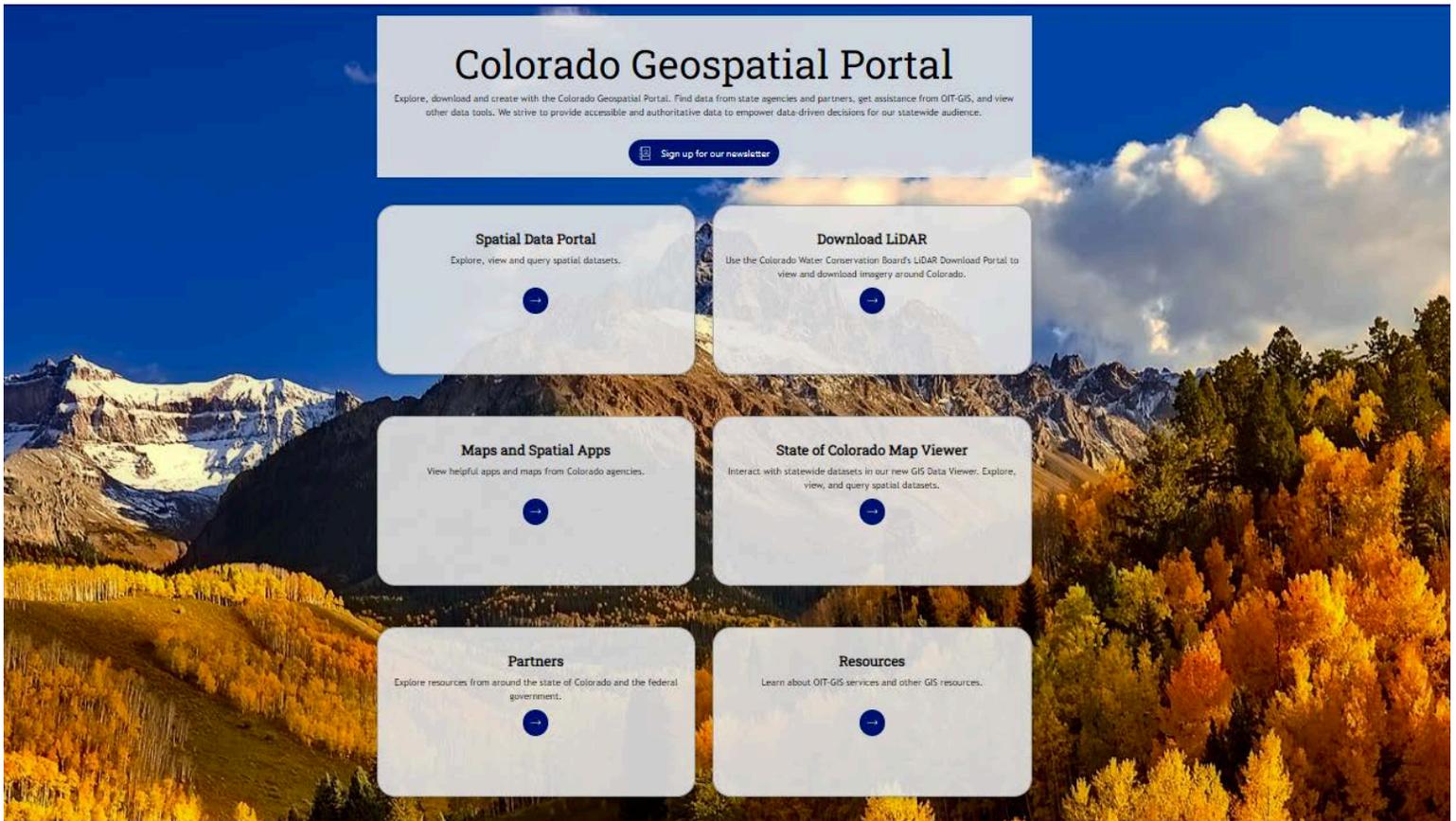




Innovative Mapping: Navigating Colorado Through the Geospatial Portal



State: Colorado
Agency: Governor's Office of Information Technology
Award Category: Data Management, Analytics & Visualization
Project Dates: March 2023 - June 2023
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EXECUTIVE SUMMARY

The Colorado Geospatial Portal is a comprehensive effort that revitalizes outdated infrastructure and revolutionizes access to critical resources. While improving the efficiency of finding and hosting geographic information system (GIS) data was one of the main goals, the capabilities of the Colorado Geospatial Portal go far beyond. The Portal, located at <https://geodata.colorado.gov/>, serves as the first stop for every Coloradan's journey to find authoritative data, explore mapping applications related to the state, visualize GIS datasets, and access free GIS training resources.

