



TEACHING DIGITAL CITIZENS IN TODAY'S WORLD

Research and Insights Behind the
Common Sense K-12 Digital Citizenship Curriculum



Teaching Digital Citizens in Today's World: Research and Insights Behind the Common Sense K–12 Digital Citizenship Curriculum

Credits

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Table of Contents

A Letter from Our Founder	3
The Digital Landscape by the Numbers	4
Introduction	5
Kids and Digital Media: Changing Issues	6
Our Approach to the Curriculum	9
Our Guiding Theory: A Dispositional Approach	10
Cornerstones of the Curriculum	12
Rings of Responsibility	12
Promising Pedagogies	12
<i>Thinking Routines</i>	13
<i>Authentic Activities</i>	15
<i>Digital Dilemmas</i>	16
A Look Inside the Curriculum: Six Topics	17
Media Balance and Well-Being	18
Privacy and Security	21
Digital Footprint and Identity	25
Relationships and Communication	28
Cyberbullying, Digital Drama, and Hate Speech	32
News and Media Literacy	34
Implementing Digital Citizenship	37
Bringing Parents and Families into the Fold	38
Conclusion	40
About the Authors	41
Project Zero Background	42
Acknowledgements	42
Appendix A	43
References	44



A Letter from Our Founder



Digital media and technology continue to evolve at a dizzying pace, bringing extraordinary opportunities as well as real challenges for our nation's young people. Kids and teens are using the immense power of the internet and mobile technologies to explore, connect, create, and learn in ways never before imagined. But with this power come ethical dilemmas and challenging issues, such as cyberbullying, hate speech, privacy violations, digital distraction, and more, that are surfacing both in schools and at home.

As a result, educators and parents are struggling with how to make sense of this new world and how to empower kids to use technology responsibly to learn, create, and participate—in other words, how to be digital citizens.

Since we released our original digital citizenship curriculum in 2010, educators have turned to Common Sense Education as a trusted guide on digital citizenship. We reach over 50 percent of U.S. schools and are committed to continue that work to reach a new generation of students. To that end, we are so grateful to again team up with our longtime collaborators at Project Zero. Project Zero's deep expertise on issues of thinking, learning, and young people and technology ground our curriculum in the most current research, providing an instructional framework that supports developing both students' skills and dispositions so they can confidently navigate the thorny and puzzling issues of the digital age.

At Common Sense we believe that digital citizenship is a foundational skill for learning and life. As the lines between digital life and real life merge, we must prepare young people to harness the power of technology for responsible participation and active engagement. Today's students are our next generation of leaders, product designers, engineers, educators, and businesspeople. Without a firm grounding in the ethical and moral questions of digital life—our students' real lives—we cannot prepare them for the future. This is a call to action for all educators and parents. Join us in bringing digital citizenship education to every student everywhere.

Sincerely,

A handwritten signature in black ink that reads "Jim Steyer". The signature is written in a cursive, slightly slanted style.

Jim Steyer

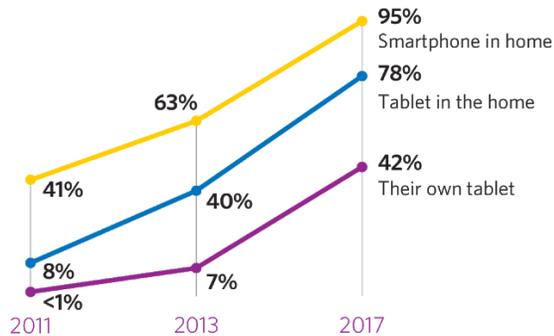
The Digital Landscape by the Numbers

Here is what we know about kids' use of technology.

Kids 0-8

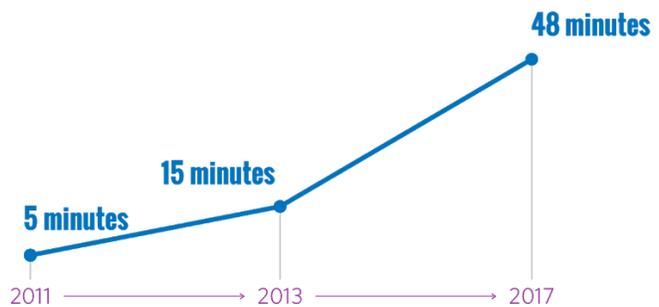
Mobile devices in the home, 2011-2017

Among 0- to 8-year-olds, percent with each device



Mobile media time has tripled—again.

Among 0- to 8-year-olds, average amount of time spent on mobile devices per day



Tweens (8-12) and Teens (13-18)

Tween Daily Screen Time

6 hours

5:55 Total Hours

4:36 Hours of Screen Time

Teen Daily Screen Time

9 hours

8:56 Total Hours

6:40 Hours of Screen Time

Teens think they're being manipulated.

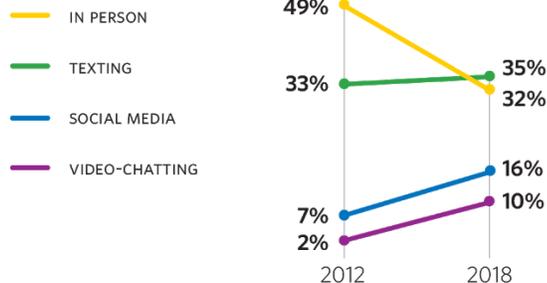
72%

Of teens believe that tech companies manipulate users to spend more time on their devices.



Teens don't value face-to-face communication with friends as much as they used to.

Teens favorite way of communicating, 2012 vs. 2018



Sources: (Rideout, 2015); (Rideout, 2017); (Rideout & Robb, 2018)

Introduction

Nearly a decade ago, Common Sense Education began a collaboration with researchers at Project Zero at the Harvard Graduate School of Education. This collaboration supported the development of Common Sense Education's first curriculum, at that time called the Digital Literacy and Citizenship Curriculum, launched in 2010. The curriculum built on key insights from Project Zero's research on how young people engaged with moral and ethical issues in digital life. This was the first comprehensive digital citizenship curriculum, and at the time "digital citizenship" was not a well-known term.

Digital citizenship is the responsible use of technology to learn, create, and participate.

Fast-forward to today, and Common Sense Education has over 600,000 educator members registered and reaches more than 60,000 schools in the United States. While the free curriculum¹ has been highly successful on many counts, the ever-changing digital landscape brings forth new issues for schools. Educators are understandably concerned about today's challenges and digital dilemmas, which necessitate updates to the curriculum.

Since the initial collaboration with Common Sense Education, the Project Zero (PZ) team has continued to study kids' and teens' digital lives. A collection of PZ projects—led at various times by Howard Gardner, Katie Davis, Carrie James, and Emily Weinstein—have focused on the ways apps and digital tools intersect with young people's social and emotional well-being; imagination and creativity; intimacy and close relationships; moral and ethical responsibilities; and civic agency. And Common Sense Education has continued to develop new resources, tools, and supports to guide schools and families.

In 2017, our paths reconverged, just as Common Sense Education began a refresh of the curriculum and as PZ researchers embarked on a new wave of research. We renewed our

¹Thanks to [Common Sense Education's foundation supporters](#), the Digital Citizenship Curriculum is free and available to schools.

collaboration with a commitment to providing timely, relevant, research-backed resources to schools to help students navigate oftentimes thorny situations in digital life. Led by Carrie James and Emily Weinstein at PZ, the current research project, Educating with Digital Dilemmas (EDD), explores the personal, moral, ethical, and civic dilemmas of today's networked world, how tweens and teens are navigating such dilemmas, and the roles adults are playing—and should play—in supporting young people. (See study details in Appendix A.) As part of this initiative, PZ is conducting surveys of educators, parents, and young people (age 10 to 18) about key topics of concern, perspectives on digital dilemmas, and the types of conversations about networked life that are both present in and absent from schools and homes. In addition to surveying key stakeholders, the research includes in-depth interviews with educators who are using innovative pedagogies to explore these complex topics with their students.

This report points to a collection of core insights about young people and digital life from the emerging EDD research and also includes insights from academic research on media and children, focusing particularly on challenges that U.S. tweens and teens face in their digital lives. This research lays the foundation for Common Sense Education's updated Digital Citizenship Curriculum. We describe the curriculum's unique approach, grounded in Project Zero's research, which focuses on pedagogical strategies that support both student skills and dispositions. The following sections outline the six key topics covered in the curriculum and address the importance of a whole-community approach among educators, students, and parents in creating a thriving culture of digital citizenship.

