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# Consider Felt

By Theresa Quill

Among the ever-shifting sea of web-based GIS and mapping tools, it can be difficult to determine which platforms to support, especially as funding cuts continue to diminish librarian capacity to take on new tasks. Having spent the first part of my career chasing every new web-mapping software and programming language to be sure I could support students and researchers in every way possible, I have recently gained a deeper appreciation for a few tools that do most things well. For me, that means limiting support for web GIS to one or two platforms beyond the ESRI suite. [Felt](#) stands out as the most useful tool with the most varied applications. In this article, I will highlight the Felt's most useful features for Map and GIS librarians and explain how I have used it in my work.

Felt was created in 2021 with a focus on collaborative mapping, expansive workflows, and good design. Cartographer and NACIS member Mamata Akella (formerly of Carto, Stamen, and the National Park Service) is their Cartographic System Designer and their design influence is evident in the elegance of the interface.

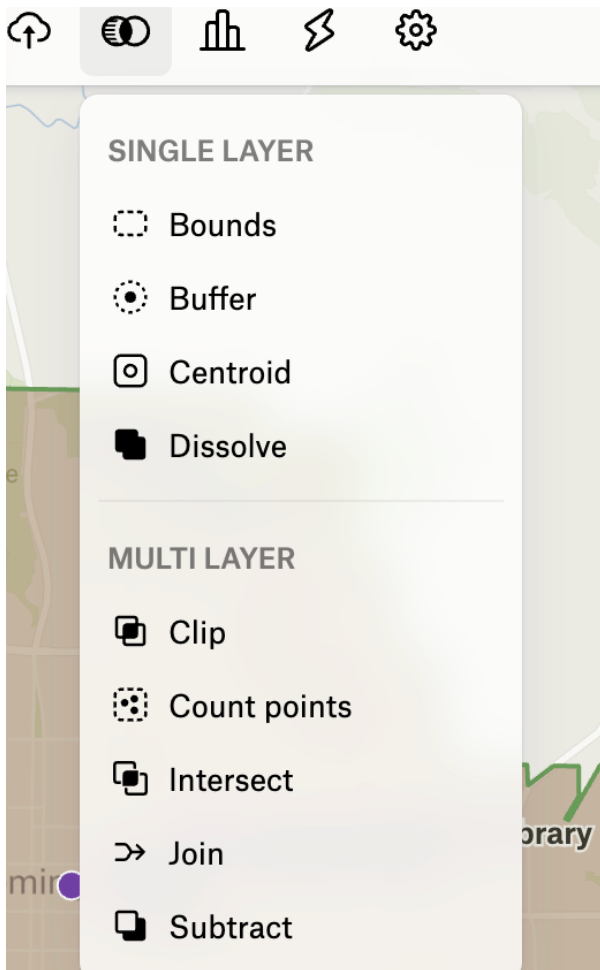
## Jargon-free data and analysis

In particular, the “upload anything” menu simplifies the process of adding data while educating users about data formats. For example, if the user attempts to upload a single .shp file, a dialog box appears that explains, “[file] is a shapefile component, but every shapefile needs at least a .shp, .shx, and .dbf file to be valid. (They may include other supporting files as well. Combine these into a .zip file to upload them!)”. The dialog box also includes a link to a [webpage](#) that explains the supported file types and links to more detailed instructions on how to structure spreadsheet data for geocoding. Compare this approach to that of ArcGIS Online, which greys out files you are unable to upload, without explanation. Felt's prevalence of help tools with clear, conversational language, combined with the vivid style, makes for an overall friendly tone to the tool. In my experience using Felt as an instructional tool, the integrated documentation helps empower students