Before the Governor's Office of Information Technology (OIT) embarked on this effort, users may have needed to search the fourteen different state agency sites to find the GIS data they desired. By consolidating and modernizing geospatial data services, the Colorado Geospatial Portal provides a centralized location for all GIS users - whether state employees or the public - to find authoritative and up-to-date data.

While the spatial data portal is a major component, the site also makes it easy for users to explore applications or find contacts for their own needs. Additionally, free GIS training resources are available, including resources concerning accessible mapping practices. The OIT-GIS Accessibility Guidelines and checklist are publicly available; they are leading the way in creating more accessible mapping products not only for geospatial professionals serving the State of Colorado, but also for all GIS users.

This initiative eliminates redundancy, increases efficiency and democratizes access to essential data, ensuring equity across all stakeholders. It addresses a universal challenge while setting a new standard for data accessibility and governance, empowering decision-makers and analysts across the state.

IDEA

In 2023, there were 14 different state agency sites to search for GIS data. The GIS team within the Governor's Office of Information Technology (OIT-GIS) wanted to make it easier for trained GIS professionals and the general public to discover geospatial technology across the state. The Colorado Geospatial Portal was conceived as a modern site where users could find data, explore applications, or find contacts for their own purposes, as well as open resources such as training from a central location. With a spatial data portal, map viewer to visualize various datasets, and links to state and federal geospatial partners, the Colorado Geospatial Portal enables agencies and local governments to address existing and emerging business needs effectively through an accessible and streamlined user interface.

IMPLEMENTATION

Successful initiative implementation involved collaboration among OIT GIS and the 14 other state agencies with their own spatial data portals to ensure the spatial data portal reflected authoritative and up-to-date datasets. Engagement strategies such as newsletters, conferences, local user groups, internal user groups, and chat support facilitate user adoption and utilization. The goal is to enable diverse agency and local users to access and implement the variety of resources on the Colorado Geospatial Portal in their specific business need workflows.

IMPACT

The implementation of the statewide imagery program not only revolutionized visual data accessibility and use but also addressed broader issues of digital equity and inclusion. Geospatial technology, often inaccessible to a wide audience, became more readily available through centralized access to data and resources. Consolidating the information in one place dismantled barriers to digital equity, literacy, and inclusion and allows everyone to much more quickly find the information they need and effectively use geospatial technology. The Colorado Geospatial Portal also supports geospatial education efforts by simplifying the search for authoritative GIS data related to the State of Colorado.

With roughly 2,000 monthly users, the Colorado Geospatial Portal has transformed visual data accessibility and usage while promoting digital equity and inclusion. As a central hub for geospatial technology with consolidated resources, it has broken down the barriers to digital literacy and inclusion, enabling an accessible way to use crucial mapping resources.

In the words of [Dr. Joseph Kerski](#), distinguished geographer with over three decades of experience,

"As a longtime resident of Colorado, I can attest to the vibrancy of the GIS community here. This portal is indeed what many of us have been dreaming about for years; therefore I salute Jackie Phipps Montes, our state of Colorado Geographic Information Officer (GIO), and her team."

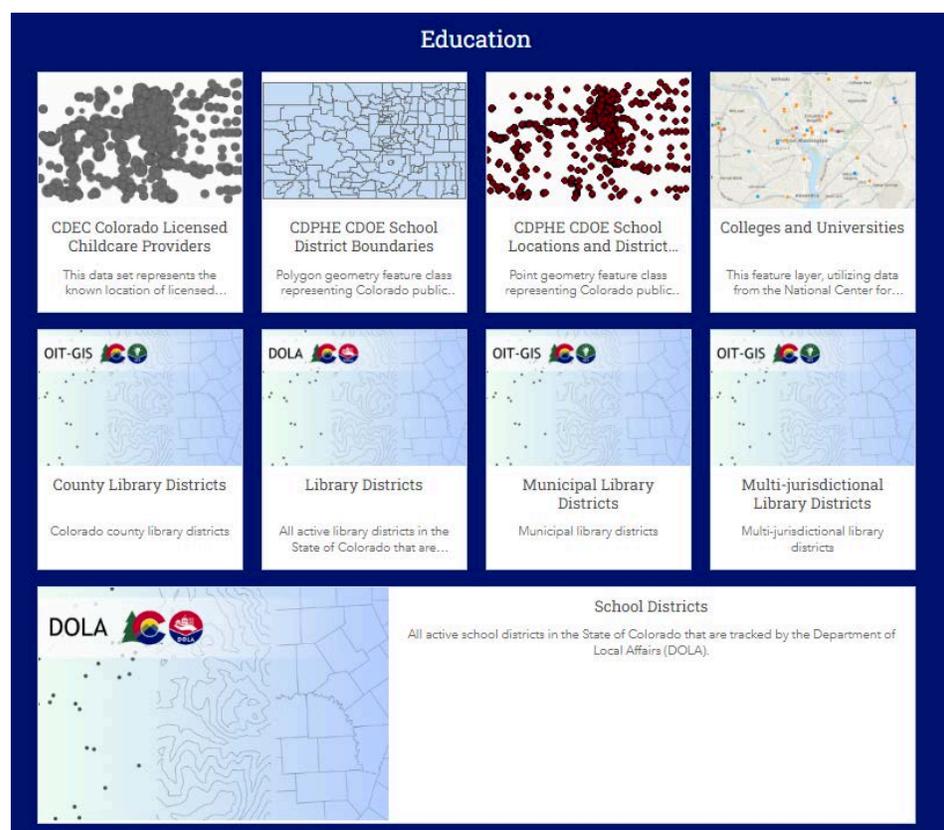
This testimonial underscores the profound impact of the Colorado Geospatial Portal in fulfilling long-standing aspirations within the GIS community and beyond.