Kids and Digital Media: Changing Issues

In the decade since the launch of what is now called Common Sense Education's Digital Citizenship Curriculum, digital and social technologies have become increasingly pervasive and now are arguably indispensable tools for navigating our world. Today's young people lead profoundly connected and networked lives. Young kids engage with media early in life, from the time they can look at a screen. Nearly 98 percent of children age 8 and under live in a home with a mobile device and a television, and 42 percent of kids now have their own tablet devices (Rideout, 2017). Kids age 5 to 8 spend an average of nearly three hours per day using screen media, with one hour of that time on mobile devices (Rideout, 2017). Though television still dominates screen time for younger kids, younger kids use mobile devices to play games, engage with apps, read books, and watch videos, TV shows, and movies (Rideout, 2017).

Kids age 8 to 12 spend an average of six hours per day using entertainment media, and this increases to nine hours a day for 13- to 18-year-olds (Rideout, 2015). By the time they're teenagers in America, 95 percent of children will have their own mobile device and will, on average, spend almost nine hours a day texting, playing games, posting to social media, watching videos, and more (Rideout & Robb, 2018). As tweens and teens move into the middle and high school years, they have ongoing, 24/7 access to friends and peers via apps and mobile devices, with 45 percent of teens saying they're online "almost constantly" (Anderson & Jiang, 2018).

Tweens and teens differ in their preferences and media use behaviors. Most young people spend time watching TV and listening to music, but many also fit into certain categories identified by Common Sense based on kids' media use, such as video gamer, social networker, mobile gamer, reader, heavy viewer, and light user (Rideout, 2015). Some of these profiles show gender differences. For example, though both boys and girls play videos games and use social media, boys are more likely to play videos games while girls are more likely to use social media (Rideout, 2015).

Today, young people's online identities are more likely to be "nonymous"—tied to their real names, identities, and offline relationships—than anonymous (Reich, Subrahmanyam, & Espinoza, 2012; Zhao, Grasmuck, & Martin, 2008). Their digital footprints are increasingly co-produced with peers who casually snap images throughout the day, upload group pictures, and tag each other in posts. And their app use is undoubtedly a moving target: Tweens and teens periodically discover and migrate to new apps, and they leverage existing app features in novel ways (e.g., using geolocation to track social gatherings in real time; tagging friends who aren't in pictures so they will receive push notifications; utilizing apps to manage multiple accounts so they can intentionally split their audiences). We have seen a rise in young people's uses of apps that allow content to be ephemeral (i.e., images disappear in a few seconds) and a noteworthy interest in

STUDENT AND EDUCATOR VOICES

"That's important to admit to kids: The world is not a series of right and wrong answers. We need to be able to have discussions about those gray areas."

— HIGH SCHOOL ENGLISH LANGUAGE
ARTS TEACHER

"We want to get ahead of helping [kids] think these decisions through and teach about it proactively so that when things happen, we can refer back to it. [And] so they can better navigate those things, because they're doing it earlier and earlier." — MIDDLE SCHOOL PRINCIPAL

apps that allow them to solicit and exchange anonymous peer feedback to sensitive questions, such as "Am I attractive?," "Do people really like me?," and "Be honest: Are we friends?"

Beyond dynamics among friends and peer groups, the wider world also plays a consequential role in young people's digital lives. The current media context, fake news concerns, political polarization, and activism around urgent public issues—including gun control, immigration, sexual harassment, hate speech, and racism—involve a dynamic digital component. Despite the challenging context, since the tone and content of social media posts can mislead, intimidate, or dissuade, there are hopes for positive opportunities for young people when it comes to voice, dialogue, and civic engagement (Kahne, Middaugh, & Allen, 2015).

Tweens and teens can leverage the ability to reach broad audiences, but they must wrestle with the persistent or "forever" nature of online posts. They are tasked with anticipating invisible and even unintended audiences for their posts. Apps and platforms are designed to highlight metrics such as likes, streaks, shares, and favorites, which provide quantified implications of social acceptance, approval, or disapproval. Young people sometimes struggle with the always-on nature of digital media, feeling the need to check, respond to, and be tethered to devices. Features such as these can alter, amplify, and transform adolescents' experiences of their peer relationships (Nesi, Choukas-Bradley, & Prinstein, 2018).

Despite these challenges, teens overall have favorable views on the impact of social media. Teens are more likely to say social media has had a positive effect than to say it has had a negative effect, making them feel less lonely, happy, and closer to friends (Common Sense Media, 2018; Weinstein, 2018). Teens who think social media has had a negative influence cite bullying and the spread of rumors, disruption of meaningful human interactions, a sense that social media gives an unrealistic view of people's lives, and concerns that their peer group spends too much time on social apps (Anderson & Jiang, 2018).

In this mixed landscape, adults play a crucial role in guiding young people. Kids are observing and learning about how to navigate the internet and digital devices, whether from family or educators, regarding online privacy and what's OK or not OK to share, how we communicate with others, how we search for and make sense of information and news, and overall how we participate in our

interconnected world. Early on, kids are developing habits of media use in their everyday lives that they'll carry into adulthood.

Parents also have concerns around their kids' media use, and they look to schools for advice on parenting in a digital age. For younger kids, parents are most concerned about content (sex, violence, depictions of drugs and alcohol, gender and racial stereotypes) and overall screen time. For older kids, parents are still concerned with content and screen time, but they're also worried about what kids are posting and whom they're communicating with (Rideout, 2015; Rideout, 2017).

As young people and adults navigate the digital world, they increasingly face dilemmas and sticky situations that lack clear-cut right or wrong answers, such as "How much communication with friends is too much?," "What is the boundary between being authentic and oversharing?," and "If someone posts an offensive comment on social media, should I leverage the technology at my fingertips to call them out publicly, even if it might damage my reputation?"

Digital life is here to stay, and supporting young people requires more than simply managing screen time and setting strong passwords. We believe that preparing young people to leverage the positive potentials, navigate the challenges, and manage thorny dilemmas is our best way forward as educators. Doing so requires reexamining what and how we teach.

Our Approach to the Curriculum

The updated Digital Citizenship Curriculum provides new content in topic areas that educators identified as important and urgent. The updated lessons are intentionally designed to cultivate both skills and dispositions to help young people thrive in our interconnected world. As one middle school teacher explained, "I'm not interested in just giving them a definition of sexting, because that's not going to help them make a decision at ten o'clock on a Saturday night." Indeed, adults are often absent or unaware of the details of kids' activities when they're interacting online. Common Sense Education wants to equip young people with the knowledge and skills they need to navigate the digital world as well as the dispositions and agency to ensure they put those skills to use.

Our Guiding Theory: A Dispositional Approach

As educators, we often focus on the skills students need to learn but less on fostering the dispositions necessary to actually enact those skills. Dispositions guide students' thoughts and behaviors as they go about their lives. We support the development of dispositions when we attend to students' 1). being sensitive to situations where careful, critical thinking and action are warranted, and 2). inclinations and motivations to follow through with putting skills they have learned to use (Perkins, Jay, & Tishman, 1993; Perkins & Tishman, 2006).

The updated Digital Citizenship Curriculum, guided by research on thinking dispositions, is designed to foster both necessary skills and essential dispositions for digital citizenship. In other words, the Project Zero team and Common Sense Education aim to support young people in developing skills such as creating a strong password or assessing the credibility of an online source, but we also want to help students develop the sensitivity to recognize potential digital dilemmas and tricky decision points when they arise and the inclination to think and respond with care. Ultimately, we aim to help young people be reflective, responsible, and ethical decision makers in their connected lives.

Skills Vs. Dispositions

Skills: abilities, competencies, or things one knows how to do

Examples: creating a strong password, customizing privacy settings, assessing the credibility of a website, expressing an idea in a coherent way, identifying phishing and clickbait

Dispositions: ongoing tendencies that guide thinking and behavior and shape whether and how people use their knowledge and skills (Perkins, Jay, & Tishman, 1993)

Examples: thinking through possible outcomes before posting a photo online or replying to a comment, noticing an offensive comment and carefully weighing whether or how to respond, pausing and reflecting before responding to a heated message, asking permission before sharing a photo or information about someone else

The updated curriculum is designed to support a set of five core dispositions the Project Zero team and Common Sense Education believe young digital citizens should embody in all domains of life: in school, on the sports field, and in their communities as well as on Snapchat, on Instagram, and in *Fortnite*. These dispositions are incorporated into the curriculum and put into practice through the lesson activities. Each lesson addresses one or more dispositions.

