TEACHING DIGITAL CITIZENS IN TODAY'S WORLD

Research and Insights Behind the Common Sense Digital Citizenship Curriculum
Teaching Digital Citizens in Today's World:
Research and Insights Behind the
Common Sense 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
Children and Digital Media: An Overview ........................................ 6
  Children, age 0 to 8 .................................................................... 6
  Tweens and Teens, age 8 to 18 ...................................................... 7
Our Approach to the Digital Citizenship Curriculum .......................... 11
  What Is Digital Citizenship? .......................................................... 12
  About the Digital Citizenship Curriculum ..................................... 14
  Our Guiding Theory: A Skills and Dispositions Approach .......... 15
    Five Core Dispositions of Digital Citizenship ......................... 16
Cornerstones of the Curriculum ....................................................... 17
  Rings of Responsibility ................................................................. 17
  Digital Life Dilemmas .................................................................. 18
  Repetition and Routines .............................................................. 20
    Poems, chants, and songs (elementary school) ......................... 20
Thinking Routines ........................................................................ 21
  1. Digital Habits Check-Up ......................................................... 21
  2. Feelings and Options ............................................................... 23
  3. Take a Stand ..................................................................... 24
A Look Inside the Curriculum: Six Topics ........................................ 27
  Media Balance & Well-Being ....................................................... 28
  Privacy & Security ..................................................................... 32
  Digital Footprint & Identity ......................................................... 36
  Relationships & Communication .................................................. 40
  Cyberbullying, Digital Drama & Hate Speech ............................. 45
  News & Media Literacy ............................................................... 48
Implementing Digital Citizenship .................................................... 52
Engaging Families .......................................................................... 53
Conclusion ................................................................................... 55
About the Authors ......................................................................... 56
Project Zero Background ................................................................ 57
Acknowledgements ....................................................................... 57
Appendix: About the Research ....................................................... 57
Bibliography ................................................................................. 65
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, which 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 60 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,

Jim Steyer
Founder and CEO
The Digital Landscape by the Numbers

On average, children 8 and younger use about two and a half hours (2:24) of screen media a day.

- Children under 2: 0:49
- 2- to 4-year-olds: 2:30
- 5- to 8-year-olds: 3:05

Amount of daily screen use, not including for school or homework

- Tweens: 4 hours, 44 minutes
- Teens: 7 hours, 22 minutes

By socioeconomic status

- Tweens in higher-income homes: 3:59
- Tweens in lower-income homes: 5:49

Young people in lower-income homes use nearly two more hours of screen media a day than their peers in higher-income homes.

Note: "Lower income" is <$35,000; "higher income" is $100,000+ per year.

Smartphone ownership has risen dramatically, even among the youngest tweens.

Time spent watching online video has increased substantially.

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Introduction

In 2009, Common Sense Education explored expanding their education programs to schools, and began a collaboration with researchers at Project Zero at the Harvard Graduate School of Education. Project Zero (PZ) has a long history of conducting research and developing powerful pedagogies for schools and other learning environments. This collaboration supported the development of Common Sense Education’s first curriculum, at that time called the Digital Literacy and Citizenship Curriculum, which launched in 2010. The curriculum built on key insights from Project Zero’s research on how young people engage 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 more than 1.3 million educator members registered worldwide. While the free Digital Citizenship Curriculum² has been highly successful on many counts, the ever-changing digital landscape brings forth new issues for young people themselves and for schools.

Our collaboration with Project Zero (PZ) allows for timely, research-backed resources to schools to help students navigate digital life. A collection of PZ projects—led at various times by Carrie James and Emily Weinstein, Howard Gardner, and Katie Davis —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 since 2017, a suite of research initiatives at PZ led by Carrie James and Emily Weinstein have zeroed in on digital dilemmas: the personal, moral, ethical, and civic dilemmas of today's

²Thanks to Common Sense Education’s supporters for making Digital Citizenship Curriculum free and available to schools.
networked world. This research has foregrounded the experiences of young people and the perspectives of innovative educators.³

This report includes key insights about young people and digital life, and explains how they lay the framework for Common Sense Education's Digital Citizenship Curriculum. We describe the curriculum's unique approach, grounded in Project Zero's research, which focuses on pedagogical strategies that support both skills and dispositions. We explain our approach to digital citizenship, including the importance of a whole-community approach among educators, students, and families in creating a positive culture around media and technology.

Children and Digital Media: An Overview

Since the 2010 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.

Children, age 0 to 8

Young children engage with media early in life, from the time they can look at a screen and hold a device. This section outlines the latest results of the Common Sense Census study of media use in the lives of children age 0 to 8.⁴

Children age 0 to 8 spend an average of nearly 2.5 hours per day with screen media, with 5- to -8 year-olds spending three hours per day with screens. More than two-thirds (67%) of 5- to 8-year-olds have their own mobile device, and on average, children in this age group spend an hour and 15 minutes a day using mobile media. TV and video viewing is the most popular activity among this age group, and though this finding hasn't changed much since 2011, the platforms and devices where children watch videos have changed. It's important to note that screen time from child to child varies: On any given day, 23% of 0- to 8-year-olds don't use any screen media, while 24% spend more than four hours with screens.

³ See Appendix (About The Research) for further details about relevant Digital Dilemmas research
⁴ Rideout & Robb, "The Common Sense Census: Media Use by Kids Age Zero to Eight, 2020: Common Sense Media."
Mobile media devices are almost universally accessible in young children’s homes, with 97% of homes having at least one smartphone and 75% having a tablet. Nearly half (48%) of all children have their own mobile device (46% of 2- to 4-year olds, and 67% of 5- to 8-year-olds).

The study revealed some differences as it relates to children from different socioeconomic groups, including race/ethnicity, household income, and parent education. Children in lower-income households spend an average of nearly two hours a day more with screen media than those in higher-income homes (3:48 hours vs. 1:52). Black children average 2:17 hours more screen use per day than White children, and 1:06 hours more than Hispanic/Latinx children. The growing differential in screen use by race and income may be due to both the expansion in access to and embracement of mobile devices, but also socioeconomic factors. In addition, the frequency and amount of time spent reading among children from lower-income households has increased, with daily reading time up from 26 to 43 minutes a day from 2017 to 2020.

Parents of children age 0 to 8 are the most involved in selecting, monitoring, and co-using media with their children. Parental involvement decreases as children get older. The majority of parents report positive views overall about screen media, such as the amount of time their kids spend with screens, the impact screen media has on their child, the quality of the content available to them, or the challenges of getting their children to disengage with screens when it’s time for other activities. Six in 10 (60%) parents say their child spends “the right amount of time” with screens, and 75% say they are satisfied with the amount and quality of the educational media available to their children.

Parents also agree that media helps their child with learning (72%) and creativity (60%). In a landscape analysis of digital media use on children's executive functioning age 0 to 8, there is evidence that children who consume high-quality media content are more likely to develop strong executive functioning skills.

