

Identity Model with Matrices

AS: Individual Consolidated Model
LIS 2021: Identifying Information Needs

City of Pittsburgh Data Services Team
Data Governance and Health Status Checks

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My Role and Experience with Data

O1: Disoriented Data User No Data Management Resources

I am a data user. I use data to make decisions, including budgets, staffing levels, and assigning people to appropriate tasks. I run periodic reports. My department has inconsistent data management practices. I work with a lot of paper and with numerous digital data storage and records management systems.

I struggle to get the data I need to do my job. The department has reluctance to digitize records but it was never budgeted and there is no dedicated staff.

We are hiring two data-related personnel. One of these new employees may work part time on digitization and data management.

I fulfill right-to-know requests. I put the information and turn over the material to the lawyer in the law department who sends it out.

V1: Data Savvy Data User Not a Data Manager

I am a data user. I use data to identify and solve problems, determine staffing levels, and to record activity for administrative purposes.

I write programs to pull data straight from the source. I create automated programs to pull data that I use regularly.

Chiefs input the data that I use from paper to record management systems, and they manipulate, classify, and standardize it.

I am not a data manager. We do not have data keepers.

I fulfill right-to-know requests. I know what fields we cannot share. If a request is particularly tricky, I pass it through legal.

H1: Data Savvy Data User and Data Manager

I am a data manager. I handle all of the data that goes in and out of the department.

I create connected Excel spreadsheets to track policies and management (who is where and overtime), COVID symptoms (temp), etc.

We took a lot of garbage information and changed it so we have good data in and good data out. We used to have printed documentation and policies in every area but now everything is on SharePoint.

We cannot tell the boss what to do we recommend/denounce that meeting to electronic, with no more stacks of paper, is better, easier.

I am a data user. I use data to prove what is happening in the field and to justify training and field decisions.

I use payroll data, equipment data, and work event data.

I fulfill right-to-know requests.

M1.2: Data Savvy Data User and Manager Limited Resources

I am a data user. I use data to monitor the resources we manage and for billing.

1. The data I use are a day-to-day basis to keep the systems functioning safely and efficiently is digital.

2. I run the IT department. I use a database management system, the cloud, and third-party vendors for data management.

3. Data analysis message data as needed for government reporting.

4. No one is assigned the responsibility to maintain data inventories or to maintain queries to pull data. The problem with keeping open-to-data open data is that the queries would need to be updated with changes to database tables.

5. Data analysis priority tasks for government reporting.

6. I have not had right-to-know requests since I've been here, but we handle them. They would go through the legal department and then the data analysts would pull the data.

T1: Manager of Unstructured Data No Structured Data

I collect, preserve, and make accessible records for the public and employees.

I am a data manager. I manage text records, digitizing and sharing them with city employees and the public.

I digitize any record that is created and maintained and that is no longer active, but has continued use, for my department and other city departments.

I publish press releases about grants and publication announcements on Twitter and Instagram.

All of our text documents from 1988 to the present are typed and searchable. Prior to 1988, they are handwritten. It would take an army of transcribers to transcribe them.

Creating datasets for WFOIC publishing would take extensive information from the text. This would be valuable to historians. We would have to define what we are looking for and put it into a database. There is a lot of potential for new data.

I fulfill right-to-know requests. The documents in my department are meant to be public.

Z1: Data User

I am a data user. I look at data and analyze it to project not availability of workers and to analyze performance of employees. I work with the department to set policies and standards for data collection. I do not generate data.

I am in the process of formalizing documentation of data review, integrity, usefulness. I do not label data based on sensitivity because this process is for internal use and data on our systems are not at risk.

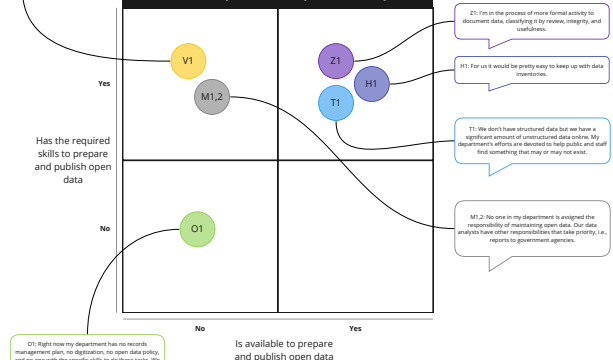
I am a data manager. I keep track of when we are with payments in Excel or in a database. This process is slow and cumbersome. I struggle with this process, and it is difficult to project accurately where the department stands financially.

I do not fulfill right-to-know requests. Legal spearheads this process and routes the requests to the appropriate people. I do not know who fulfills these requests.

