



 **TECHIMPACT®**

ADVANCED DATA

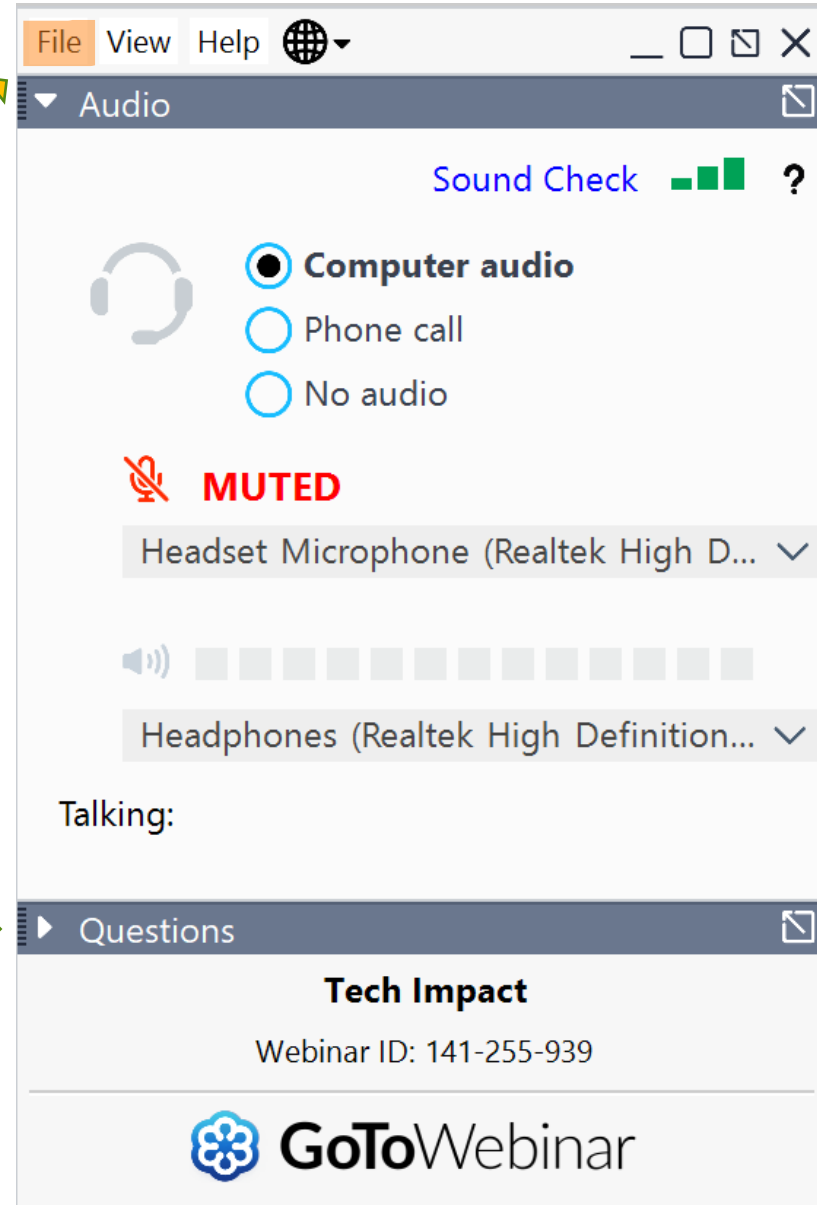
Data Quality

GOTOWEBINAR INTERFACE

If you cannot hear us speaking, go to:
File->Preference->Audio and check
your audio settings.

Type all comments/questions into the
"Questions" panel.

Your interface may display slightly differently.



The screenshot displays the GoToWebinar interface. At the top, there is a menu bar with 'File', 'View', and 'Help' options. Below the menu bar is a dark blue header for the 'Audio' panel. The audio settings include a 'Sound Check' button with a green bar graph and a question mark icon. There are three radio button options: 'Computer audio' (selected), 'Phone call', and 'No audio'. A red microphone icon with a slash through it and the word 'MUTED' in red text is visible. Below this, there are two dropdown menus for selecting audio devices: 'Headset Microphone (Realtek High D...)' and 'Headphones (Realtek High Definition...)' with a volume slider between them. The 'Talking:' section is currently empty. At the bottom of the interface is a dark blue header for the 'Questions' panel. Below this, the text 'Tech Impact' and 'Webinar ID: 141-255-939' is displayed. The GoToWebinar logo and name are at the bottom of the interface.

**OUR MISSION IS TO EMPOWER
COMMUNITIES AND
NONPROFITS TO USE
TECHNOLOGY TO BETTER
SERVE OUR WORLD.**



We do this by delivering tech services, education, and training that help nonprofits and communities thrive.