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5 Various socioeconomic factors may be at play, including access to child care, extracurricular activities, and lack of safe outdoor spaces for kids to play. Screen media provide affordable activities compared to other options. See Vicky Rideout’s explanation in: R. Molla, "Poor kids spend nearly two hours more on screens each day than rich kids," 2019, Vox, https://www.vox.com/recode/2019/10/29/20937870/kids-screentime-rich-poor-common-sense-media.

6 Executive functioning refers to attention-regulation skills developed in the prefrontal cortex, such as working memory, inhibitory control, and cognitive flexibility.

Tweens and Teens, Age 8 to 18

As children get older into the tween and teen years, media use increases and diversifies. This section outlines the latest results of the Common Sense Census study of media use in the lives of tweens and teens8 age 8 to 18. As of 2019, the amount of daily screen time—not including for homework or school work—was on average 4:44 hours for tweens and 7:22 hours for teens. By age 11, 53% of kids have their own smartphone, and by 12 this percentage leaps to 69%. Smartphone ownership has grown since 20159 among all age groups, from 24% of tweens in 2015 to 41% in 2019, and from 67% to 84% for teens.

What are tweens and teens doing on their screens? For tweens, 53% of time is spent watching television or videos10 and 31% gaming. Teens spend 39% of time watching television and videos, 22% gaming, and 16% on social media. The least amount of time for both age groups is spent video-chatting, creating (writing, art, music), or e-reading. The activities and proportions are very similar to the same study conducted in 2015.11 The use of computers for schoolwork increased from 2015 to 2019, with 27% of tweens and 58% of teens reporting that they use computers for school daily.

The amount of time watching online videos has increased substantially from 2015 to 2019. The percentage of tweens and teens who say they watch online videos "every day" has doubled, from 25 to 56 daily minutes for tweens, and 35 to 59 daily minutes for teens. YouTube is the top platform where tweens and teens watch videos.12 Social media use increases from tween to teen years, with the average amount of time teens spend on social platforms at 1:10 hours per day, virtually unchanged from 2015, but the proportion of teens who say they use social media daily increased from 45% in 2015 to 63% in 2019. The median age of first social media use is 14.

Twenty-seven percent of tweens use computers for homework every day, as do nearly six in 10 teens (59%). This is a substantial increase from just four years ago, when only 11% of tweens and

8 Tweens are defined as 8 to 12 years old, and teens are defined as 13 to 18 years old; Rideout & Robb, "The Common Sense census: Media use by tweens and teens, 2019."
10 Note that TV and video watching includes streaming platforms such as YouTube and Netflix.
11 Rideout, "The Common Sense Census: Media Use by Tweens and Teens."
12 This is true even though YouTube is for those age 13 or older.
29% of teens said they used a computer for homework every day. On average, teens spend 41 minutes a day doing homework on computers, a 12-minute increase from 2015.

As tweens and teens participate in the media environment, they are developing their identities, learning about relationships, and communicating with both known and unknown others. Young people’s online identities are routinely tied to their real names, identities, and offline relationships. Their digital footprints are increasingly coproduced 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., posts set to default disappear in a few seconds or after 24 hours) and a noteworthy interest in 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. The tone and content of social media posts can mislead, intimidate, or dissuade. However, there

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are positive opportunities for young people when it comes to voice, dialogue, and civic engagement.\textsuperscript{15}

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, viewer counts, 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.\textsuperscript{16}

Despite these challenges, teens perceive a range of upsides to social media. Teens view social media as important sites for connection, entertainment, socialization, and learning.\textsuperscript{17} They can participate civically and engage their interests. They can deepen relationships and express themselves in ways that support key developmental tasks. This doesn’t mean that there aren’t real challenges, too. 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.\textsuperscript{18} What’s more, teens can feel pulled into screens even when they wish they were engaged in other activities. Also, urgent civic issues that demand attention can create pressures to post on social media, even when teens question the impact.\textsuperscript{19}

In this mixed landscape, adults are poised to play crucial roles in guiding young people. Kids are observing and learning how to navigate the internet and digital devices, whether from family or


\textsuperscript{17} Weinstein, E. (2018). The social media see-saw: Positive and negative influences on adolescents' affective well-being. \textit{New Media & Society}, (20(10), 3597–3623.


\textsuperscript{19} E. Weinstein & C. James, "Behind their screens: What teens are facing (and adults are missing),” Cambridge, MA: The MIT Press, Forthcoming, 2022a.
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 often 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 with whom they’re communicating.

As young people and adults navigate the digital world, they also 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 their 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. Educators play a vital role in this preparation, and today’s landscape requires reexamining what and how we teach.

**Our Approach to the Digital Citizenship Curriculum**

Children are growing up with the power of digital media and technology to explore, connect, create, and learn in new ways. With this power, young people have great opportunities, but they also face challenges and dilemmas. Schools are dealing with the ramifications, including issues such as online safety, cyberbullying, privacy, hate speech, misinformation, and digital distraction.

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21 Rideout, "The Common Sense Census: Media Use by Tweens and Teens"; Rideout, "The Common Sense census: Media use by kids age zero to eight."
To address these issues, many schools are working to create a positive culture around media and technology by incorporating digital citizenship education as part of their curricula.

The Digital Citizenship Curriculum addresses topic areas that are based on academic research and concerns from children, educators, and parents. The lessons are intentionally designed to cultivate both skills and dispositions to help young people thrive in our interconnected world. This is all the more important because children and teens face many decisions and dilemmas as they live their lives with and through media and technology, from what they’re consuming and what they’re sharing, to how they’re interacting and communicating with others.

What Is Digital Citizenship?

We define digital citizenship\(^{22}\) as the responsible use of technology to learn, create, and participate. To break it down simply, it’s the combination of "digital" and "citizen." "Digital" refers to a unique set of skills and dispositions within online spaces and with the media and technology we interact with. For example, the way we communicate online is different from the way we communicate face-to-face, because it comes with a unique set of challenges (e.g., texting lacks vocal tone or facial expressions, the ability to be anonymous online, feeling less inhibited in digital communication, etc.). The term "citizen"\(^{23}\) refers to being a member and inhabitant of a community, including the rights and responsibilities we all have to ourselves, to our communities, and to the broader world. In this sense, the "digital world" is our community, and anyone who participates is an inhabitant. As digital citizens, our individual and collective actions work together to create the kind of digital world we want to live in. Our goal is to support students, educators, and families in participating positively in the digital world.

