

# Creating and Sharing Maps Using ArcGIS Online

■ **Sherman**  
■ **Centre**  
■ for Digital Scholarship

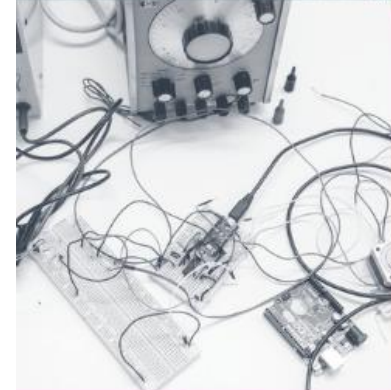
Thursday, November 27, 2025

10:30am – 11:30am **(Online)**



# Creating and Sharing Maps using ArcGIS Online

Christine Homuth, Spatial Information (GIS) Specialist  
November 27, 2025







## **Land Acknowledgement**

McMaster University is located on the traditional Territories of the Mississauga and Haudenosaunee Nations, and within the lands protected by the “Dish With One Spoon” wampum agreement.

[CARE Principles for Indigenous Data Governance](#)

[First Nations Principles of OCAP](#)



## Code of Conduct

The Sherman Centre and the McMaster University Libraries are committed to fostering a supportive and inclusive environment for its presenters and participants.

As a participant in this session, you agree to support and help cultivate an experience that is collaborative, respectful, and inclusive, as well as free of harassment, discrimination, and oppression. We reserve the right to remove participants who exhibit harassing, malicious, or persistently disruptive behaviour.

Please refer to our [code of conduct webpage](#) for more information.



## Certificate Programs

### The Sherman Centre for Digital Scholarship Certificate of Attendance

The Sherman Centre's certificate program recognizes attendance at our workshops. It complements degree training, supports the development of critical competencies in data analysis, research data management, and digital scholarship, and formalizes core skills fostered by our workshops.

Participants are invited to attend seven workshops and receive a certificate of attendance. To verify your participation in today's workshop, we will provide a code and additional instructions at the end of the session.

You can learn more about the certificate program on the [Sherman Centre website](#).

### Credit Eligibility – Digital Skills Workshop

This workshop counts toward credit for students in the Faculty of Science who are enrolled in SCIENCE 2SF1: Digital Skills Workshop. For any questions, please contact [\*\*oursci@mcmaster.ca\*\*](mailto:oursci@mcmaster.ca).

## **Fall 2025: Upcoming Workshops**

### **Data Analysis Support Hub (DASH)**

**November 27:** Microdata Analysis with Python using Statistics Canada Data

**January 15:** Introduction to R Programming

### **Digital Research (DR)**

**January 21:** Tracking the Impact of Non-Traditional Research Outputs

**February 11:** Visualizing Bibliometric Networks with VOSviewer

### **Research Data Management (RDM)**

**January 14:** Best Practices for Managing Data in your Research

**January 27:** Streamline Your Research Materials Photos with Tropy

### **Do More with Digital Scholarship (DMDS)**

**February 6:** Create a Digital Exhibition with Omeka S

**February 9:** Rethinking “Good” Data: Power, Vulnerability, and Queer Data Care

Register for Upcoming Workshops:  
<https://u.mcmaster.ca/scds-workshops>

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# Learning Objectives

## By the end of this workshop, you will:

- Explain key concepts of Geographic Information Systems (GIS) and recognize various real-world applications.
- Identify and access reliable sources of geospatial data for mapping projects.
- Create a simple, functional map using ArcGIS Online by applying the skills learned during the workshop.

