As you get settled, answer the following two questions on a notecard in front of you.

- 1. What is "data literacy"?
- 2. How would you describe a "data literate" person?



# A Conversation About Data Literacy

Roundtable Discussion



## Your Facilitators





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- 1 Define "data literacy"
- 2 Identify shared challenges
- 3 Discuss potential solutions

## Data Literacy Definitions Share Common Themes

Thinking Critically → Turning Data into Knowledge → Taking Action

1

Just as literacy refers to "the ability to read for knowledge, write coherently and think critically about printed material", data-literacy is the ability to **consume for knowledge**, produce coherently and **think critically about data**. Data literacy includes statistical literacy but also understanding how to work with large data sets, how they were produced, how to connect various data sets and how to interpret them.

Gray Josepher, and Jiliana Bourgary. The Data Journalists Can interpret them.

Gray, Jonathan, Lucy Chambers, and Liliana Bounegru. The Data Journalism Handbook: How Journalists Can
Use Data to Improve the News. European Journalism Centre, 2012. https://datajournalism.com/.

2

The data-literate individual understands, explains, and documents the utility and limitations of data by becoming a **critical consumer of data**, controlling his/her personal data trail, **finding meaning in data**, and **taking action based on data**. The data-literate individual can identify, collect, evaluate, analyze, interpret, present, and protect data.

"Building Global Interest in Data Literacy: A Dialogue." Education Development Center, Inc., 2017. http://oceansofdata.org/sites/oceansofdata.org/files/ODI Data Literacy Report 0.pdf.

3

Using data wisely for decisions in schools is much more than gathering data and turning them into numbers. A process of **human interpretation and creating meaning** has to happen to **change data into information and ultimately into workable knowledge**.

Earl, Lorna, and Michael Fullan. "Using Data in Leadership for Learning." Cambridge Journal of Education33, no. 3 (2003): 383–94. https://doi.org/10.1080/0305764032000122023.

## What Makes a Person Data Literate?



### Five Skills Highlighted in Our Research

**FIND** 

1

#### **Data Location**

Find relevant data in an available system or display 2

#### EVALUATE

Data Comprehension

Understand what the data signify

3

#### Data Interpretation

Figure out what the data mean

4

### USE

## Question Posing

Formulate questions that will generate useful information

5

#### Data Use

Apply the data insights to decision making

## Define Data Literacy Group Discussion

- 1. What is "data literacy"?
- 2. How would you describe a "data literate" person?

## Common Challenges Associated with Data Literacy





#### Tackling resistance/distrust

- Teams, departments, and their cultures are built on tradition
- General resistance to change born from this alignment with "the way things are"
- Resistance may also come from distrust of data's sources, methodologies, etc.



#### **Overcoming insecurity**

According to one survey, just 24
 percent of business decision makers
 feel fully confident in their own
 ability to comprehend, work with,
 and apply data to arguments



#### Opening new data sets

- Democratization of data must be paired with corresponding governance
- Opening varying levels of access to data demands significant resources
- Extra pressure to vet data accuracy and methodologies applied to transformed data



#### **Breaking down silos**

- Often, data access sits with departments (e.g., IT, IR, or other business intelligence functions) which are isolated from decision makers
- Establishing systems and forums for knowledge sharing will be critical

## **Identify Shared Challenges**

### Table Discussions

- What challenges does your institution face in promoting data literacy, both in general and more specifically with APS?
- 2. Consider the skillsets of a data literate person – where do you see the biggest gaps at your institution? What are the causes for those gaps?
- 3. What initiatives have not found success in cultivating data literacy on your campus?

## Solutions to Consider in Cultivating Data Literacy

#### Provide Cross Training to Non-Technical Staff



Consider creating a Data 101 professional development workshop on your campus, to provide baseline training to those who need it most.

#### **Create Spaces for Collaborative Data Exploration**



Set aside time for each academic unit to review data alongside their peers and other campus experts.

#### Change Hiring Profiles Toward the Tech-Savvy



When hiring into open positions, consider adjusting language in job postings to include the use of data to drive decision making.

#### Designate a Leader as the Data Literacy Champion



Encourage a senior leader to act as the champion on campus for infusing data into conversations and promoting attendance at data literacy trainings.

#### Assess Individual Levels and Tailor Follow-up Plans



Utilize a data literacy assessment to better understand the current level of comfort for each of your staff, then align training to their specific needs.

## Discuss Potential Solutions Table Discussions

- 1. What initiatives have you found to be successful in cultivating data literacy on your campus?
- 2. What more specific actions are you taking to promote literacy in using APS?
- 3. How have you been able to identify "data literacy champions" and mitigate "data literacy doubters"? How have you leveraged these individuals?
- 4. How could we better support your efforts in building data literacy?





### **How to Move Forward with Promoting Data Literacy**

- 1. Look out for a summary document in your inbox that will recap primary takeaways and helpful resources from our conversation today.
- 2. Review the best practices outlined in our new toolkit *Eight Strategies to Engage Academic Leaders with APS Data*.
- 3. Commit to implementing at least one proposed solution in follow up to today. Report successes to your Dedicated Consultant and you might get profiled in our materials!



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