



LEADERSHIP DEVELOPMENT THROUGH GRAPH DATABASES

Amity Foster & Natasha Ladhani

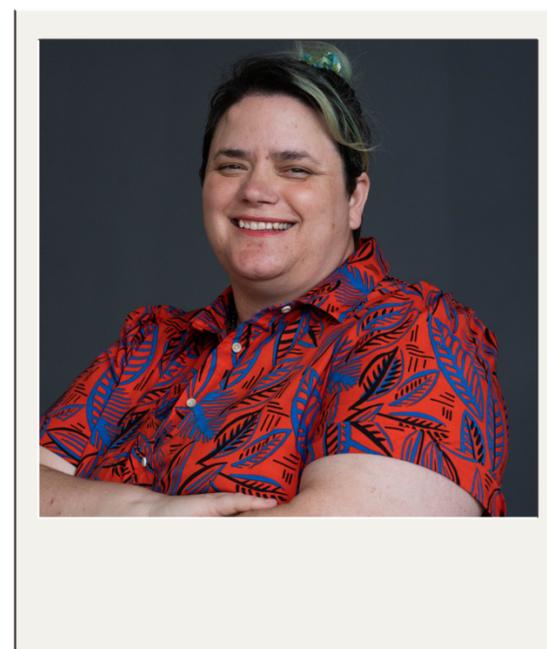


Data x Power

ABOUT US

- Natasha Ladhani
 - Data Manager at Faith in Action
 - she/her

- Amity Foster
 - Data Manager at ISAIAH
 - she/her



AGENDA

A walk through of our project from it's inception to our proposed solution for our organizations and the Progressive Movement

