

Understanding Madison's Data Users

Background

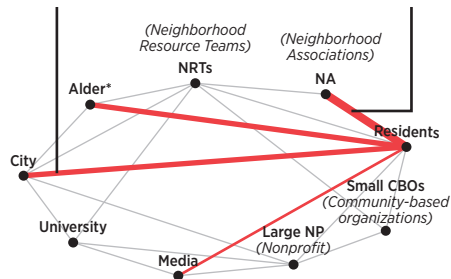
User personas and journeys are design tools, and can serve as a framework for thinking through complex ecosystems of interaction and influence. They can help us think about a problem from users' perspectives, and spot patterns and themes through their experiences.

These user tools are based on interviews conducted in November 2017 to better understand how data is applied to neighborhood issues in Madison, Wisconsin. Each user persona and user journey is a composite based on several interview respondents.

Understanding visual elements

Connections between actors are noted with a line.

Thickness of the line indicates the strength of the connection.



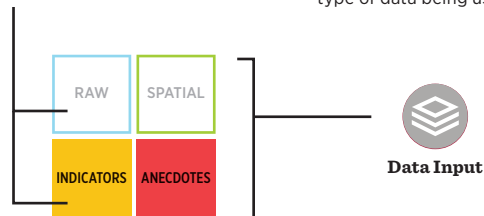
*What's an Alder? An Alder is a City Councilperson in Madison.

User Personas

Each persona is made up of several structural elements. The background gives us insight into some of the user's experiences that may affect their needs and abilities. Superpowers highlight a user's unique contributions or potential to contribute to their community. The network highlights a user's community connections, something that was found to be a particularly important aspect to the successful use of data. The data diet indicates what types of data a user typically uses, because of capacity and/or preference. The sliders show a user's general data skills, and the geographic impact of their work.

Shading indicates if a user is able to use a data type.

The data icon designates the use of data. Color of the icon signifies the type of data being used.



User Journeys

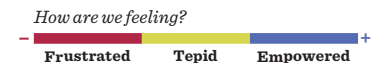
The user journeys look at one important experience of each of our users. Each journey begins with a goal. This isn't a user's only goal, but one that is recurring. The journeys highlight significant events, sources of data, interactions with data contacts, and pain points. They also indicate how our users are feeling throughout their experiences, indicated by the color of the timeline. Key learnings from each user's experience are noted in the Lessons Learned.

Difficulties experienced by users are denoted as pain points.

The color of the timeline represents a user's morale.



Pain Point



User Personas

Who is working on neighborhood issues in Madison?



THE Community Activist

Robert, 62

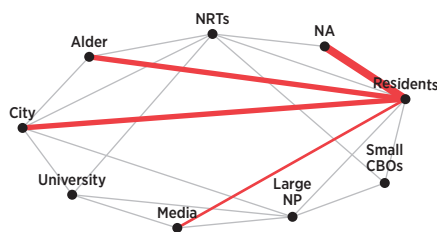
BACKGROUND:

You'll find Robert, a longtime Madison homeowner, at every Common Council meeting as well as at every Neighborhood Association (NA) meeting, where he serves on the association's transportation committee. He moved to Madison in 1987 to attend graduate school at UW, and has lived in the city ever since, learning how to get things done through persistence, networks, and persuasive ideas. An avid environmentalist, Robert wants to see Madison leading the charge as a modern, livable city supported by multi-modal neighborhood transportation options.

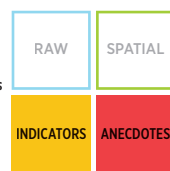
SUPERPOWERS:

Robert is well-connected within both his neighborhood, and the city bureaucracy. He is on a first-name basis with his neighborhood's alder as well as with several city employees in the Traffic Engineering department. He has the time, resources, and patience to affect change in his neighborhood. While not a super savvy data person he knows how to use indicators and anecdotes to strengthen his arguments.

NETWORK:



DATA DIET:



Technical data skills

Novice Expert



Geographic Impact

Neighborhood Multi-Neighborhood City Region



THE Large Nonprofit Project Manager

Anna, 47

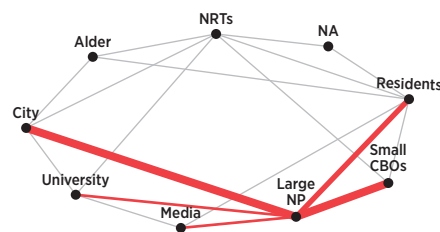
BACKGROUND:

Anna works as a program manager for early childhood development at a large nonprofit organization in Madison, which focuses on community stabilization. She's spent her entire career working in the nonprofit space, and now manages private, federal, and city funding for community-based organizations (CBOs) across Dane county. She is also responsible for setting her program's county-wide strategy, including both programmatic and policy priorities in early childhood development.