# GIS

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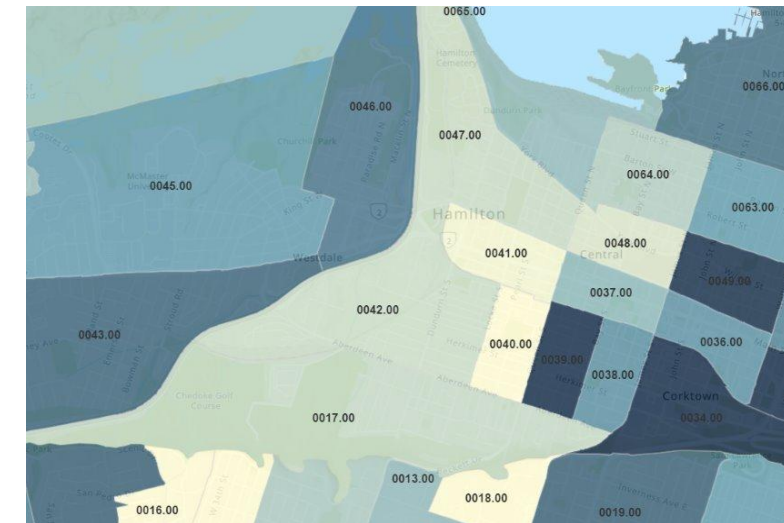




# GIS

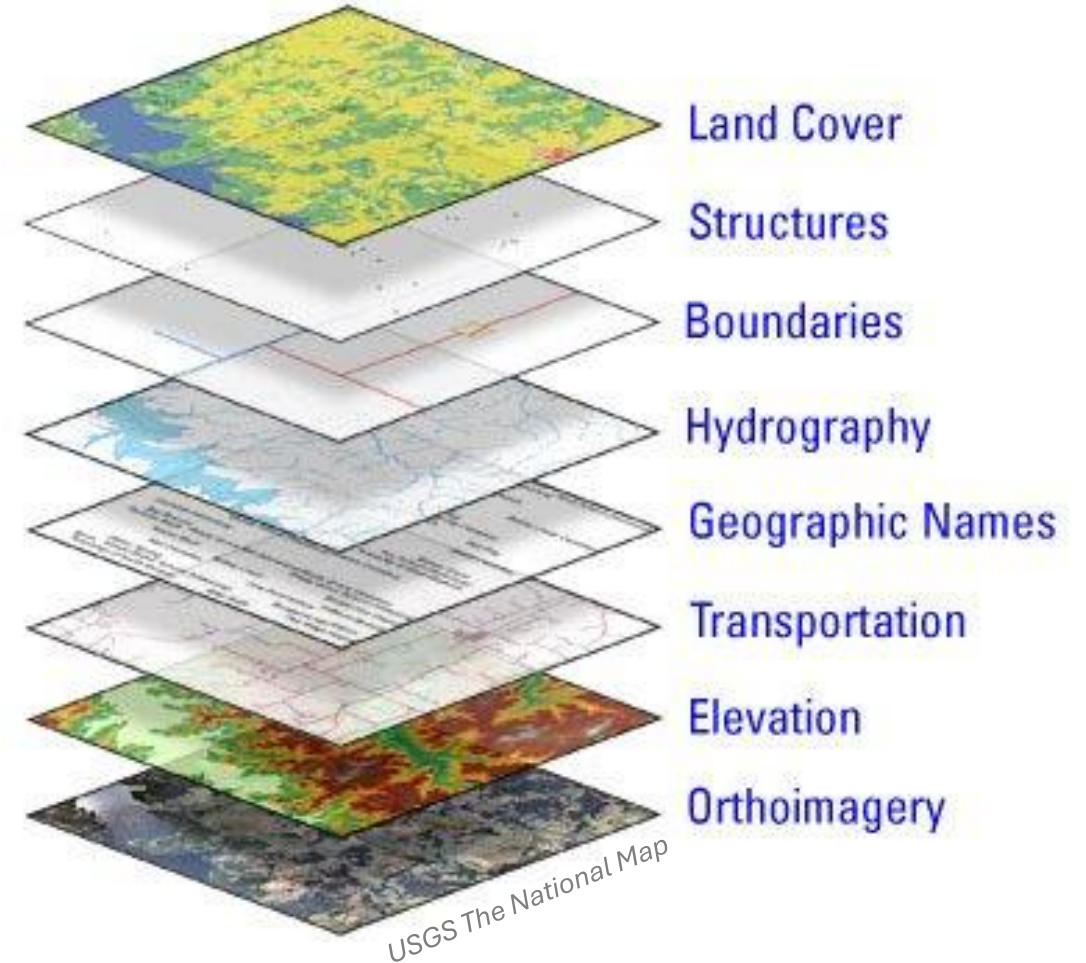
- Geographic Information Systems
- “Computer-based tools used to store, visualize, analyze, and interpret geographic data”(CDC)
- “Connects data to a map, integrating location data (where things are) with all types of descriptive information” (Esri)