01

SCOPE OF
ISSUE

03

PROPOSED
SOLUTIONS

05

LEARNINGS

02

RESEARCH

04

CASE STUDY

06

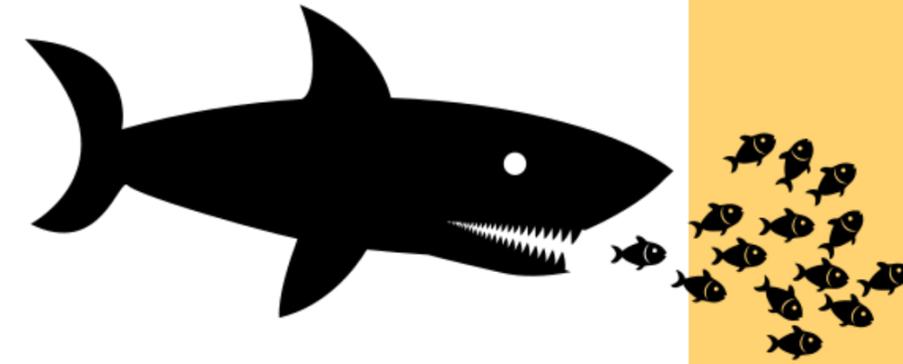
QUESTIONS



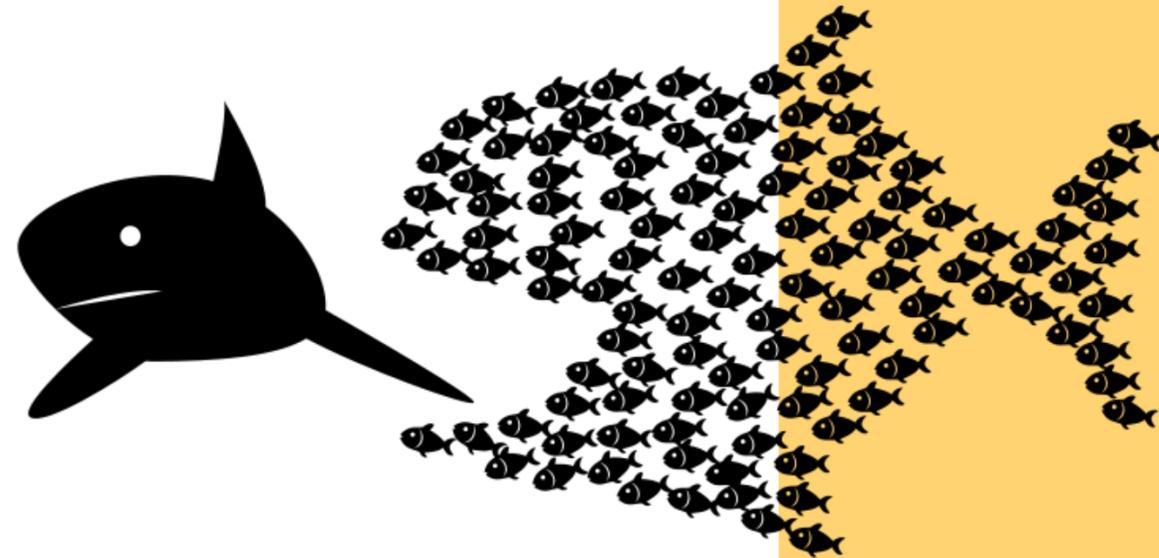
OF THE PROJECT

How do we know a leader's network? Who are their followers?

How do we visualize leadership development?



ORGANIZE!



DEFINITIONS

- Superleader: an individual member who's on a path; has an organizer, identifies as a public leader with ISAIAH. A Superleader is building a base of their own.
- Leader: an individual member who is involved with ISAIAH; shows up, identifies as a member of ISAIAH, or is learning more about the organization.
- Power: ability to make change





Me trying to explain my organizing network

WE RESEARCHED:

- EveryAction
- Mobilize
- Action Network
- Google sheets
- Building something completely new

OUR PRIORITIES:

- Integrated with existing systems
- Ability to scale up
- Leaders feel represented in the process

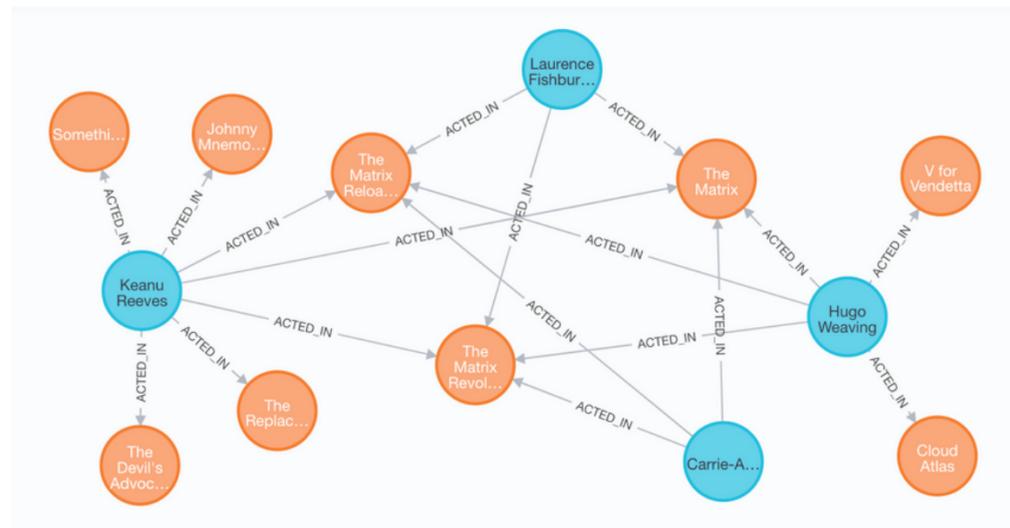
Graph Databases

THE TRUE "RELATIONAL" DATABASE

First introduced to us by WorkIt

Advantages

OF A GRAPH DATABASE



Structure

Built based on relationship between nodes. Nodes aren't strictly person to person or person to organization, but person to event to person, and the connecting lines are also the relationships and the weight of them. RDBMS operates differently.

Format

Displays data as a network of various nodes and relationships with unique and categorical property values

Basis

Using the platform of Neo4j and Cypher language

Advantages

OF EVERY ACTION



Familiarity

Organizers & leaders are familiar with the format of EveryAction; and how ISAIAH uses it. We already have a number of 'workarounds' with EA, and so the additional work required is easier to implement.



