

The Secret of the
**Vanishing
Bones**

Parent & Educator Guide

Magnifying The Need for Early Media Literacy



By Amy Jussel

Art by Ilya Fortuna

About the Book

When Lucy's beloved dog bones suddenly disappear, she sets out with her pup pals to solve the mystery only to discover she's been over-sharing some digital data herself without even knowing it!

Snuffles barked, "Wait! Hold up... Is that a tracker on your collar I see? That could be a clue to the missing bones, it shows everywhere you've been and everywhere you go!"

As the playful pack of pups dig up more questions than answers, kids subtly learn the art of deeper inquiry by tracking data trails, keeping information private, and decoding digital life in a fun, fresh way.

The goal of the series is to instill healthy, habit-forming questioning of all content. As children become aware of their own role in consuming, creating and connecting with media, they're empowered to think critically about how they process the many messages coming their way. These 21st century life skills in media literacy are a necessity for navigating the ever-changing influences of our digital landscape.



About the Need

The Secret of the Vanishing Bones sprang from my work with underserved youth in early literacy programs who knew their way around smartphones and tablets, though hadn't yet mastered the skills to read fluently. They'd click and swipe and pinch to "show and tell" photos, apps and favorite finds on digital devices with zero understanding of how, or where their actions would land.

While some may feel the K-5 learning level is "too young" to tackle substantive media and digital literacy discussions about our information age, I'm clearly not one of them, because kids are already using the tools, they're just unfamiliar with how tools are using them.

From funny filters and character memes to influencers, chatbots, recommendation algorithms and social media misinformation, empowering kids with questioning skills is paramount to early media literacy.

If preschoolers can save lives by dialing 911 learned from a media show, it's easy to see how repetition of information can set habits early transferring inquiry skills into positive, critical thinking patterns of questioning that stick for life. Let's get started!

A handwritten signature in black ink that reads 'Amy Jussel'. The signature is written in a cursive style.

About the Author



Amy Jussel has worked in media her whole life, beginning with journalism at a local ABC news affiliate, extending to a wide array of roles writing, producing and creating media messages of all kinds, from print and broadcast advertising to greeting cards, games, feature stories, curriculum creation and editorial content.

Known as an “idea hamster” for churning fresh copy and concepts on a constant spin of projects, Amy came back to her roots in journalism founding ShapingYouth.org in 2006 as a media literacy and critical thinking resource for educators and families.

Shaping Youth houses over 1000+ deeply researched articles, insights and practical hints on navigating media’s powerful influence with children, helping readers understand that all media is a construct with a point of view.

She holds a Communications degree and a passion for all creatures great and small, often found at the dog park or on nature trails percolating ideas for her next media venture.

About the Illustrator



Ilya Fortuna graduated from the Academy of Fine Arts and Architecture, painting department in Kiev, Ukraine. He worked in advertising and game production creating games for Disney (2005, Mobile Football Goal!) and Cartoon Network (2012, Behold the wizard!)

Ilya has been a freelancer since 2012, creating his own games and illustrating about 15 children’s books published around the world. Some of the many children’s characters he’s brought to life include Three Lazy Pigs and an unusual boy made of a sea drop in the recycled adventure series Beyond the Sea.

He lives with his family in Kiev, loves guinea pigs and enjoys collaborating on creative projects like this series from afar.

More of Ilya’s dynamic work can be seen here:

Portfolio:
<https://www.behance.net/fortuna777>

Instagram:
[@fortuna777_art](https://www.instagram.com/fortuna777_art)

What is Media Literacy?

The National Association of Media Literacy Education (NAMLE) advocates developing habits of inquiry and reflection in early childhood, helping students learn to access, analyze, evaluate, create and act using all forms of communication.

At the very core, it's about teaching kids HOW to think not WHAT to think, using open ended questions that build on their natural curiosity and instill a healthy skepticism using logic and reason over accepting claims at face value.

Not only is this a vital, valued, 21st century learning imperative amidst massive amounts of information, it's a teachable skill even in preschool and kindergarten. As children learn to sift and sort messages, question views, and practice critical thinking habits routinely, their awareness of influence and persuasion builds into a useful skill set guiding them throughout life. From peer pressure to use of media platforms, core content questions will serve kids well, online and off:

Who is saying this? Why? Who might benefit? Who might be harmed? What is included and left out of the message? Whose point of view is this? How might others interpret this differently? What do you know, what do you not know, or want to know? Is this fact, opinion or something else? How do you know? How could we find out?



Media Literacy, Digital Literacy & Tech Topics

The first book in the series, *The Secret of the Vanishing Bones*, uses the topic of data collection and privacy awareness as both a media literacy and digital literacy discussion tool.