However, navigating the digital world can be tricky. As young people participate, they face dilemmas that don’t always have clear-cut right or wrong answers. As we updated lessons in the curriculum, we focused on addressing relevant challenges for students, schools, and families. This meant ensuring we understood not only predictable challenges, but also more complex dilemmas or tensions are relevant to young people’s digital lives and participation. Part of this work involved an exploratory survey where we asked questions such as, "Is it OK to take a break from social media

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\(^{22}\) Many thought leaders have been pivotal in defining digital citizenship framework, including: Mike Ribble’s Nine Elements of Digital Citizenship, International Society for Technology in Education’s Digital Citizenship Competencies of Digital Citizenship, the UK Council for Internet Safety’s Education for a Connected World framework.

\(^{23}\) We are aware of the complex political and cultural connotations and history with the term "citizen." However, we find the term valuable in its broadest, idealistic sense.
In our surveys of more than 3,600 middle and high school age students (see Appendix), a strong majority (83%) agreed that it’s OK to take self-care breaks. This is encouraging. And yet, a majority (71%) also said that being a good friend means being available for friends whenever they might need you.

We also collected open-ended insights from young people, and explored their perspectives through formal focus groups, advisory sessions, and classroom observations. This data deepened our understanding of the tensions they feel and face. For example: Young people describe feeling pressure to stay accessible in case friends have ‘emergencies’ or need support. Some also fear that failing to be responsive might cause conflict or make friends mad.

In a 24/7 digital world, this can mean that values like self-care and being a good friend are pitted against each other as teens and tweens try to navigate their personal media balance. In this context, we see why core social and emotional competencies are crucial, including relationship skills, social awareness, and self-management skills, all of which are essential for developing healthy identities, managing emotions, showing empathy, and developing fulfilling relationships.24

When it comes to the topic of digital footprints, we know that young people are divided on key dilemmas, like the use of online content to determine college admissions. When asked whether it’s fair for college admissions to consider applicants’ social media posts, 39% of agreed, 33% disagreed, and 28% were undecided. Interestingly, data from educators that we collected at the outset of this project in 2017 showed that they tended to agree overwhelmingly (72%) with colleges’ consideration of online content. This dilemma touches on key tensions between accountability and privacy that are arguably all the more relevant today. The ways that the views of young people and adult can misalign is also a relevant consideration as we identify how to support reflective and responsible attention to digital footprints most effectively.

A final example relevant to the broader world and civic life: Is it OK to share violent videos online to call attention to what’s going on in the world? In our surveys of students in 2018 to 2019, we observed polarized responses to this dilemma (41% of students disagreed, 35% agreed, and 24% were undecided), which are suggestive of tensions between the importance of documenting injustices and protecting vulnerable online audiences who may be negatively impacted by explicit

24 Digital citizenship has strong intersections with social and emotional learning (SEL). Our Digital Citizenship Curriculum is aligned to CASEL’s Standards.
content. These kinds of dilemmas call for students to learn strategies to support responsible decision-making, and being able to take others' perspectives in considering how to take action. The Digital Citizenship Curriculum is designed with tensions like these in mind.

Digital citizenship curricula are increasingly being implemented in schools, and can be seen as an essential foundation for digital learning. In Common Sense's 2019 nationally representative survey of 1,200 K–12 teachers, approximately 60% used some type of digital citizenship curriculum or resource with students in their classrooms. Seventy percent of teachers report teaching at least one type of digital citizenship competency, and 60% said they did so at least monthly. The most commonly taught topics included cyberbullying (46%), privacy and safety (44%). Common Sense Education aims to equip young people with the knowledge and skills to navigate the digital world as well as the dispositions and agency to apply those skills with intention in their everyday lives.

About the Digital Citizenship Curriculum

Our original Digital Literacy & Citizenship Curriculum was first launched in 2010. Since then, we've revised the curriculum several times. The most recent comprehensive revision was launched per grade level between 2019 and 2020, based on the latest research findings from Project Zero. This version included a revision of the core topics of digital citizenship that are essential to teach students. We will delve into these core topics and how we approach them in our lessons later in this report, but list them here with links to the topic overviews:

- Media Balance and Well-Being
- Privacy & Security
- Digital Footprint & Identity
- Relationships & Communication
- Cyberbullying, Digital Drama & Hate Speech
- News & Media Literacy

25 Responsible decision-making is one of CASEL’s five core competencies for SEL.
The curriculum, available in U.S. and U.K. versions, includes 73 easy-to-implement lessons across 13 grades/years (age 5 to 18), with 32 videos. We also provide "quick activities" for informal learning and time-limited settings, and engaging interactive games that jump-start students' learning (Digital Passport™, Digital Compass™, and Social Media Test Drive28). There are also collections that provide a deeper dive into topics related to digital citizenship, including social and emotional learning, civic learning, news and media literacy, and cyberbullying. For more information, see the Curriculum Overview.

In addition, we strongly believe in a whole-school approach to digital citizenship including educators, school leaders, and families. To that end, every lesson includes a take-home family activity and family tip sheet. Common Sense also provides Family Engagement Resources to educate parents and guardians about supporting children's digital lives, making a home-school connection from children's learning in school to home.

We also provide professional development and support in implementing our program, primarily through synchronous and asynchronous online workshops, webinars, videos, and articles, and a Common Sense Education Recognition Program to recognize educators, schools, and districts committed to teaching students digital citizenship. And for school and district leaders, we provide our Digital Citizenship Implementation Guide with planning documents and case studies to help schools integrate digital citizenship into their curriculum.

**Our Guiding Theory: A Skills and Dispositions Approach**

The Digital Citizenship Curriculum is designed to foster both necessary skills and essential dispositions for digital citizenship. Though it’s important for students to learn the practical skills to navigate the digital world, they also need to cultivate dispositions to then enact those skills in their everyday lives. Dispositions guide students' thoughts and behaviors as they go about their lives. They shape what students think and care about, and they influence when they use their skills.29

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28 Social Media Test Drive is a collaboration between Common Sense Education and Social Media Lab at Cornell University.
We need to help students develop crucial digital citizenship skills, like how to create strong passwords and protect private information, assess the credibility of online sources, and consider how an online comment might make another person feel. But we also want to build dispositions that will help them put those skills into practice. We want to support dispositions like slowing down and recognizing dilemmas as they arise, seeking facts and evidence to make informed decisions, and being curious about views that differ from their own. Ultimately, focusing on both skills and dispositions is key if we aim to help young people be responsible, reflective, and ethical decision makers in their connected lives.