Five Core Dispositions of Digital Citizenship	
DISPOSITION	STEPS YOU CAN TAKE
Slow down and self-reflect	<ul style="list-style-type: none"> Notice your gut reaction Push beyond your first impression Recognize that situations can be complex Routinely take stock of your habits Pay attention to "red flag feelings"²
Explore perspectives	<ul style="list-style-type: none"> Be curious and open-minded Think about other people's points of view Care for other people's feelings Weigh different people's values and priorities as well as your own Consider moral, ethical, and civic responsibilities (the Rings of Responsibility)
Seek facts and evidence	<ul style="list-style-type: none"> Investigate and uncover relevant facts Seek and evaluate information from multiple credible sources Weigh evidence from different sources
Envision options and possible impacts	<ul style="list-style-type: none"> Envision possible courses of action Consider how different choices reflect your values and goals Stay alert to responsibilities to yourself and others Evaluate possible impacts
Take action	<ul style="list-style-type: none"> Decide on a course of action that feels positive and productive Make changes in digital habits to support well-being Ask for help when you need it Be an ally and upstander for others

²"Red flag feeling" is a term used in our middle and high school lesson plans, meaning "when something happens on digital media that makes you feel uncomfortable, worried, sad, or anxious."

Ultimately, when teaching digital citizenship, we believe focusing on the combination of skills and dispositions is a powerful approach to help students develop the "what" (skills) but also the "why" and the "how" (dispositions). Just as we teach kids to "stop, look, and listen" when crossing the street, Common Sense Education teaches them to "slow down, pause, and think" in their connected lives. What we want students to think about will vary depending on the situation, but we teach students different strategies and habits of mind to foster these reflective dispositions.

Cornerstones of the Curriculum

In addition to a dispositional approach, two cornerstones make up the foundation of Common Sense Education's Digital Citizenship Curriculum: the Rings of Responsibility framework and three types of Promising Pedagogies. These cornerstones work together in lessons across every grade level and on every topic.

Rings of Responsibility



Our digital technology habits and actions affect ourselves, our friends and families, our communities, and unknown others across the globe. The Rings of Responsibility framework guides us to consider our personal well-being alongside broader moral, ethical, and civic considerations. This means that we have a responsibility not only for the impact of our actions on ourselves but also on our communities and the broader world. The outer rings are especially important given the challenge of ethical blind spots when making choices online (James, 2014). Though not every lesson touches on every ring, Common Sense Education intentionally use the Rings of Responsibility as a lens in our overall curriculum design, including dispositions such as "exploring perspectives" and "envisioning options and potential impacts."

Promising Pedagogies

The updated Digital Citizenship Curriculum incorporates thinking routines, authentic activities, and digital dilemmas as vital pedagogical practices for fostering digital citizenship skills and dispositions. Particularly in lessons for the middle and high school grades, these pedagogical approaches provide powerful supports for students to enact digital citizenship in their everyday lives.

Thinking Routines

Thinking routines are short, accessible, easy-to-remember structures that direct our thinking toward deep and nuanced reflection (Ritchhart, Church, & Morrison, 2011; Perkins & Tishman, 2006). A key aim of the new curriculum is to incorporate thinking routines that help students develop the five dispositions. In digital citizenship, we often encourage students to "slow down, pause, and think" in their digital lives. New and forthcoming lessons utilize specific thinking routines to guide students' thinking in particular directions. Depending on the topic and issue at hand, these routines help students respond as allies or upstanders when cyberbullying happens, reflect before signing up for online accounts, or decide thoughtfully whether or not to share a photo that includes friends.

For students to recognize when to use a thinking routine they have learned, they need to develop the sensitivity to be alert to cues. Several middle and high school lessons support students in recognizing "red flag feelings," which refer to situations that make one feel uncomfortable, worried, sad, or anxious. Through lesson activities, students learn to be alert to red flag feelings and then how to use relevant thinking routines when faced with these moments in order to slow down, think through one's feelings, and carefully consider choices.

Thinking Routine in Action

In the seventh-grade lesson "My Social Media Life," students reflect on how using social media positively and negatively affects relationships with friends, family, and the community. One of the pressures middle schoolers sometimes feel is to be constantly connected with friends online, which can cause downsides such as feeling inadequate, oversharing, and a fear of missing out. The "My Social Media Life" lesson helps students recognize "red flag feeling" moments when social media is causing negative feelings and thoughts. Then, students are encouraged to use the Feel, Identify, Reflect, Enact (F.I.R.E.) thinking routine as they respond to their red flag feelings.

- **Feel:** Take a pulse of your emotions: Are you feeling sad, anxious, jealous, excluded, worried, or uncomfortable? (If not, what emotion best captures how you currently feel?)

- **Identify:** What happened that led to this feeling? Identify the cause: Was it something you—or someone else—said or did?
- **Reflect:** Reflect on possible responses: What choices of action are available to you? What are the the benefits or drawbacks—for you and for others—of each step you might take?
- **Enact:** Are you ready to move forward and address the situation in a way that feels positive and productive, for you and for others?

This particular thinking routine supports the dispositions of "slowing down," "exploring different perspectives," "envisioning options and possible impacts," and "taking action."

Authentic Activities

Another pedagogical practice advocated in the curriculum is incorporating authentic activities.³ These activities are developmentally appropriate, teacher tested, and designed to help foster digital citizenship skills and dispositions in students. For example, many of the lessons include scenarios featuring situations relatable to students, helping them "explore different perspectives" and "envision options and possible impacts." Personal challenges are used, for instance, when students develop a personal media balance plan, helping them reflect and "take action" in a meaningful way.

Authentic Activity Examples	
Image analysis	Students critically examine images that simulate what a student might see online or on social media to help students slow down and think critically.
Personal challenges	Students construct individual goals or challenges that promote positive change and that are documented and actionable.
Scenarios	Students engage with and consider short stories or vignettes that feature characters in situations kids can relate to and respond to.
Sentence starters	Students co-develop and learn language to use online (such as "I haven't considered ... " or "I would have felt ... ") to share their perspectives, engage in civil dialogue, or respond to requests that make them feel uncomfortable.
Socratic seminars	In a group-discussion format, students discuss the ideas in the text, practice listening to each other, and find common ground.
Videos	Students watch and discuss videos of real kids sharing their authentic perspectives on issues in their digital lives to help promote conversation and perspective taking.

³This list of authentic activities is not comprehensive and may change based on future research and insights.

Digital Dilemmas

In their connected lives, kids face issues—or dilemmas—that don't necessarily have right or wrong answers. Grappling with dilemmas provides rich educational opportunities for young people to develop core dispositions for digital life. "Digital dilemmas" are vivid cases that foreground authentic tensions that arise in networked life, including tensions across the Rings of Responsibility. Dilemmas are consequential by design; something important is at stake. In forthcoming lessons and supplemental materials⁴, the curriculum will feature dilemmas that are relevant not only to kids but to everyone living in the digital world.

Four Domains of Digital Dilemmas

- **Personal dilemmas:** Include how time online may support or undercut time for reflection; pressures related to "being present" in face-to-face encounters and/or always within reach online; and digital footprint, identity, and reputational concerns.
- **Moral dilemmas:** Include dilemmas that arise between close friends, romantic partners, family members, and other so-called strong ties.
- **Ethical dilemmas:** Include online scenarios that implicate distant individuals and wider communities—e.g., hate speech and appropriation of content without attribution.
- **Civic dilemmas:** Include online scenarios that raise questions about free speech and other civil liberties or that involve civic, political, or social justice issues.

⁴ Common Sense Education and Project Zero plan to release a digital dilemmas "hub" in 2020 that includes resources and materials that will supplement the curriculum.



A Look Inside the Curriculum: Six Topics

The new curriculum is framed around six digital topics that pose opportunities and challenges for young people according to current research.⁵ Each topic is addressed in a developmentally appropriate way throughout grades K–12. See the six topics on the following pages including research from the field and highlights of the approach within the curriculum.

⁵Common Sense Education's previous version of the curriculum addressed eight topics. Some of the same topics are included in the updated curriculum or have been collapsed together, while other topics are expanded upon.



MEDIA BALANCE & WELL-BEING

We find balance
in our digital lives.