0051.00	409	4,225
0052.00	334	3,881
0053.00	220	3,070
0054.00	211	2,670
0055.00	287	2,989
0056.00	312	3,260
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0058.00	201	2,545
0059.00	260	3,062
0060.00	195	2,691
0044.00	305	3,917



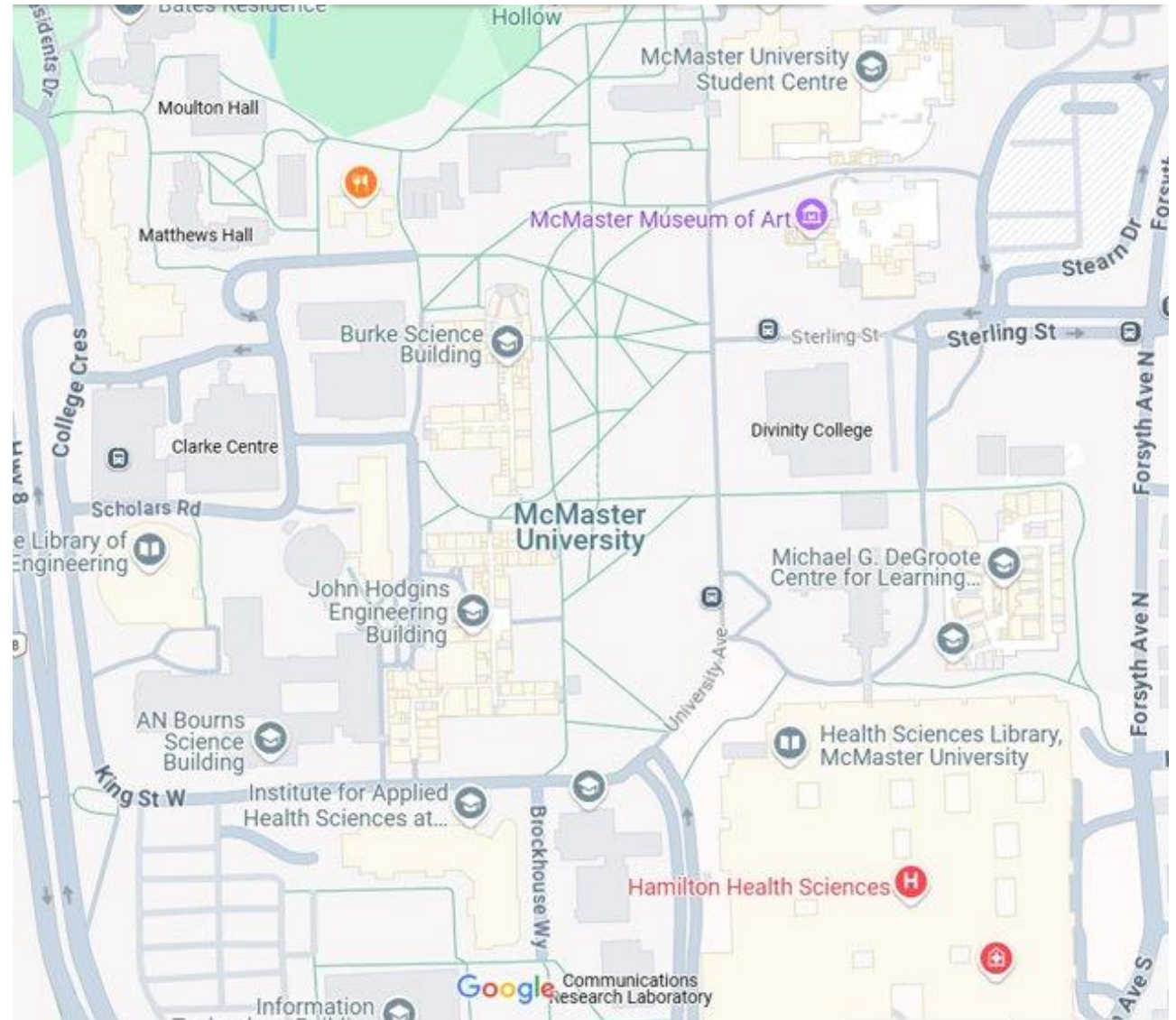
# Geospatial Data

- Vector and raster data models used to represent the real world
- Spatial or geographic component
- Multiple datasets are stacked or layered
- Tabular data can also be "joined" to spatial data and displayed on a map
- Not restricted to the outdoors or the Earth's surface



