

# Layers

a Dal newsletter about GIS & Data

Volume 1, Number 1  
November 2016

## GEOSPATIAL DATA

Today (Nov. 16) is GIS Day! From a software perspective, GIS stands for Geographic Information Systems but for programs at Dal it stands for Geographic Information Science. Did you know that approximately 80 per cent of all data has a spatial component, including many social science datasets?

Statistics Canada is also scheduled to release key geographic information today, including boundary files for the 2016 Census.

## GIS @ DAL

The home for GIS activities is on your computer, in the cloud, and inside the Killam Library. The GIS Centre is located on the 5th floor, just past Special Collections, in the northwest corner of the Killam Library. The people most closely associated with GIS at Dal are James Boxall and Jennifer Strang. James is a geographer (FRGS, FCGS) and Jen is a GIS Analyst.

Joining them to promote and support the growing interest in spatial analytics is Gwen MacNairn from the Dal Libraries and Dr. Claudio Aporta from the Marine Affairs Program. Gwen is the Coordinator of GIS & Data Services and Claudio is the Director of the ECCE.

### GWEN MACNAIRN & DR. CLAUDIO APORTA



PHOTO BY MARLO MACKAY

## COURSES & PROGRAMS

We want our students to understand the value and principles of GIS, so that they can apply it in their research and in their jobs after they graduate. Students can do this if they understand spatial analysis and have experience using the ArcGIS software products. Both goals can be accomplished by completing a [Minor in Geography](#) or by getting a [Certificate in GIS](#).

Courses offered during the winter term are:

**Space, Place and Geographic Information Systems**  
(PLAN 2006)

**GIS Applications to Environmental & Geological Sciences**  
(ERTH/GEOG 4520, ERTH 5520)

**Environmental Remote Sensing** (ERTH/GEOG 4530, ERTH 5530)

**GIS Research Project** (ERTH/GEOG/ENVS/BIOL/SCIE 4850)

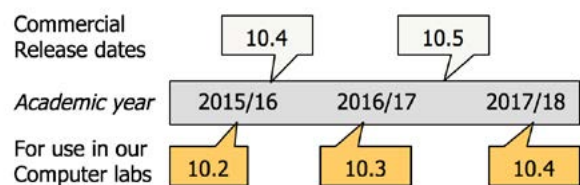
## WHAT IS THE ECCE?

Through a partnership with Esri Canada, Dalhousie hosts an Esri Canada Centre of Excellence — which means that we promote teaching excellence in GIS, encourage GIS innovation and increased collaboration between faculty and students. Up to six students can become **ECCE associates**, which entitles them to attend conferences and development workshops. They form a network with other GIS-minded students across Canada. The ECCE designation is also held by UNB, COGS, McGill, Carleton, Waterloo, McMaster, York, Simon Fraser, and Victoria.

Florian Goetz, an ECCE associate from last year, won **App of the Month** for September. His Story Map was: [Viewing Halifax's Northwest Arm with Extreme Water Levels](#)

## CURRENT VERSIONS OF ArcGIS

It is common to run an earlier version of the ArcGIS software for project work because it is more stable and ensures a better experience for our students. We are running version 10.3 in our computer labs and the current version of ArcGIS available from Esri is 10.4. The next release of ArcGIS will be version 10.5 anticipated in the first quarter of 2017. We expect to install and support version 10.4 in the summer, to be used for next year, 2017/2018. At that time, you may want to extend your GIS processing capabilities by trying ArcGIS Pro (which requires version 10.4 or higher).



StatsCan has signed a license for all regional Research Data Centres to install and use their own versions of ArcGIS. The Atlantic RDC is located in the Killam Library.

## ArcGIS OFFERS A WIDE VARIETY OF APPS

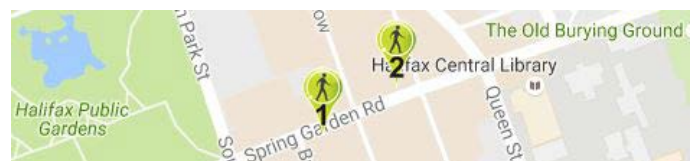
There are more than thirty Esri-developed apps available for download from Google Play (Android) and iTunes (iOS). These are currently grouped into three categories meant to support various aspects of your GIS projects: Field, Office and Communications. One example of a communications app is [Story Map](#).

This app lets you tell a story by combining maps with narrative text, photos and other media. If you are not an experienced GIS user, but want to communicate with a specific audience, we recommend that you try this app. We've seen students use Story Map to easily share highlights from a recent field trip with family and friends.

<http://storymaps.arcgis.com/en/app-list/map-journal/>

## SMART GIS

If you can use a GIS to make decisions that save time and money, you are smart! You can also use the power of location to improve coordination and achieve operational efficiencies. Smart cities are doing this with sensors installed in busy areas which generate large sets of data on a daily basis. Halifax has been collecting pedestrian count information at ten different locations since January 2014. Sensors 1 and 2 are on Spring Garden Road.



<http://www.eco-public.com:8080/ParcPublic/?id=4468>

## NEED LOCAL DATA?

Halifax provides public access to its spatial datasets:  
<http://catalogue.hrm.opendata.arcgis.com/datasets>

Nova Scotia also shares spatial datasets in its open data portal:  
<https://data.novascotia.ca>

## UPCOMING DATES & EVENTS

- Wed., Nov. 16** GIS Day
- Fri., Dec. 9** GIS & Data Event - Save the date
- 2017\*** Esri Canada App Challenge
- 2017\*** ECCE Scholarship Opportunity

\* details will be posted on Dal's new ECCE site:

<https://libraries.dal.ca/hours-locations/gis-centre/gis-ecce.html>

Contributors: Gwen MacNairn, Claudio Aporta, James Boxall, Jen Strang & Julie Marcoux  
Layout & design by: Marlo MacKay  
Editors: Gwen MacNairn & Marlo MacKay