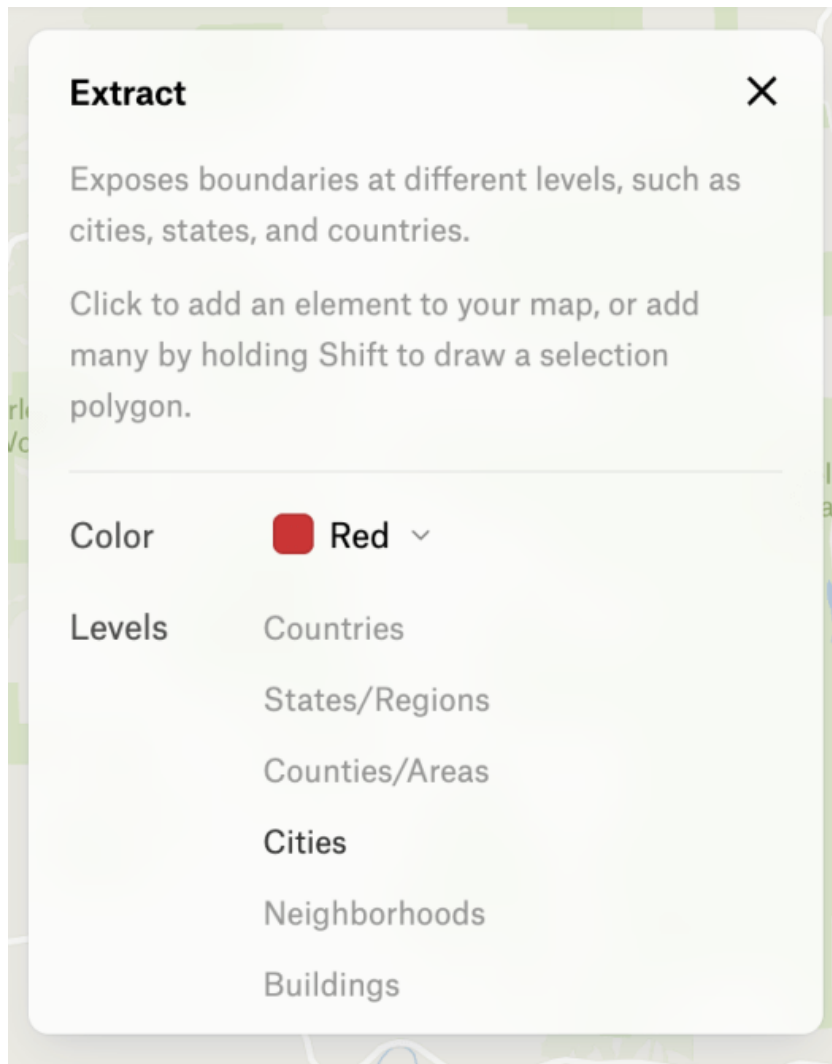


to seek out answers and fixes themselves rather than immediately asking the instructor. It allows for more exploratory and student-directed instruction and less time spent talking about which buttons to push.

The available analysis tools are limited but represent most actions that students would need to perform on their data and are described using jargon-free language. Tools include creating bounding boxes (especially useful for librarians!), buffers, centroids, dissolve, clip, count points in polygons, intersect, join, and subtract. Here's just one example of how Felt simplifies a process that is more complicated with other web mapping tools. If I want to count the number of points within an administrative boundary, Felt includes an Extract tool that selects a polygon from the baselayer (for example, city boundary) and automatically creates a data layer from the selection. This saves the step of finding an independent data layer of city boundaries or of manually selecting and exporting the selection. Combined with Count Points tool, students can very quickly determine the number of point events within a defined area.



Vector analysis tools in Felt



The Extract tool allows you to create data layers from the basemap

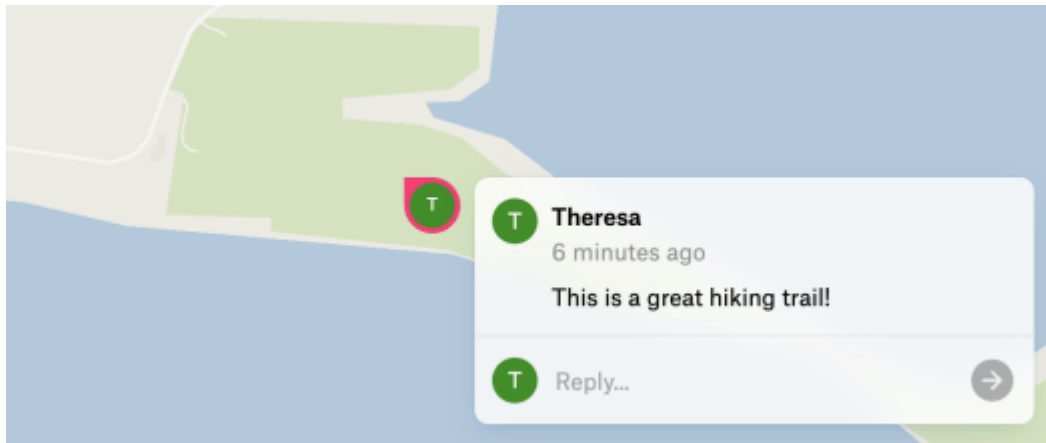
Felt is a [sustaining flagship member of QGIS](#), and includes a QGIS plugin that promises to publish data to Felt directly from QGIS. This would be a nice option for folks who need more analysis tools than are offered natively in Felt.