NONPROFIT TECH SERVICES:

- Managed IT Support
- Cloud Services
- Strategic Consulting
- Security & Compliance
- Data Support
- Application Selection
- Collaboration Strategy & Implementation



NONPROFIT EDUCATION & TRAINING:

- Reports
- Consumer Guides
- Assessments
- Workbooks & Articles
- Online Training
- Free Webinars

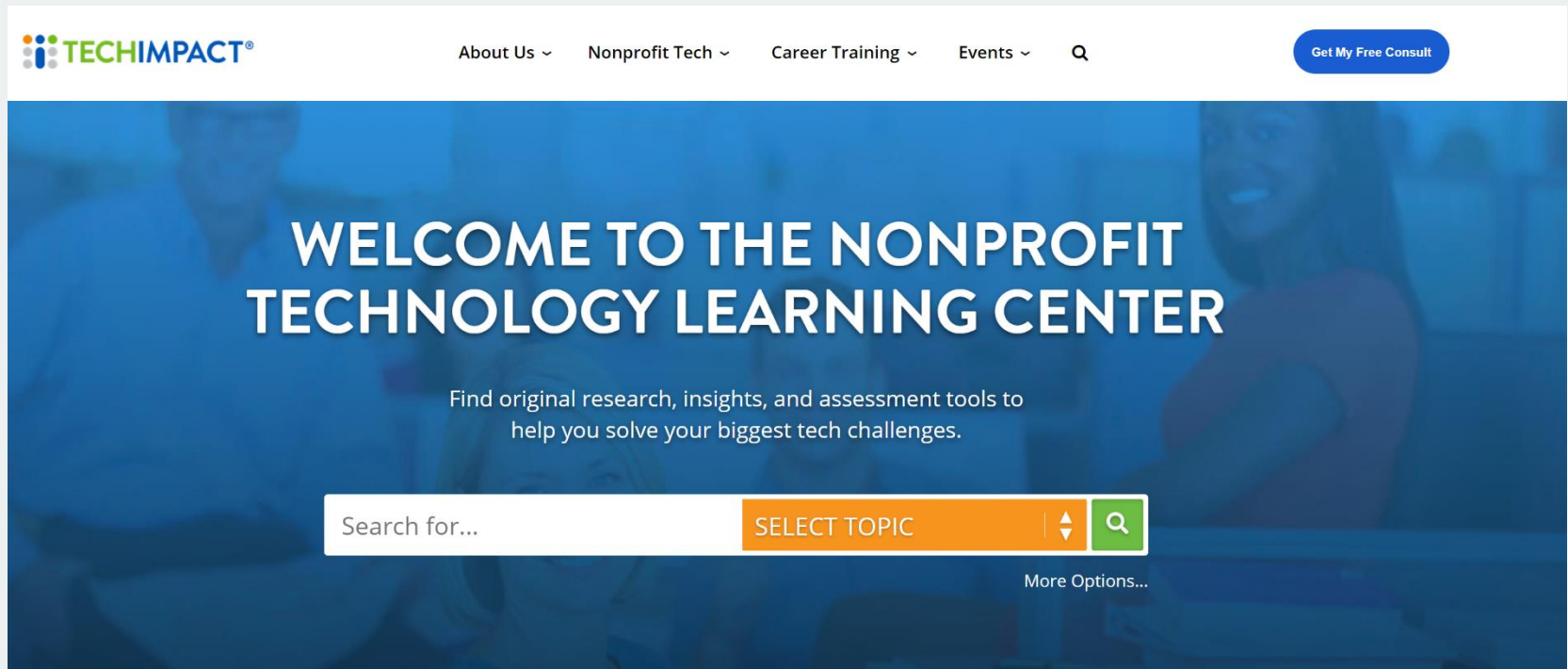


WORKFORCE DEVELOPMENT:

ITWorks & CXWorks: Free IT and Customer Experience training programs

PunchCode:
12-week immersive programming bootcamp

TECH IMPACT'S TECHNOLOGY LEARNING CENTER



The screenshot shows the homepage of the Tech Impact Technology Learning Center. At the top left is the Tech Impact logo, consisting of three colored dots (orange, green, blue) followed by the text "TECHIMPACT®". To the right of the logo are navigation links: "About Us", "Nonprofit Tech", "Career Training", and "Events", each with a downward arrow. Further right is a magnifying glass icon for search. On the far right is a blue button with white text that says "Get My Free Consult". The main content area has a blue background with a blurred image of people. In the center, the text "WELCOME TO THE NONPROFIT TECHNOLOGY LEARNING CENTER" is displayed in large, white, bold, uppercase letters. Below this, a smaller line of text reads "Find original research, insights, and assessment tools to help you solve your biggest tech challenges." At the bottom of the main area is a search bar with a white input field containing the text "Search for...", an orange button labeled "SELECT TOPIC", a dropdown arrow, and a green search button with a magnifying glass icon. Below the search bar is a link that says "More Options..."

www.techlearningcenter.org

Course Page:

<https://offers.techimpact.org/course-page-advanced-data>



Home Services ▾ Programs ▾ Resources ▾ Conference ▾ About ▾ Contact

Course Page

Course Page - Advanced Data

Please bookmark this Course Page. It will be consistently updated with the information you need to access the webinars, slide decks, and recordings.

Thank you for joining us for this course.

Important Information:

- GoTo Webinar is our webinar platform. You will receive email reminders with login information for each session, or you can find the links on this page.
- **Every session will be recorded and available to individuals who have registered for the course.**
- Add training@techimpact.org to your contacts to ensure meeting details do not get caught in your spam folder.

Session 1:

You can access the webinar [here](#).

After the session, you can view a recording of the session [here](#).

After the session, you can download the slides for the seminar [here](#).

Accidental Techie Schedule

This course takes place over three sessions on the following dates:

- **Thursday, November 5, 1-2:30 PM EST**
- **Thursday, November 12, 1-2:30 PM EST**
- **Thursday, November 19, 1-2:30 PM EST**



LEE BRODERICK

Senior Consultant/Project Manager

I work with non-profit organizations to improve their use of data, define data requirements and develop strategic technology plans. I am skilled in Salesforce admin and development and in Data Exploration, helping partners to better articulate their outcomes through the use of data visualization tools such as Power BI.

