CITIZENSHIP

What Do You Know About Data?

By **Media What**

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Lesson Overview_

What is data and how does data impact our everyday life? Who is our data valuable to? Technology helps us in lots of ways and promises to improve human life through new developments and technology solutions. This lesson is focused on teaching students how to recognize data production, collection and analysis based on simple processes. Students will share how much they know about data, explore how it impacts their lives, and identify the ways in which our data environments have created and perpetuated marginalizations and inequalities. At the end of the lesson, students will reflect on how knowing this information helps us navigate the data world.

This lesson was developed as part of the POWER project (Portraits Of Women's Empowered Representations), which was funded by the US Embassy Cyprus.

Lesson Objectives_

- To provide a basic understanding of technology, what it is, and how it impacts our lives
- To identify what types of data we encounter every day
- To develop a description of data
- To understand how data may cause or perpetuate social inequalities
- To nurture data literacy and critical thinking

Learning Outcomes_

By the end of this lesson, participants will be able to:

- Think critically and evaluate the ways in which data influences and impacts their lives
- Describe and discuss what data is and how and where it is produced and collected
- Understand how and for whom their data is valuable to
- Reflect on their own data practices
- Recognize the inequalities embedded within data collection processes

Vocabulary_

Data = Pieces of information. Data can be facts, interests, behaviours, details, or statistics collected for analysis by technology.

Data Body = Parts of our whole selves that are collected, stored in databases, and other spaces of digital spaces and used to make decisions or determinations about us.

Database = A collection of data. Today most databases are digital, and storage and access to their collection of information about people or things can be done online.

Marginalized = Marginalized people are those kept from meaningful and dignified participation in society.

Inequality = Prolonged unequal or unjust treatment or control; cruel or unjust distribution of resources and opportunities among people part of a society.

Privacy / Data Privacy = A human right that respects the right of people, including their data, to be left alone or kept to themselves. Privacy is also considered to be socially, culturally, and historically defined, meaning that data sharing practices might be accepted more broadly from one group but not at all from another.

Technology = Use of science to create tools, specifically computer and internet technologies

Popcorn Discussion Style: The purpose of the popcorn discussion is to hear multiple ideas from as many different voices as possible. One person will "pop" out by raising their hand and share a quick response to a question. When finished, the speaker puts their hand down which is the signal for the next person who wishes to "pop". Each response should be very brief.

Lesson Outline_

SLIDES	Lesson Plan Instructions	Duration
BEGIN by going over what this lesson will cover (Slides 2-3). Each section is broken down so students have a mental map of the goals of the lesson.		
What is technology? [Duration: 20']		
#4-5	ASK What is technology? What types of technology do you use every day? Which types use the internet? PROMPT them to consider in pairs: ● What experiences does it make you think about? ● What are some ways "technology" shows up in your life? REPORT BACK Ask each pair to report back one or two things that came up during their conversations. Chart what they have come up with on a large piece of paper or on a board for the group to review.	10'
#6-7	EXPLAIN Technology helps us in lots of ways and tech companies have promised to improve human life through their inventions. However, tech companies have created a process to profit off of our data, data they collect through their inventions.	10'

	ASK In pairs, have students respond to "What are some tech companies that you know?" and jot down all the different companies they can think of.	
What is data? [Duration: 18']		
#7-11	EXPLAIN the formal definition of data: "Pieces of information. Data can be facts, interests, behaviours, details, or statistics collected for analysis by technology." PROMPT Work in pairs to answer: If someone wanted to track you down or learn about your life, how would they do it?" ASK students to brainstorm their suggestions using the popcorn discussion style: If someone wanted to track you down or learn about your life, how would they do it? What types of data would they use? Possible Answers ● "I used YouTube and it needed me to sign in with my email." ● "My friend used Instagram and it had to share their date of birth and name." ● "I used Google and it collected my location." REFER Data and how we use or understand it is multifaceted, as we can see from the visual we generated at the first part of our discussion.	15'
	REVIEW the types of personal data synthesising what you've discussed and explain 'data privacy': A human right that respects the right of people, including their data, to be left alone or kept to themselves. Privacy is also considered to be socially, culturally, and historically defined, meaning that data sharing practices might be accepted more broadly from one group but not at all from another.	3'
What is not data? [Duration: 25']		
#12-13	PROMPT "Now that we have defined what data is, it's important to know what data is not." Compare with the definition of data. EXPLAIN Data is not all digital: "Not all data that is collected is in the digital form. Just like we noted earlier, data can take many forms including: gossip, DNA, conversations we have, and our past history."	17'
#14-16	EXPLAIN how inequalities and marginalizations are perpetuated through data processes. Data inequality is a relatively recent term that emerges from the expansive scholarship on digital inequalities. Jonathan Cinnamon has identified three dimensions along which data-specific inequalities (data inequalities) have emerged: access to data, representation of the world as data, and control over data flows.	

	INVITE students to try and compare Wikipedia pages for their hometown with that of New York City or London. ASK What is different in the two pages? Why do you think that is the case? How do you think we can change this? The aim of this activity is to illustrate that though they may be able to find what they are looking for on Wikipedia, the information on New York City and London will be much more because they represent big cities that are very influential to the global economy. In contrast, their hometown is possibly not that significant in the wider spectrum. Use this opportunity to encourage students to always reflect on the values and reasons behind the information collection, visualization and sharing of data.	
#17	ASK students to brainstorm what types of data may be added to their hometown's Wikipedia page to enrich it. Possible answers: population, sightseeing, entertainment venues, cafés, shop streets, religious spaces, etc.	8'
Reflecting on data [Duration: 12']		
#18-20	EXPLAIN the importance of recognizing where your data is produced and collected. This is called being digitally aware. The way this is learned is through processes such as critical thinking, similar to what we are doing today. FINAL REFLECTION ● Thinking about what information is collected about you, how do you feel? ● Did you consider what information you were exchanging before you got to this class? ● What has changed hearing others' stories?	12'

Additional Resources_

Wikipedia pages for London and New York City:
https://en.wikipedia.org/wiki/London
https://en.wikipedia.org/wiki/New_York_City

Privacy Badger: https://privacybadger.org

Disconnect: https://disconnect.me/disconnect

Visualizing the Uncertainty in Data https://flowingdata.com/2018/01/08/visualizing-the-uncertainty-in-data/

Everybody lies: how Google search reveals our darkest secrets
https://www.theguardian.com/technology/2017/jul/09/everybody-lies-how-google-reveals-darkest-secrets-seth-stephens-davidowitz

WORLD INEQUALITY DATABASE https://wid.world
Right now, the hottest economic battles are over the minimum wage and income inequality. But in 10 years we could be fighting over data inequality.
https://www.businessinsider.com/data-inequality-may-become-next-economic-battle-in-10-years-2020-3?r=US&IR=T

Podcasts:
Factually! with Adam Conover, "Technology & Race w/ Ruha Benjamin," Sept 2020, link.

This Matters | Daily News Podcast
In the second wave of COVID-19, just as The Star reported in the first, Toronto Public Health data shows the inequality of the virus and who is impacted most. High positivity rates reveal racialized people and poor people — who often working essential but low-paying jobs — are more likely to be exposed to the virus and yet often have fewer options and resources. Toronto Star reporters Jennifer Yang and Kate Allen join "This Matters" to discuss how in pandemic times, all is not equal.

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