Former Use

ISAIAH has been using the tool for a number of years and already has a relationship with the vendor



Data Pipeline

There is an existing pipeline of this data on the back end to Civis where it can be exported in raw form





PROPOSED SOLUTION

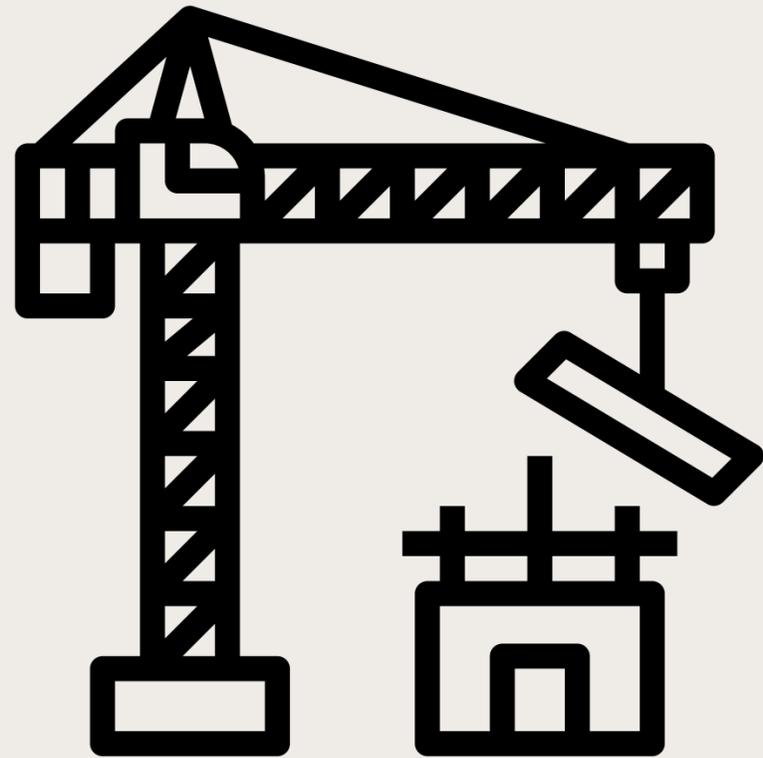
- Use Supporter Groups in EveryAction
- Collect a list of Organizers and the leaders they invited to events
- Load this data into a graph database