Media Balance and Well-Being

A common concern expressed by parents, teachers, and kids themselves is the sheer amount of time kids spend connected each day. While the quantity of that time is important, Common Sense Education advocates for the conversation to move beyond screen time alone and to explore what kids are actually doing during the time they spend with screens. We want to support kids in practicing media balance: using technologies in a way that feels healthy and in balance with other life activities (family, friends, school, hobbies, etc.).

In Project Zero's EDD surveys, over 500 tweens and teens were asked about their perspectives on the best and the most challenging parts of growing up with today's technologies. Emerging findings reveal that young people list managing feelings of dependence on their devices and concerns about the ways technology disrupts other activities as among the most challenging parts of growing up with today's technologies and social media. Similarly, Felt and Robb (2016) found that 66 percent of parents feel their teens spend too much time on mobile devices—and 52 percent of teens agree. The same study found that over half of teens feel that social media distracts them from other important things in life, such as completing their homework or paying attention to the people they're with.

The nature of social media experiences also influences well-being (Verduyn, Ybarra, Resibois, Jonides, & Kross, 2017). Social media may not be only good or bad for a particular teen: The influences can be both positive and negative and may change over time (Weinstein, 2018). This suggests a need to help students learn to take stock of their social media use, curate their online experiences, and adapt their everyday practices to support wellness. Because people often present idealized highlight reels of their lives on social media, browsing can reveal large amounts of distorted social information that elicits comparison and jealousy (Underwood & Ehrenreich, 2017). Further, young people who tend to struggle with challenges such as depression merit

particular attention given that they report more intense and "heightened" emotional responses to social media use (Rideout & Robb, 2018; Rideout & Fox, 2018).

The EDD surveys also reveal teachers' concerns about the influences of technology on their students' well-being, such as students' constant connection to their devices, students multitasking in class or while completing homework, displacement of other life activities and interests, disruption of sleep, social comparison through social media, and, potentially, anxiety, depression, and suicide.

Furthermore, devices, websites, and apps are designed in ways that can lead to dependence and contribute to feelings of attachment. Apps such as Snapchat and Instagram have built-in features such as likes, Snapstreaks, alerts, and notifications. YouTube and Netflix have autoplay features that make it easy to keep consuming content without interruption. Most teens are well aware of attention-grabbing practices: Seventy-two percent of teens believe that tech companies manipulate users to spend more time on their devices (Rideout & Robb, 2018). However, the pull of these apps is strong, and awareness is not always enough to ignite protective habits.

Based on the existing and emerging research on media balance and well-being, the core curricular strategies emphasized in lessons include:

- Core question: How can I make screen time meaningful?
- Students go beyond screen time to explore the impact that their digital lives can have on their health, well-being, and relationships with others while learning strategies for balancing media in their everyday lives.
- Lessons feature authentic activities that focus on the dispositions "slowing down" and "taking action." Students slow down by taking stock of their digital media habits with a media inventory (completed at every grade band), evaluating their emotions, and

STUDENT AND EDUCATOR VOICES

"Some of the tricky parts are: You can feel really attached to your phone or device, and you will have the need to bring it everywhere, and you will feel like you always have to use it."

— MIDDLE SCHOOL STUDENT

"It can be difficult to pull away from technology."

— MIDDLE SCHOOL STUDENT

"It's important for us to teach kids balance and that any use of technology should be purposeful—and when it's not purposeful, you need to be able to check yourself: Why am I doing this right now?... And I try to model that for kids."

— HIGH SCHOOL EDUCATOR

examining how different digital activities either support or hinder their well-being. They take action by developing a personal media plan, incorporating an authentic activity regarding a personal challenge to take responsibility for their own media balance.

- Middle and high school students also explore how digital media is designed to make users dependent on and attached to it. Through the lens of humane design,⁶ students deconstruct how certain devices and apps are built to capture and keep their attention. Exploring how technology is designed helps promote the dispositions "explore perspectives" and "envision options and possible impacts." It also helps students imagine alternative designs that could help promote media balance.

⁶See the [Center for Humane Technology](#) for more information on humane design.



PRIVACY & SECURITY

We care about
everyone's privacy.

Privacy and Security

Common Sense Education's curriculum covers the issue of privacy from two angles: data privacy, and the impact of privacy on students' digital footprints and reputations. In *Privacy and Security*, the focus is on data privacy, which covers practices that keep young people's private data secure and protects them from risk. As students increasingly share information online, whether through signing up for accounts, making online purchases, or sharing on social media, data about them is collected by devices, internet algorithms, companies, third parties, data miners, and the internet of things (e.g., voice-activated technologies). As internet-connected devices—from phones and tablets to toys and voice-activated speakers—become more ubiquitous, managing children's privacy becomes increasingly challenging. Children need to learn privacy-protection practices early on to instill habits they can carry into adulthood.

As consumers, we all have rights to online privacy. As a vulnerable population, children have special privacy rights and protections. The United States has federal laws related to data collection and use for minors in both personal and educational contexts. The Family Educational Rights and Privacy Act (FERPA) deals with the rights of students in schools, and the Children's Online Privacy Protection Act (COPPA) deals with data collection for children under the age of 13. In addition, there are state-specific laws, like California's Student Online Personal Information Protection Act (SOPIPA), which protects children's data use by edtech companies and applications used in schools. Schools need to comply with federal privacy laws to protect students.⁷ But students need to be aware of how to protect their own data and their rights to privacy both within and outside of a school context.

⁷Common Sense Education's [Privacy Evaluation Initiative](#) helps clarify privacy policies so teachers can make smart choices about the learning tools they use with students and so schools and districts can participate in evaluating the technology used in K–12 classrooms.

Tracking and profiling young people's activity online has become widespread practice, despite privacy laws. Toy company websites and other sites that target kids—sites that are supposed to follow COPPA—have instead been found to track and collect personal information from kids (Newman, 2016). Teens (starting at age 13) are no longer protected by COPPA. They can legally be tracked and targeted with ads, and their data can be shared with third parties for other purposes.⁸ Teens, who are active in signing up for accounts and sharing information online, are targeted with personalized ads based on their online behavior. One in three teens who go online report seeing online advertising that is "clearly inappropriate" for their age (Madden, Lenhart, Cortesi, Gasser, Duggan, Smith, & Beaton, 2013).

Identity theft is another online privacy risk for children and teens and an issue that not many are aware of. Over 1 million U.S. children were affected by identity fraud in 2017, with \$2.6 billion in total losses and families paying a combined \$540 million out of pocket (Pascual & Marchini, 2018). Identity thieves target children because their Social Security numbers are "clean," with no associated debt or records. Because kids aren't applying for loans or credit cards, signs that their identities have been stolen may not surface until years later. Moreover, minors who are bullied online are nine times more likely to be victims of fraud than minors who are not bullied (Pascual & Marchini, 2018). This might be due to kids' vulnerabilities with oversharing personal information in an anonymous environment or with their being taken advantage of when seeking friendship online.

In one interview-based study, younger children (age 5 to 11) recognized the importance of basic privacy practices, like not sharing their name, birthday, or address (Kumar, Naik, Devkar, Chetty, Clegg, & Vitak, 2017). Children recognized the importance of having strong passwords and

STUDENT AND EDUCATOR VOICES

"Big companies can sell your private information." — MIDDLE SCHOOL STUDENT

"A lot of times bad people can gain access to you and your personal life and info, which can lead to a lot of bad things." — MIDDLE SCHOOL STUDENT

"People could steal your identity."
— MIDDLE SCHOOL STUDENT

"Students are growing up in a climate where there is no longer an awareness of what is private and why it is vital to maintain privacy. Students are now the products being capitalized on in much bigger ways than were possible before screen lives. I fear they won't know what they've given away until it is too late." — HIGH SCHOOL LIBRARIAN

⁸Though users of applications opt in to data usage when they sign up for accounts, privacy policies are long legal documents that are difficult for most consumers to read and understand (Das, Cheung, Nebeker, Bietz, & Bloss, 2018).

keeping them private.⁹ Most children relied on parents for information about privacy, and, to a lesser degree, some children provided false information (like a fake name) to protect their privacy or used extra precautions, like a password for their device, to protect themselves. Children relied on explicit rules—rather than internalized norms—about disclosing information online, and they cited fear of punishment as a deciding factor rather than understanding actual threats to their privacy and security. Parents tended to wait to teach kids about online privacy until they were older, missing opportunities to develop habits and skills from a young age (Kumar et al., 2017).