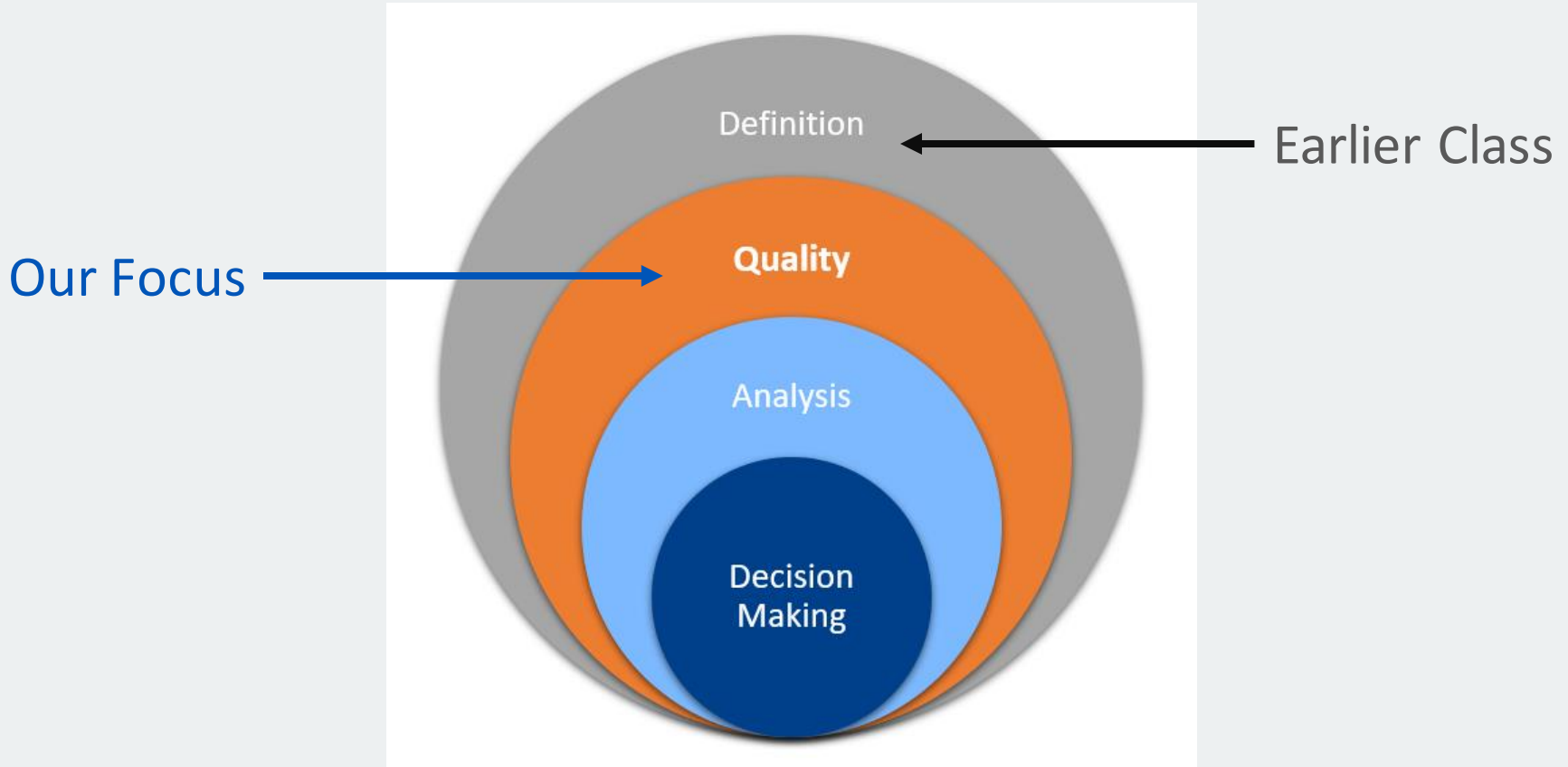
AGENDA

1. Course Sessions & Goals
2. Data for Beginners Recap
3. Data Quality and Impact
4. Dirty Data: What Is It & How to Fix It



COURSE SESSIONS & GOALS

ADVANCED DATA COURSE SESSIONS



Session 1: Data Quality

Session 2: Data Analysis/Visualization

Session 3: Data Driven Decision Making

LEARNING GOALS FOR SESSION 1

Lay the foundation for
the remaining sessions.

Teach you how to
prepare your data.



TO THE POLLS!

Did you attend Tech Impact's Data for Beginner's course in May, 2020?

- Yes
- No





DATA FOR BEGINNERS RECAP

DATA FOR BEGINNERS RECAP



Asking the
Right
Questions

Hunting
Down the
Data

Making Use
of Your
Data

ASK THE RIGHT QUESTIONS

How can Data help you?

- Identify tactics to use
- Track implementation
- Track impact
- Serve as a warning system
- Demonstrate success
- Comply with funder or legal requirements





HUNTING DOWN THE DATA

What are your existing data sources?

What type of data is in these sources?

Have you done this inventory?

Where does your program data sit?



MAKING USE OF THE DATA

Creating and using metrics

Focusing on outcomes

Getting buy in from your organization

LET'S CHAT

What are your data sources?