Both areas of emphasis are used for conversations and hands-on activities to dig deeper, sniff around and sleuth with the dog detectives to decode messages and impart informal learning that embeds positive practices of inquiry about digital life.

Each book in the K-5 series takes on subject matter about technology tools that are often reserved for middle school, but with earlier digital use, we've distilled three simple takeaways for the youngest readers, followed by deeper learning questions and resources specific to the topic, whether it's data privacy, misinformation, recommendation algorithms, bias or beyond.

Conversations About Media AND Digital Literacy

Digital literacy is more than just the safe and responsible use of technology and knowing how to find, navigate, evaluate, analyze and determine credibility of information, it layers in behavioral conduct of digital citizenship which is also part and parcel of creating positive social norms as kids learn how to interact with content, comment, create and participate in media making.

For this reason, the book series will focus less on how we “define” and more about how we “use” media, given the many crossovers and subsegments which the book series will address in the storylines, from information and news literacy to data and health literacy, etc.

In each of the discussion questions and activities for each book, media and digital literacy come into play, often overlapping in form and function. For those teachers who prefer to teach differentiation as a core component, a simple demarcation activity that uses both areas of emphasis to show different lenses might be:

Read-Aloud & Repeat

Read the first time for fun collecting ALL questions along the way

Read the second time with a media literacy emphasis

Read the third time with a digital literacy focus

Glossary at a Glance

- **Data:** facts and figures; information often collected to be analyzed
- **Consent:** giving your permission to do something
- **Register:** fill out information online to gain access to a site or app
- **Bias:** A like or dislike of something without reason; pre-judging
- **Profiling:** using traits, behaviors or appearances to make generalizations
- **Web Cookie:** data files used to remember information about you or track behaviors
- **Algorithm:** a process or set of rules assigned to perform a task on a computer

Adjusting for K-5 Age & Stage

K-2: Are you ready to be a digital dog detective super sleuth and hunt for tons of questions to ask? (use coloring pages, sorting skills, establish and reward early habits of basic questioning)

Grades 3-5: What does the subtitle, Tracking the Data Trail mean to you? (discuss how media uses different forms of language and vocabulary, clarify any technology jargon; use mentoring methods for “reading buddies” with older to younger grades or siblings to practice and habituate skills)

Tech Talk: This section challenges the more digitally savvy kids to dive deeper into digital ethics, privacy practices and critical thinking about how media shapes our world.



The Secret of the Vanishing Bones

Cover Conversations

- Do you know what “vanishing” means? How is the title type treated to give you a hint?
- Do you know that «data» is just information in the form of figures?
- What does that tell us about the subject of the book? Or the series name, “Digital Dogs?”
- What do you think this story will be about? How do you know?
- What signs or symbols do you see? Do you notice any hidden items?
- What emotion do you see in the dog’s face?
- Who made this media and what else do you notice?

Turning the Page Toward Inquiry



Is the story fiction or fact? How do you know? What’s the earliest page that you can verify this?

What do YOU think could have happened to Lucy’s bones?

Do you notice any patterns or character behaviors that give you clues to key points in the story?

There are several themes in the story, which do you feel is the main one, how did you decide and with what evidence?

Whose point of view frames this story? Pick a different dog and retell the story from their point of view. How might that change the message?

When Lucy judged her friends by their patterns of behavior, she made some incorrect assumptions. Do you think technology ever makes mistakes? Why or why not?

What do you think the author is trying to say about data? Is it good? Bad? Neutral? Why?

How was Gracie’s data used to try to help her? How could Lucy’s over-sharing of data have led to harm?

Did either Gracie or Lucy give permission to use their data? How did each situation differ? Does that matter? Why or why not?

How might others interpret privacy differently than you? Think about some reasons why that might be.

What else does this story want me to think about? What ideas, values or concerns are brought up and what techniques are used to communicate this?