Data Collection and Storage Tools

- Archive Space
- Automated Police Reporting System (APRS)
- Cartograph
- Compustats
- EnterpriseGIS
- Local drives
- Microsoft Office Suite
- OneDrive
- Paper
- PA Power Library (Polaroid)
- Rec Pro (records for shelters and bailiffs)
- RStudio
- Shared network drives
- SharePoint
- Sky Hook (automated vehicle location)
- SQL Server
- Other cloud and third party vendor software for collection and records management

Matrix A: Open Data Ability vs. Availability



I Like, I Think

O1: Good Data Management Practices

I think good data management practices are important.

- Digitization, less paper
- Consistent, shared storage
- Accessible data for use and sharing

I think we need standardized and documented processes.

V1: Accessible Data for Analysis

I like data that is easy to find and prepare for analysis and decision making.

H1: Standard Processes and Less Paper

Standardizing our data and data management has worked well for us simple standardization, less paper, more sharing.

M1.2: Common Data Classification Schema

I think the city needs a shared data classification schema, i.e., data inventory.

T1: Open Data and Consolidated Systems

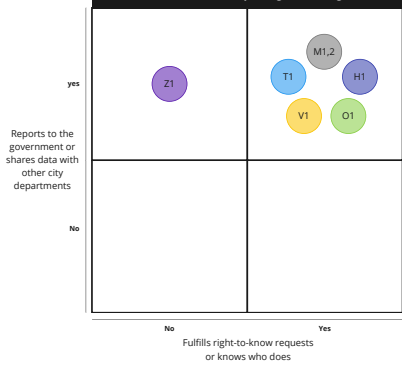
I think Pittsburgh might have more of our legislation history online than any other city. Our records from 1988 to present are searchable with a key word search available online.

Our department would function better if we took all of the overlapping systems and made one overarching system.

Z1: Accessible Data and Automated Systems

My department as a whole does a good job entering data into Cartograph. Next step would be to make it more manageable from an analytical perspective, make it easier to enter and clean data, and make it more automated.

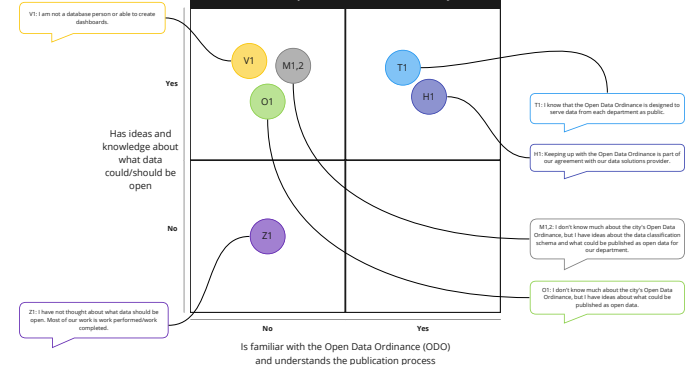
Matrix C: Data Reporting vs. Sharing



- #### Government Agency Reporting
- Bureau of Public Safety
 - Department of Environmental Protection (DEP)
 - Environmental Protection Agency (EPA)
 - Federal Bureau of Investigation (FBI)
 - Federal government grant status, work hours and deliverables
 - National Incident Based Reporting System (NIBRS)
 - National Fire Incident Reporting System (NFIRS)
 - Pittsburgh Water and Sewer Authority (PWSA)
 - Pennsylvania Public Utility Commission (PUC)
 - Unified Crime Reporting (UCR)

- #### Data Sharing Among City Departments
- The Bureau of Police share crash data with the Department of Mobility and Infrastructure (DOMI).
 - The Department of Public Works (DPW) shares records of actions with DOMI to verify documentation.
 - The Department of City Planning shares demographics and public opinion data with DPW.
 - DOMI shares transportation ridership, usage, and location of elements with DPW.
 - The Pittsburgh Water and Sewer Authority (PWSA) shares maintenance work with DOMI.
 - PWSA shares information about fire hydrants to the Bureau of Fire.

Matrix B: Open Data Ideas vs. Familiarity



- #### Data Stakeholders
- City Departments
 - Dispatchers
 - Engineers
 - Government agencies
 - Inspectors
 - Journalists
 - Public
 - Individuals
 - Students
 - Researchers
 - Public safety departments from other cities
 - Surveys
 - Third-party non-profit agencies (e.g., CIRA)

- #### Open Dataset Ideas
- Anonymous Bureau of Fire incident data
 - Bureau of Police arrest data, firearm seizures, non-traffic citations, use of force data
 - City Clerk structured data extracted from text
 - Documents
 - Emails
 - Spreadsheets
 - DOMI affirmed they had ideas without specifying details
 - PWSA anonymized customer data, customers on payment plans or at risk of being shut off
 - PWSA water flow data