



CS in Your Neighborhood: Data Selfie

In a digital world, data is not only something that we collect and use to understand meaning but also something that we “leave behind” or give away. We create data each morning when we determine what to wear, which route to take to school/work, and what we need to do each day. Our digital footprint can allow others to learn more about us. This data is a reflection of the choices we make when we use technology.

Create a “data selfie”, a piece of creative work that captures your relationship to your data. Does your data influence the way that others see you? How does this selfie compare to the other ways you define yourself? Your selfie should explore those questions as well as:

- Include the kinds of data that you have left behind when using technology.
- Share a part of yourself that digital data cannot learn about you.
- Investigate the ways that digital data is collected and used, and how that impacts our daily lives.

[Submit a Data Selfie Here](#)

Guided prompt for middle school: Filtered/Unfiltered Mask

Students will compare two “selfies” that are created with information collected about themselves. One will be self identifiers that they choose, while the other will reflect the personal data created by their interactions online.

By investigating their own devices and accounts, students will gain an understanding of the kinds of personal data that apps, websites, and other programs automatically collect. They will document examples of the ways this data becomes targeted advertisements on their social feed or search results. Through this process they will be challenged to find responsible ways to interact online, and they’ll gain a deeper understanding of data collection/processing through a cybersecurity lens.

Questions:

What is personalized data?

Why do I have data?

Can I control how my data is used?

What similarities and differences are there between personal data and identity?

Activity outline

Part 1: Self portrait

Materials:

A mask (or paper plate that can be used as a mask)

Glue

Magazines for cutting and collaging

Craft paper and drawing supplies

Upper elementary/middle school: How do you represent yourself? Make a list of images and words that are a part of your identity. This can be a collection of hobbies, treasured objects, personal or cultural identities, and words that describe your personality/goals/relationships.

Glue these images into a collage *inside* of a mask form.

Part 2: Data collection

Materials:

Access to a personal device like a phone or computer

Printer for screenshots, or blank paper for note taking

Learn about targeted advertising:

- [Targeted Advertising](#)
- [Why Does My Fiancée See Ads for Things I've Shopped For?](#)

Gather “your” data:

- Check [Facebook’s associations with your account](#) and find images that correlate with those tags
- Check [Instagram’s ad interests](#)
- Screenshot ads from websites, Instagram, and other digital spaces that feel *targeted*.

Part 3: Data portrait

Collage the images that represent the “data profile” you have created. This time glue them onto the outside of the mask.

Part 4: Discussion

Were you surprised by any of the data your device associates with you? How do you think that data was created?

Do you notice similarities between your mask and someone else’s?

Are there parts of your mask that feel like they are on the wrong collage?

Guided Prompt for elementary school: Your digital double

Materials:

[Printable worksheet](#)

Scissors, glue, writing/coloring implements

Lower elementary: What kinds of things do you share through the internet? As a group, brainstorm a big list of words and images that describe what you see on a *social media feed*. Things like “selfies with family”, “silly pet stories”, or “saying happy birthday” are good examples. Each participant can pick and choose what items from this list they would like to share about themselves. Write or illustrate each item on paper and cut them out.

Students will divide information into “public” or “personal” by learning about where data lives on the internet. The attached printout has a double-sided page that is folded along the dotted line, plus a series of data examples that are cut and pasted onto the worksheet.

Begin with a class discussion that introduces the idea of “data” that lives on the internet. Ask students to give examples of the internet that they have seen or used. Does anyone in their family use social media like Facebook, Tik Tok, or YouTube? What about online games? Why are people using those sites and apps? What kinds of information is shared?

Some information should not be shared on the internet. Come up with some examples (ie: real names, passwords, or the name of your school). This is information that you wouldn’t share with a stranger in real life, so you wouldn’t put it online either.

Using a piece of paper, invite students to draw themselves as a digital citizen. They can look like they always do, or they can wear a funny costume or be a different creature entirely! Maybe they have a Roblox avatar that they want to copy. When we share information on the internet we’re choosing how other people see us, just like when we choose our outfit for school. There is space around the portrait for students to choose which of the cut paper squares belong on the internet.

Inside the paper is our offline portrait. Students can draw or attach a photo of themselves here as well. Does it look the same or different? Around the portrait there is room for the information that should stay private and offline.

Some of the paper squares don’t have a clear answer. Students might feel like their selfies should stay private, or their families don’t want them to share specific information that’s ok for other students. Each person’s work will look slightly different, but it’s a good idea to discuss things that should *never* be shared like passwords, full names, and your current location. The bottom row is for brainstorms that happen during the activity.

SOL Correlations

Cybersecurity

K.8 The student will identify personal information (e.g., address, telephone number, and name) and the importance of protecting personal information online.

4.10 The student will identify and explain problems that relate to inappropriate use of computing devices and networks.

6.6 The student will identify physical and digital security measures used to protect electronic information.

Impacts of Computing

2.14 The student will identify and model responsible behaviors when using information and technology.

3.15 The student will identify the positive and negative impacts of the pervasiveness of computers and computing in daily life (e.g., downloading videos and audio files, electronic appliances, wireless Internet, mobile computing devices, GPS systems, wearable computing).

3.16 The student will identify social and ethical issues that relate to computing devices and Networks.

8.9 The student will describe tradeoffs between allowing information to be public and keeping information private.

CSP.16 The student will evaluate the social and economic implications of privacy in the context of safety, law, or ethics.

Networking and the internet

K.11 The student will discuss, in a whole class setting, how information can be communicated electronically (e.g., email, social media).

4.18 The student will identify and explain different ways information can be transmitted using computing devices via a network (e.g., email, images, and videos).

7.13 The student will outline the advantages and disadvantages of transmitting information over the Internet, including speed, reliability, cost, and security.