Data Detective Activities

- **Say What?** Using Siri, Alexa, Cortana, Google or any smart speaker device assistant, ask the same question and compare and contrast the answers. Test the data sample using different voices, genders, ages. Now change the question slightly and see how replies might differ. What else do you observe?
- **Top Dogs** Try the same activity (above) but use different search engines. What comes to the top ranking first? How do the results influence you? Why might they be different in each browser? Are there ads answering the questions listed first? Which source gives you the best answer? How can you tell?
- **World Views** Open the emojis on a phone and look at the earth emojis. Pick one to use in a text. Which one did you pick? More often than not, people pick the globe that shows their own geographic region. Think about how all media is constructed and reflects a certain viewpoint. Keep this in mind across media in all forms.
- **Oh, Snap!** Use print media to find a wide variety of faces, hairstyles, poses, expressions. In the time it takes to snap your fingers, use one word to describe the photo. Use post-it notes to sort them into positive or negative reactions based on your quick blink. (sweet or sour game) Rotate in small groups trading new photos, noticing patterns and similarities in snap judgments. Think about humans being unaware of coding bias into machines.
- **Eye Spy** Sort children by eye color like Jane Elliott's famous "blue eyes/brown eyes" study, giving or taking away privileges according to eye color (quick clip summary from Jane herself on YouTube here) <https://www.youtube.com/watch?v=f2z-ahJ4uws> Discuss how algorithms can be coded unfairly to favor or exclude based on gender, race, wealth and other factors.
- **Receipts!** For a fun take-home project, go grocery shopping with family and take note of what's in the cart. When the receipt is printed, what coupons do you see selected for the next visit? Are there new ones that recommend similar items? Think about how every purchase made uses data gathered. What do your groceries reveal about who lives in your home, ages, and what you like to buy? Watch carefully to see if these suggestions and sale items "follow" you to other grocery stores or purchases made online.
- **Snoop City** Video cameras are popping up everywhere, from traffic lights and store security to school corridors and private homes. Collect data one entire day from your transportation route to and from school, to your neighborhood, parks, banks, libraries, stores and nearby retailers in the community. Count how many cameras you come across. Is this for safety or surveillance? Who decides? Who has access? How is that data stored and for how long? Why might this matter?
- **Walkabout** Much like media, environments are constructed. Go on a media hunt around school and take note of how corridors, common areas and classrooms are designed and note the differences in set ups between kindergarten and grade 5. Think about why this is and make lists of what media you see on your walkabout, from logos and maps to ads and posters. Write down as many as you can in each environment. Compare, contrast and share data.
- **Game On** Pick a popular game (adjusted to age/stage) and take note of any data requested to even access the game. What colors are used to entice? What symbols or themes have universal appeal? What skills are valued in the game? What objectives are set and how are they rewarded? Does appearance play a role? If so, how are the avatars presented? Are there props, tools or powers that make them extra special? Do you have to earn credits to pay for them? Are there "freemium" features, where a game is free up to a point but then has an "upsell" requiring purchases? Discuss how coinage, consumption and data tracking within game environments might play out elsewhere.
- **Heads Up** Using media villains and heroes, play the guessing game where you stick a post-it on your forehead while your teammate provides you clues. Notice what character traits and portrayals are used in media to assign meanings of 'good and bad'... Think about the character's appearance, accent, costume, gender, body type and more.

Helpful Data & Support Materials for Teachers Using the Activities

2020 Pew Research Study: Children's Engagement with Digital Devices

<https://www.pewresearch.org/internet/2020/07/28/childrens-engagement-with-digital-devices-screen-time/>

Media Literacy & Digital Literacy/Citizenship Education: Two Parallel, Disconnected Tracks

<https://blogs.lse.ac.uk/medialse/2021/04/27/two-parallel-but-disconnected-tracks-bridging-media-literacy-and-citizenship-education/>

Voice Assistants Have a Gender Bias Problem, What to Do About It

<https://www.brookings.edu/blog/techtank/2020/12/09/voice-assistants-have-a-gender-bias-problem-what-can-we-do-about-it/>

Seven Different Types of Privacy Invasive Behaviors, How/Why Blacklight was Built

<https://themarkup.org/blacklight/2020/09/22/how-we-built-a-real-time-privacy-inspector>

How Search Engines Answer Questions

<https://www.searchenginejournal.com/search-engines/answering-questions/#close>

Reasons Google Search Results Vary, 9 Factors That Play a Role

<https://www.webpresencesolutions.net/7-reasons-google-search-results-vary-dramatically/>

The Guardian: Here's All the Data Facebook and Google Has On You

<https://www.theguardian.com/commentisfree/2018/mar/28/all-the-data-facebook-google-has-on-you-privacy>

Algorithm Watch <https://algorithmwatch.org/>

Algorithm Tips <http://algorithmtips.org/>



Data Privacy Resources & Teaching Tools: Quick Clip Videos, K-5 Fun

My Data & Privacy Online: A Toolkit for Young People London School of Economics

<https://myprivacy.uk>

Connect Safely: Parent's Guide to Student Data Privacy

<https://www.connectsafely.org/student-data-privacy/>

Connect Safely: Educator's Guide to Student Data Privacy

<https://www.connectsafely.org/eduprivacy/>

Student Privacy Compass

Formerly FERPA: Family Education Rights & Privacy Act

<https://studentprivacycompass.org>

Youth Privacy & Data Protection 101

<https://studentprivacycompass.org/youth-privacy-and-data-protection-101/>

(Downloadable pdf Infographic)