## Collaboration

One of the best benefits of using Felt is the ease of collaboration. Anyone with the link to a Felt map can simultaneously edit if they have an account. Collaborators without a Felt account can post comments on the map in the form of point markers. The comments can be downloaded as a CSV that includes latitude and longitude



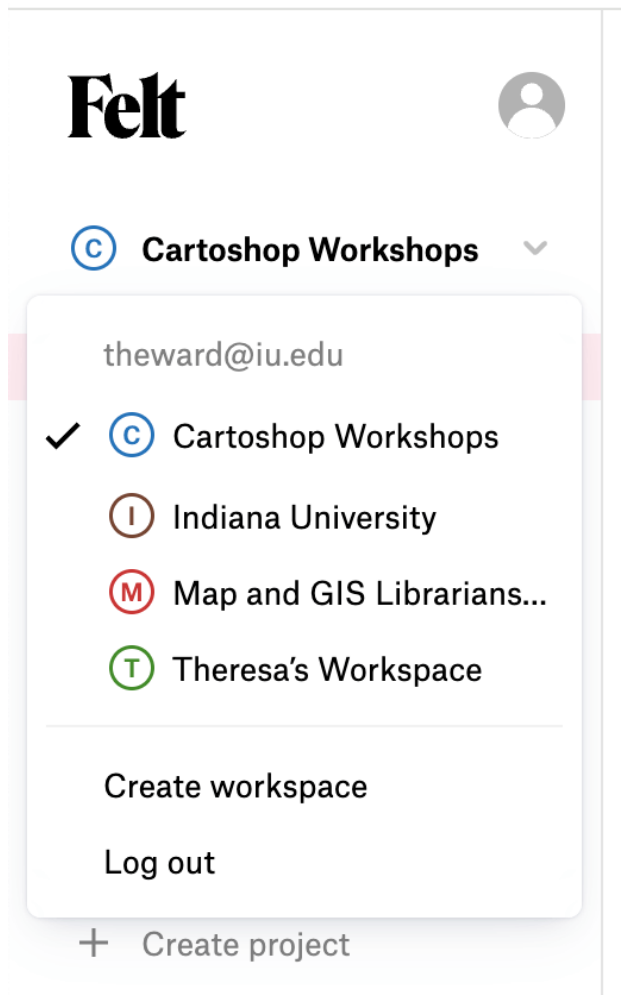
and then turned into a data layer by a map editor if needed.



Comments are location specific and allow map users to interact without creating an account

Felt is currently [free for classroom use](#). Instructors must [fill out a request form](#) with information about how they plan to use the tool and state the length of time needed. The intent is for each request to cover a single class (semester) or project. Once an instructor is verified, they may invite students to create accounts under the class workspace. For instructors, this organization is especially useful. Less clunky than groups in the ESRI environment, the individual workspaces help keep coursework organized and they can be activated for different timeframes. For example, I use a workspace for library workshops that I activate on a different timeline than the workspace for a Map and GIS Librarianship course I teach.

I'll add a few words of caution for users who employ Felt as a classroom tool. For one, you'll need to remember when each workspace is set to expire to avoid potential day-of class panic. Activation can take up to two weeks for classroom use. Keep in mind that the *workspace* receives upgraded educational access rather than user accounts, making it easy to use for classes, but not meant for individual student projects outside of classwork. However, the standard free account still allows users to create and share maps, add points, collaborate, and add comments. While the free tools may not be sufficient for more in-depth mapping projects, they are still a good option for students who need to put some points on a map and easily share it.



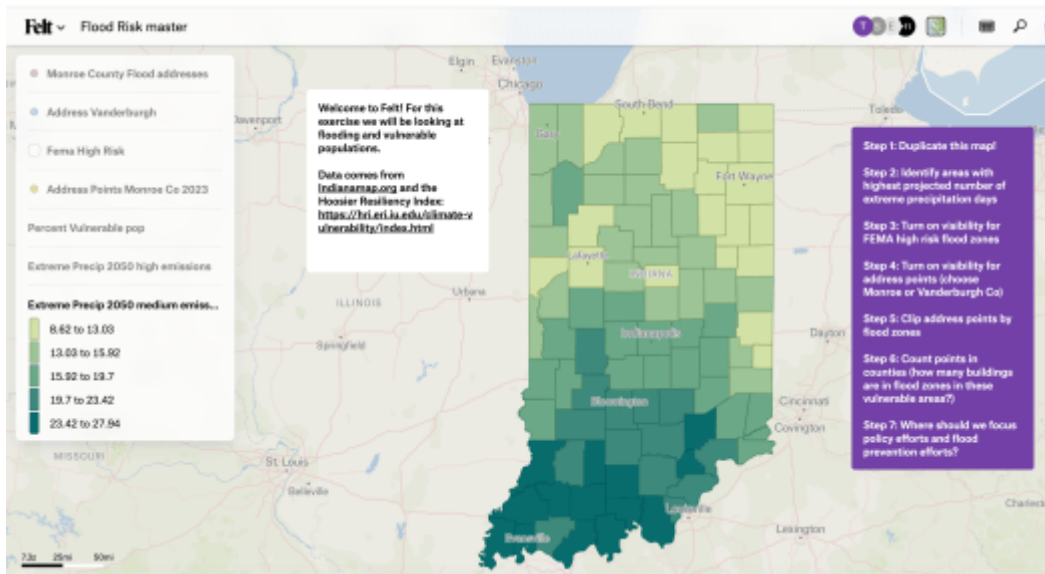
Workspaces are easy to organize, yet are activated individually