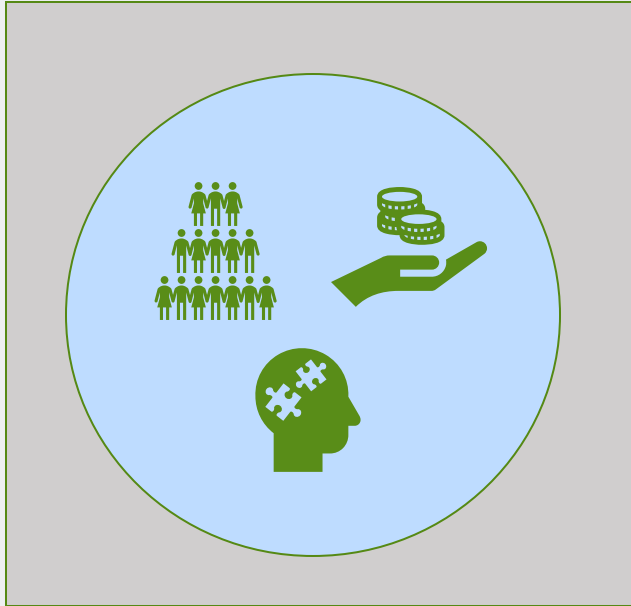
DATA QUALITY AND IMPACT



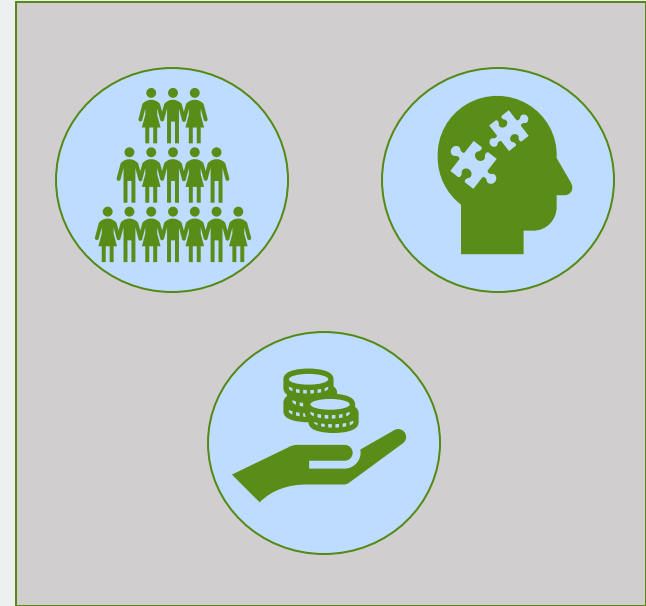
DATA QUALITY

Data Quality impacts not only the data within a specific system but also the ability to combine data from different systems and data migration to new systems.

WHAT IS YOUR DATA ARCHITECTURE?



Centralized - CRM,
Donor Data, Program
Data in one system?



"Best of Breed" -
Different databases
housing different data

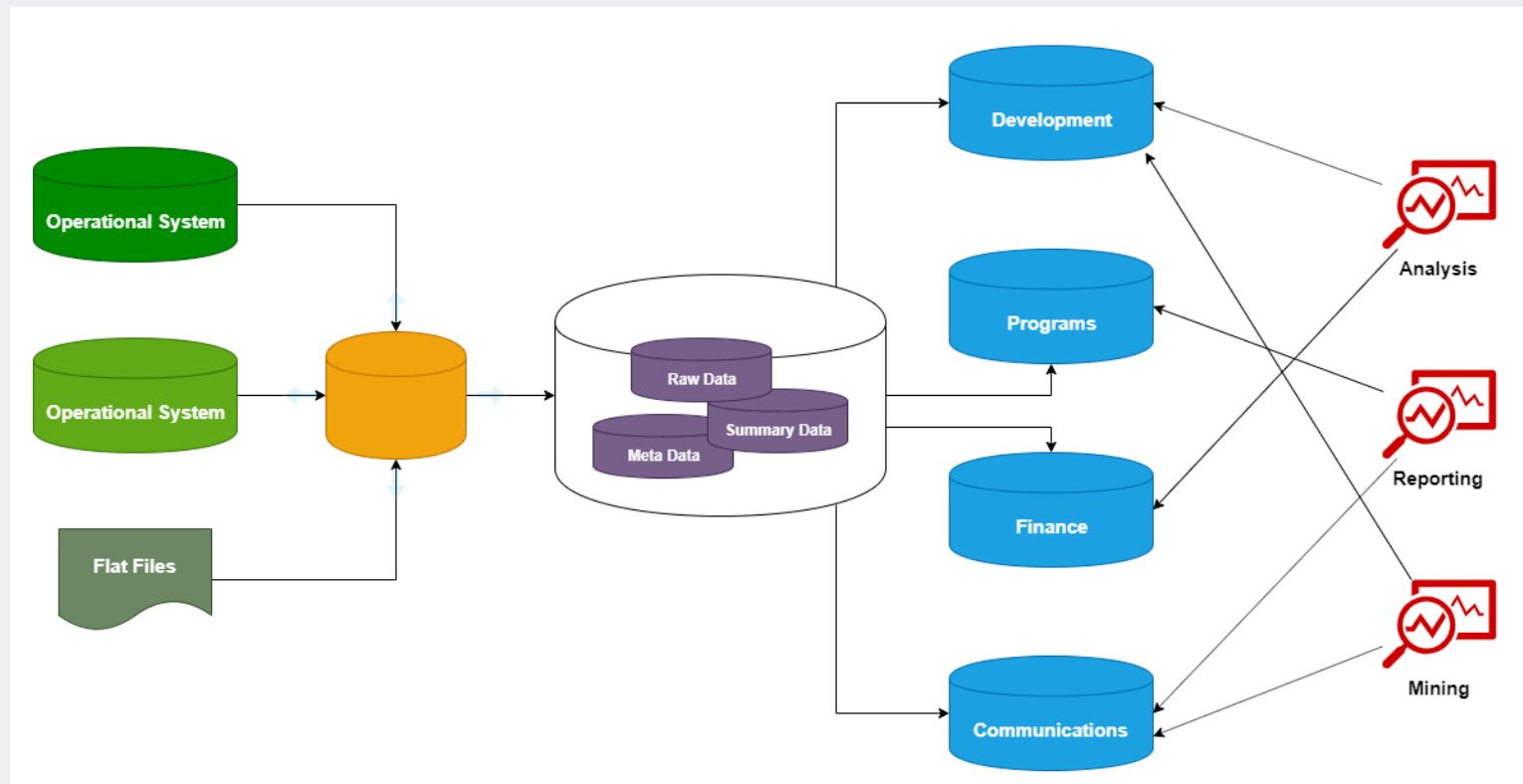
TO THE POLLS!