Teens are more aware of their online privacy and do take steps to protect themselves. Most teens restrict and curate their profiles and posts, manage their networks, mask information they don't want others to know, and use other strategies, such as falsifying information, to protect their privacy (Agosto & Abbas, 2017; Davis & James, 2013; Madden et al., 2013). Sixty percent of teen Facebook users keep their profiles private, and most report confidence in managing their privacy settings (Madden et al., 2013).¹⁰ But focus groups show that some teens do not have a good sense of whether information they share on a social media site is used by third parties, and only 9 percent are "very concerned" about third-party access to information they share, while 60 percent are "not too" or "not at all" concerned (Madden et al., 2013). Teens who are concerned about third-party access are more likely to manage their online reputations, including by deleting comments others have made on their profiles, untagging themselves in photos, or deleting their accounts (Madden et al., 2013). The most frequent message about privacy tweens reported hearing from educators was "don't post personal information online" (address, location, phone number), which doesn't address the broader variety of privacy concerns that tweens have, including concerns about their peers sharing photos or personal information without their permission (Davis & James, 2013).

Based on the research on privacy and security, the core curricular strategies emphasized in lessons include:

- Core question: How can I keep private data safe and secure?
- Students learn the difference between personal and private information, the risks of sharing different types of information online, and the benefits of safe online sharing, such as learning and connecting to their interests.

⁹During the interviews in this study, more than 25 percent of children revealed their passwords, and a few said there were instances when they would reveal their address in a message online (Kumar et al., 2017).

¹⁰Note that Facebook is no longer the most popular social network for teens, but rather Snapchat and Instagram are reported as most used among U.S. young people (Rideout & Robb, 2018).

- Lessons feature a focus on the dispositions "slowing down" (thinking carefully prior to sharing private information), "envisioning options and possible impacts" (knowing about the possible risks of sharing certain information), and "taking action" (advocating for privacy rights for themselves and others). Through scenarios, videos, and thinking routines, elementary school students learn data-privacy rules and safety precautions, the importance of strong passwords (and of not sharing passwords), and how to recognize scams like phishing and clickbait. Middle and high school students weigh the risks and benefits of sharing personal and private data online through activities with real-life scenarios and videos. They examine how companies collect, share, and use consumer data, and they learn about laws that protect consumers. They also learn about their rights to opt out and to identify ways to protect their own data, as well as others' data.



DIGITAL FOOTPRINT & IDENTITY

We define who we are.

Digital Footprint and Identity

Identity exploration and self-expression are key developmental tasks for young people as they move from childhood through adolescence and into adulthood. Kids develop their identities with access to digital media as spaces to express, curate, broadcast, and record their lives. Younger kids may explore their identities through the types of content they consume or by choosing avatars to use in apps or games. Older kids snap selfies and carefully choose which posts to share. Some teens also live-broadcast through social video chatting and livestreaming. These activities all make up kids' digital footprints, a unique trail of their online activities.

On the one hand, digital media is an important avenue for self-expression and creative sharing. Twenty-seven percent of teens say social media is "extremely" or "very" important for expressing themselves creatively. For example, teens report, "I get to share things that I make," "[I get to] post my artwork out to the public," and "I get to post my costume and design work" (Rideout & Robb, 2018). In addition, expression through digital media has become a key feature in adolescent development, wherein kids figure out who they are and communicate their identities to others (boyd, 2008; Davis & Weinstein, 2017). Teens appreciate opportunities to see their own development and the progression of their close relationships over time (Davis, 2010). People who grew up in a pre-digital world likely remember photo collages, bulletin boards, and albums. Today's young people similarly value opportunities to store and revisit their images, though their collections often take digital forms.

While digital media provides a space for young people to explore identities, apps can constrain them (Gardner & Davis, 2013). Some teens can feel pressure to conform to idealized societal norms when they present themselves online. Forty percent of teen social media users feel pressure to post only content that makes themselves look good to others, and 39 percent feel pressure to post content that will be popular or get likes (Lenhart, 2015).

To manage these pressures, young people often use multiple accounts across different social media platforms (rinstas, finstas, spam accounts) to manage their identity expressions to different audiences¹¹ (Walsh, 2018; Weinstein, 2018). Adults are often unaware of teens' different accounts: While 60 percent of teens have created online accounts that their parents are unaware of, only 28 percent of parents suspect their teens have accounts they don't know about (National Cybersecurity Alliance, 2016).

In addition, the fact that anything posted online is persistent, searchable, replicable, and scalable can raise the stakes of online participation (boyd, 2008).

Eighty-eight percent of teen social media users believe people share too much information about themselves (Lenhart, 2015). Both seemingly innocent and objectively problematic posts may have future negative ramifications. One-off comments, compromising pictures (including images from parties, sexualized images, and images that contain alcohol or drugs), or the expression of hateful views such as racist or sexist speech can result in kids' suspensions or expulsions, revoked college admissions, loss of scholarships and jobs, and more. Furthermore, digital footprints are not always in kids' own control, as 42 percent of social media-using teens have had someone post things online about them that they cannot change or control (Lenhart, 2015).

Along with online expression comes consequential dilemmas: When does trying out a new identity online cross over to deception? Should parents or schools monitor young people's digital content and footprints, including text messages and social media accounts, or does such monitoring violate young people's privacy? Is it fair for college admissions officers to consider applicants' social media posts? Should people face consequences later in life for social media posts they shared during grade school years? Rather than trying to simply evoke fear about ambiguous future

STUDENT AND EDUCATOR VOICES

"One of the most challenging things is making the choice of what to post and what not to post. And choosing what to comment and how it may affect others who see it." — MIDDLE SCHOOL STUDENT

"You always need to be aware of that once you post a picture it is out there forever." — MIDDLE SCHOOL STUDENT

"Online ... we want [kids] to be true to [them]selves and to be advocates for other people. But there's often no supervision, and we want to plant all the right seeds and have them follow through." — MIDDLE SCHOOL PRINCIPAL

¹¹On Instagram, young people often have "rinsta" (real Instagram) versus "finsta" (fake secondary Instagram) accounts or spam accounts to share personal, unpolished moments with their inner circles of friends.

consequences, classroom approaches to exploring digital footprints must reflect the vexing realities of today's co-constructed footprints and the rapidly evolving digital landscape.

Based on the research on digital footprints and identities, the core curricular strategies emphasized in lessons include:

- Core question: How can I be responsible with my online identity?
- Students consider the benefits and risks of online sharing and explore how their digital expressions affect their sense of self, their reputations, and their relationships. They focus on the dispositions "exploring perspectives" and "envisioning options and possible impacts."
- Lessons feature authentic activities, including engaging videos and scenarios, and thinking routines that invite students to consider personal, moral, and ethical issues associated with the potentially persistent nature of their online identities.
- Elementary school students focus on defining the term "digital footprint," and, through the lens of the Rings of Responsibility, they reflect on their responsibility to themselves and consider the broader online community regarding digital footprints. Middle and high school students focus on the benefits and drawbacks of digital sharing and focus on the outer rings, beyond the self, of the Rings of Responsibility, in understanding their responsibility in contributing to others' digital footprints. Students build agency to develop positive digital footprints for college and career.



RELATIONSHIPS & COMMUNICATION

We know the power
of words & actions.

Relationships and Communication

Students' relationships and need for peer validation take on increased prominence as they move into the teen years. As parents are well aware, teens spend increasing amounts of time with friends and romantic interests. Today's teens are also figuring out how to communicate and carry out these close relationships through digital media. They connect to friends through texting and social media and—particularly for boys—through gaming (Lenhart, 2015).

Teens have mixed views on the positive and negative effects of technology and social media on their relationships, though most teens say social media generally has a positive effect on how they feel, with their top reason being the ability to connect with friends and family members (Anderson & Jiang, 2018; Rideout & Robb, 2018). Eighty-three percent of teen social media users report that social media makes them feel more connected to information about their friends' lives, and 68 percent have received social support through social media during tough or challenging times (Lenhart, 2015).

However, a smaller percentage of teens, particularly those who struggle with depression, report more intense and heightened emotional responses to social media use (Rideout & Robb, 2018; Rideout & Fox, 2018). Social exclusion and fear of missing out are familiar and painful experiences for many teens, and they are exacerbated on social media by real-time and photo-based sharing

STUDENT AND EDUCATOR VOICES

The best parts of growing up with technology are ...

"You have the ability to spread positivity, catch up with old friends you may have never reconnected with, and find others like you going through the same things as you."