<table>
<thead>
<tr>
<th>Skills</th>
<th>Examples</th>
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<tbody>
<tr>
<td>Abilities, competencies, or things one knows how to do</td>
<td>Creating a strong password&lt;br&gt;Customizing privacy settings&lt;br&gt;Assessing the credibility of a website&lt;br&gt;Expressing an idea in a coherent way&lt;br&gt;Identifying phishing and clickbait</td>
</tr>
<tr>
<td>Dispositions</td>
<td>Examples</td>
</tr>
<tr>
<td>Ongoing tendencies that guide thinking and behavior and shape whether and how people use their knowledge and skills</td>
<td>Thinking through possible outcomes before posting or replying to something&lt;br&gt;Noticing an offensive comment and carefully weighing whether or how to respond&lt;br&gt;Slowing down to reflect before posting a photo or information about someone else</td>
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</tbody>
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### Five Core Dispositions of Digital Citizenship

Which dispositions should we target? The Digital Citizenship Curriculum is designed to support five core dispositions the Project Zero team and Common Sense Education believe young digital citizens should embody in all domains of life—in school, at home, and in their communities. Across the curriculum, we’ve incorporated ways to foster the five dispositions:

<table>
<thead>
<tr>
<th>Five Core Dispositions of Digital Citizenship</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disposition</strong></td>
</tr>
<tr>
<td>Slow down and self-reflect</td>
</tr>
</tbody>
</table>

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30 Perkins, Jay, & Tishman, “Beyond abilities: A dispositional theory of thinking.”
31 “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.”
Explore perspectives with curiosity and empathy
- 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 evaluate evidence
- Investigate and uncover relevant facts.
- Seek, evaluate, and compare information from multiple credible sources.
- Be alert to disinformation and conspiracy messages.

Envision options and impacts
- 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 and responsibility
- 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.

Cornerstones of the Curriculum

The cornerstones of the curriculum are (1) the Rings of Responsibility framework, (2) Digital Life Dilemmas that reflect real situations kids may face in their everyday lives, and (3) Repetition and Routines that strategically build dispositions for digital citizenship. These cornerstones of the curriculum work together across every grade level and every topic.

Rings of Responsibility

Our digital habits and choices 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 for ourselves but also for our communities and the broader world. The outer rings are especially important given the challenge of ethical blind spots when making choices online. We use Rings of Responsibility as a lens in our overall curriculum design. Some lessons emphasize the role of the Self (as in lessons teaching students about personal media balance, digital footprints, or representing one's identity online), whereas other lessons focus more on one's role as a digital citizen in their Community and the World (as in lessons that focus on cyberbullying, hate speech, healthy relationships, and building positive online communities).

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Key Orienting Lesson & Video

The Rings of Responsibility lesson (third grade, age 8 to 9) introduces the concept of having responsibilities to yourself, your community, and the broader world. Students watch a video in which the Rings of Responsibility framework is explained through the importance of recycling. Our actions are compared to a ripple effect ... that what we do affects not only ourselves, but others. Students then make a connection to how this plays out in digital life, and reflect on how the rings apply to their own lives.

With the rings of responsibility, students are encouraged to consider how their choices impact themselves, others, and the world. These concepts are also well-aligned with CASEL's social-emotional learning competencies of self-awareness, social awareness, self-management, relationship skills, and responsible decision-making.  

Digital Life Dilemmas

We incorporate the Digital Life Dilemmas throughout the curriculum to help students engage with real-life, practical examples of situations they may face in their digital lives. A digital life dilemma is a tricky situation related to tech or social media use—and it doesn't always have an obvious right or wrong answer. Even when someone has been hurt or wronged, the right way to respond in a dilemma is often unclear. Acknowledging this complexity helps students dig into the messiness of real issues they face, and come up with thoughtful and realistic action steps.

For students in elementary school, we incorporate dilemmas younger children may face in the digital world, from what to do when you don't want to get off of a device (as in Pause for People), to what to do when someone uses mean or hurtful language on the internet (as in The Power of Words). We bring these dilemmas to life using colorful and relatable characters called the Digital Citizens, and animated videos that demonstrate stories and situations for students to explore, such as what to do if:

- Your password is stolen. (Password Power-Up)
- Someone is mean in an online game. (Keeping Games Fun and Friendly)
- An interaction with a stranger becomes uncomfortable. (Digital Friendships)
- You see a friend or peer being bullied online. (Is It Cyberbullying?)

For students in middle and high school, Digital Life Dilemmas in the lessons become more complex. Adolescents are increasingly participating in social media and gaming, and the dilemmas

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33 See CASEL's Standards.
34 Digital Life Dilemmas are woven into several lessons throughout the Curriculum. But we've also pulled them out into individual activities. Visit our educator center for templates and guidance on using Digital Life Dilemmas and Thinking Routines.
they face become more complicated, ranging from mis- and dis-information, risky communication, sexting, conflicts with friends, and hate speech. Dilemmas for secondary students provide rich opportunities to lean into and deeply consider genuine tensions that surface in digital life.

Dilemmas provide teachers with a way to raise relevant issues before they arise and to help students develop effective and empathic responses. The following three domains are addressed throughout middle and high school lessons in the Digital Citizenship Curriculum, and also reflect the Rings of Responsibility:

- **Self & Personal Well-Being**: Dilemmas related to digital footprint, identity, reputational concerns, self-care and well-being.
- **Community & Close Ties**: Tensions and dilemmas that arise between close friends, romantic partners, family members, and other so-called close ties.
- **Wider World & Civic Life**: Online scenarios that implicate distant individuals and wider communities, or that raise questions about civic, political, or social justice issues.

The following chart lists lesson examples for secondary students, and indicates which domains they fit in. Notice how many issues span more than one domain.

<table>
<thead>
<tr>
<th>Lesson Title</th>
<th>Essential Question</th>
<th>Self &amp; Personal Well-Being</th>
<th>Community &amp; Close Ties</th>
<th>Wider World &amp; Civic Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finding Balance in a Digital World</td>
<td>How do we balance digital media use in our lives?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Power of Digital Footprints</td>
<td>How can information you post online affect your future opportunities?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chatting and Red Flags</td>
<td>How can you tell when an online relationship is risky?</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>My Social Media Life</td>
<td>How does social media affect our relationships?</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sexting and Relationships</td>
<td>What are the risks and potential consequences of sexting?</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Responding to Online Hate Speech</td>
<td>How should you respond to online hate speech?</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>How Young Is Too Young for Social Media?</td>
<td>At what age should people be allowed to use social media?</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Risk Check for New Tech</td>
<td>What privacy risks do new technologies present, and how do we decide if they’re worth it?</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Protecting Online Reputations</td>
<td>How can you respect the privacy of others online?</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Dilemmas in the lessons are presented as part of structured activities that support students to lean into the dilemmas. For example, the Digital Life Dilemmas in middle and high school are paired with a thinking routine (see the Thinking Routine section below) that provides students with a structure to think through the dilemma. In dissecting and exploring Digital Life Dilemmas, students can develop dispositions to slow down and self-reflect, explore perspectives, envision options and impacts, and then have practical strategies to take action. These dispositions can prepare them to navigate dilemmas in their real lives.

**Repetition and Routines**

Research on how to cultivate dispositions points to the power of repetition. The logic is if we repeatedly ask students to use the same thinking steps, we can support a disposition or habit of mind to think in those ways without having to ask. This is crucial as we teach toward digital citizenship. We won’t be sitting next to our students as they make real decisions in their digital lives. So our best bet is to help them develop dispositions to do the kind of thinking we hope to see, whether it be exploring perspectives, evaluating evidence, or envisioning options and possible impacts before they act. We do this through using different types of repetition and thinking routines which students can apply to their digital lives.