What is your current data architecture?

- Centralized
- “Best of Breed” (different databases)
- Excel
- Other



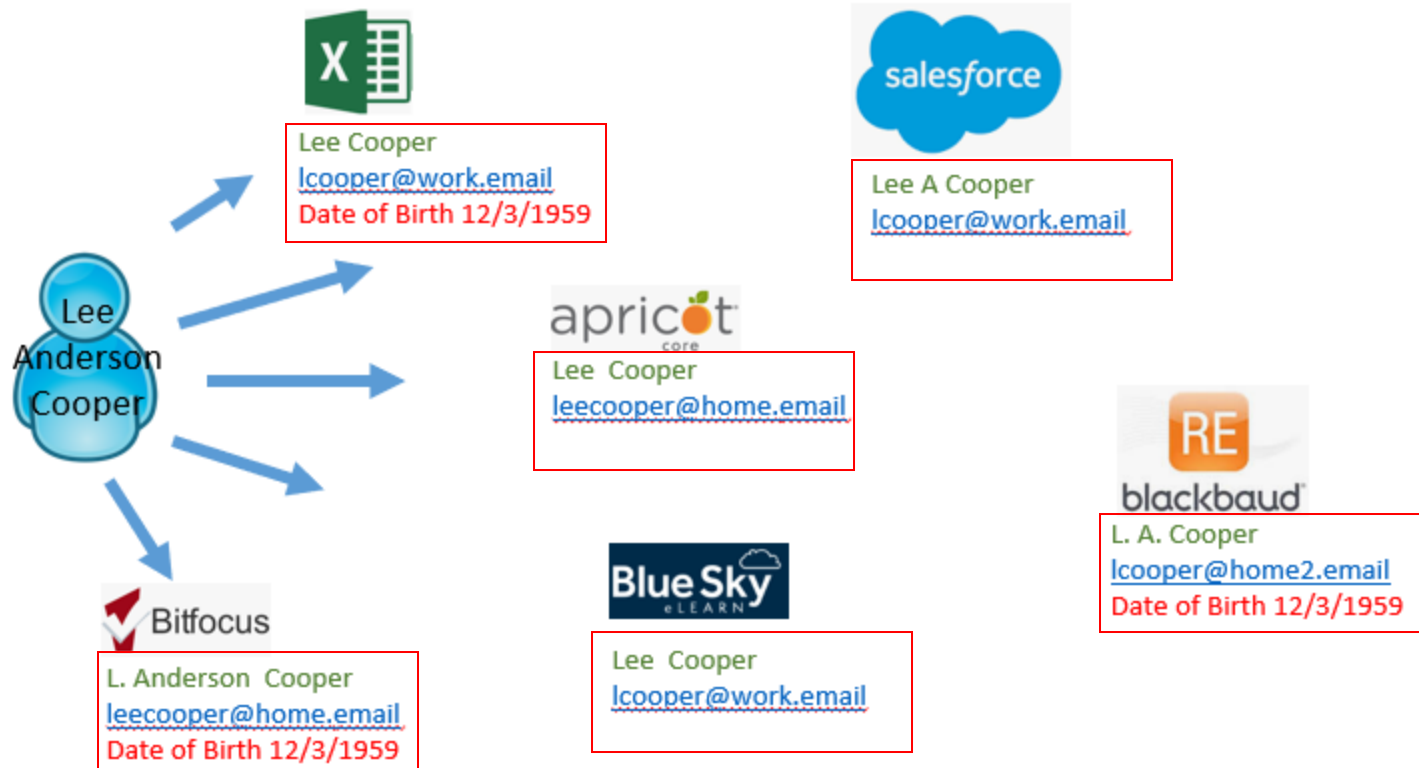
DATA WAREHOUSING



Wikipedia definition "central repositories of integrated data from one or more disparate sources. They store current and historical data in one single place that are used for creating analytical reports"

WHEN YOU ARE COMBINING DATA...