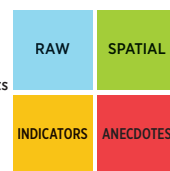
SUPERPOWERS:

Anna has data chops, and knows how to use them for strategic decision making. She's allocating grants to underserved neighborhoods, and advocating for state, county, and sometimes city policies that support her neighborhood development work. Her organization's broad mission has allowed her to build a strong network among city officials setting policy, and CBOs implementing programs.

NETWORK:



DATA DIET:



Technical data skills

Novice Expert



Geographic Impact

Neighborhood Multi-Neighborhood City Region



THE Small Community-Based Organization Director

Barbara, 41

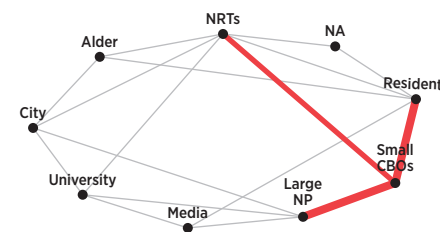
BACKGROUND:

Barbara is a director of a small community-based organization in Madison. Her organization, staffed by seven dedicated, full time employees, helps low-income families find affordable housing on the west side of Madison. For Barbara, success is when one of her client's successfully finds a place where they can settle down. Despite her organization's noble mission, resources are always tight.

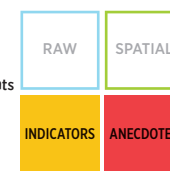
SUPERPOWERS:

Barbara is connected and trusted within the community in which she works. She doesn't have a lot of time to analyze data because she is busy working directly with families in need, and values qualitative anecdotes over quantitative indicators, which she often sees as a hassle when required in her reports or grant applications. She sees the direct impact of her work.

NETWORK:



DATA DIET:



Technical data skills

Novice Expert



Geographic Impact

Neighborhood Multi-Neighborhood City Region





THE Connector

Sylvia, 39

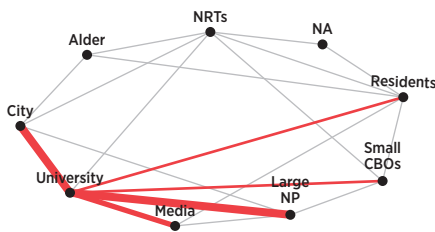
BACKGROUND:

Sylvia is a community manager at a University of Wisconsin extension program where she serves as a liaison between the university and the community. She was born in Madison, but spent her early professional life in San Francisco working in and around technology companies. In addition to working with data in her present and previous career, Sylvia is a fixer at heart, a data guru, and is committed to the social good. She feels strongly about the power of networks to enable people to solve their own problems, whether they are individuals or organizations.

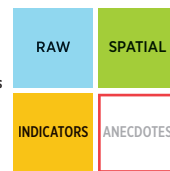
SUPERPOWERS:

In addition to Sylvia's institutional networks with nonprofits, community-based organizations, and the city, she is a master data user, and wants to share these skills with those who need it. When she gets her hands on raw data, she knows how to make it usable to others in her network. When she can't get certain data, she knows who to call.

NETWORK:



DATA DIET:



Technical data skills



Geographic Impact



THE Disseminator

Julia, 27

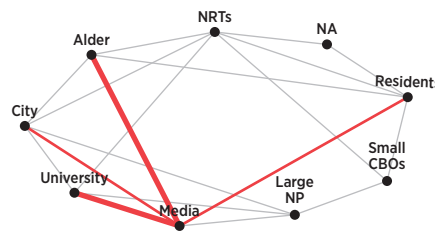
BACKGROUND:

Julia came to Madison to study communications, and never left. She works at a local marketing start-up, and has a personal interest in making data public in a useful way. She is also an active blogger. She has a principled support of government transparency and acts accordingly—she attends public meetings to figure out what's important, collects data, analyzes it, and puts it in the public domain so that her fellow residents can make informed decisions. As such, she is both a data collector and analyst, as well as a storyteller.

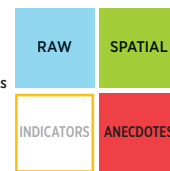
SUPERPOWERS:

Julia has the motivation, time, resources, and skills to source raw data, analyze it, and present it to the public in a meaningful way. She is well-connected with Madison's local media, and knows the city staffers working on issues she is interested in.