**Poems, Chants, and Songs (primary)**

In elementary or primary grades, we use different forms of repetition and routine, including poems, chants, and songs. Repetition is useful because we want to help students have memorable ways of thinking to enact healthy decision-making. Just as we teach kids to “stop, look, and listen” when crossing the street, our Digital Citizenship lessons teach them chants like “slow down, pause, and think” online (Pause and Think Online). Poems, chants, and songs provide a developmentally appropriate approach for leveraging the power of repetition, and provide memorable routines children can apply in their everyday lives to support their thinking and decision-making.

<table>
<thead>
<tr>
<th>Repetition and Routines</th>
<th>Lesson Examples</th>
<th>Essential Question and Key Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Songs: Our friendly animated characters, the Digital Citizens, appear in</td>
<td>Media Balance Is Important</td>
<td>How do we find a happy balance between our online and offline activities?</td>
</tr>
</tbody>
</table>

sing-along songs. Students can sing on their own, repeating the concepts learned in the song.

| Pause & Think Online | How can we be safe, responsible, and respectful online? Students learn a song about slowing down before we act online, featuring the Digital Citizens characters. |
| We, the Digital Citizens | How can we be good digital citizens? Students learn a song about ways we can be good digital citizens, featuring the Digital Citizens characters. |

Poems and Chants: The Digital Citizen characters appear in videos and activities to teach students poems and chants. This repetition helps students remember ways to stay safe and responsible online.

| Internet Traffic Light | How do you stay safe when visiting a website or app? Students learn a poem about using red, yellow or green to assess whether sites are "just right" for them. |
| Putting a STOP to Online Meanness | What should you do if someone is mean to you online? Students learn the STOP acronym and chant to use if they see bullying online. |
| A Creator's Rights and Responsibilities | What rights and responsibilities do you have as a creator? Students learn the Ask-Attribute process when using other people's creative work. |

Thinking Routines (secondary)

In secondary grades, we incorporate thinking routines across 15 select lessons. Thinking routines are short, accessible, easy-to-remember structures that direct thinking in specific directions. Developed by our team of Project Zero researchers in close collaboration with the Common Sense Education team, we use three original thinking routines, all with unique purposes: Digital Habits Check-Up, Feelings & Options, and Take a Stand. We created, tested, and refined these routines with students to develop the core digital citizenship dispositions. These routines are meant to be used repeatedly with students, so that students can have thought structures which are useful to apply to dilemmas they face in their everyday lives. The routines align with the themes in the Rings of Responsibility:

- **Digital Habits Check-Up** supports challenges and dilemmas relevant to the self.
- **Feelings & Options** supports digital life dilemmas related to community and close ties.
- **Take a Stand** focuses on the wider world and civic life.

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36 Ritchhart, Church, & Morrison, "Making thinking visible."; Perkins & Tishman, "Learning that matters: Toward a dispositional perspective on education and its research needs."

37 See the Educator Guides and student materials on teaching with thinking routines and digital life dilemmas.
Below is an explanation of the three routines:

1. Digital Habits Check-Up

Digital Habits Check-Up is a routine that helps students take stock of their digital habits and exercise control over their digital lives. The routine draws on principles from habit science to empower both mindful reflection and positive action that supports students' media balance and well-being in a world of constant connectivity. This routine supports students' social and emotional learning, including self-awareness, self-management, and responsible decision-making around the role media and technology play in their lives.

Digital media habits can become default forces that shape our lives in ways we don't even realize or intend. There are five steps to Digital Habits Check-Up, and students begin with a "Check" of their habits by taking stock of all of their current digital habits: good, bad, and mixed. Adults may be tempted to focus just on bad habits. Asking about good habits too changes the tone of our conversations about media balance and creates opportunities for more nuanced self-reflection.

Then students "Choose" one habit they want to try changing, and consider why this change might be important or meaningful. After that, they "Challenge" themselves by creating a time-limited personal challenge to change some aspect of their technology use. Next, students "Boost" their challenge with strategies to help them succeed. Lastly, students "Track" their journey to monitor their progress. Tracking facilitates accountability while providing a chance to build community in class and a sense of digital agency in students.

<table>
<thead>
<tr>
<th>Digital Habits Check-Up</th>
<th>Key Questions</th>
<th>Digital Citizenship Dispositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check</td>
<td>Check your habits. What are your current digital habits? How does each habit make you feel?</td>
<td>Slow down and self-reflect</td>
</tr>
<tr>
<td>Choose</td>
<td>Choose one habit you want to change or try to do differently. Why is it important that you change this habit?</td>
<td>Envision options and impacts</td>
</tr>
<tr>
<td>Challenge</td>
<td>Create a personal challenge to change it.</td>
<td>Take action and responsibility</td>
</tr>
<tr>
<td>Boost</td>
<td>How can you boost the likelihood of succeeding at your challenge?</td>
<td>Slow down and self-reflect</td>
</tr>
<tr>
<td>Track</td>
<td>Track your habits challenge journey by recording or journaling.</td>
<td>Slow down and self-reflect</td>
</tr>
</tbody>
</table>

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Disrupting old habits is easier when we take intentional steps to interrupt an old routine we want to stop in order to make it easier to implement a new routine.\textsuperscript{40} For students, this might mean learning how to turn off app notifications, temporarily moving a device out of reach during homework time, or pre-downloading a news podcast so that it's readily accessible to kick start a fresh habit of following the news. The Digital Habits Check-Up routine is not about just limiting technology use, but instead about tapping into students' personal goals for themselves and thinking critically about ways their current technology use might not be supporting those aims. The steps of Digital Habits Check-up are also directly designed to support digital citizenship dispositions, like slowing down and self-reflecting, envisioning options, and taking action.

2. Feelings & Options

Feelings & Options is a thinking routine that supports social skills and thoughtful decision-making for thorny social and emotional Digital Life Dilemmas.\textsuperscript{41} This routine is designed to be paired with a Digital Life Dilemma, and it can be used again and again with a variety of different dilemmas. The routine packs a lot into four steps: It scaffolds perspective-taking, empathic problem-solving, ethics spotting, and communication skills. All these skills are essential building blocks for social and emotional learning, including self-awareness, self-management, social awareness, relationship skills, and responsible decision-making.\textsuperscript{42}

Middle and high school students are regularly using technology to connect with their peers. Today's technologies have key features like permanence, "cue absence," and quantifiable social metrics that amplify and even transform their interactions.\textsuperscript{43} Feelings & Options, paired with exploring a digital life dilemma, is designed to support students in exploring different perspectives, thinking about possible impacts and outcomes, and practicing language that supports constructive and kind communication.