This solution can be built on top of any existing CRM - not just EveryAction

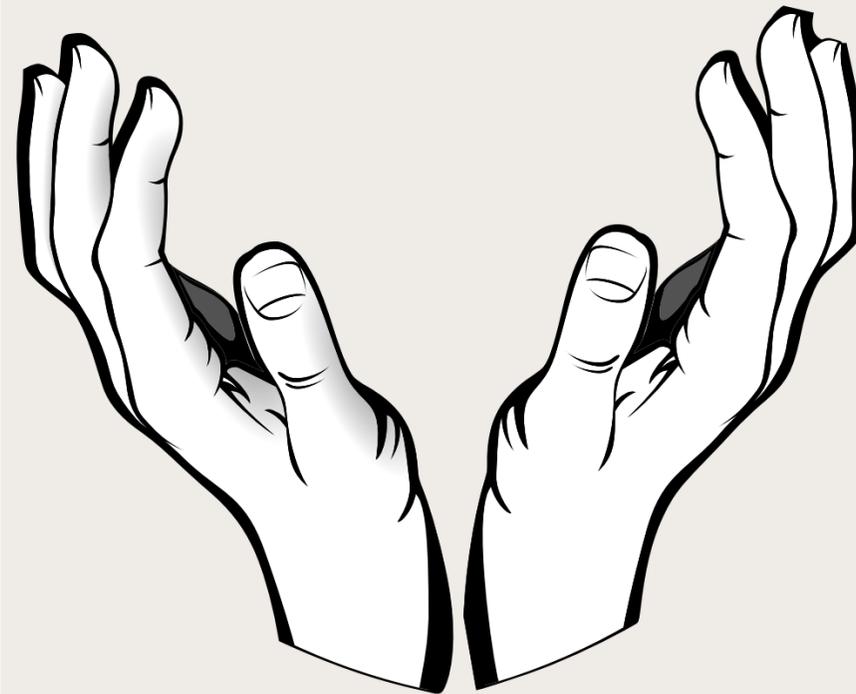


CASE STUDY

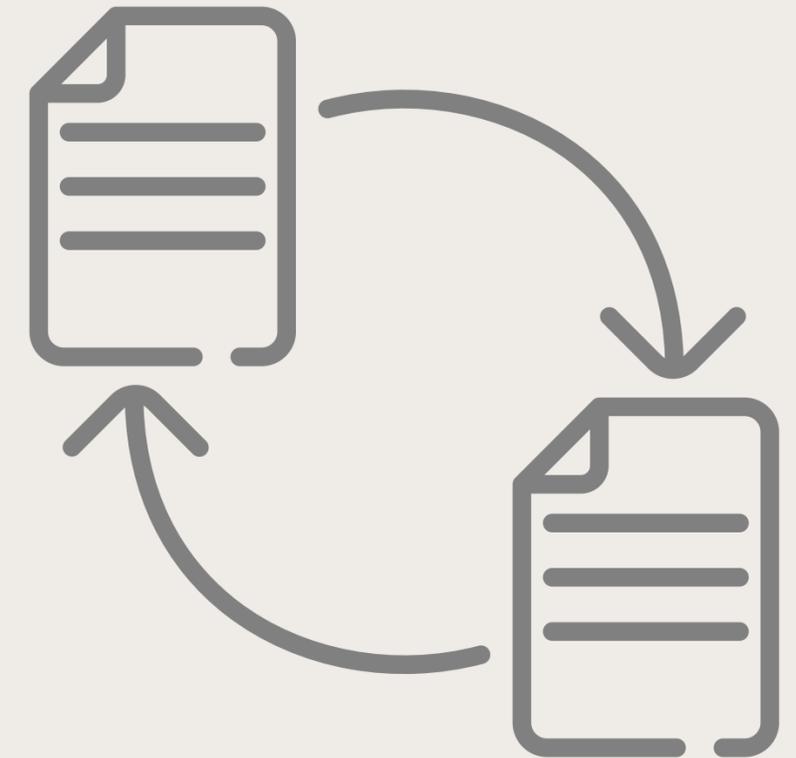
We tested out this proposed solution with ISAIAH data from the Fall of 2022



Build Systems



Collect Data



Transfer Data



BUILDING A GRAPH DATABASE

ACHIEVED A GRAPH
DATA SCIENCE
CERTIFICATION
FROM NEO4J



Learning Cypher

This is the query language used by Neo4j to create and manipulate data within the graph database

Creating a graph data model

Determining which nodes and relationships we would use in our graph database



SETTING UP THE FRONT END

LEARNED SQL
THROUGH RE:
POWER COURSE TO
FIND DATA IN CIVIS



Creating supporter groups

Each organizer was given their own supporter group so leaders can self select who invited them to an event

Training organizers and leaders

Using a dropdown menu allows for cleaner data collection; and integrates into an already existing data system: using event registration forms for the organizing work

THE FRONT END

Creating an event

Computer Registration My Voters Search for a contact...

Event Details

Name* DXP Training

Short Name* DXPT

Campaign

Date/Time From* 12/17/2022 1:00pm

Date/Time To* 12/17/2022 3:00pm (2 hours)

Time Zone (UTC-06:00) Central Time (US & Canada)

Internal Description Describe your event to internal users.

Make this event available on OpenVPB.

Online Signup Form

Collect signups for this event online by publishing an event form in Online Actions. The form will be published based on the specified template upon clicking Finish. If this event repeats, one form per occurrence will be published.

Publish Online Signup Form(s)

Event Signup Form Template Individual Supporter Group Sign...

Public-Facing Name*

Public-Facing Description* appear on published event

Default Template Individual Supporter Group Signup

Next Finish

Page 12 of 18

THE FRONT END

Self selecting a supporter group

DXP Training

LEADER MEETING

Saturday, December 17, 2022 1:00 PM - 3:00 PM CT

Take future action with a single click.
[Log in](#) or [Sign up](#) for *FastAction*



Contact Information

First Name

Amity

Last Name

Foster

Street Address (Optional)

Postal Code

City

State/Province

- State -

Email

email@email.com

Home Phone



Remember me so that I can use *FastAction* next time.

Who invited you to join? (Optional)

Tip: Search for the person's name here.

- Select -

|

Carol Dallman

Chris Schwebel

Christine Danielson

Christine Fenske

Claudia Gordon

THE BACK END

Looking up a leader's
network based on the
supporter group

The screenshot shows a web application interface with a blue header bar containing the text "EveryAction", "Voter Registration", and "My voters". Below the header is a vertical navigation menu with the following items: Relationships, Scores, Self-Reported Demographics, Social Media, Source File Sex, Stories, Supporter Groups (expanded), Suppressions, Survey Questions, Tags, Targeted Email Summaries, and Targeted Emails. Each item has a right-pointing chevron and a star icon. The "Supporter Groups" item is expanded, showing a search box with "ginn" entered and a dropdown menu with "Ginny DeLuca" selected. To the right of the navigation menu is a sidebar with a "Step 1: New" button, a "Suppressions" section with options like "exclude D...", "and includ...", "and includ...", "and exclud...", "and includ...", and "and includ...", a blue button, a "+" icon, a "+ A" button, and a "Running this" button. At the bottom right of the page, the text "Page 12 of 18" is visible.