NETWORK:



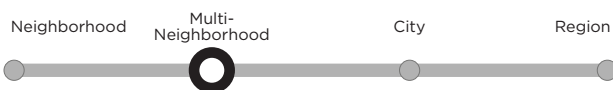
DATA DIET:



Technical data skills



Geographic Impact



THE City Staffer

Doug, 43

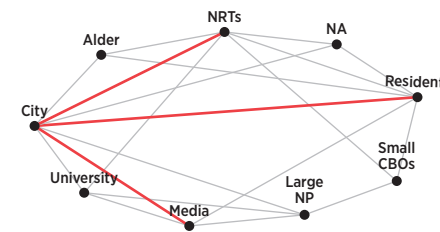
BACKGROUND:

Doug is a Madison native and committed resident. As a city employee he serves as a liaison between the city's "Report A Problem" application and city departments tasked with addressing reported issues. On a daily basis, Doug reviews requests coming in from residents and follows up to see that the requests are addressed. Serving Madison's residents is important to Doug, and he's proud that the city provides this platform to solicit inputs.

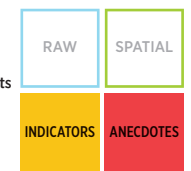
SUPERPOWERS:

Doug is committed to his job. He wants to make Madison a better place to live, and if he can help Madison residents improve their community through technology, he is all in and ready to assist.

NETWORK:



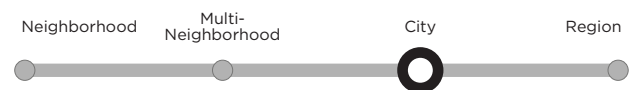
DATA DIET:



Technical data skills



Geographic Impact



The Data Journey

How do our six user personas interact with data in their decisionmaking?

How are we feeling?
- Frustrated Tepid Empowered +

RAW
SPATIAL
INDICATORS
ANECDOTES

Data Input

Pain Point

GOAL:

Robert sees a road in his neighborhood that he believes to be dangerous. He wants the road redesigned to be safer.

He raises the issue:
1. at a meeting for his neighborhood association.
2. with his alder.

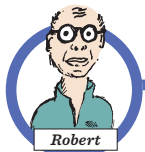
Robert begins gathering traffic data, such as crash statistics and traffic counts, to bolster his point.

The traffic data is available via the city's open data portal but Robert doesn't know to check there.

Robert uses a city contact to gain access to relevant data in the form of statistical reports about his neighborhood and others.

Robert analyzes this data and combines with anecdotes from his neighbors about the dangerous traffic patterns in his neighborhood, and photographs he takes himself, and presents it to his neighborhood association, alder, and friends and contacts in the city.

After a year of lobbying and advocacy, Robert's proposed change of adding a speed bump is incorporated into his neighborhood's transportation plan, an important step towards redesigning the traffic patterns in his neighborhood.



Robert
Community Activist

Robert gathers anecdotes from these meetings.

While a member of his neighborhood association transportation committee, Robert met someone from the city's traffic engineering department. The contact shares the data with Robert via email.

GOAL:

Barbara's funding, a mix of private foundations, city, and federal grants, requires that she demonstrate need and impact for her work quantitatively.

Her administrative data is straightforward—Barbara reports on the number of clients she has served, and the kinds of services provided.

Neither Barbara nor her team have strong data analysis skills, and they're already stretched thin for time to gather and process information.

Finding relevant data about housing and families-in-need at the level of granularity she needs is a huge barrier. Showing change over time is even harder.

Barbara has developed an ad hoc strategy. She uses Google, talks to partners on the local Neighborhood Resource Team, and pulls from the Neighborhood Indicators Project, census data, and the Race to Equity report.

This legwork allows her to check the boxes. But it comes up short when she really wants to tell the story of what is happening in her organization's area of operation.



Barbara
Small CBO Director

Barbara knows the need for her services are acute. If they weren't, she wouldn't have to turn away clients. But she must demonstrate impact quantitatively.

GOAL:

Sylvia wants to help those working in Madison's neediest neighborhoods to use data and form connections to solve problems.

Through her position at UW, She recently met Barbara (above) at a local community-based organization conference. Sylvia learned that Barbara is exploring possibly expanding her organization's work to new neighborhoods.

Together they look for data on which neighborhoods have high rates of poverty, highest rent burden, and highest percentages of affordable units, but they aren't able to find data at the neighborhood level.