\textsuperscript{40} Charles Duhigg, "The power of habit: Why we do what we do in life and business," Random House, 2012.
\textsuperscript{41} See the Educator Guides and student materials on teaching with thinking routines and digital life dilemmas.
\textsuperscript{42} See competencies of CASEL's Social Emotional Learning Standards.
\textsuperscript{43} Nesi, Choukas-Bradley, & Prinstein, "Transformation of adolescent peer relations in the social media context: Part 1—A theoretical framework and application to dyadic peer relationships."
### Feelings & Options

<table>
<thead>
<tr>
<th>Steps</th>
<th>Key Questions</th>
<th>Digital Citizenship Dispositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify</td>
<td>Who are the different people involved in the scenario? What dilemma or challenge are they facing?</td>
<td>Slow down and self-reflect</td>
</tr>
<tr>
<td>Feel</td>
<td>What do you think each person in the dilemma is feeling? Why might the situation be hard or challenging for each of them?</td>
<td>Explore perspectives with curiosity and empathy</td>
</tr>
<tr>
<td>Imagine</td>
<td>Imagine options for how the situation could be handled. Come up with as many ideas as possible. There's no one “right” answer! Then choose: Which option might lead to the most positive outcome, where all parties feel good or taken care of?</td>
<td>Envision options and impacts</td>
</tr>
<tr>
<td>Say</td>
<td>Thinking more about the idea you chose for handling the situation, what could the people involved say? What would they say? How would they say it? Who would they say it to? Write out the conversation.</td>
<td>Envision options and impacts, Take action and responsibility</td>
</tr>
</tbody>
</table>

The steps prompt students to first "Identify" issues and the people involved, which builds on the idea of "ethics spotting" to build sensitivity to moral and ethical issues in real life.\(^4^4\) Second, students consider what the different people involved might be feeling ("Feel"). The 'might' language recognizes that while we cannot fully know another person's perspective, it is important to consider their viewpoints, supporting social awareness and relationship skills. Third is the "Imagine" step. Here, students imagine an array of possible options for handling the situation, which supports expansive thinking. They also make intentional choices that seem most positive for everyone involved. Finally, students develop and practice language to actively address the issue. The "Say" step provides an opportunity for teachers to support students toward practical ways of communicating that are both effective and, ideally, authentic.

By using the Feelings & Options routine repeatedly, educators can help students develop sensitivity to recognize digital dilemmas and the Digital Citizenship Dispositions to: 1) explore and care about others' perspectives; 2) envision options for responding to dilemmas; 3) consider potential impacts; and 4) lay a foundation for thoughtfully taking action. Dilemmas that we developed for use alongside Feelings & Options cover topics like setting boundaries in close relationships, responding to offensive memes, forwarding sexts, and cyberbullying behaviors.

3. Take a Stand

Take a Stand is a thinking routine designed to be used repeatedly and alongside thorny Digital Life Dilemmas that lack clear right or wrong answers—particularly dilemmas relevant to privacy, community, and civic life. It’s a four-step routine that gets students in the habit of reflecting on their own stances on a dilemma, listening to and considering the perspectives of others, and then reconsidering their own perspectives. Learning how to explore and discuss complicated and polarizing issues with civility and empathy are core aspects of social awareness, relationship skills, and responsible decision-making.

The four steps of Take a Stand support skills and dispositions for deliberative discourse (sharing and listening to perspectives on controversial issues), which is a hallmark practice in civic education. Repeatedly using the Take a Stand routine can prepare students to engage in productive civic dialogue beyond the classroom, both offline and online.

<table>
<thead>
<tr>
<th>Steps</th>
<th>Key Questions</th>
<th>Digital Citizenship Dispositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take a stand</td>
<td>What do you think? Explain your perspective.</td>
<td>Slow down and self-reflect</td>
</tr>
<tr>
<td>Stand back</td>
<td>Listen to others’ perspectives.</td>
<td>Explore perspectives with curiosity and empathy</td>
</tr>
<tr>
<td>Look again</td>
<td>Look back at your original response. What had you not considered? How has your perspective shifted after hearing other’s responses?</td>
<td>Slow down and self-reflect</td>
</tr>
<tr>
<td>Look beyond</td>
<td>How does this dilemma connect to real world situations?</td>
<td>Seek facts and evaluate evidence</td>
</tr>
</tbody>
</table>

Dilemmas in the civic realm span issues such as streaming school fights online, creating fake news for clicks and advertising revenue, and determining the appropriate age to join social media sites. When using the Take a Stand routine, students first reflect on their own perspectives and values and "Take a Stand," writing out their stance on the dilemma at hand. Then they "Stand Back" to

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45 See the Educator Guides and student materials on teaching with thinking routines and digital life dilemmas.
46 See competencies of CASEL’s Social Emotional Learning Standards.
listen closely and carefully to their classmates’ views. After listening, they purposefully revisit or "Look Again" at their initial stances with the aim of identifying considerations they had not thought about at first. This sequence of steps aligns with pedagogies in moral education that deepen student engagement with dilemmas through scaffolded exploration of perspectives that differ from their own.48

As students explore different perspectives, they often envision options and possible impacts of different responses to the dilemma. Finally, students "Look Beyond" and draw connections to real world situations. This ultimate step has a few distinct aims: 1) to support transfer by inviting students to make authentic connections and to see the relevance of dilemma scenarios to their own lives, and 2) to invite students to seek facts and evaluate evidence relevant to dilemmas (e.g., "Is it legal to fire someone for 'liking' hate speech on social media?).

In sum, the steps of Take a Stand are designed to foster Digital Citizenship Dispositions, including slowing down and self-reflecting, exploring perspectives, envisioning options and possible impacts, and seeking and evaluating evidence.

These research-based cornerstones of the curriculum—the Rings of Responsibility, Digital Life Dilemmas, and Repetition and Routines—contribute intentionality to the scope, sequence, and pedagogies across the lessons. The ultimate aim of the curriculum is to support students to develop skills and dispositions that they can apply to situations they face in their real digital lives.

A Look Inside the Curriculum: Six Topics

The Digital Citizenship Curriculum is framed around six core topics that pose opportunities and challenges for young people. Each grade level includes one lesson per topic, with the exception of kindergarten and first grade. Each topic is addressed using developmentally appropriate pedagogical approaches throughout grades K–12. This section expands upon the six core topics, including research from the field and highlights from the Curriculum.

49 From 2019 to 2020, Common Sense Education revised the Digital Citizenship core topics from the previous version of the curriculum, which addressed eight topics. Some of the same topics in the latest curriculum have been combined (such as Digital Footprint & Identity), while other topics are expanded upon (such as News & Media Literacy).