Take a peek!

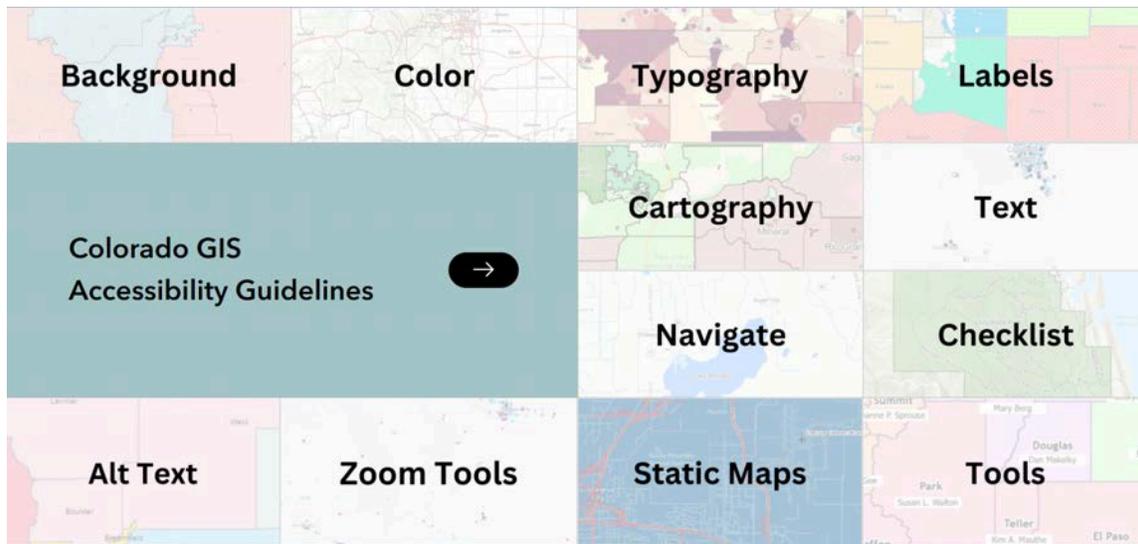
Let's take a quick peek at the types of information that is now housed in a single, easy-to-navigate site! The landing page of the Colorado Geospatial Portal displays quick links to commonly visited pages: the Spatial Data Portal, Maps and Spatial Apps, Partners, Download LiDAR, State of Colorado Map Viewer, and Resources.

Users can search keywords from the [Spatial Data Portal page](#) to find datasets, maps or applications. They can also explore featured datasets broken out into categories such as education (displayed to the right, which displays information from five different agencies), economic development, health and safety, and more. The Portal page exemplifies the goal of allowing users to search data from multiple agency sites from a central location.

The interactive [Colorado GIS Accessibility Guidelines](#) is an educational tool for all GIS users to implement accessible mapping practices and provides an interactive checklist for checking maps and mapping applications against guidelines. London Walker, the GIS Developer on the OIT-GIS



team, won the [2023 NSGIC Geospatial Excellence - Innovator award](#) for her work creating these industry-leading guidelines.



The **City and County Government** page hosts information and resources specifically for local government users only. Among other things, this allows the OIT-GIS team to easily communicate information that is not applicable to the public, such as providing instructions on how to use the no-cost statewide high-resolution imagery program administered by OIT-GIS.