How do you match the person to their data?



There has to be a way to correlate data from one system to another - a client ID, unique First-Last Names, DOB or Email.

WHAT IS THE COMMON THREAD?



They should be built upon high quality data!



DIRTY DATA: WHAT IS IT & HOW TO FIX IT

DATA QUALITY BEGINS WITH CLEAN DATA





BENEFITS OF DATA CLEANING

Removes errors

Promotes consistency

More efficient & accurate analysis

Accurate grant reporting and outcomes

Easier/less expensive data migration

INDICATIONS OF “MESSY DATA”

Sending a duplicate Acknowledgement Letter or sending it to the wrong address.

Participant counts don't seem right.

A lot of manual work is done "fixing" the data in Excel.



LET'S CHAT

What are other examples of messy data indicators?





WHAT MAKES DATA DIRTY?

Formatted Incorrectly


Incomplete

Incorrect


Duplicates

EXAMPLE: INCORRECTLY FORMATTED

Name	Address	DOB
Harry Potter	4 Privet Drive, Little Whinging, SURREY	July 31st, 1980



First Name	Last Name	Street Address	City	State	DOB
Harry	Potter	4 Privet Drive	Little Whinging	SURREY	31-Jul-80



EXAMPLE: INCOMPLETE

First Name	Last Name	Street Address	City	State	Postal Code	DOB
Harry	Potter	4 Privet Drive	Little Whinging	SURREY		31-Jul-80

EXAMPLE: INCORRECT

First Name	Last Name	Street Address	City	State	Postal Code	DOB
Harry	Potter	4 Privet Drive	Little Whinging	TX	75001	31-Jul-80

EXAMPLE: DUPLICATES

RECORDS	PAIR VIEW	ORGANIZATION NAME	BILLING CITY	PHONE	
<input type="checkbox"/>		Association Of Corporate Counsel	Washington	2022934103	
<input type="checkbox"/>		Association Of Corporate Counsel	Washington	2022934103	
<input type="checkbox"/>		Acc Foundation	Washington	2022934103	
▼ 155	75%	100%	88%	2	3

RECORDS	PAIR VIEW	ORGANIZATION NAME	BILLING CITY	PHONE	
<input type="checkbox"/>		Techsoup	Gaston	(415) 633-9300	
<input type="checkbox"/>		Techsoup Global	San Francisco		
<input type="checkbox"/>		techsoup global	San Francisco	(415) 633-9300	
▼ 151	75%	100%	88%	2	3

RECORDS	PAIR VIEW	ORGANIZATION NAME	BILLING CITY	PHONE
<input type="checkbox"/>		Pennsylvania Association of Nonprofit Organizations - PANO	Harrisburg	(717) 236-8584
<input type="checkbox"/>		Pennsylvania Association of Nonprofit Organizations	Harrisburg	(717) 236-8584
<input type="checkbox"/>		Pennsylvania Association of Nonprofit Organizations		

TO THE POLLS!

Which are your biggest data cleanliness issues?
(Choose all that apply)

- Duplicates
- Formatting
- Incomplete Data
- Incorrect Data
- Other





A CLEANING REGIMEN

Data Entry Practices

Utilize Available Tools

Monitor & Report on Errors

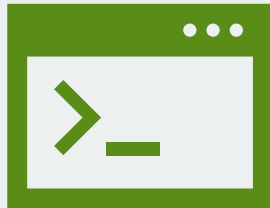
De-duplication

A CLEANING REGIMEN - Before & After

PREVENTION



Data Entry Practices



Utilize Available Tools

Before being saved in the database

REMEDIATION



Monitor & Report on Errors



De-duplication

After being saved in the database

DATA ENTRY PRACTICES

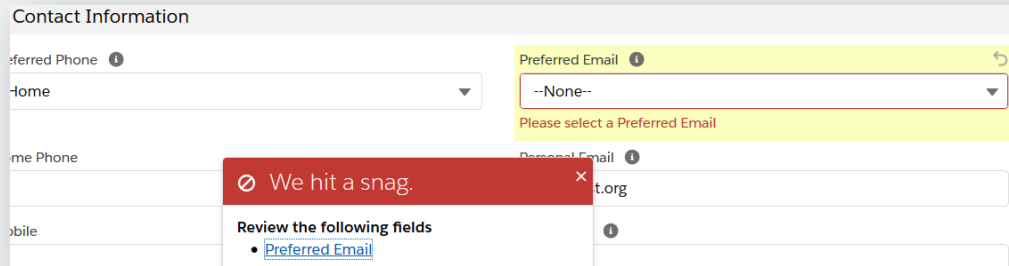


- ✓ Dates are entered as MM/DD/YYYY - Be consistent!
- ✓ Only one name in a First Name field (don't put John & Susan)
- ✓ Street address is all that is entered in the street field. Use city, state and zip code fields.
- ✓ Check for duplicates before entering data

Design others that may be unique to your Organization!

