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| C:\Users\bjaco\AppData\Local\Microsoft\Windows\INetCache\Content.Word\SLS-Teaching-Toolkit-Logo_Stacked-Initials.jpg | The Map Room: Rethinking the Way Data Represents the Places We Live |
| **Discipline:** All  | **Type:** Take-home assignment; in-class activity  | **Time Commitment:** Two class periods | **Category:** Using Data |
| **Big Ideas:** [Civic Design](https://serve-learn-sustain.gatech.edu/big-idea/civic-design); [Participatory Research](https://serve-learn-sustain.gatech.edu/big-idea/participatory-research); [Information Visualization](https://serve-learn-sustain.gatech.edu/big-idea/information-visualization); [Understanding Local History and Context](https://serve-learn-sustain.gatech.edu/big-idea/understanding-local-history-and-context) |
| **OVERVIEW:**The goal of the Map Room project is to develop local spaces for grassroots map-making, where people can creatively and collaboratively explore data. Conventional digital maps help people see rapid, large-scale social and environmental changes as they unfold. But often these maps are based on abstract data alone and are disconnected from the lived experiences of their audiences. The Map Room aims to empower people to understand, but also challenge and even redefine, the stories that maps and data tell about their lives and about the places they live. In this tool, students will visit a Map Room on campus to make their own maps and to reflect on the potentials and pitfalls of map-making in a contemporary civic context.This tool was contributed by Yanni Loukissas (yanni.loukissas@lmc.gatech.edu), in collaboration with artist Jer Thorp. |
| **INSTRUCTIONS:** Part A: Before visiting the Map Room, students can learn about mapping and data. They can also prepare for the map-making activity by identifying personal, historical and institutional data sources.Part B: During their visit to the Map Room, students will create their own maps using the resources they (or the instructor) have chosen. They will also document their map-making process.Part C: Following their visit to the Map Room, students can reflect on their process as well as the claims their map implicitly or explicitly makes. They can also explore creative means of displaying their map. |
| **SLS STUDENT LEARNING OUTCOMES & ASSESSMENT:**The Serve-Learn-Sustain toolkit teaching tools are designed to help students achieve not only SLS student learning outcomes (SLOs), but the unique learning outcomes for your own courses. Reflection, concept maps, rubrics, and other assessment methods are shown to improve student learning. For resources on how to assess your students’ work, please review our [Assessment Tools](http://serve-learn-sustain.gatech.edu/tool-category/assessment). **This tool achieves SLO 1. See the end of this tool for further details.**  |

**Want Help?**

Molly Slavin is the contact for this tool. You can reach her at molly.slavin@lmc.gatech.edu.

Introduction

In 2017, the Office of Creative Research opened the St. Louis Map Room, a “community space for creating and exploring original, interpretive maps of the city that reflected the personal stories and lived experiences of its residents” at the Center of Creative Arts (COCA). The project ran on a combination of high- and low-tech systems. Grade school students, activists, and public officials who visited the St. Louis Map Room first selected a square patch of the city to draw and waited while a “drawing robot” constructed a base street grid on a 10’ square canvas stretched over a plywood base. Then was their turn: guided by an overhead projector, participants annotated the canvas with their own experiences, using markers and paint. Finally, they considered their annotations in relationship to predetermined data layers (i.e. historical events, demographics, traffic patterns, etc.), projected again from overhead. The resulting maps were exhibited for a range of audiences including the mayor of St. Louis, who deemed the project so successful that he declared April 11th, the last day of the exhibit, to be “Map Day.”

The project was conceived of as intensely local; it was situated in a shuttered school in one of the lowest-income neighborhoods in St. Louis and focused on the politics of mapping and its implications for race and inequality throughout the city. Moreover, it had an abbreviated calendar of only sixty days. Nevertheless, its creators saw the St. Louis Map Room as a prototype: something that could, in principle, work in any city. But what does it mean for map-making to “work?” What can maps do and why should we make them?