# Vector Data

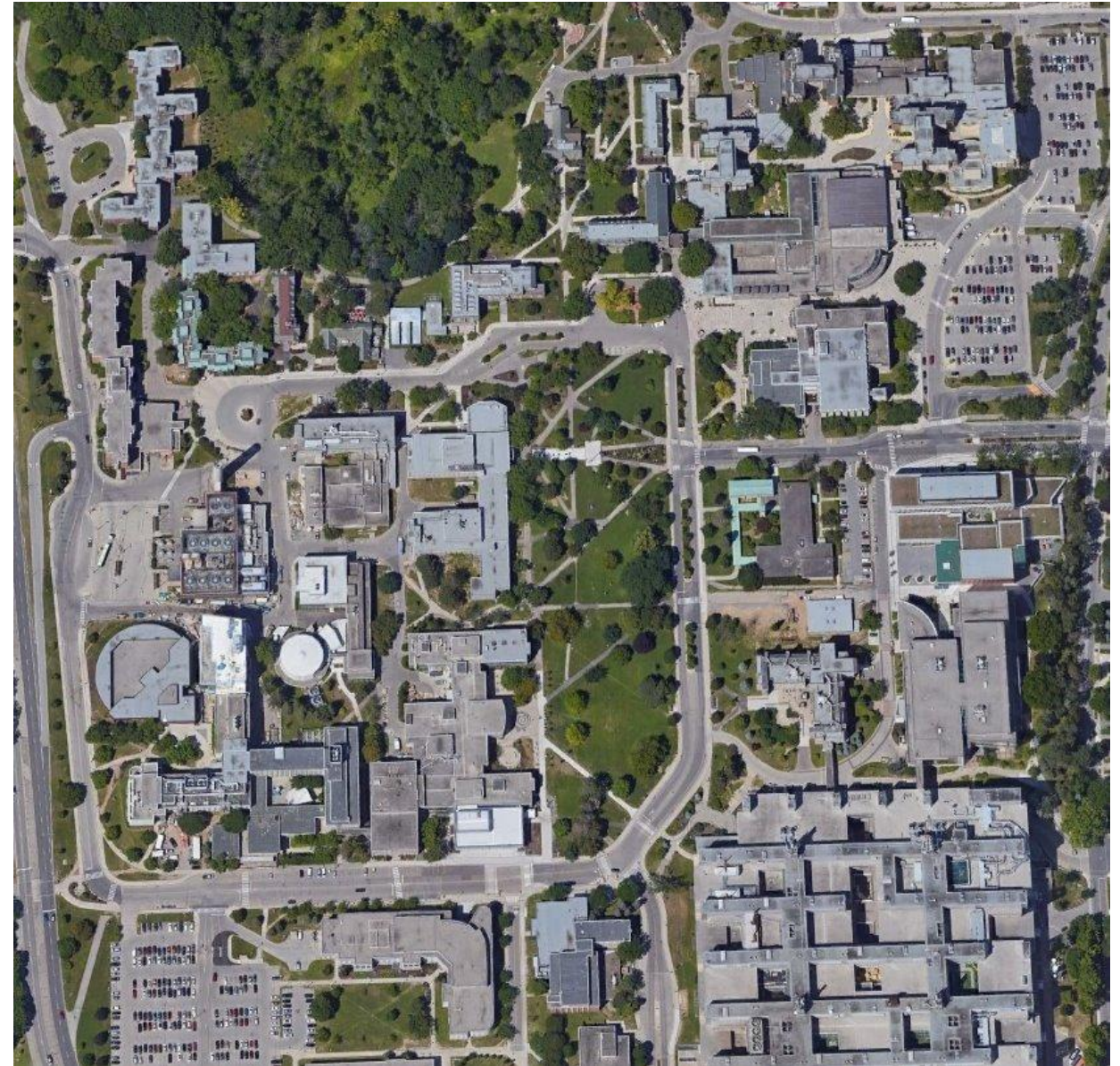
- **Points, lines, and polygons**
- **Points** – x, y locations
- **Lines** – linear features (connected x, y locations)
- **Polygons** – closed figures or areas (multiple connected x, y locations forming a closed figure)
- Good for representing *clearly defined objects*
- Example – Google Maps (google.ca/maps) view of McMaster campus.