Felt proved to be the perfect choice of platforms in my work with a summer high school program. The Summer Experience in Sustainability and the Environment (SESE) is a remote program for high school students interested in learning more about tools and careers in environmental science. For the past several years I have taught a workshop on GIS for this program, using Felt. I chose to use Felt for this project because students do not need to have a university email to gain access to the Felt classroom workspace.

After a brief lecture describing uses of mapping and Geographic Information Systems (GIS) for environmental science, students complete a hands-on mapping activity in Felt. The entire activity is contained in the Felt platform, including the instructions as text on the map. After a brief overview of the tool, high school



students are immediately able to complete steps independently and use the map and analysis tools to make policy suggestions.



Example assignment for a high school class. The instructions are embedded in the map as text blocks

## Dashboards

I have also been using Felt to support a 100-level undergraduate class, Intro to India. In this course, students are each assigned a different city in South Asia to study over the course of the semester. Using collaborative spreadsheets, they gather information on their city's history, demographics, language, and infrastructure. We chose to have the students generate spreadsheets so that they would be involved in the data creation process and must think about structuring spatial data in a way that a computer can read. The instructor created a map using Felt and visualized the students' data to show trends across the geographic area. Students also add comments to the map, continuing the conversation. The next step for this project is to make use of Felt's Dashboard tools such as creating user-driven filters, time sliders, and charts.

I anticipated needing to provide a fair amount of technical support for this class, especially given that the instructor had no prior mapping experience. However, I was pleasantly surprised when they remarked, "even faculty can do this!". Perhaps this is an isolated experience, but if instructors feel capable of taking on more



technical troubleshooting, librarians will to be able to expand support for digital mapping more sustainably.

## AI

Felt has recently rolled out AI integration into their platform. At time of writing, Felt's AI works for using natural language to style custom pop-ups and extensions. One of the suggested options for the AI assisted custom extensions is to "create a story map". When generated, this option is much less immersive than the standard ESRI Storymap experience but still provides the potential to expand into the narrative mapping space. The AI generates code that can be edited and adjusted by a human. Felt's AI seems more transparent about its limitations than other GenAI programs. For example, when I asked the Felt AI to translate a field in the data for a custom popup, it returned the following:

*"I understand you'd like to add translation functionality, but I need to explain the limitations of popup templates in this mapping application.*

*Popup templates cannot:*

- *Make external API calls to translation services (like Google Translate, DeepL, etc.)*
- *Access translation libraries or services*
- *Perform real-time translation of content*

*The popup templates are static HTML/LiquidJS that only have access to the feature's properties that are already stored in the dataset. They cannot fetch external data or call web services.*

*If you want to include translated content, you would need to:*

1. *Pre-translate the content and store it as additional properties in your dataset (e.g., add fields like "Title\_translated", "Notes\_translated", etc.)*
2. *Then use those pre-translated fields in the popup template*

*Would you like me to help you modify the template to display pre-translated fields if they exist in your data, or would you prefer a different approach?"*



Felt's AI tools are relatively new, and I expect their functionality will continue to expand. At time of writing, the AI tools are restricted to displaying contextual information in popups and extensions, rather than the AI performing data analysis. Given what we know about the limitations of GenAI for cartography (Kang et al. 2024), this seems to be a reasonable approach to AI integration into digital mapping. These tools offer an opportunity for librarians to discuss the limitations of GenAI in mapping, and responsible AI use in the classroom.

## Cautions and Conclusion

Felt is a venture capital funded company, which has raised over 30 million dollars over three rounds of funding (Mascarenhas 2021; Hashemi et al. 2022; Newswire 2025). They are not yet publicly traded, and while classroom support is currently free, there is no guarantee that will continue in perpetuity. Instructors must remember to renew their classroom workspaces for each individual course, with a turnaround time of up to two weeks that requires advance planning. While Felt will not replace desktop GIS programs or ESRI Storymaps for classroom instruction in the near future, it fills the gap left by Carto's retreat from the educational space, particularly for introductory mapping activities.

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