The goal of this teaching toolkit is to allow students to create and reflect on their own collaborative maps, using a combination of personal experiences, historical sources, and contemporary data. Students will use a system similar to that of the original St. Louis Map Room. A projector will guide them in drawing a large-scale map by hand. (Sorry, no robots involved.) In the process, students will learn about mapping more generally, about data, and about how to document and reflect upon questions such as: What goals can map-making serve in a civic context? Who is empowered to make a map and with what sources? What makes for an effective map? How can the process go wrong?

This tool will be of use to any course seeking to examine the relationship between data and personal experience in a spatial, civic context. The entire tool can be completed in two or three 60-90 minute sessions, or one week in a typical 3-credit hour Georgia Tech, with assignments before and after each session.

Note: At the time of writing (August 2019), the Georgia Tech Map Room is still a prototype, which means courses must use this tool in collaboration with its developers at the Local Data Design Lab. Please contact Yanni Loukissas (yanni.loukissas@lmc.gatech.edu) to schedule a time for the class to visit the Map Room or to work with the new, more mobile, Map Spot. Instructors are also encouraged to include a community partner, who can bring their own local knowledge to bear in the map-making process.

Instructions

**PART ONE**

Initially, students can prepare for the mapping exercise through an introduction to maps and data. Students can also use this time to identify sources, such as historical maps and/or data, to be used in their map-making exercise. This part can be handled in one or two days. Alternatively, the instructor can skip this part if they have already identified sources they would like to use.

Reading on Maps:

Robert W. Karrow, Jr., Introduction to James R. Ackerman & Robert W. Karrow, Jr., Eds., *Maps: Finding Our Place in the World* (Chicago: University of Chicago Press & The Field Museum, 2007): 1-12.

Reading on Data:

Borgman, Christine L. *Big Data, Little Data, No Data: Scholarship in the Networked World.* Cambridge: MIT Press, 2015: 17-29.

**Before Class**

Read one or both of the above chapters and answer the discussion questions below.

Questions on Maps:

1. What are maps? What can they do?
2. What are the limitations of maps? What do they leave out?
3. What maps about Atlanta would you like to see and or make?
4. Identify a historical map to share with the class. Use ATL Maps (<https://atlmaps.org>) to select a historical map of Atlanta that depicts part of the city that you know (or your community partners know) from personal experience.
5. Write about or be prepared to explain in class what you know about the area depicted in the map as well as how your knowledge is supported by or challenged by the historical view. Also discuss how you would characterize the map in terms of visual language, the process of the map’s creation, and the map’s potential use or misuse.

Questions on Data:

1. What are data? What can data do and not do in a civic context?
2. What are the limitations of data? What do they leave out?
3. What data about Atlanta would you like to see and or make?
4. Identify a data set to share with the class. Using “Neighborhood Nexus” (<https://neighborhoodnexus.org>) a data mapping tool created by the [Atlanta Regional Commission](https://atlantaregional.org/), select one contemporary data set that can further illuminate the area the class has chosen and map that data using the online tools. Instructions for sharing these mapped data during initial discussions may vary depending on the course.
5. Write about or be prepared to discuss how the mapped data support or challenge your personal knowledge about the place or the historical maps already chosen. Also explain how you would characterize the data in terms of the structure of the data, the process of their creation, and their potential use or misuse.

**During Class**

1. Discuss the assigned readings and questions.
2. Review the maps and/or data identified. Group them by coverage area or theme. Select a number of these sources to be used in the map-making exercise.
3. Decide on a goal for the map that the class will make. To support this process, here are some questions that maps can answer, excerpted from *Maps: Finding Our Place in the World*:
	1. “Where am I and how do I get to where I want to be?”
	2. “What does my part of the world look like and what is my place in it?”
	3. “What happened here, what will happen here, and how are these events important to me?”
	4. “How can maps help me comprehend things that I can’t even see?”

**PART TWO**

If the instructor has already identified sources to be used in the map-making exercise, then they can start here, in Part Two. This portion of the toolkit is meant to be used in the Map Room, currently in the Technology Square Research Building Room 209, or in another appropriate space using the smaller scale Map Spot technology. Consult with the Local Data Design Lab (contact info above) to determine what is appropriate for your class.