50 Based on our research with teachers, and developmental stages of children, we address introductory topics in kindergarten and first grade, and begin addressing all topics in second grade.
The topics and approaches in the Digital Citizenship Curriculum are informed by research including the Project Zero team's studies of digital youth. As part of the research, over 3,600 tweens and teens were asked about their perspectives on the best, most challenging, and most worrying parts of growing up with today's technologies as well as their views on different dilemmas. Their perspectives informed the focal topics, dilemmas, and approaches in the curriculum updates.51 (Note: The surveys were conducted before the start of the coronavirus pandemic.)

Media Balance & Well-Being

A common concern expressed by parents, teachers, and kids themselves is the sheer amount of time kids spend on devices and with media each day. A national poll of parents of teens age 14 to 17 found that 44% of parents report their top concern is "spending too much time on devices."52 And one of the top concerns for educators is that "technology distracts students from the learning experience and interferes with learning," with 26 percent of teachers citing this as a "frequent" or "very frequent" problem in their classrooms.53

While the quantity of screen time is what's often focused on, we advocate for the conversation to move beyond screen time alone and to explore the quality of screen time, meaning what kids are actually doing when they are on devices. Ultimately, we want to support kids in practicing media

51 More information about the survey and insights related to the curriculum appear in the Appendix of this report; Insights from the Digital Dilemmas survey and subsequent data collection with teens during the coronavirus pandemic are reported in Weinstein and James’s forthcoming book, Behind Their Screens: What Teens are Facing (and Adults are Missing) (The MIT Press).
53 This issue was also reported more often as grade levels increased; Vega & Robb, "The Common Sense census: Inside the 21st-century classroom."
balance: using technology in meaningful ways that add value to life, and that feels healthy and in balance with other life activities.

**How can I use media in ways that give meaning and add value to my life?**

We first want to acknowledge that how much kids used devices and media changed drastically—and necessarily—during the coronavirus pandemic in 2020 and 2021, so the issue of media balance shifted for educators and families. Kids and teens’ only access to school, friends, and family members outside of their household was through devices and technology. The amount of screen time and what kids were doing online changed, ranging from using school platforms like Google Classroom, accessing curriculum and tools for learning, gaming, and using social media, which allowed young people to stay connected to school, friends, and family as they had to stay home and shelter in place.54

"Zoom" and "distance learning" became household terms. Teens increasingly sought support for mental health issues linked to pandemic-related anxieties and stresses.55 And a stark proportion of kids in the United States did not have technology at home, with distance learning unearthing grave inequities in young people’s access to technology, revealing a stark digital divide.56

Although our Digital Dilemmas research was carried out prior to the pandemic, our surveys clarified that young people have been harboring concerns about their feelings of dependence on their devices and the ways technology disrupts other activities. Of teens age 13 to 17, roughly 90%.57 Fifty-four percent of teens say they spend too much time on their cellphones, with 44%

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55 V. Rideout, S. Fox, A. Peebles, & M. B. Robb, "Coping with COVID-19: How young people use digital media to manage their mental health."
57 Anderson & Jiang, "Teens, Social Media, & Technology."
saying they "often" check their phones for notifications as soon as they wake up.\textsuperscript{58} And 65\% of parents are concerned about their teens' screen time.\textsuperscript{59} Yet, about half of teens say they have tried to limit the amount of time they spend with technology, such as on their cellphone, social media, or playing video games.\textsuperscript{60}

The nature of kids' experiences on social media also influences well-being.\textsuperscript{61} The effects of social media on well-being vary for different teens.\textsuperscript{62} What's more, individual teens can have social media experiences that are positive in some ways and challenging in others; and the nature of their digital experiences may change over time.\textsuperscript{63} 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.\textsuperscript{64} 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.\textsuperscript{65}

\textbf{STUDENT AND EDUCATOR VOICES}

\textit{"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

\textit{"It can be difficult to pull away from technology."} — MIDDLE SCHOOL STUDENT

\textit{"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


\textsuperscript{59} J. Jiang, "How Teens and Parents Navigate Screen Time and Device Distractions."

\textsuperscript{60} J. Jiang, "How Teens and Parents Navigate Screen Time and Device Distractions."


Devices, websites, and apps are designed in ways that can lead to dependence and contribute to feelings of attachment. Many apps are strategically created with built-in features such as likes, alerts, and notifications. Video streaming apps like YouTube and Netflix have autoplay features that make it easy to keep consuming content without interruption … or noticing how much time has passed. Most teens are well aware of attention-grabbing practices, at least conceptually: Seventy-two percent of teens believe that tech companies manipulate users to spend more time on their devices.66 The pull of these techniques is strong, and awareness is not always enough to ignite protective habits. Still, field experiments with adolescents demonstrate the value of lessons that help adolescents recognize how addictive tech designs undercut values like autonomy, which boosts students’ interest in regulating social media use.67

In the Media Balance & Well-Being lessons, students learn about the concept of addictive design. They also go beyond screen time to explore the impact that their use of media and technology can have on their health, well-being, and relationships, while learning practical strategies for balancing media in their everyday lives. Many lessons focus on the dispositions "slowing down" and "taking action."68 Students slow down by taking stock of their digital media habits with a media inventory (completed at every grade band), evaluating their emotions around their media use, and examining how different digital activities either support or hinder their well-being. Students take action by developing a personal media challenge to take responsibility for their own media balance. Below are lesson examples on Media Balance & Well-Being:

<table>
<thead>
<tr>
<th>Lesson Example</th>
<th>Key Question</th>
<th>Core Dispositions</th>
<th>Cornerstones of the Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media Balance Is Important (elementary school)</td>
<td>How do we find a happy balance between our online and offline activities?</td>
<td>→ Slow down and self-reflect → Explore perspectives with empathy</td>
<td>Using repetition and a focus on self and others in the Rings of Responsibility, students sing along with the Digital Citizens and consider the feelings of themselves and others when making decisions about when, where, and how much to use technology.</td>
</tr>
<tr>
<td>Digital Media and Your Brain (middle school)</td>
<td>How does digital media try to hook you, and what can you do about it?</td>
<td>→ Slow down and self-reflect → Envision options and impacts</td>
<td>Students explore the concept of addictive design versus humane design by exploring the ways that apps are designed. They then apply these concepts to dilemmas around humane design, and also think of how to improve humane design in an app they use often.</td>
</tr>
<tr>
<td>The Health Effects of Screen Time (high school)</td>
<td>Can screen time be bad for us?</td>
<td>→ Slow down and self-reflect → Take action and responsibility</td>
<td>Students watch a video that helps them reflect on their own media use and how it compares to other teens. They then use the Digital Habits Checkup routine to challenge themselves to change a media habit.</td>
</tr>
</tbody>
</table>

66 Rideout & Robb, Teens reveal their experiences.
68 The Five Core Dispositions of Digital Citizenship are addressed in different ways within lessons for all topics. Our highlighting of specific dispositions does not mean that these lessons are limited to select dispositions.
Privacy & Security

The Digital Citizenship Curriculum covers the issue of privacy from two angles: data privacy and privacy as it relates to students' digital footprints and reputations. In Privacy & Security, the focus is on data and information 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, facial recognition, 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.