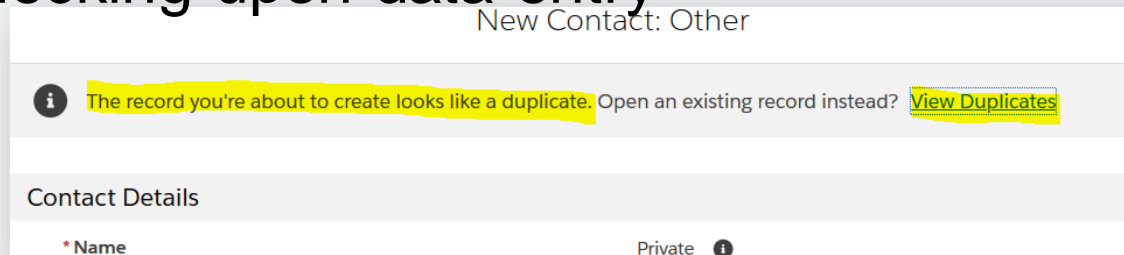
UTILIZE AVAILABLE TOOLS

Use validation rules or specific formatting to enforce data entry practices



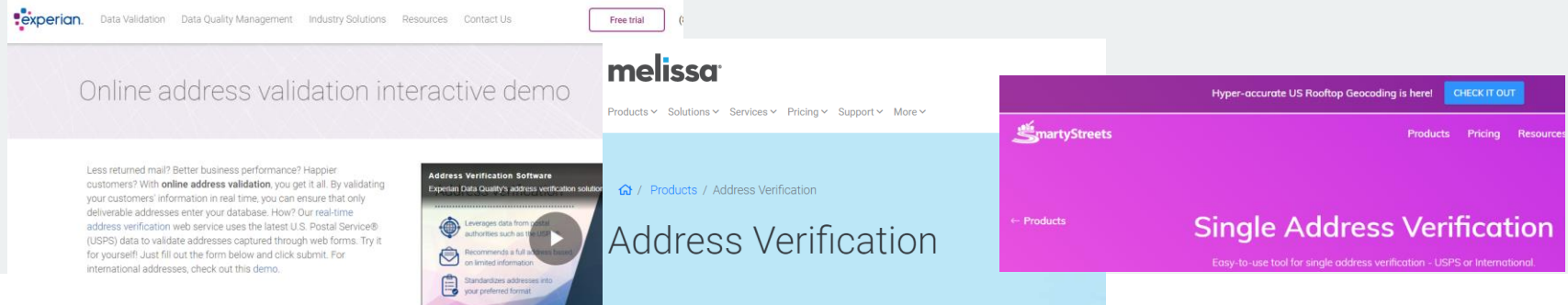
A screenshot of a contact form titled "Contact Information". The form includes fields for "Preferred Phone", "Home", "Work", "Mobile", "Preferred Email", and "Personal Email". The "Preferred Email" dropdown menu is open, showing "--None--" and a message "Please select a Preferred Email". A red error message box is overlaid on the form, stating "We hit a snag." and "Review the following fields" with a bullet point for "Preferred Email".

Duplicate checking upon data entry



A screenshot of a "New Contact: Other" form. A yellow warning message is displayed: "The record you're about to create looks like a duplicate. Open an existing record instead? View Duplicates". Below the message is a "Contact Details" section with a "Name" field and a "Private" toggle.

Use available address validation tools.



A collage of three website screenshots for address validation tools. The top left is the Experian website with a "Free trial" button. The middle is the Melissa website with a "Address Verification" section. The bottom right is the SmartyStreets website with a "Single Address Verification" section.

PREVENTION

MONITOR & REPORT ON ERRORS

Create data quality reports in your database

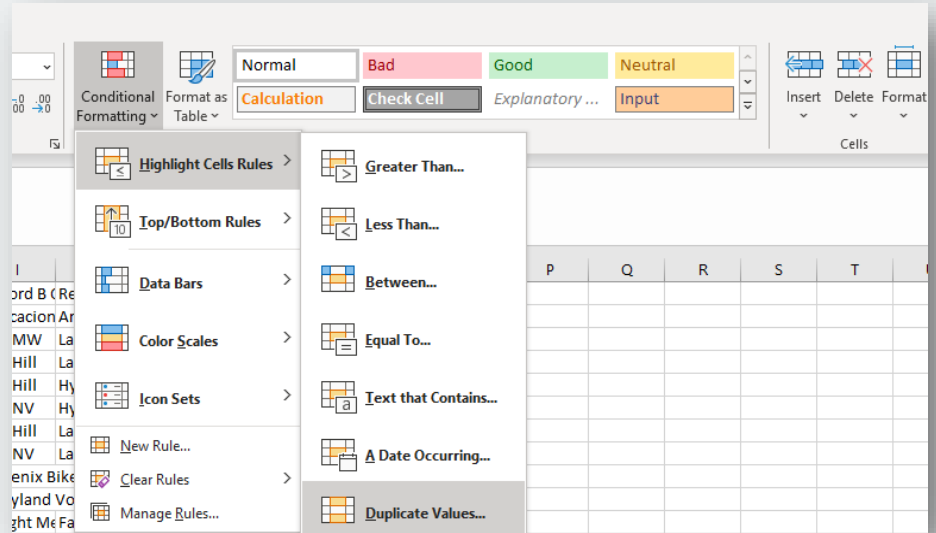
Highlight records/users who didn't enter certain data

> Data Quality	
Name	Description
Contacts w/No DOB or Zip Last Wk	Contacts created last week that have no Date of Birth or Zipcode
Open Calls by <u>Counselor</u>-No Zip or DOB	See name

Use PowerBI to monitor the data

DE-DUPLICATION

Excel can be used



Depending on the database, there may be other tools available

SCENARIOS RECORD TYPES ORGANIZATION SETTINGS RESULT FIELDS MERGE RULES DIRECT CROSS OBJECT SEARCH INDEX PREDEFINED FILTERS

