

**Notes from Geospatial/GIS Meetup
September 21, 2023**

Rivera Library, Room 140 and Zoom

Attendees: Janet Reyes, facilitator;

In person: Elisa Cortez, Hung Wu, Nic Barth, Siddharth Kishore

Via Zoom: Andrew Haglund, Brian Baldwin, Isaiah Kim, Justin Huft, Luis Barrios, Lynn Sweet, Mike Cohen, Ryan Lo, Sarah Zohary, Steve Reis

Announcements

This meeting was recorded; video is available [here](#). The passcode to view is *KH#0Wh3

Meetups for Fall quarter will be held on October 10, November 7, and December 12.

UC GIS Week 2023 will be a virtual event held November 14-16. If you are interested in presenting, being a panelist, or submitting your work for the Poster / Story Map gallery, a link to submit your presentation idea is found on [this page](#). The call for participation has been extended until October 6.

UC's Agriculture and Natural Resources Informatics and GIS program (**ANR IGIS**) has released its [schedule of trainings](#) for Fall 2023. Topics include Introduction to R, ArcGIS Pro, Jupyter Notebooks, and Story Maps.

The topic of the next [GIS in Higher Education chat](#), on October 3 at 9:00 am, is "What's New and What's Coming in ArcGIS StoryMaps."

This year's **North American Cartographic Information Society** (NACIS) [conference](#) is being held October 11-14 in Pittsburgh.

This year's **Free and Open Source Software for Geospatial** (FOSS4G) North America [conference](#) is being held October 23-25 in Baltimore.

Shared links

Article on UCR's Center for Geospatial Sciences:

<https://insideucr.ucr.edu/stories/2023/09/19/ucrs-center-geospatial-sciences-eyes-expansion>

Blog post on the **relative length of rivers**, with a wonderful data visualization from 1862:

<https://blogs.loc.gov/maps/2023/06/the-lost-glory-of-the-missouri-river/?loclr=eamap>

Cartographica, which is GIS software for macOS, is sunsetting:

<https://blog.cartographica.com/sunsetting-cartographica.html>

Presentation

Brian Baldwin, Lead Solution Engineer at Esri Education, gave a presentation titled **Goodbye ArcMap: Resources, tips, and tricks to help with the move to web GIS and ArcGIS Pro.**

Brian noted that [ArcMap](#) will be removed from education licenses starting in June 2024. He asked who in attendance is still using ArcMap, and why. Lynn cited time and computer limitations as her reasons for not switching to another platform. Nic said that [ArcGIS Pro](#) didn't have all the capabilities he needed at the time he tried it, and also cited the learning curve. Brian said that at this time Pro essentially has all of ArcMap's functionality. In a blog post, Brian is compiling a list of plug-ins from ArcMap that users want to continue using in Pro. For ArcMap custom tools built with outdated code, Brian said there are tools to help migrate the code to the latest syntax.

These days, the power of GIS lies in the ability to pull in data from different sources and create dynamic, interactive displays in a web application - in contrast to the traditional use of desktop GIS to create maps for printing. The technology continues to advance in multiple ways and is being used in a variety of applications for a variety of purposes.

Brian provided a quick demo of some of the capabilities of [ArcGIS Online](#). He started by showing how to add data to a map from [Living Atlas](#), which provides over 7,000 authoritative geographic datasets from around the world. A description of the data can be viewed prior to adding it to the map. Tabular data is associated with each mapped feature. Users can also search for data in ArcGIS Online itself, but data found there may vary in quality. It's possible to save and share a map that includes data from the web as well as data that the user has created. ArcGIS Online also provides capabilities for filtering data, changing symbology, and performing analysis.

[Maxar](#) provides imagery for parts of the world that have experienced disasters. Brian demonstrated adding download images of devastated areas in Libya to his content in ArcGIS Online as an imagery layer. A user could then apply a deep learning model available from Living Atlas to perform image analysis, such as identifying buildings.