THE BACK END

Using supporter groups allows an org to pull up the members of a leader's team

The screenshot shows a web application interface for managing supporter groups. The browser address bar displays the URL: `etsmartvan.com/SupporterGroupDetails.aspx?SupporterGroupID=EIDDF9H`. The navigation bar includes 'Voter Registration' and 'My Voters' tabs, along with a search bar and a notification icon showing '65'.

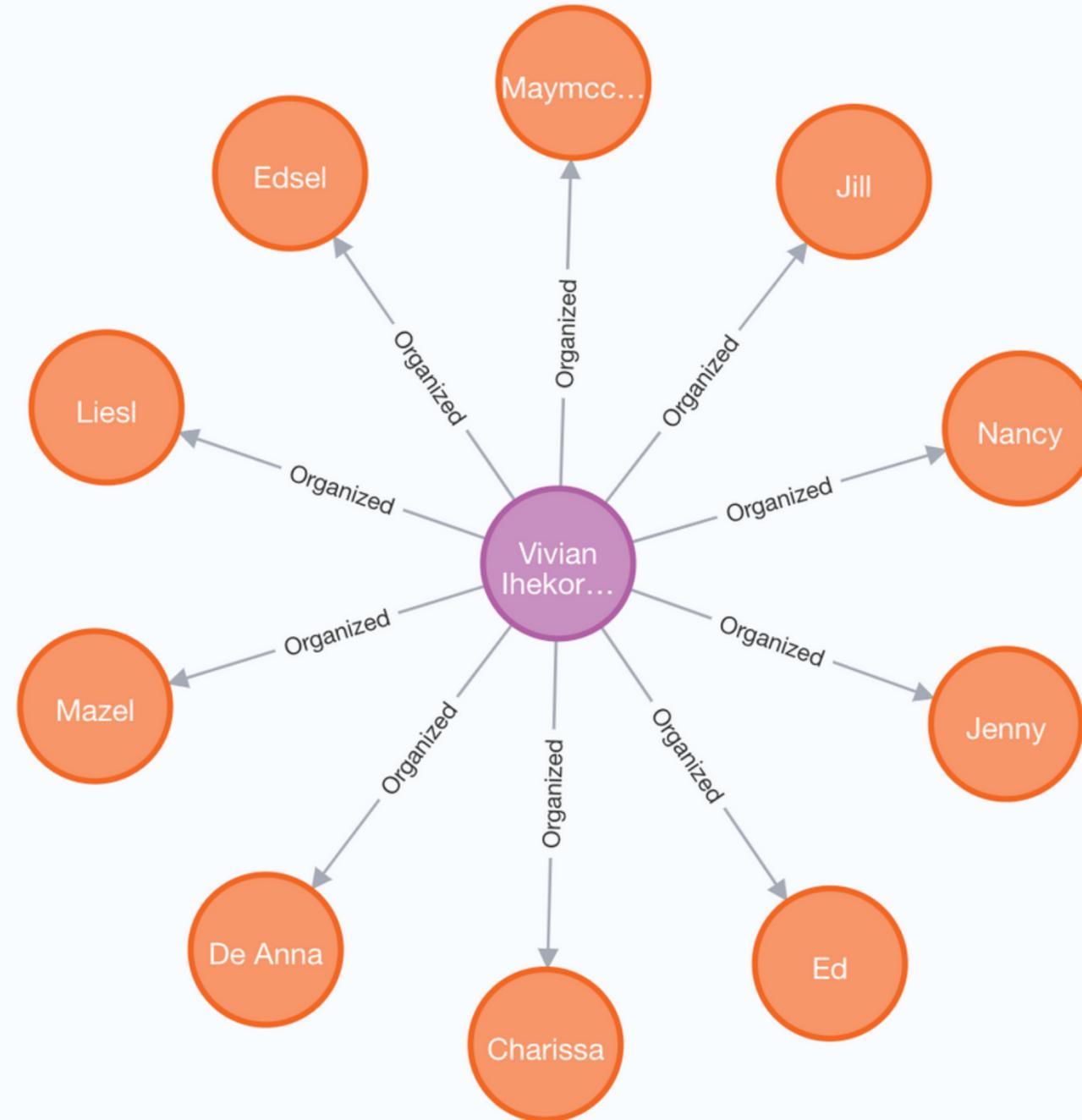
The main content area is divided into two sections:

- Supporter Group Details:** A form with a 'Supporter Group Name*' field containing 'Ginny DeLuca' and a 'Description' field. At the bottom right are buttons for 'Delete Supporter Group', 'Cancel', and 'Save'.
- Members:** A section for adding members. It includes a search bar for existing contacts and an 'Add a New Contact' link. Below this, it shows '0 members selected' and a dropdown menu for 'Select Member(s) to take action'. A table lists the current members with columns for selection, name, date added, last completed event, last completed event date, number of events completed, and next scheduled event.

<input type="checkbox"/>	Member Name	Date Added	Last Completed Event	Last Completed Event Date	# of Events Completed	Next Scheduled Ever
<input type="checkbox"/>	DeLuca, Ginny	7/15/22	Sept 8 2022 MN Electoral Strategy Session (STP)	9/8/22	2	
<input type="checkbox"/>	DuGarm, Katherine	7/22/22	Building Hope Together: Virtual ISAIAH/FIMN Listening Session (STP)	7/28/22	1	
<input type="checkbox"/>	Storbakken, Amy	8/10/22			0	
<input type="checkbox"/>	Stoessel, Stephanie	9/8/22	Sept 8 2022 MN Electoral Strategy Session (STP)	9/8/22	1	
<input type="checkbox"/>	Sinderbrand, Jake	8/23/22			0	
<input type="checkbox"/>	Sorenson, Gaye	7/28/22	Building Hope Together: Virtual ISAIAH/FIMN Listening Session (STP)	7/28/22	1	
<input type="checkbox"/>	DeLuca, Jim	10/22/22			0	
<input type="checkbox"/>	Rasmussen, Claire	8/14/22			0	