— MIDDLE SCHOOL STUDENT

The biggest challenges or worries about growing up with technology are ...

"When your friends are doing something that doesn't involve you and you feel rejected." — MIDDLE SCHOOL STUDENT

"[Sexting] issues were coming up and it was simply: We're actually being remiss if we don't address it. This is a key issue." — MIDDLE SCHOOL TEACHER

(Underwood & Ehrenreich, 2017). Given the possibility of 24/7 access to others via smartphones and other devices, young people describe struggles with boundaries and feeling uncertainty and stress about how much communication with close friends and romantic partners is too much, not enough, or just right (Weinstein & Selman, 2016).

In addition to using social media to support their in-person friendships, teens are making new friends online. Fifty-seven percent of teens report making at least one new friend online, mainly through social media or online gameplay (Lenhart, 2015). Online friendships are often born of shared interests and/or mutual friends, and most online friendships stay online (Ito et al., 2010).

Adults continue to express concern about tweens and teens being targeted by online predators, though this experience is relatively uncommon (Mitchell, Jones, Finkelhor, & Wolak, 2014). Kids are more likely to pressure each other to share sexual content than to receive such requests from predatory adults, and the chances a child will be victimized in an online-mediated sex crime are extremely low. When these crimes do occur, perpetrators are most likely to be known others (from school, church, or the neighborhood) (Dedkova, 2015; Wolak & Finkelhor, 2013). Rather than perpetuating a stranger-danger rhetoric and blaming the apps, educators can focus on teaching kids about "healthy, age-appropriate relationships [and] helping them practice refusal skills; impulse management and emotion control; and bystander mobilization" (Finkelhor, 2016, para. 12).

Teens also use social media to friend, "like," flirt, joke around with, and get to know crushes or potential partners. Over half of teens report using social media to flirt with or talk to someone they're interested in romantically (Lenhart, Anderson, & Smith, 2015). In some cases, flirting may escalate to more risky digital communication. Sexting, or sending "nudes," is also a concern among parents and educators (Hinduja & Patchin, 2017; Madigan, Ly, Rash, Van Ouytsel, & Temple, 2018; Johnson, Mishna, Omuku, & Daciuk, 2018). One meta-analysis of 39 studies with young people age 12 to 17 indicated that the mean prevalence for sending sexts is nearly 15 percent, while the mean prevalence for receiving sexts is 27 percent (Madigan et al., 2018). While some sexting may be consensual, 12 percent of teens report forwarding a sext without consent (Madigan, et al., 2018)¹².

¹²See Common Sense Education's [The Risks of Sexting Handbook](#) for more information on the potential consequences of sexting, including "revenge porn" and others sharing sexts with malicious intent.

In EDD's nationwide survey of educators, sexting featured regularly in schools' reports of the specific digital challenges their communities are facing. Educators expressed particular concerns about pressured sexting, revenge porn, and the nonconsensual forwarding of sexts to unintended audiences. Given that sexts can be seen by young people as a powerful "currency of trust" and a way to convey intimacy in a digital age, simply telling them, "Don't do it," often misses the mark, as it overlooks motivating forces (desire to establish intimacy; desire for social connection; desire for peer validation) that drive adolescents' behaviors and development (Thomas, 2017). Young people need effective strategies appropriately aligned with their different ages and stages. Educators also need to scaffold young people's sensitivities to the particularly problematic nature of the nonconsensual forwarding of sexts and support them in developing healthy relationships in this complex landscape.

Educators and parents also are concerned with how technology may disrupt face-to-face relationships and connection. Indeed, teens prefer texting as their main form of communication more so than face-to-face communication (Rideout & Robb, 2018). Helping young people understand the benefits and drawbacks of virtual and text-based communication when it comes to their relationships, as well as the challenge of inferring meaning with lack of nonverbal cues, is important to preventing misunderstandings and miscommunication. Of note, students in Project Zero's EDD surveys also express acute concerns about "stranger danger" and specifically cite fears about kidnapping, rape, and threats to their physical safety from people online. Tweens report hearing messages about "stranger danger" from teachers and adults, which may perpetuate students' fears (Davis & James, 2012). Supporting students to explore and pursue their interests safely online continues to be critically important—and ideally this is achieved without increasing young people's fear and anxiety (Finch, 2016).

Based on the research on relationships and communication, the core curricular strategies emphasized in lessons include:

- Core question: How can I build positive relationships?
- Students explore the benefits and drawbacks of digital media when it comes to relationships, addressing risky disclosure behaviors such as oversharing and sexting, setting boundaries with close friends, and building positive relationships.
- Lessons feature relatable scenarios and videos for students to react to and that highlight the disposition "exploring perspectives" by considering other people's points of view,

alongside their responsibilities to themselves and others (highlighting the Rings of Responsibility). The disposition "slowing down" before reacting is emphasized, and in upper grades paying attention to "red flag feelings" and using thinking routines to guide students in sticky situations are emphasized.

- Elementary school students focus on the differences between online and offline and between verbal and nonverbal communication, again emphasizing the importance of taking other people's perspectives and preventing miscommunication. Middle and high school students focus on exploring how digital media affects their relationships and learn about self-disclosure, peer pressure, civil dialogue, and adapting messages to different audiences (e.g., personal versus professional).



CYBERBULLYING, DIGITAL DRAMA & HATE SPEECH

We are kind & courageous.

Cyberbullying, Digital Drama, and Hate Speech

Just as bullying occurs in school hallways or on school grounds, it can also happen online and through texting. Cyberbullying is the use of digital devices, sites, and apps to intimidate, harm, and upset someone. Targets of cyberbullying report feeling depressed, sad, angry, and frustrated. Cyberbullying can also affect self-esteem, contribute to family problems, disrupt academic achievement, lead to school violence, and give rise to suicidal thoughts (Hinduja & Patchin, 2018). A summary of research on cyberbullying in middle and high school from 2004 to 2016 indicated that, on average, 28 percent of students have been targets of cyberbullying, and 16 percent of students admitted to cyberbullying others (Patchin, 2016). Importantly, how cyberbullying is defined affects findings on the prevalence of cyberbullying experiences. A majority of teens (59 percent) have experienced "some form of cyberbullying" when it is defined to include name-calling and the spreading of rumors (Anderson, 2018). Justin Patchin of the Cyberbullying Research Center describes cyberbullying as "neither an epidemic nor a rarity ... [b]ut ... something that everyone has a responsibility to work toward ending" (2016).

Harmful and abusive digital behavior can take many forms, from one-off mean comments to repeated and ongoing bullying. Tweens and teens may use the term "drama" to capture a range of behaviors that lead to harms (Marwick & boyd, 2014). Of teens on social media, 68 percent have experienced drama among their friends on social media (Lenhart, 2015). Of teens who perceive

STUDENT AND EDUCATOR VOICES

The biggest challenges or worries about growing up with technology are ...

"Having to deal with hate all over the place, whether it's in the comments, in your direct messages, or in person when you may see that person you were arguing with on Instagram or Snapchat at your school."

— MIDDLE SCHOOL STUDENT

"Trying to stay positive and keep out of hate on social media is extremely hard."

— MIDDLE SCHOOL STUDENT

"[Cyberbullying is] common and hurts people a lot." — MIDDLE SCHOOL STUDENT

social media as having a "mostly negative effect," the primary reason is the role social apps play in perpetuating rumors and bullying (Anderson & Jiang, 2018).

While cyberbullying and digital drama are not new, they continue to be top concerns for schools, which struggle with how to intervene. Especially when issues appear on social media, the line between what happens at home and school is blurred. Ninety percent of teens believe online harassment is a problem that affects people their age, and the majority of them think teachers, social media companies, and politicians are currently failing at tackling the issue (Anderson, 2018).

In addition to cyberbullying, hate speech is an increasing concern. Teens' exposure to racist, sexist, and homophobic content on social media has risen, with 64 percent saying they "often" or "sometimes" see hateful content on social media (Rideout & Robb, 2018). In a representative sample of U.S. high schools, teachers in predominantly white schools report rising polarization, incivility, and increasingly hostile environments for racial and religious minorities and other vulnerable groups (Rogers, Franke, Yun, Ishimoto, Diera, Geller, and Brenes, 2017). These trends underscore a need for distinct supports keyed to hate speech and incivility, in addition to cyberbullying-related supports (Benesch, 2018; Citron, 2011, 2014).