Imagery

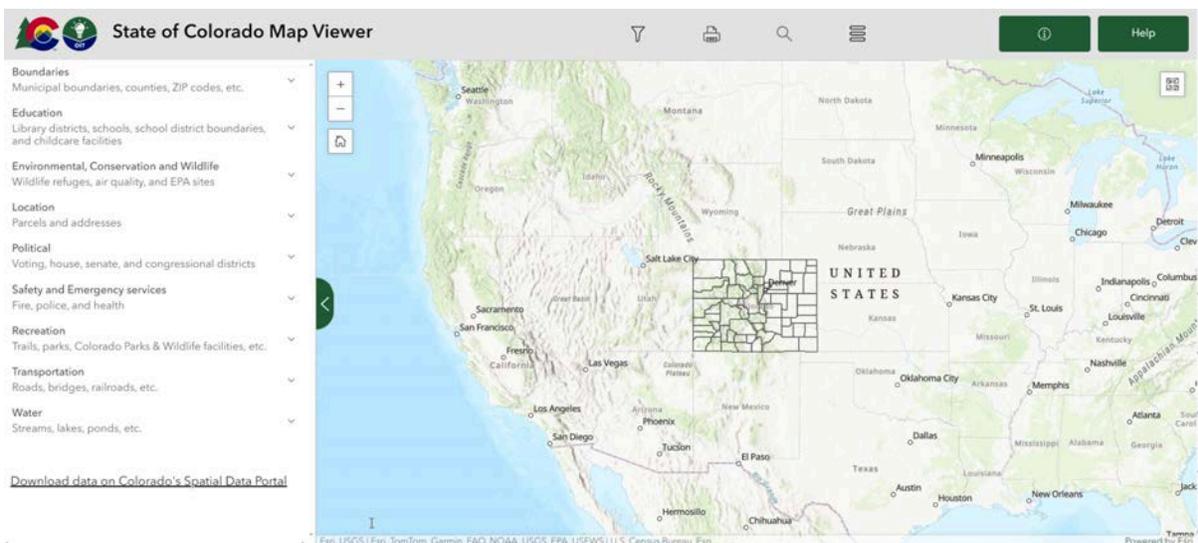
For access to the Statewide Imagery, you must fill out the [acceptable use form](#) and attend one of our imagery trainings. Information about trainings can be found [below](#), and will be linked at the end of the form.

<p>Acceptable Use Agreement form</p> <p>View the Acceptable Use Policy and acknowledge that you have read, understand, and agree to the terms.</p> <p>→</p>	<p>Colorado Statewide Imagery User Guide</p> <p>User guide for the Vexcel imagery service.</p> <p>→</p>
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The [Maps and Spatial Apps page](#) is a simple, easy-to-use page that connects users to other agency resources. Users can find other maps and mapping applications by state agencies that may be relevant to their business needs or everyday life, such as the Colorado Sales Tax Lookup site, to find the specific sales tax rate for an individual address or map location.

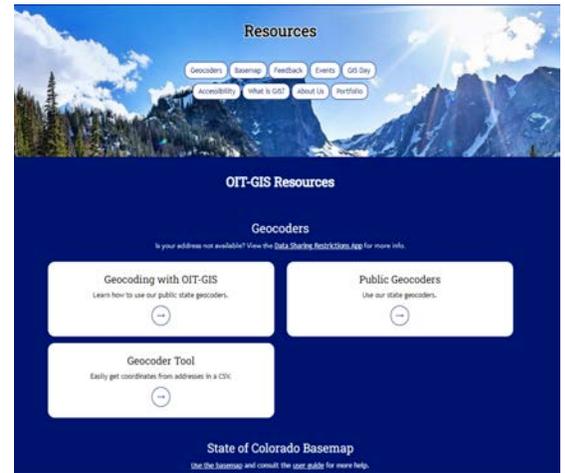


The interactive [State of Colorado Map Viewer](#) is a tool that allows users to visualize data from various categories. Users can toggle layers on and off, zoom in and out of the map, or search for locations of interest around the state. This application is simple but powerful for visualizing Colorado data in an accessible fashion.



The [Resources page](#) is home to a variety of tools and resources for all GIS users. For example, the [State of Colorado Geocoder tool](#) allows users to input a list of addresses in Colorado and receive coordinates back. There is often a cost associated with the geocoding process, but this tool is free, thus expanding access to a common geospatial tool. Another resource is a custom

statewide base map created by OIT-GIS that can be used in all GIS users' workflows. Users can also access recordings of past training, ranging from building web applications to a suite of accessible mapping, that are leading the way for state geospatial professionals as they work towards creating more accessible mapping products.



The **Partners page** hosts links to open data sites, GIS websites, and REST API's from Colorado state agencies, counties, GIS organizations, and federal agencies.

Colorado Counties

Find open data, GIS websites and RESTs from counties around Colorado.