<https://studentprivacycompass.org/wp-content/uploads/2021/04/FPF-Youth-Privacy-Infographic.pdf>

CCFC's Parent Toolkit for Student Privacy (by parents for parents)

<https://commercialfreechildhood.org/pf/parent-toolkit-student-privacy/>

Surveillance Self-Defense Electronic Frontier Foundation

<https://ssd.eff.org/en/module/privacy-students>

Ethical OS Toolkit: Risk Zones/Conversation Sparks Institute of the Future & Omidyar Network

www.EthicalOS.org

AI & Data Privacy Activities: K-9 Students MIT Open Learning

<https://aieducation.mit.edu/dataprivacy.html>

Project Evolve: Education for a Connected World

<https://projectevolve.co.uk>

The State of Kids' Privacy (Common Sense Media Study)

<https://www.common Sense Media.org/research/the-state-of-kids-privacy-evaluating-the-safety-and-security-of-kids-tech>

Youth and Media: Privacy & Reputation Berkman Klein Center for Internet & Society at Harvard University

<https://youthandmedia.org> and <https://dcrp.berkman.harvard.edu>

Privacy Rights Clearinghouse

<https://privacyrights.org/>

Bellingcat's Online Investigation Toolkit (Deep Dive/Tools for Teachers)

<https://bit.ly/bcattools>

Kids' Privacy Regulations Differ Worldwide

GDPR: General Data Protection Regulation (UK)

<https://gdpr.eu/what-is-gdpr/>

COPPA: Children's Online Privacy Protection rule (USA)

<https://www.ftc.gov/tips-advice/business-center/privacy-and-security/children%27s-privacy>

CCPA: California Consumer Privacy Act (USA)

<https://oag.ca.gov/privacy/ccpa>

UNCTAD: Data Protection & Privacy Legislation Worldwide (United Nations)

<https://unctad.org/page/data-protection-and-privacy-legislation-worldwide>

Data privacy and protection is becoming a flashpoint in today's digital dialogue, especially as it relates to children, globally. With new technology capabilities launching every nanosecond, data security, digital rights and compliance are in a "wild west frontier" as laws and regulatory measures have not kept pace with new developments in artificial intelligence, biometric data and cybersecurity.

Media literacy and digital literacy require early seeding of inquiry as rights and values with even the youngest stakeholders are at risk with profit placed over privacy all too often. While rules continue to change, best practices for early childhood education promoting knowledge and inquiry at increasingly younger levels helps empower children with critical thinking skills that last through life.

Tech Talk: Challenge Yourself

Continuing inquiry from the five discussion questions at the end of the book, each of these activities below are aimed at older K-5 tech savvy students, to delve deeper into tech talk using The Secret of the Vanishing Bones story specifics. Start by reviewing the Glossary to familiarize terms. Parents and teachers can help guide children with questions they themselves should be considering, like:

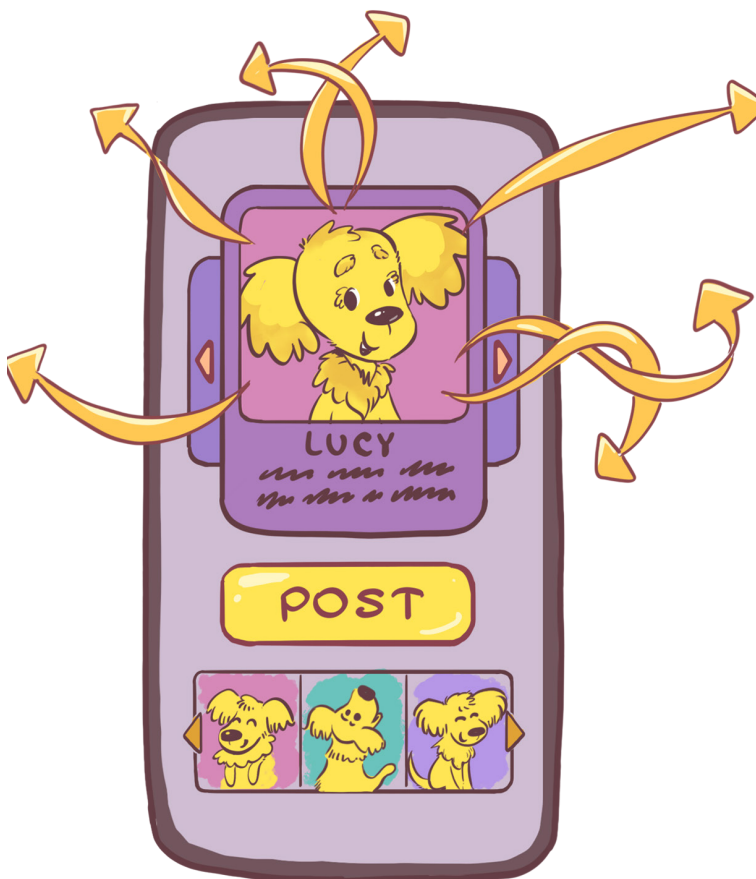
What source did you get that from? Is it trustworthy? How do you know? Where did those statistics come from? What methodology was used with those facts and figures? Is it sound, are there more data sets that might be needed to give better context? Is data ever neutral? Some say "numbers can be neutral, but data can't" because data is collected in different ways, by different people with different reasons and motivations.