Based on the research on cyberbullying, digital drama, and hate speech, the core curricular strategies emphasized in lessons include:

- Core question: How can I be kind, respectful, and civil when communicating online?
- Students take on tough topics regarding how we communicate online and how we treat others. Students learn how to be an upstander and ally for others and learn strategies for combating online cruelty and building positive, supportive online communities.
- Lessons feature authentic activities to foster dispositions including "slowing down," "exploring different perspectives," "envisioning options and possible impacts," and "taking action."
- Through scenarios and videos, elementary school students explore how mean behavior and bullying can occur online and how this makes people feel. Middle and high school students examine a range of abusive, cruel, and hateful online behaviors, addressing how power dynamics play a role in bullying. Students learn thinking routines and strategies to de-escalate harmful situations and be upstanders and allies for others. They focus on their responsibilities to others in the broader Rings of Responsibility.



NEWS & MEDIA LITERACY

We are critical
thinkers & creators.

News and Media Literacy

News and media literacy covers a broad set of skills related to how students understand, evaluate, and create media messages.¹³ This topic includes media literacy, news literacy, and copyright and fair use and emphasizes kids' responsibilities as media consumers and creators.

In the EDD surveys, educators cited students' ability to assess the credibility of online information, identifying misinformation, disinformation, and "fake news" among their top concerns. Identifying credibility online is essential, given the ways in which news consumption is changing. Although kids trust news the most when it comes from family, teachers, and other adults, they increasingly engage with and learn about news online. Among 10- to 18-year-olds, social media sources are preferred for news over traditional news outlets (Robb, 2017). For students who get their news from social media, tweens mainly prefer to learn news through YouTube, while 77 percent of teens who say they use Facebook get news there (Robb, 2017).

Many young people age 10 to 18 are aware that they are struggling with information credibility: Fewer than half (44 percent) feel they can tell fake news stories from real news, and 31 percent have shared a news story online in the last six months that they later found was wrong or inaccurate (Robb, 2017). Today's tweens and teens struggle in particular with requisite tasks for navigating online news, including 1). considering how sources shape story content, 2). assessing the quality of evidence, and 3). actively investigating claims (Breakstone, McGrew, Smith, Ortega, & Wineberg, 2018).

When it comes to addressing information credibility, research shows that media-literacy education makes a difference—and in some cases matters even more than political knowledge.

¹³U.S. media-literacy educators use a widely-agreed-upon definition and core questions to frame curriculum and educational interventions (National Association for Media Literacy Education, 2018).

Kids who have had learning experiences focused on the importance of and approaches to evaluating evidence in online news and opinion pieces indeed fare better at assessing information credibility (Kahne & Bowyer, 2017).

Out of necessity, classroom teachers across the country report trying to tackle fake news with their students. In addition to teaching students how to critically examine and triangulate sources and evaluate online news, educators in Project Zero's EDD survey describe wanting their students to be able to recognize bias, identify parody sites and articles, and reflect carefully when spreading information to their own networks.

An important aspect of news and media literacy is "pulling back the curtain" on the media and technology industry to help students understand how and why media is produced and how the industry operates. Because much of the industry is based on advertising revenue, understanding advertising in a digital age is an important angle on this topic in the curriculum. Recent years have seen an explosion in new ways for advertisers to target children, including through immersion, "advergames," viral messaging, personalized online ads, and location-based targeting (Meyer, Adkins, Yuan, Weeks, Chang, & Radesky, 2018). Students need guidance in understanding the complicated landscape of how their data is used and how advertisers target them on the internet. Furthermore, educators can support students in identifying problematic stereotypes in advertising and understanding marketers' motivations.

As educators support their students to be savvy creators—and not just consumers—of online content, they have an array of exciting digital tools at their fingertips. Further, young people have the opportunity to share what they produce with authentic audiences ranging from small online interest-based communities to large public communities (Ito et al., 2010). Educators also need to

STUDENT AND EDUCATOR VOICES

"Sometimes technology can be wrong, and you have to know when to differentiate the fact from the fiction."

— MIDDLE SCHOOL STUDENT

"I really think our entire society—our entire democracy—depends on people having accurate information and knowing what to trust."

— ELEMENTARY AND MIDDLE SCHOOL TEACHER

"The sheer amount of fake news in today's society is staggering, and since one of my primary jobs as an educator is to teach children how to locate information in their digital lives, it [is] necessary to start as soon as possible in their academic careers."

— FIFTH-GRADE TEACHER

"Since most of my information I use in the classroom comes from online resources, it's important to teach students what information is legitimate and not biased."

— SEVENTH-GRADE TEACHER

help students consider copyright and the boundaries of fair use, especially when students incorporate articles, books, and images into their schoolwork and when they remix, alter, or create something new. Prior research suggests that students' considerations related to intellectual property issues rarely extend beyond ease of access ("Can I just download it?") and negative sanctions for misappropriation ("Will I get caught?") (James, 2014). Supporting students to explore and routinely consider the ethical dimensions of their rights and responsibilities as creators is an important part of their being media-literate digital citizens.

Based on the research on news and media literacy, the core curricular strategies emphasized in lessons include:

- Core question: How can I think critically about what I see and create?
- Students develop skills and dispositions to identify credibility and trustworthiness in digital news and information sources and reflect on their responsibilities as thoughtful media creators and consumers.
- Lessons focus on the dispositions "seeking facts and evidence" and "taking action" and include authentic activities with image analysis, videos, and scenarios that help students develop practical applications of media-literacy skills.
- Elementary school students focus on basic media-literacy concepts, such as defining media, understanding photo manipulation, how to search effectively, their rights and responsibilities as digital creators, and understanding the basic elements of an online news article. Middle and high school students learn skills around how to analyze information, misinformation, and disinformation using strategies for close reading and lateral reading. They also reflect on how personal emotion and confirmation bias shape understandings of news. Older students explore ways to break out of filter bubbles and echo chambers, as a responsibility to themselves and others in being critical thinkers and citizens.

Implementing Digital Citizenship

Schools and districts teach digital citizenship for a variety of reasons, including policy and E-rate funding.¹⁴ Increasingly, schools are seeing the value of digital citizenship beyond "safety," as it is laying an essential foundation for effective digital learning. But one question Common Sense Education gets a lot is, "How should schools implement digital citizenship?"

Over many years of working on the ground with schools and districts, Common Sense Education learned that there is not a one-size-fits-all approach to implementing digital citizenship. Digital citizenship is taught in many different areas, including in elective or auxiliary classes such as health and wellness, technology, library, STEM, character development, or advisory periods. Digital citizenship can also be integrated into subject area curricula, particularly English language arts, history, social studies, civics, math, and science. Educators in different kinds of roles—including classroom teachers, library or media specialists, technology coordinators, health educators, counselors, and other advisors—can teach digital citizenship. Sometimes teaching falls on one person; other times it is spread across a faculty team. Common Sense Education understands that every school, teacher, classroom, and student is different.

Therefore, the curriculum is designed with a Creative Commons license to be flexible and adaptable, to work in classrooms with high tech or no tech, and to support educators in providing entry points for bringing digital citizenship into their classrooms. The new curriculum invites—and indeed strongly recommends—that educators across subject areas and with all different backgrounds, training, and focus areas bring digital citizenship into their classrooms.

EDUCATOR VOICES

"Teaching about these topics needs to be embedded into our curriculum, not just an add-on topic. It needs to be addressed in all classrooms, not just the computer lab."

— MIDDLE SCHOOL TEACHER

"Kids are going into a digital world, and so it's everyone's job to prepare them. We're all technology teachers."

— HIGH SCHOOL ELA TEACHER

"Before I was like, 'Take it away! Don't do social media or Instagram!' But that's where they're at. So you've got to be realistic in using where they're at [and] help teach them how to use it in healthier ways."

— MIDDLE SCHOOL GUIDANCE COUNSELOR

¹⁴E-rate is a federal program designed to bring internet connectivity and telecommunications into schools. All schools receiving E-rate discounts must comply with the internet safety educational requirements outlined in the Children's Internet Protection Act (CIPA).

Educators from all subjects and grade levels can implement a dispositional approach in a developmentally appropriate way. For instance, elementary school teachers can introduce the Rings of Responsibility to students to consider the broader effects of their online actions. Secondary teachers can use digital dilemmas with students to work through complex situations they may face, explore different perspectives, envision possible action steps, and prepare to act in safe, responsible, and ethical ways. These approaches are aimed at helping young people develop the dispositions to engage in these modes of thinking beyond the classroom and out of school, when adults may not be around to remind them to slow down and think through their decisions.