Configure Scenarios

FIELDS	FREQUENT WORDS	MATCHING METHOD	WEIGHTING
Phone	None	Exact	10
Organization Name	Company	Company Name	50
Billing City	None	Exact	20

Add New Field

DUPLICATE TOOL OUTPUT

RECORDS	PAIR VIEW	ORGANIZATION NAME	BILLING CITY	PHONE	
<input type="checkbox"/>		Association Of Corporate Counsel	Washington	2022934103	
<input type="checkbox"/>		Association Of Corporate Counsel	Washington	2022934103	
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<input type="checkbox"/>		Pennsylvania Association of Nonprofit Organizations	Harrisburg	(717) 236-8584
<input type="checkbox"/>		Pennsylvania Association of Nonprofit Organizations		

TO THE POLLS!

Which of these practices are easiest to implement at your organization?

- Creating Data Entry Practices
- Using Available Tools
- Improving Data Quality Reporting
- Creating a De-Duplication Process
- Other



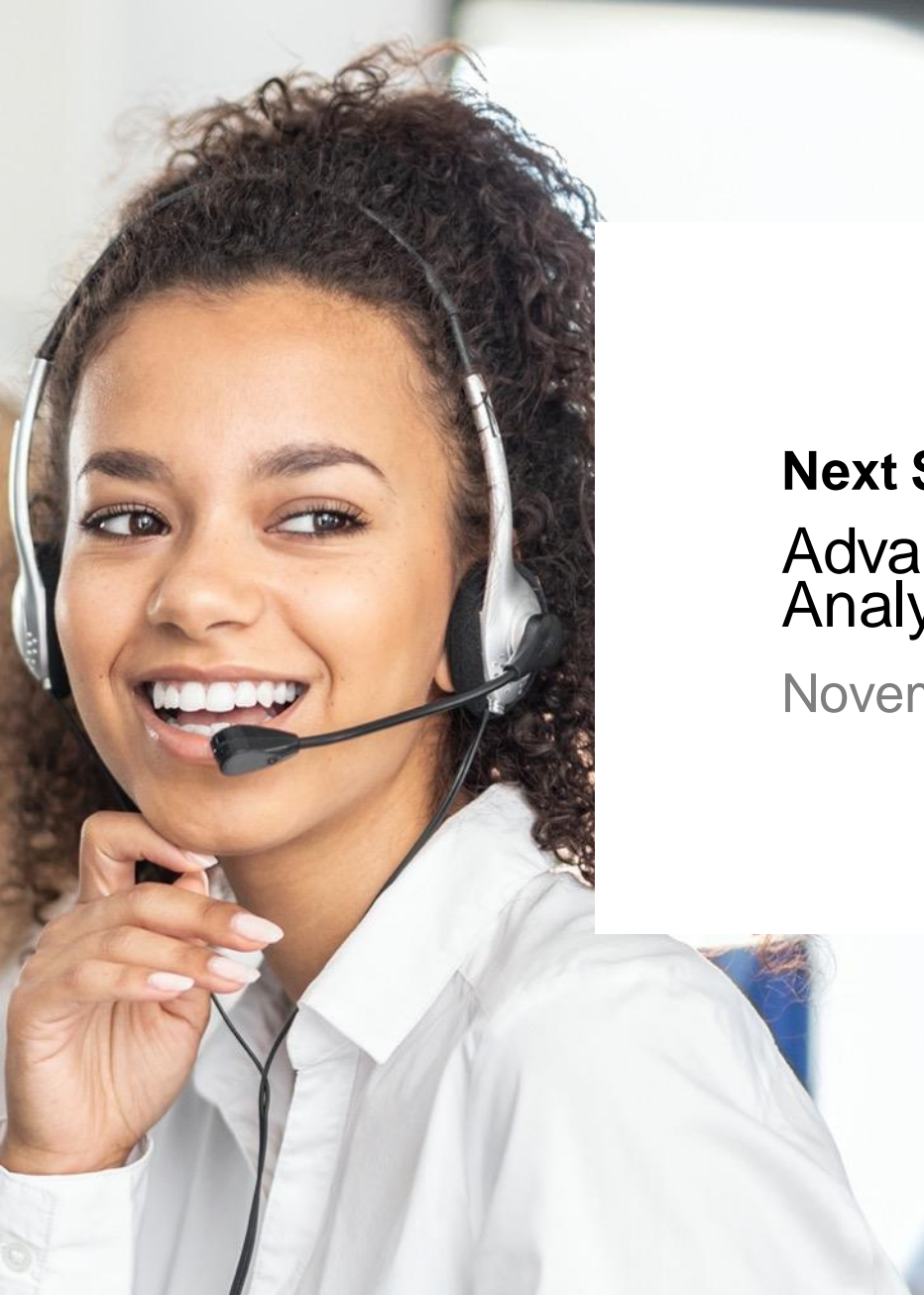
DATA QUALITY IS *EVERYONE'S* RESPONSIBILITY





HOMEWORK

Identify and bring 1-2 datasets that are simple and clean and has data that is important for you to analyze to Session 2.



Next Session

**Advanced Data: Session 2: Data
Analysis and Data Visualization**

November 12, 2020, 1-2:30pm Eastern



THANK YOU

[TECHIMPACT.ORG](https://techimpact.org)