To help even very young children begin to understand complex concepts with data privacy and technology, we can use hands-on experiences like Jane Elliott's blue eyes/brown eyes game as an easy explainer for an algorithmic simulation. Customize other "in your shoes" experiential learning moments to help get points across. <https://janeelliott.com/>

The Secret of the Vanishing Bones: Story Specific Deep Dives

1.) Algorithms & Profiling

Explain: In technology terms, Lucy was initially “profiling” her friends, predicting certain outcomes based on prior behaviors or appearance as she tried to figure out who might’ve taken the bones. Lucy was wrong, and (spoiler alert) the culprit didn’t end up being a tech tool at all.



Sometimes, technology algorithms end up as flawed as the humans who code them, since computers will “learn” based on bad input, creating cycles of useless (and potentially harmful) false information. Much like a recipe, an algorithm adds a series of steps to solve a problem, but if you botch the ingredients, the outcome can be awful and horrific.

When bias, stereotypes, inaccuracies, or racial or geographical profiling enter the mix, programmers sometimes call this “garbage in, garbage out” because data recommendations are based on incorrect assumptions and predictions.

Since algorithms are math-based formulas used to calculate, prioritize, classify and filter data, can you think of how this might be misused unfairly and make judgments based on race, age, appearance, gender, school scores, disciplinary behavior, or other input plugged in?

The book hints at this problem, can you find where?

The dog named Sam in the story could be Samantha, Samuel, or Samson...if the algorithm were programmed with an incorrect assumption identifying Sam’s gender, how do you think that would skew Sam’s “recommendations?” What kind of stereotypes do you think might surface for Sam?

Similarly, profiling Rufus as watch-worthy, based on his masked appearance would mean he’d be tracked through technology treated as a suspect due to a harmful coding bias. How would you program a different world for Rufus?

How can a mathematical algorithm be coded to give a grade to a written essay? How can numbers assess deeper learning to value how students are taught beyond a score? From reading

levels and assessing special needs to sorting people into 'suggested' career paths, algorithms can have undue influence if used without analysis by...(you guessed it)...humans.

What might the tools get wrong about you or create an inaccurate picture of who you are? Recommendation algorithms can be helpful but also very inaccurate. Pick a partner and consider how errors could occur by playing "what if." Report your findings. Example:

"What if..." an algorithm used home address data to map school transportation without adding other data sets? Think about what's missing. What if a student lived in multiple homes? (two households, foster care, grandparents etc.) What if a student didn't have a home? (unhoused, living in a family shelter or transient) Based on just one set of input, the algorithm wouldn't work properly. Now you try to come up with a 'what if' algorithm example...

Activity: Go "under cover" to detect how a recommendation algorithm might serve you different data based on what it "learns" from a profile you create. Switch up your data and see how it responds. Adults: Help set up a separate user profile on an existing account like a streaming service, book seller or online retailer, so kids can create a fictional persona.

Monitor how fast the media tools learn likes and dislikes, how accurate proposed recommendations are, whether there's a gender bias or assumptions being made, and then switch behaviors midweek to include entirely different interest areas to see how it alters selections.

For gamers, note how an algorithm might present you certain avatars based on a name or gender you've created for your profile. Does changing appearance shift how people talk to you within the game? What about game play itself? Language used? Experiment and report out.

2.) *Data Tracking*

Explain: Lucy's collar had a tracking device that Mia placed on it hoping to find her quickly if she ever got lost. Parents often use digital tools like apps and maps to monitor family's whereabouts as well. Where do the boundaries get blurry?

The story ends with Gracie's data being tracked with the intent to keep her safe and well, but she was still unaware of it. Is that okay? Why or why not? Open up deeper inquiry about ways tracking tools might help (perception of safety) or hinder (reliance on tech).



Discuss the concept of “consent” with data; when kids give permission to be tracked (walking to school or dropping a location pin on a map to be picked up) or for self-tracking (health and fitness monitors, organizing school projects). Even those data sets bring up questions...Where does that digital health data go? Who gets it and why?

