, City of Toronto, as project partners. It used data and analytics to make evidence-based support programs for the digitalization transformation of Ontario museums.

Primary Researcher - Karen Sinotte, School of Business – George Brown College

Project Partners - Ontario Museum Association (OMA); City of Toronto, Museums and Heritage Services

Ontario Museum Digital Advisory Committee – Julian Kingston (Region of Waterloo Museums); Christina Sydorko (Oil Museum of Canada (Oil Springs); Elaine Gold (Canadian Language Museum); Heidi Reitmaier (Myseum of Toronto); Mary-Katherine Whelan (Amherstburg Freedom Museum); Emily Jolliffe (Ken Seiling Museum, Region of Waterloo Museums); Rick Miller (Canadian Women in Film Museum - Marie Dressler House, Cobourg); Sara MacKenzie (Ottawa Museum Network)

Project Addendum: Remembering Karen Sinotte

The OMA is saddened to share the news of the recent passing of Professor Karen Sinotte on October 27th 2025. We would like to extend our sincere condolences to Karen's family, friends, colleagues, and students.

Karen saw enormous value and potential in Ontario's museum sector, and she worked enthusiastically with the OMA to support museums in extending their reach and transforming their digital offerings. From 2021 to 2024, Karen was Lead Researcher on the Roadmap for Digital Transformation of Ontario Museums project, a three-year collaboration between George Brown College, the OMA and Toronto History Museums funded by the College and Community Social Innovation Fund.

Recognizing that the COVID-19 pandemic had accelerated the rate of digital transformation in Ontario's museums, Karen and her research team took on the considerable task of gathering data, analyzing, and benchmarking the digital presence of more than 600 Ontario museums to better understand and guide the digital transformation of the sector. The wealth of data produced by this research led to the development of the Ontario Museum Digitalization Index (OMDI) and online audience and school programming toolkits, which will make data-driven decision-making accessible to museums of every size.

A dedicated member of the Toronto Railway Historical Association's Board of Directors, Karen was also instrumental in the revival of the Toronto Museum Network in early 2025.

Karen was a tireless champion for museums and heritage, and a generous collaborator and partner who met every challenge with enthusiasm. She will be sadly missed at the OMA.