Maps created in ArcGIS Online can be shared in apps such as [Dashboards](#) or [StoryMaps](#).

In summary, access to ArcGIS Online is provided to UCR affiliates. It's easy to use, easily configurable, and is mobile and web friendly.

Regarding ArcGIS Pro in comparison to ArcMap, Brian said that Pro is easier for new GIS learners, completes functions faster than ArcMap, is connected to the Living Atlas and ArcGIS Online, and creates maps that look better and more modern.

Brian demonstrated how to start a project (a container for maps and related information) in ArcGIS Pro. Users can access training modules and support resources from within ArcGIS Pro. The Catalog pane is where users can access Living Atlas data, such as data from the Census Bureau.

An MXD file that was created in ArcMap can be brought into ArcGIS Pro by using the Import Map tool, which is found in the Insert tab on the menu ribbon. Any map layouts that had been created in ArcMap will be preserved.

Under the heading of “cool things,” Brian demonstrated how Pro allows the user to view histograms and statistics for the data associated with every field in an attribute table. To do so, right-click a layer in the Contents pane and select Data Engineering. Full-sized charts can also be created from the statistics.

Brian also demonstrated ArcGIS Pro’s 3D capabilities by incorporating [LiDAR](#) elevation data and imagery in a 3D scene for an archaeological site near St. Louis featuring mounds.

Users can right-click a layer and choose [Data Design](#) to work with the characteristics of the data in the attribute table (such as creating a range or set of valid values for a field).

A full Jupyter notebook environment is embedded in ArcGIS Pro. This enables pulling Pandas or other data science libraries into Pro. Notebooks can be saved as part of a project.

Contact

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Discussion

Ryan asked whether ArcGIS Online provides the ability for multiple people to interact with map elements at the same time. Brian said that it’s possible to set up a map with multiple editors, but simultaneous edits aren’t possible currently. However, people using a field app can submit data they’ve collected to update a map as they proceed.

Sarah asked for resources for undergraduates to gain experience. Janet will follow up with her to provide several resources.

Isaiah asked if the Living Atlas data is available 24/7. Brian said yes, although the available layers are updated with varying frequency, or may be static, depending on the source.

Lynn asked if there are plans to have ArcGIS Pro work on a Mac. There are no plans for that; a workaround is to use ArcGIS Pro on a virtual machine.

Siddarth asked about the [ArcMap plug-in](#) he currently uses for USDA [SSURGO](#) soils data. Will this tool be available in ArcGIS Pro? Brian doesn’t know, but will connect with Janet regarding adding it to the list of plug-ins in the blog post mentioned earlier.

Nic asked whether Pro now has the ability to exaggerate vertical height. Brian said that it can be done by inputting a degree of magnitude by which to [exaggerate the value](#) for elevation.

Links shared

<https://livingatlas.arcgis.com/en/browse/#d=2>

<https://www.maxar.com/open-data>

<https://www.esri.com/en-us/industries/higher-education/roles/educators/modern-gis>

** <https://modern-gis-learn3.hub.arcgis.com/>

<https://www.esri.com/training/>

<https://community.esri.com/t5/education/ct-p/education>

<https://gis-in-higher-education-chat-edresources.hub.arcgis.com/>

<https://www.esri.com/en-us/esri-press/browse>

<https://www.esri.com/en-us/lg/industry/education/stories/university-of-pittsburgh-leverages-esri-resources-teach-modern-gis>

<https://www.esri.com/en-us/lg/industry/conservation/stories/how-tufts-university-professor-blended-gis-conservation-medicine>

<https://www.esri.com/en-us/lg/industry/education/stories/how-blended-gis-computer-science-degree-is-ensuring-graduate-skill-sets-meet-industry-needs>

** a resource that connects very closely to what Brian presented at the meetup. A great place to get started; some resources here could be used as course material.