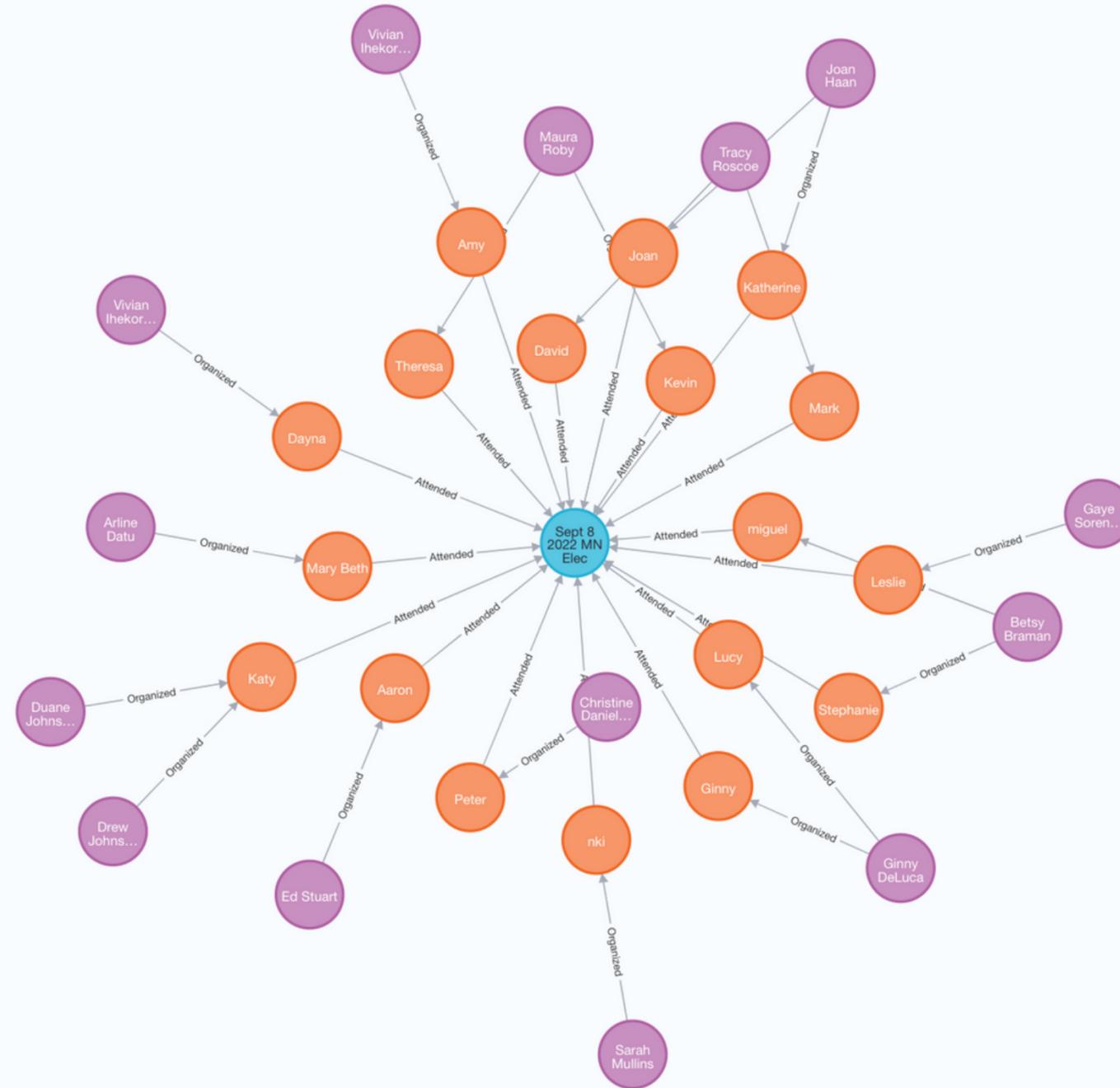
ONE ORGANIZER'S NETWORK

The Leaders an Organizer has worked with



ONE EVENT'S CONNECTIONS

The Leaders who attended a single Event and which Organizers invited them there





Power of Visual



Debrief Tool



Agitation Tool



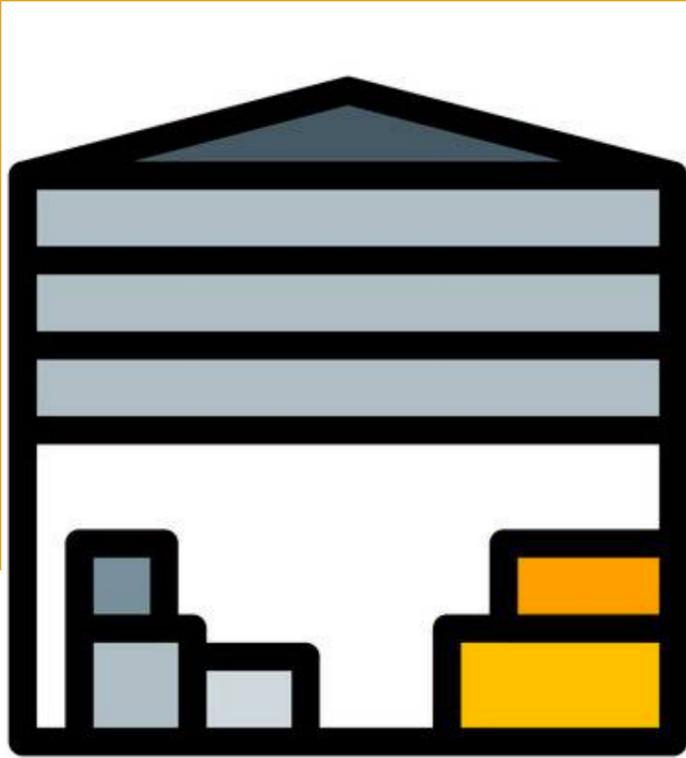
Celebration Tool

Learnings from an Organizer

One Organizer from ISAIAH reviewed the database and provided key insights on how this model would be helpful to her, other organizers, and leaders in the ISAIAH network

"TO BE IDENTIFIED AS SOMEONE A PERSON KNOWS IS THEIR POINT OF CONTACT IS ALSO IMPORTANT TO ME. THEY WILL BE SOMEONE WHOSE LEADERSHIP I'M GOING TO INVEST TIME IN DEVELOPING."

Ginny DeLuca, SuperLeader in St. Paul



Storage Matters



Form and Function



Visualization is
a Story



Data = Organizing

Overall Learnings

When we consider new processes and systems, we need to prioritize the organizing happening on the ground. When the focus of the work is leadership development and basebuilding, the interactions leaders have with data and data infrastructure can help move them forward or be a barrier.



THANK YOU!

ANY QUESTIONS?





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