To create a positive culture around media and technology, Common Sense Education advocates a whole-community approach. The more that the teaching of digital citizenship can be spread across faculty and integrated as part of a core curriculum, and the more that schools can help parents and the community be engaged, the stronger the culture of digital citizenship will be.

Bringing Parents and Families into the Fold

Parents have many concerns about media, including kids' exposure to violent and sexual content, their spending too much time with screens, and their exposure to materialism and consumerism. However, a majority of parents also see the value of technology in supporting learning and creativity (Rideout, 2017). Parents look to schools for advice around guiding their kids' media use. As part of a whole-community approach to digital citizenship, schools can engage parents and caregivers, many of whom have questions and concerns about guiding their kids' media use. Similar to Common Sense Education's work with schools, there's not a one-size-fits-all approach to engaging parents, since each parent population is unique.

Supporting parents in an ongoing way is vital for a few reasons. First of all, challenging digital situations, online conflict, or drama among classmates often unfolds dynamically across school and out-of-school contexts. Communication and partnership between schools and parents is thus a necessity for supporting young people.

Second, many young people feel that their parents don't "get it," because they either don't understand or don't appreciate both the upsides and the particular challenges young people face on social media apps and gaming platforms. This gap can preclude young people from seeking support from parents and undercut valuable opportunities for parents to offer guidance.

Third, young people have their own frustrations about their parents' disruptive digital habits—such as distracted driving or always being on their devices and not paying attention to them—which they see as detracting from their relationships with their parents. Parents' modeling of digital habits and how they manage their own device use affects family relationships. In Project Zero's EDD survey, school leaders and faculty described new challenges associated with the online behaviors of parents who post complaints or offensive comments on social media about school policies, leaders, or teachers. For example, one middle school parent-teacher liaison described challenges that stemmed from "[p]arents posting negative and slanderous comments about kids and teachers and school district employees. Many parents chimed in and joined the 'conversation' with their own negative comments." Although "others shied away and didn't want to have anything to do with it," the comment thread was widely seen. As these examples suggest, parents' online behaviors can influence school climate.

EDUCATOR VOICES

"Parents are also educators. They're the front line where their kids learn about being honest, being trusting, being committed, respectful, [and] understanding that [their] actions are going to have consequences. So what better way than to try and sit down and ... have an honest conversation about technology, about what's going on with technology. And having that dialogue and having that way of communicating with their kids."

— HIGH SCHOOL COUNSELOR

"I think most parents are naive about the behavior of their teens online."

— HIGH SCHOOL MEDIA SPECIALIST AND
TECHNOLOGY COACH

Conclusion

Meeting students "where they are" is a rallying cry among many educators. In today's world, this goal requires attention to young people's digital lives and intentional efforts to support their development as digital citizens. We advocate an approach aimed at supporting young people's skills and dispositions to think and act as good digital citizens. The Rings of Responsibility framework encourages students to consider the effects of their choices on themselves and on others near and far. We advocate promising pedagogical practices including the use of thinking routines, authentic activities, and digital dilemmas as powerful vehicles to help students develop needed skills and dispositions, including "slowing down," "exploring perspectives," "seeking facts and evidence," "envisioning options and possible impacts," and "taking action." These dispositions are foundational to thoughtful decision-making when adults aren't around to say "think before you post."

Importantly, helping young people tap into the positive opportunities of digital life—for learning, social connection, identity exploration, and civic participation—must also be part of this work. Digital and social technologies are now woven into the fabric of our lives. Acknowledging and taking advantage of their potential is as vital as attending to risks and challenges.

EDUCATOR VOICES

"The biggest underlying part of all of the work we did was: We don't want this to be the list of 'don'ts'—here's what you don't do, you have all this stuff online, don't do this, don't do this, don't do this, don't do this. We often make these rules of 'don'ts' and all the 'nos.' And we wanted to empower kids to say this is what you should do and what you can do."

— K-12 EDTECH DIRECTOR

"I think it's important that educators really listen to their students on these issues ... try to find out where they're at, and listen to them. [I] let them tell me ... [T]here's a lot I don't know because stuff changes so fast ... and they love to teach you about what they're doing and what they know."

— MIDDLE SCHOOL TEACHER

About the Authors



Carrie James is a research associate and principal investigator at Project Zero and lecturer on education at the Harvard Graduate School of Education. Her work explores young people's digital, moral, and civic lives. Over the past decade, Carrie has led and collaborated on research and educational initiatives focused on ethical issues in digital life, participatory politics in a connected age, and cross-cultural online learning experiences. Her publications include the book *Disconnected: Youth, New Media, and the Ethics Gap* (The MIT Press, 2014), as well as more than a dozen peer-reviewed publications. Carrie has an M.A. and a Ph.D. in sociology from NYU. She is also a parent to two technology-loving children, age 8 and 12.



Emily Weinstein is a senior research manager at Project Zero. Her work examines how social technologies influence the everyday lives of tweens, teens, and young adults. Emily's research appears in a range of peer-reviewed journals, including the *Journal of Adolescent Research*, *New Media & Society*, the *International Journal of Communication*, and *Computers in Human Behavior*. Her work has also been covered in popular publications such as *Time*, the *Atlantic*, the Huffington Post, and the *Boston Globe*. For the past five years, Emily has collaborated closely with Common Sense Education on the development of research-based resources for educators, schools, and families. Emily holds a master's degree in prevention science and practice and a doctorate in human development and education, both from Harvard University.



Kelly Mendoza oversees digital citizenship education content and strategy for Common Sense Education, including the Digital Citizenship Curriculum, interactive games, and online professional development. Her goal is to create curricula and programs that help students think critically about the media they consume and create and that help schools create a positive culture around media and technology. She also has developed education resources and curricula for Lucas Learning, the Media Education Lab, and PBS' *Frontline* films *Growing Up Online* and *Digital Nation*. Kelly has a Ph.D. in media and communication from Temple University. She is a parent of a 7-year-old daughter who loves movies ... and rock climbing.

Project Zero Background

Project Zero (PZ) is a research center at the Harvard Graduate School of Education. For over 50 years, PZ researchers have been studying the nature of intelligence, understanding, thinking, creativity, and ethics and developing pedagogical frameworks to support learners of all ages, across disciplines and learning contexts.

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Appendix A

Details about the ongoing Educating with Digital Dilemmas (EDD) project:

- In October 2017, the EDD team surveyed approximately 1,000 educators (n=1,284) across the U.S. and over 80 educators in more than 24 countries. Respondents live and teach in urban, suburban, and rural contexts in 49 U.S. states and abroad. These educators work in public, private, and faith-based schools and serve young people from diverse socioeconomic, racial, ethnic, cultural, and religious backgrounds.
- Between November 2017 and February 2018, EDD surveyed over 2,000 parents (n=2,289) across the U.S. and in 63 countries. United States-based respondents were from all 50 states and a range of settings, including urban, suburban, and rural contexts.
- During the 2017–2018 school year, EDD began data collection with young people and conducted surveys with more than 1,500 sixth- through 12th-grade students; analyses based on the first batch of approximately 500 surveys are referenced in this report. In the 2018–2019 school year, the Project Zero team is continuing to survey young people in 10 to 12 additional U.S. middle and high schools.
- The EDD educator, parent, and young people surveys address:
 - Lessons and/or discussions about challenging topics, including motivations for raising the topic, strategies for sharing and listening to each others' perspectives, intended takeaway messages, and young people's ages.
 - Memorable digital dilemmas or social media-related challenges faced by educators' schools (open-ended).
 - Top concerns about today's digital world (rank order: top three for adults, top one for young people).
 - Brief normative statements about a collection of digital dilemmas, e.g., "It's fair for college admissions to consider an applicant's social media posts" and "Being a good friend means being available whenever your friend needs you." (seven-point Likert scale: strongly disagree [1] to strongly agree [7]).
 - Longer digital dilemmas covering topics like hate speech, public shaming, doxxing¹⁵, and sexting (agree/disagree and open-ended).
 - Demographic information, including (for educators) educator role(s), school type, student population served, and grade(s) taught and (for all respondents) age/year of birth, race and ethnicity, gender identity, religion and religiosity, and place of residence (state, country)

¹⁵Common Sense Education's [Digital Glossary](#) defines doxxing as "when someone maliciously reveals someone else's personal information, such as address, phone number, or private social media username." Among kids, doxxing might be done in revenge when a romantic relationship or friendship ends.

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