# Raster Data

- **Grid of cells**
- Number assigned to each cell or pixel that represents the data
- **Categorical** – land use, e.g.
- **Continuous** – temperature, e.g.
- Good for representing *continuously changing* attributes
- Example – satellite image of McMaster campus (Google Earth)



# Data Sources

- Surveys, statistics, data tables
- Fieldwork
- Remote sensing / imagery
- Shapefiles
- Scanned and georeferenced maps
- Digitizing

# Data Sources

## McMaster University

- [Scholars GeoPortal](#)
- [McMaster University Libraries](#)
- Contact us!

## Online Data Portals

- Open data portals
  - [Open Hamilton](#)
  - [Ontario GeoHub](#)
  - [Open Canada](#)
- ArcGIS Online and Living Atlas
- Online data providers
  - Thematic
  - Imagery
- ...



# GIS Software

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# GIS Software

- Many, MANY types of software
- Different tools for different purposes
  - Full-featured vs. specialized
  - Open-source vs. commercial
  - User-friendly vs. technical
  - Web-based vs. desktop

# ArcGIS

## Education Institutional License

- Eligibility:
  - **Current** students, staff, and faculty
  - **McMaster** coursework and research purposes
- **Cannot** be used for consulting, roles external to McMaster (e.g. Co-op positions), or other uses resulting in personal or commercial gains.
- Accounts and content will **only be available while students, staff, and faculty are active members** of the university.

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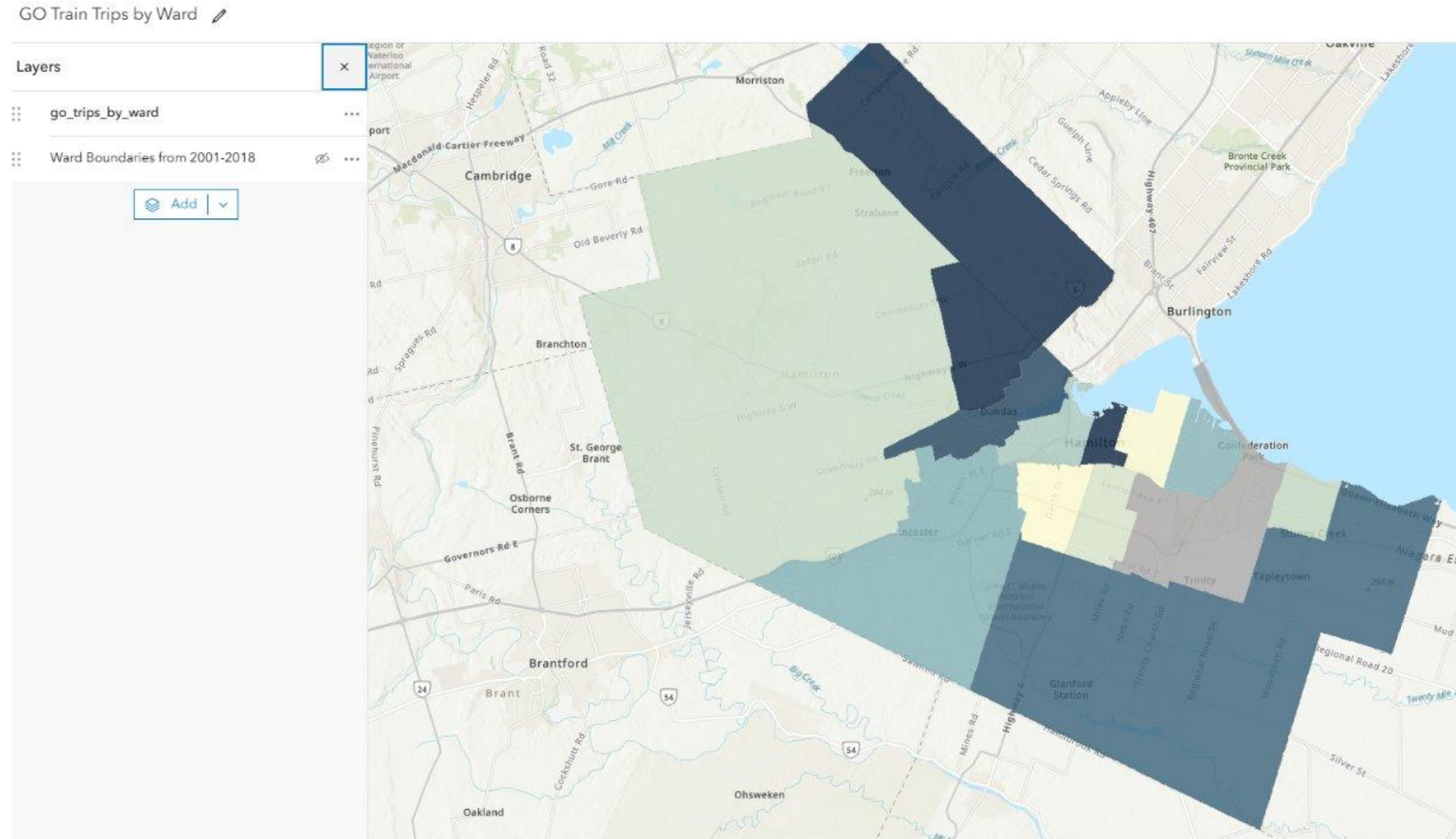
# ArcGIS Account Types