Does knowing about tracking instead of being unaware of it change how you feel about tracking? Why or why not?

Schools now often track students under the premise of safety, from social media emotional and behavioral cues to video cameras and security footage. Discuss: What is the difference between safety and surveillance? What other trackers are used in school? Is attendance automated? What about test scores, grades, teacher performance? Where is that data being shared and who has access to it?

Does the school keep data on behaviors like tardiness or discipline? How long does the school keep that data? Do records follow into the next school year or if students move? What technology companies are used regularly in school and where is their data stored?

Can you think of other trackers in your daily world and how they might be used?

What about trackers online, in stores, and in games and apps as companies use data to try to target market and sell things? Library cards? Student IDs for bus or cafeteria access?

“**What If...**” students were allowed to ‘opt out’ or ‘opt in’ by choice. What do you think would happen? What might that look like? What are some of the pros and cons of data tracking?

Activity: Tracking is everywhere, especially with online apps and games, so hunt for 3 favorite websites and plop them into this real-time website privacy inspector to continue the detective format. It’s a handy tracking tool called BlackLight to show and tell how many ad trackers, cookies and data points are being sent to others without any consent. Share out and record the results to see the other data from sites submitted. Note commercial interests and rank which big tech media companies track data the most and least. Older grades might do a graph for a ‘data visualization.’ <https://themarkup.org/blacklight>

3.) **Over-sharing**

Explain: Mia was so proud of her pup Lucy’s accomplishments that she shared tons of photos and videos on social media without considering how much information was being released to the world.

As they learned in the book, when it comes to photos, what is left in and left out is key to digital safety among friends, classmates and parents. Your own data is only as protected as your “weakest link” in the chain of sharing.

The entire team might know not to share a photo of your jersey, number, or identifiable sport, but if a friend or a friend’s parent snaps and posts an action shot online and you are visibly in it, there’s personally identifiable data being shared.

Discuss why that matters, ask to remove or ‘blur out’ the data.

Digital dog detectives know little ‘pawprints’ are traceable with too much information shared, so private data like passwords, emails, addresses, full names, etc. should be buried deep and be very hard to dig up.

Just as different countries have different laws about children’s rights in the digital sphere, families differ in how much information they are comfortable sharing with the knowledge that it creates a “digital tattoo” that can be deleted, but not fully erased.

Teachers and coaches could use a reminder to pause before sharing too, since Zoom screenshots for distance learning or posting class and team uniquely identifiable information is not allowed by law. No school, parent or technology company should be collecting or sharing any data online that is particular to one individual student whether it’s photos, or student achievements; especially with school ransomware and educational data breaches in the spotlight.

Lucy’s pet tag data being posted is a key reminder about the difference between personal data (Lucy likes a certain kind of kibble) and private data (Lucy’s phone number). Open up inquiry to funny stories and verbal icebreakers along these lines to help identify the difference.

Have you ever been embarrassed by something a friend or family member posted about you? Have you asked them to take it down? What about exciting news, birthday parties or accomplishments? Do you have family rules with siblings about what can and cannot be shared without permission?

“**What If...**” your family posted a bunch of silly scenes and bathtub photos of you when you were little and now friends are teasing you about them. What would you do? Some people call this “sharenting” when families are unaware of posting “too much information” until it boomerangs back in a new form.

Activity: Pair off with a partner to interview and take notes like a detective. Get to know likes, dislikes, favorite media, shows, colors, sports, vacation spots, siblings, neighborhood, background, birthplace, age, pets, weekend fun, the works. Think of as many questions as you can to ask and practice skills of inquiry. Now, revisit the activity and think hard about what items should or shouldn’t ever be shared online. Share out with the group and get to know each other!



4.) The Cost of “Free”

Explain: Mia used her digital assistant to order more food for Lucy online and the smart speaker automatically knew what food Lucy also might like, suggesting free finds, coupons and related media which can be very convenient. Recommendation algorithms can target your interests in ways unimaginable just a short time ago, storing information on how you shop, live, eat, work and enjoy entertainment.

But are free apps, games, funny videos and filters really “free?” What about the media devices serving you the freebies, like the smart speaker or the tablet?

How do you think they might make money? Are your likes and clicks being stored and tracked to be sold to other companies for more selling? Is the free item paid for with your privacy, or attention? What about your biometric data like your voice prints from Alexa or facial recognition? Who might want that information and why?



Free sites like YouTube host a wide array of “how to” informative videos as well as popular “unboxing” media of goods and toys, prompting discussions about advertising and “kidfluencer” peers. Do you think that child is being paid? Why or why not? How do you know? What makes you say that?

