



IOWAVIEW 2022 - 2023

AmericaViewSM
Empowering Earth Observation Education
americaview.org

IOWAVIEW 2022 - 2023 ACTIVITIES

Building Iowa's K-12 Earth Observation Education Network Through Engagement with K-12 Educators

Knowledge is power. During the grant year (GY) 2020, a statewide survey of K-12 superintendents and teachers found that there was a knowledge gap for many educators about GIS/RS and its use in the classroom. In the two years since the survey, IowaView has been working to engage with K-12 educators through outreach and GIS/RS education.

During GY 2022, our focus was a little broader than previous years, trying to reach across a variety of disciplines to show how GIS, remote sensing, and geospatial thinking can be applied in K-12 classrooms. Through our interactions over the past few years we have worked to build a network of GIS-engaged Iowa educators. We are also building collaborations with professors teaching pre-service teachers as well as partnering with education organizations such as the Geographic Alliance of Iowa to provide complementary programming.

Below are some highlights from GY 2022:

GIS Day 2022 – Celebrating 50 years of Landsat & 30 years of the ISU GIS Facility 11/16/22 was a day to raise awareness about various GIS opportunities on campus, celebrate 30 years of the ISU GIS Facility, and 50 years of the Landsat satellite mission. Over 100 visitors stopped by our table in the ISU College of Design lobby, receiving information about the undergraduate minor in GIS and graduate GIS certificate. The GIS Facility provided cupcakes, cookies, coffee, posters, trading cards and map puzzles for assembly.



IowaView State Coordinator Amy Logan and ISU GIS Facility Staff Josh Obrecht engaging with students at 2022 GIS Day at ISU.

Engaging New Groups of K-12 Educators to Provide GIS/RS Learning Opportunities



Art Educators beginning the NASA Landsat Collage activity

October 2022 – Art Educators: IowaView staff presented a session, “Discovering Earth as Art,” at the Art Educators of Iowa Fall Conference. The presentation invited art educators to “explore and engage with earth science and satellite images as we make a little STEAM”. After the presentation, educators were encouraged to participate in a hands-on, Landsat Collage activity: <https://landsat.gsfc.nasa.gov/outreach/landsat-home/landsat-collage/>.



Art Educators with their final NASA Landsat Collages

February 2023 – Information Technology Administrators: IowaView staff co-presented, “What Story Will You Tell? Introduction to ArcGIS StoryMaps,” at the 2023 Spring Iowa Technology Education Connection IT Professionals Conference in Nevada, Iowa. Our staff feel it is important to provide education and outreach to K-12 IT administrators in order to help students gain access to GIS software.

July 2023 – IowaView staff and a consortium member hosted a two-day geospatial technology workshop at Iowa State University in Ames, Iowa to provide five K-12 teachers (math, science, social studies) a more in-depth opportunity to explore using GIS and Story Maps in the classroom and gain continuing education credits.

IowaView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G18AP00077.

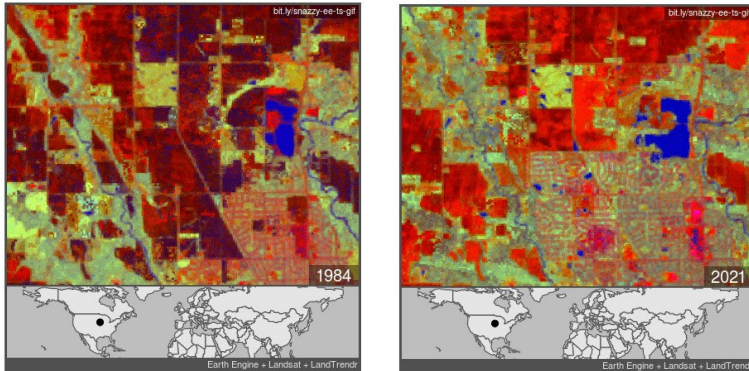
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BENEFITS TO IOWA

- **IowaView Website** - IowaView had an active website presence (14 posts during GY22 and 170 archived posts.) In GY22, 2,138 users visited the IowaView website. The Iowa Shots image series and Google Earth Engine (GEE) time lapse gifs celebrating 50 years of Landsat were highlights of the website.

<https://www.iowaview.org/iowashots-celebrating-50-years-of-landsat-in-iowa/>



Examples of GEE Landsat gif images of Ames, Iowa showing urban growth comparing 1984 (left image) to 2021 (right image)

- Some metrics from the GY22 reporting year:
 - 70 college students, 15 faculty/staff, and 15 GIS workforce/citizens participated in GIS Day 2022
 - 55 K-12 teachers received training during conference sessions and workshops
 - 115 K-12 teachers received emails regarding Iowa GIS resources and training notifications
 - This year there were 3 school districts and 13 entrants in the 2023 Iowa Map Contest



2023 Participants in the K-12 GIS Teacher Workshop in Ames, Iowa

IowaView staff are actively working to engage with pre-service teachers so they will have training in how to use GIS and geospatial technology as they begin their teaching careers. Below is a testimonial from a pre-service teacher who attended our summer workshop:

“As a future middle school social studies teacher, I am always looking for fun and inventive new activities to introduce into my classroom and garner student interest. When my Iowa State University advisor mentioned that there would be a workshop on using GIS technologies in the classroom, I knew that I had to attend. I was more than satisfied with the class, and the resources alone were worth the money and time of being there. Resources like the GeoInquiries and Iowa Geographic Map Server are incredibly valuable classroom tools; I wish I had known about them before student teaching so that I could have incorporated them into my lesson planning.”

IOWAVIEW CONSORTIUM MEMBERSHIP

The mission of the IowaView consortium is to increase the knowledge and use of remote sensing and other geospatial technologies for the benefit of the citizens of Iowa, through education, research and service. IowaView supports the collection and management of publicly accessible remote sensing data archives (ortho.gis.iastate.edu) which includes current and historic imagery, LiDAR elevation and other datasets useful for research and education. Collaborators come from various departments at ISU as well as from public agencies and organizations.



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