Sylvia asks a contact in the city where to find neighborhood level poverty data, and the contact suggests looking for data on free or reduced-price lunches.

Once she has gathered this data, Sylvia helps Barbara put together a map of Madison neighborhoods indicating poverty levels, which Barbara can use to identify where she plans to scale her program.

She refers Barbara to the appropriate people in the city planning department and offers to support the negotiation of a data sharing agreement to ensure Barbara has sustained access to the data that informs her indicators each year.



Sylvia
Connector

To expand, Barbara needs data to decide which neighborhoods are most in need of her services, and, how she can measure whether her work is having an impact.

Sylvia knows this contact through her regular attendance at city public events.

LESSONS:

1. Information sharing is first-and-foremost network-based. A contact in the city is essential to accessing and understanding neighborhood-relevant data.
2. Enacting neighborhood change requires long-term, sustained engagement with neighborhood and city stakeholders.
3. Community activists have an appetite for evidence, and know how to apply evidence toward neighborhood advocacy, but often need help converting data into evidence.
4. Quantitative indicators can help ground anecdotes in evidence, and strengthen arguments for neighborhood improvements.

LESSONS:

1. Small organizations frequently lack the time and the capacity to gather and manipulate raw data. As a result, there is a strong preference for working with existing indicators.
2. When an organization is working at the neighborhood level, anecdotes are often sufficient to measure impact. It is when an organization begin to scale their work that quantitative data becomes more important and meaningful.
3. Nevertheless, there are clear benefits if small organizations can access data that is operationally relevant, assuming it is not burdensome to doing so, especially in the context of grant reports/applications and setting programmatic priorities.

LESSONS:

1. In the absence of clearly known city 'data owners', connectors are the hubs that bring together those who need data with those who have it. These people have a unique skill set in that they are savvy enough with data to work with raw numbers, and knowledgeable about city processes to know who to speak to about different kinds of data.
2. Certain connectors are clear, like the Applied Population Lab's Neighborhood Indicators Project. Others exhibit potential and should be explored, such as the library system, UW, and city residents who have technology and data skills, and are willing to volunteer their time.

Anna's organization uses the analysis internally, and also releases a public report communicating community needs, recent performance, and future priorities.



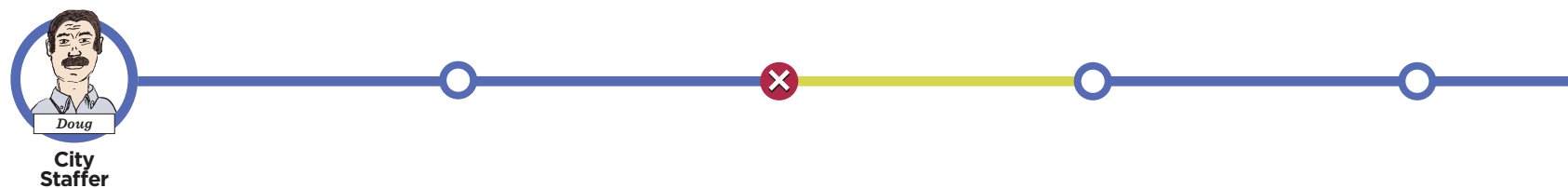
1. A clearly defined and documented methodology is essential for data to be useful and trustworthy.
2. For many data users the city's data is just one of multiple sources of information utilized to make decisions.
3. Reliance on informal connections as data sources is less sustainable because of turnover in partner organizations. While formal data sharing agreements require more effort to establish, they can help ensure reliable access to data irrespective of who is managing the data.

Julia analyzes the data and blogs about her findings and methodology.



1. Collecting data is a labor intensive process in many cases. As a result, only motivated and skilled individuals (or organizations with resources) are going to go through the process.
2. In many cases, raw or calculated data is fine for disseminators like Julia, as long as the data is trustworthy. What's most important to her is strong documentation so she can trust how data was collected because strong documentation/metadata is so rare, direct relationships are drawn on heavily to instill that trust.
3. Clearly communicating findings is just as important as being able to gather and analyze data.

Doug returns to his supervisor to discuss opening the “Report a Problem” data set and releasing it on a regular basis through the city’s open data portal.



1. Helping city staff understand the importance of transparency and open data, and its many potential use cases (which they might be unaware of) can lead to better quality data and simplified data sharing processes.
2. Having a point of contact in the city is one of the most important ways for securing information that is trustworthy.