- **Organizational account** - full functionality, available while affiliated with McMaster
- **Public account** - limited functionality, permanent account
- [Create an ArcGIS Account](#)

Account type	Description	More information
ArcGIS organizational account	<p>An ArcGIS organizational account allows you to see the organization's customized view of the website, and gives you access to the organization's authoritative data and other geospatial content that you can use to create maps, scenes, apps, and other geospatial content. You can also share and collaborate with other members of your organization, participate in groups, and save your work.</p> <p>With an organizational account, you have access to your organization and ArcGIS apps.</p>	<p>Depending on how you were <a href="#">invited or added to the organization</a> and your organization's security settings, you can sign in to an ArcGIS organizational account using an <a href="#">ArcGIS login</a>, a <a href="#">SAML login</a>, an <a href="#">OpenID Connect login</a>, or a <a href="#">social login</a> (such as Facebook and Google). Your administrator can also enable Esri access on your account, which gives you access to Esri web resources.</p>
ArcGIS public account	<p>An ArcGIS public account is a free account designed for personal, noncommercial use. With a public account, you can create, store, and manage geospatial content, share content, and access content shared by Esri and GIS users around the world.</p> <p>With a public account, you have access to the ArcGIS Online website (with limits on use), My Esri, Esri Community, and other Esri web resources.</p>	<p>You can <a href="#">create</a> and sign in to an ArcGIS public account using an <a href="#">ArcGIS login</a> or a <a href="#">social login</a> (such as Facebook and Google). You can also <a href="#">use your public account to create an organizational account</a> if you're invited to join an organization. The public account becomes an organizational account and all your content moves to the organization.</p>