Similarly, teachers are often given free materials, including curriculum. Adults need to ask the same questions...

Who paid for this? Are there brands, logos, or sponsors in the curriculum? Who might benefit from this message? Who made this and what is the point of view? Is there product placement? What are the reasons they might want you to learn this way? Are there commercial toys and characters you’re familiar with in the teaching lesson? What are some clues you can use to hunt for more media motives?

“What if...” you download a free gaming app but you can’t “level up” without buying something to unlock “premium content. Do you think that’s a free game? Why or why not? If you don’t buy something, but the game is “free” how is their money being made? List ideas.

Activity: Let’s play...“A Day in the Life of FREE.” Working together as a group, challenge yourselves to think of as many things as you can that are free...And then think critically about whether they really ARE free or not.

Start with media and commercial uses like free apps, games, chatbots...Think about why certain cafes offer free WiFi. Consider how free coupons, free shipping and “buy one get one” promotions are used to make you consume more or come back again. Are free lunch programs, libraries, schools and parks free? What about a “free pet” will that be free?

5.) *Tech Ethics*

Explain: Gracie tracked Lucy without using technology tools or location finders, but then the digital dogs tracked Gracie to keep an eye on her and help with the pups. Neither one of these tracking methods involved consent, do you feel data should involve giving permission? Are there ever exceptions?

Do you think you should have the right to your own data? Why might that matter?

Do search recommendation ever send you to places you didn't intend to go? Do you ever stay online longer than you thought you would because new content shows up or auto plays? Do you ever click the wrong button because it was bigger or brighter?

These types of questions are all "ethics" issues that need solved, not just for kids but for everyone. This book focuses mostly on privacy and data protection, but can you think of other ways data needs some guardrails?

We've cited many pros and cons about data and technology influences to reinforce the need for early media literacy education and improve tech ethics so that the "input" performs in the public interest for us all.

"Big data" is a growing field and can be used with both positive and negative outcomes. Since media literacy involves action and participation, we asked kids to come up with some "positive picks" for how THEY would like to see data used.

Kids' Lens: Some Positive Uses of Big Data

- Tracking poachers with drones to protect wildlife
- Rescuing people in floods
- Mapping the spread of disease
- Keeping out of traffic
- Watching the path of a hurricane
- Finding where medicine needs to go
- Adopting dogs into new homes
- Delivering food to remote areas
- Helping researchers around the world
- Monitoring crops and water
- Reporting violence
- Rebuilding coral reefs
- Collecting data on pollution and climate change

"What If..." kids could design an easier way to understand what data is being shared by clicking on universal symbols that limit data sharing and add secure privacy practices by default?

Activity: Since a key part of media literacy is taking action, this activity is asking for your voice and your views to build a better world through more responsible use of data. What would that look like to you? Share your views with your educators and have them 'report out' in the comments on the blog section of DigitalDogsBook.com if you'd like to see your vision published online. Remember NOT to use your full name, and you can make up a name if you prefer, your teacher will help you keep your personal views public and your information private.

Media Literacy Resource Roundup

National Association for Media Literacy Education www.NAMLE.net

A Parent's Guide to Media Literacy <https://namle.net/a-parents-guide-to-media-literacy/>

Association for Media Literacy <https://aml.ca>

Media Smarts <https://mediasmarts.ca/>

Media Education Lab <https://mediaeducationlab.com/>

Center for Media Literacy <https://www.medialit.org/>

Erikson Institute: Technology in Early Childhood Center (TEC)

<https://teccenter.erikson.edu/>

Media Literacy Resources for Classrooms (Common Sense Media Lesson Plans/Activities)

<https://www.commonsense.org/education/articles/media-literacy-resources-for-classrooms>

Common Sense Media & Digital Citizenship K-5 Curriculum By Age:

<https://commonsense.org/education/digital-citizenship>

Project Look Sharp

<https://projectlooksharp.org/>

Insighters Education

<http://insighterseducation.com/>

Media Literacy Clearinghouse

<https://www.frankwbaker.com/>

Media Literacy Now (public education medialit movement)

<https://medialiteracynow.org/>

UNESCO's Media & Information Literacy Curriculum Overview:

https://en.unesco.org/sites/default/files/mil_curriculum_second_edition_summary_en.pdf

MIL Teacher's Curriculum for Educators & Learners:

<https://en.unesco.org/news/media-and-information-literate-citizens-think-critically-click-wisely>

More Media Literacy Articles & K-5 Teaching Tools

Parenting for a Digital Future

<https://blogs.lse.ac.uk/parenting4digitalfuture/>

Safe, Secure, Smart: A Guide to Choosing Tech for Your Preschooler (PreK/Age 3-5)