**During Class**

1. Before Mapping
	1. Remind students of their goal (identified by the instructor or by the students in Part One)
	2. Decide on the boundaries of the map that the class will make. Remember, the map should cover an area that most, if not all, of the class members are familiar with. Also, the proportions of the final map may vary depending on the version of the Map Room used.
	3. Discuss the components of the map the class will make. It may help to make some sketches together in class. Consider the following:
		1. What contemporary elements of the city will structure your base map (i.e. streets, buildings, green space, landscape elements, natural or governmental boundaries, etc.)?
		2. What personal experiences of students (or community partners) will be included in the map? These might be the locations of their homes, their routes to school, the places they routinely go or don’t go, or things they have observed or plan to observe between class sessions.
		3. Which historical maps and/or data sets identified by the class will you all make use of? One may be enough. You most likely won’t be able to use all of the maps or data sets, either because they cover areas outside of the boundaries of the map or because they don’t serve the overarching goal the class has set for itself.
		4. Who will document the map-making process? What instruments will they use (i.e. photographs, video, or hand-written notes)?
2. During Mapping
	1. Use the Map Room tools to draw the agreed-upon base-layer of the map.
	2. Draw personal experiences agreed upon (from students or community partners).
	3. Turn on preselected historical maps and data layers one-by-one. Discuss them in the context of what has been drawn.
	4. Choose details from selected historical or data layers to transfer onto the map along with interpretations, connections, and annotations.
	5. Document the process throughout and share the documentation at the end. Instructions for sharing documentation may vary.

**PART THREE**

**After Class (Answer Reflection Questions in Writing)**

Following on the in-class mapping exercise, students can write a short reflection on the experience which addresses the prompts below. Students can use diagrams and/or photographs to illustrate the reflection where appropriate. They can make use of the documentation to revisit the exercise or as a resource for illustrations. Here are some questions to frame the reflection:

1. Describe the setting: What are the basic elements of the Map Room (or Map Spot) as you understand it? These can be technical, social, or conceptual. You might think of these elements as simply the things we shouldn’t expect to change from one use case to the next?
2. Describe the conditions of your specific map-making exercise: What was particular about it? Who was involved or left out? What resources and materials were used, beyond the basic elements identified above? What were the goals?
3. Describe one important moment in the map-making process. Was it a moment in which someone made a claim using data? Was it a moment of confusion? Was it a moment in which something went technically wrong? Why was it important?
4. Reflect on the overall process. What was surprising? What was overlooked? What broader questions did the experience bring up for you?
5. Suggest how you would display the results of your map-making: where, when, and for whom?

Suggestions for Community-Based Learning Opportunities

There are a number of ways you might get a community partner involved with students in map-making. This will make it easier for students who aren’t familiar with Atlanta to ground historical and contemporary data sources in lived experiences. Moreover, a community partner might wish to make practical use of the map after the course is over. Here are a few suggestions about who you might ask to form such a partnership:

1. A provider of civic data (i.e. [Trees Atlanta](https://treesatlanta.org/)) can help students interpret their data and perhaps invite their own constituents to participate in the map-making process.
2. A group of civic data users (i.e. [Housing Justice League](https://www.housingjusticeleague.org/)) can provide a goal for map-making (i.e. advocacy, planning, or evaluation) and/or act as participants themselves.
3. A data intermediary, such as a librarian, planner, journalist, or data visualization designer has skills in exploring and unpacking unfamiliar data sets. Moreover, they have their own audiences that they might wish enlist in map-making.

If you are interested in working with a community partner, Serve-Learn-Sustain is eager to help you. Contact Ruth Yow, our SLS Service Learning and Partnerships Specialist, for ideas and assistance, and check out our [Service Learning and Community Engagement Nuts & Bolts](http://serve-learn-sustain.gatech.edu/slce-nuts-bolts).

SLS Student Learning Outcomes

1. Identify relationships among ecological, social, and economic systems.
2. Demonstrate skills needed to work effectively in different types of communities.
3. Evaluate how decisions impact the sustainability of communities.
4. Describe how to use their discipline to make communities more sustainable.\*

\* *Note:* SLO 4 is intended to be used by upper division, project-based courses such as Capstone.