# ArcGIS Online

Web-based  
mapping  
application



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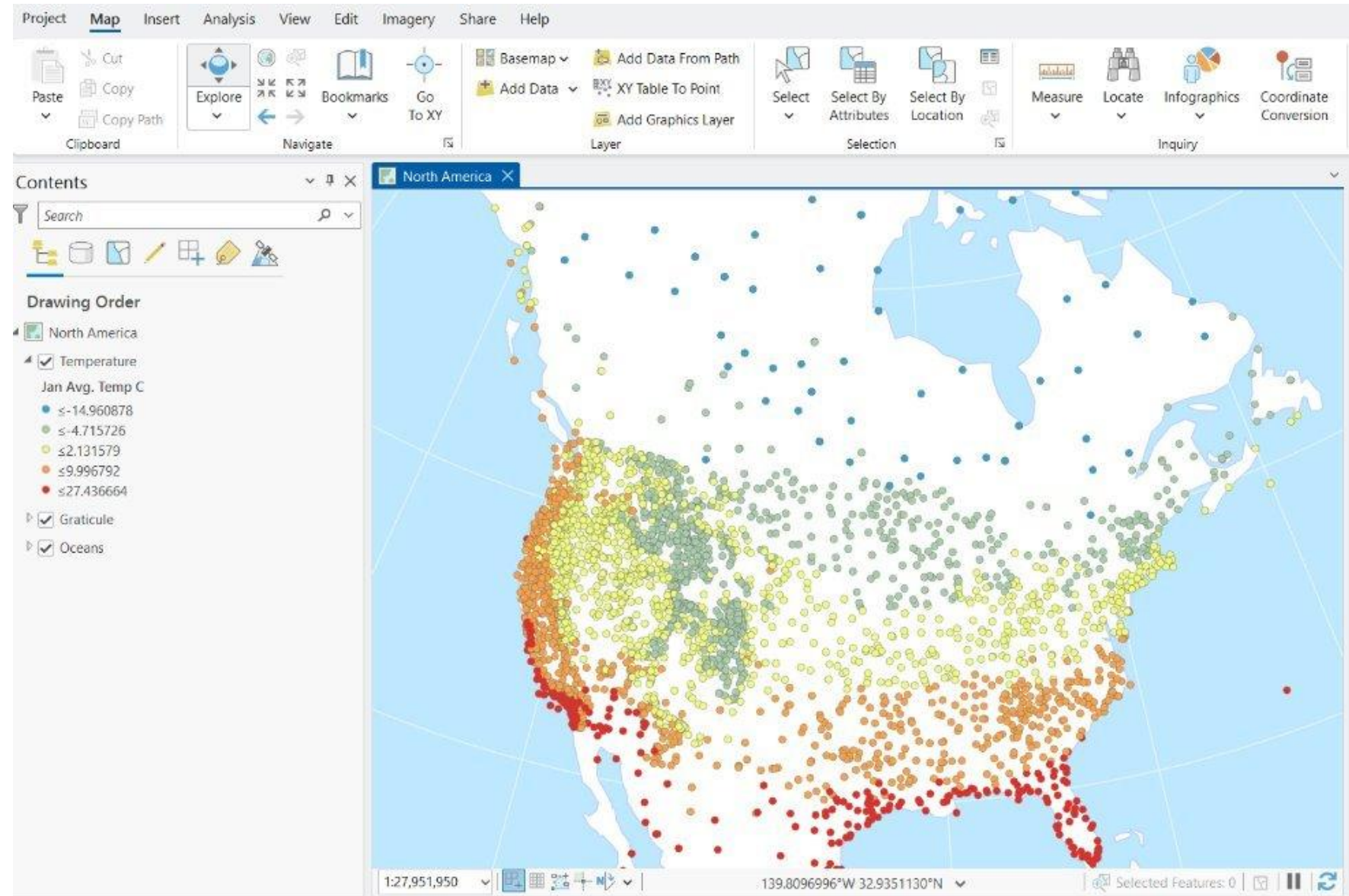
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# ArcGIS Pro