<https://commercialfreechildhood.org/pf/safe-secure-smart/>



40 Ideas for Media Literacy in Kindergarten

<https://aml.ca/40-ideas-for-incorporating-media-literacy-into-a-kindergarten-program/>

Inquiring Minds Want to Know: Media Literacy Education for Young Children

<http://www.appstate.edu/~goodmanjm/rcoe/2300/resources/readings/LIBRARYJOURNAL2011.pdf>

PBS Kids: Nurturing Curiosity & Critical Thinking: Learning with Littles

<https://ca.pbslearningmedia.org/resource/nurturing-curiosity-and-critical-thinking-video/learning-with-littles-virtual-professional-learning-series/>

Media Literacy in Early Childhood Report

<https://teccenter.erikson.edu/publications/media-literacy-report/>

Scholastic's Think About It: Critical Thinking (ages 5-7)

<https://www.scholastic.com/parents/family-life/creativity-and-critical-thinking/learning-skills-for-kids/think-about-it-critical-thinking.html>

PBS Kids Lab/Virtual Pre-K Quick Clips: Sorting it Out Activities

<https://ca.pbslearningmedia.org/resource/kids-lab-classroom-virtual-prek-shoe-sorting/shoe-sorting-pbs-kids-lab-virtual-pre-k/>

<https://ca.pbslearningmedia.org/resource/solid-or-liquid-media-gallery/hero-elementary/>

Net Family News

<https://www.netfamilynews.org/>

How to Promote Children & Adult's Media Literacy

<https://blogs.lse.ac.uk/medialse/2019/10/23/we-need-to-promote-childrens-and-adults-media-literacy-of-course-but-how/>

Data & Society: The Promises, Challenges, and Futures of Media Literacy

https://datasociety.net/pubs/oh/DataAndSociety_Media_Literacy_2018.pdf

Beyond K-5: Use clips as teacher primers; adjust content for younger years

Crash Course Media Literacy Video Series

<https://www.youtube.com/watch?v=sPwJ0obJya0&list=PL8dPuuaLjXtM6jSpzb5gMNsx9kdmqBfmY>

Above the Noise Video Series

<https://www.kqed.org/education/collection/above-the-noise>

KQED Learn:

https://learn.kqed.org/?utm_source=KQED-ed&utm_medium=blog&utm_campaign=learn

Digital Literacy & Digital Citizenship (Resources/Curriculum)

Common Sense Media Digital Citizenship Curriculum K-5
<https://commonsense.org/education/digital-citizenship>

Connect Safely: Parent's Guides for Media & Digital Literacy

<https://www.connectsafely.org/parentguides/>

Connect Safely: Educator's Guides for Media & Digital Literacy

<https://www.connectsafely.org/educatorguides/>

Cyberwise.org (No Grownup Left Behind!)

<https://www.cyberwise.org/>

CyberCivics.com (Lesson Plans, Curriculum)

<https://www.cybercivics.com/>

Digital Wellness Lab: 2021 Family Digital Wellness Guide

<https://digitalwellnesslab.org/parents/family-digital-wellness-guide/>

(formerly Center on Media and Child Health at Boston Children's Hospital)

Raising Digital Natives

<https://www.raisingdigitalnatives.com/>

Connecting Wisely in the Digital Age Curriculum 4-8

<https://www.raisingdigitalnatives.com/curriculum2/>

Carnegie Cyber Academy (Gamification, 3-5 w/teacher tools)

<http://www.carnegicyberacademy.com/>

Know Your Rights Poster (5 Rights Foundation UK)

<https://5rightsfoundation.com/KnowYourRightsPoster.pdf>

Children's Rights in the Digital Age

<https://www.lse.ac.uk/media-and-communications/research/research-projects/Children's-Rights-in-the-Digital-Age>

Digital Futures Commission: Innovating in the interests of children and young people

<https://digitalfuturescommission.org.uk/>

Children's Rights in the Digital World (UNCRC Report)

<https://5rightsfoundation.com/our-work/childrens-rights/uncrc-general-comment.html>

Get Safe Online

<https://www.getsafeonline.org/>

Family Online Safety Institute

<https://www.fosi.org/>

Ten Digital Resources for Teachers (EducationWorld)

https://www.educationworld.com/a_lesson/ten-digital-literacy-resources-teachers.shtml

How to teach digital literacy at the right time:

<https://edscoop.com/how-to-teach-digital-literacy-skills-at-the-right-time/>

Data Protection in Children's Best Interests, What's At Stake (UK)

<https://digitalfuturescommission.org.uk/blog/data-protection-in-childrens-best-interests-whats-at-stake/>