Professional Desktop  
GIS Software



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# Complete List \*

- [ArcGIS at McMaster University Libraries](#)
- \*subject to change

ARCGIS PRO ADVANCED			
<b>Included Licenses:</b> <ul style="list-style-type: none"><li>• 3D Analyst</li><li>• Aviation Airports</li><li>• Aviation Charting</li><li>• Bathymetry</li><li>• Business Analyst</li><li>• Data Interoperability</li><li>• Data Reviewer</li><li>• Defense Mapping</li><li>• Geostatistical Analyst</li><li>• Image Analyst</li></ul>		<b>Add-on Licenses:</b> <ul style="list-style-type: none"><li>• ArcGIS Business Analyst Web and Mobile Apps</li><li>• ArcGIS Community Analyst</li><li>• ArcGIS Drone2Map</li><li>• ArcGIS GeoPlanner</li><li>• ArcGIS Insights</li><li>• ArcGIS Location Sharing</li><li>• ArcGIS Urban Suite</li></ul>	
<b>Applications</b>			
<b>Essential Apps:</b> <ul style="list-style-type: none"><li>• ArcGIS App Studio</li><li>• ArcGIS Dashboards</li><li>• ArcGIS Experience Builder</li><li>• ArcGIS Hub</li><li>• ArcGIS Instant Apps</li><li>• ArcGIS Maps for Adobe Creative Cloud</li><li>• ArcGIS StoryMaps</li><li>• ArcGIS Web App Builder</li><li>• Configurable Apps</li><li>• Map Viewer</li><li>• Scene Viewer</li></ul>		<b>Field Apps:</b> <ul style="list-style-type: none"><li>• ArcGIS Collector</li><li>• ArcGIS Field Maps</li><li>• ArcGIS Quick Capture</li><li>• ArcGIS Survey 123</li><li>• ArcGIS Workforce</li></ul> <b>Office Apps:</b> <ul style="list-style-type: none"><li>• ArcGIS Connectors for Power Automate</li><li>• ArcGIS for Excel</li><li>• ArcGIS for Power BI</li><li>• ArcGIS for SharePoint</li><li>• ArcGIS for Teams</li></ul>	<b>Other Apps:</b> <ul style="list-style-type: none"><li>• ArcGIS City Engine</li><li>• ArcGIS Data Pipelines</li><li>• ArcGIS Flight</li><li>• ArcGIS Field Maps Designer</li><li>• ArcGIS Notebooks</li><li>• ArcGIS Quick Capture Web Designer</li><li>• ArcGIS Web Editor</li></ul> <b>Capabilities:</b> <ul style="list-style-type: none"><li>• ArcGIS GeoBIM</li><li>• ArcGIS Image Analysis</li><li>• ArcGIS Image Hosting</li></ul> <b>ArcGIS Runtime:</b> <ul style="list-style-type: none"><li>• ArcGIS Runtime Advanced</li></ul>
ARCGIS ENTERPRISE ADVANCED			
<b>Included applications:</b> <ul style="list-style-type: none"><li>• ArcGIS Pro Advanced</li><li>• Essential Apps</li><li>• Field Apps</li><li>• Office Apps</li></ul> <b>Included extensions:</b> <ul style="list-style-type: none"><li>• ArcGIS Advanced Editing</li><li>• ArcGIS GeoBIM</li></ul>		<b>Add-on applications:</b> <ul style="list-style-type: none"><li>• ArcGIS Drone2Map</li><li>• ArcGIS Excalibur</li><li>• ArcGIS Insights</li><li>• ArcGIS Mission Manager</li></ul>	

# ArcGIS Resources

[Esri Academy](#)

[Esri Canada Webinars](#)

[Learn ArcGIS Tutorial Gallery](#)

[Massive Open Online Courses \(MOOC\)](#)

[McMaster University Libraries GIS Services](#)

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# Workshop

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# Workshop

## Explore Paris with ArcGIS Online

### Learn the basics of navigating and creating maps in ArcGIS Online

- Create and navigate a web map
- Change a basemap
- Search for locations on a map
- Sketch a location on a map
- Create and use a bookmark
- Add a layer to a web map
- Save (and share) a web map

[Learn ArcGIS Tutorial](#) (Esri Tutorials Team, Esri Inc.)



## GIS Services

Send GIS Services an Email:

[libgis@mcmaster.ca](mailto:libgis@mcmaster.ca)

Schedule a Consultation:

<https://libcal.mcmaster.ca/appointments/gis>

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## SCDS Links

Send SCDS an Email:

[scds@mcmaster.ca](mailto:scds@mcmaster.ca)

Subscribe to our Newsletter:

<https://u.mcmaster.ca/sign-up>

GIS Services Website:

<https://library.mcmaster.ca/services/gis>

Register for a Workshop:

<https://u.mcmaster.ca/scds-workshops>

Schedule a Consultation:

<https://libcal.mcmaster.ca/appointments>