How can I keep my data safe and secure?

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 consumer 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. But students need to be aware of digital privacy issues and the steps they can take to protect their own data and their rights to privacy both within and outside of a school context.

Tracking and profiling young people's activity online has become widespread practice, despite privacy laws. Some 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. In 2019, YouTube paid a fine of $170 million dollars for violating COPPA by tracking and collecting underage kids' data.

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. Teens, who are active in signing up for accounts and sharing information online, are targeted with personalized ads, articles, and information based on their online behavior.

Identity theft is another online privacy risk for children, and is a salient concern for some young people, as the sampling of student quotes (in inset box) highlights. More than 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. Identity thieves target children because their Social Security numbers are "clean," meaning they are not associated

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69 Common 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.


72 Though 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; G. Das et al., "Privacy policies for apps targeted toward youth: Descriptive analysis of readability," JMIR mHealth and uHealth, 6(1), e3 (2018), https://doi.org/10.2196/mhealth.7626.

with 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, the risks can be complex. For example, minors who are bullied online are nine times more likely to be victims of fraud than minors who are not bullied. This might be due to kids' vulnerabilities with oversharing personal information in an anonymous environment, or with being taken advantage of when seeking friendship online.

In one interview-based study, children (age 5 to 11) recognized the importance of basic privacy practices, like not sharing their name, birthday, or address. Children also recognized the importance of having strong passwords and keeping them private. 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.

Teens are even more aware of their online privacy and in fact, 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. In our research, risks to privacy topped the list of teens' worries about growing up with today’s technologies, suggesting more concern about these issues than adults might assume. Their descriptions of these worries reveal fears about safety and bad actors as well as fears about putting themselves and their families at risk.

74 Pascual & Marchini, Child identity fraud study.
76 During 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).
77 Kumar et al., "Understanding children's mental models."
78 D. E. Agosto, & J. Abbas, "Don’t be dumb—that’s the rule I try to live by: A closer look at older teens' online privacy and safety attitudes" in New Media & Society (2017), 19(3), 347–365.
79 See Appendix.
In the Privacy & Security lessons, students learn the difference between private information (personally identifiable information such as name, phone number, and address), and information that is OK to share (hobbies, interests, or other information that's not personally identifiable). Students learn the risks of sharing different types of information as well as the benefits of safe online sharing, such as learning and connecting to their interests. They think about relevant risks, and the importance of interpersonal considerations. Lessons support the dispositions to "slow down and self-reflect," to think carefully prior to sharing private information, to "envision options and possible impacts" by knowing about the possible risks of sharing certain information, and to "take action and responsibility" by advocating for privacy rights for themselves and others. The lessons build a sense of agency around privacy and empower students to feel more confident about steps they can take to support privacy and security.

Below are lesson examples on Privacy & Security:

<table>
<thead>
<tr>
<th>Lesson Example</th>
<th>Key Question</th>
<th>Core Dispositions</th>
<th>Cornerstones of the Curriculum</th>
</tr>
</thead>
</table>
| Private and Personal Information (elementary school) | What information about you is OK to share online? | → Slow down and self-reflect  
   → Take action and responsibility                  | Students learn that online sharing comes with risks, the difference between personal and private information, and what’s OK and not OK to share online. They learn there is one unique “you,” and to protect their own privacy, drawing on the self ring of the Rings of Responsibility. |
| Being Aware of What You Share (middle school)       | How can you protect your privacy when you’re online? | → Slow down and self-reflect  
   → Envision options and impacts                    | Students analyze ways that advertisers collect information about users to send them targeted ads. They then apply these concepts to a dilemma around a targeted advertising scenario to explore how and why it happens, and identify ways they could protect themselves, including customizing privacy settings and opting out. |
| Risk Check for New Tech (high school)               | What privacy risks do new technologies present, and how do we decide if they’re worth it? | → Explore perspectives with curiosity and empathy  
   → Seek facts and evaluate evidence  
   → Envision options and impacts              | Students consider whether or not the benefits of new technologies outweigh their privacy risks. They use the Take a Stand routine to consider a dilemma about the benefits and the risks of new technologies. They consider the impact of online privacy not only on themselves, but on the wider world and civic life, drawing from the Rings of Responsibility. |
Digital Footprint & 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 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 videos and carefully choose which posts to share. Some teens also live-broadcast through social video chat. These activities all make up kids' digital footprints, a unique trail of their individual online activities.

How can cultivate my digital identity in ways that are responsible and empowering?

On the one hand, digital media is an important avenue for self-expression and creative sharing in ways healthy to identity development. More than one in four teens say social media is "extremely" or "very" important for expressing themselves creatively. 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. Teens appreciate opportunities to see their own development and the progression of their close relationships over time. Adults who grew up in a world without the internet likely remember photo collages, bulletin boards, and photo books.

80 Rideout & Robb, Teens reveal their experiences.
Today's young people similarly value opportunities to store and revisit their images, though their collections are in digital formats.

While digital media provide a space for young people to explore identities, apps can constrain them. Tweens and teens can feel pressure to conform to idealized societal norms when they present themselves online and to post only content that they think their followers and friends will approve of and "like." The ability to curate a "perfect" life in profiles, and the functionality of filters and photoshopping that transform images to make them look flawless and idealized, can present a picture to the world that does not reflect the authentic realities of everyday life. These pressures harken back to social comparison theory in psychology, in which people develop their self-concept by comparing their own self-image in relation to others. A constant barrage of scrolling through other people's lives on social media can make young people feel inadequate and insecure about their own lives.

As they navigate a landscape of opportunities and challenges related to identity expression, young people find strategies, like audience segmentation, that help them curate posts for different recipients. Some young people use multiple accounts across different social media platforms or intentional "stories" groups to segment their audiences so they can express themselves differently to different groups. 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.

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86 Some young people have multiple accounts on the same platform, designed to allow different aspects of their identities for different audiences. For example, they might have a main account that's more broad and polished, versus another account to share personal, authentic, unpolished moments with just their inner circle of friends; J. Walsh, "Adolescents and their social media narratives: A digital coming of age," New York, NY: Routledge, 2018; Weinstein, "Positive and negative influences."
Newer features that enable audience segmentation from a single account create more opportunities for intentionally differentiated expression, but also add to the complexity. Specifically, peers can be intentionally excluded and posts can be strategically shared in ways that preclude certain followers' from viewing.

In addition, the fact that anything posted online is persistent, searchable, replicable, and scalable can raise the stakes of online participation. In 2015, 88 percent of teen social media users already believed people shared too much information about themselves, and sharing has only become easier with device and app features designed to support seamless posting in real time. Both seemingly innocent and objectively problematic posts may have future negative ramifications. One-off comments, compromising pictures (including images or videos 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. Adding to the stress, digital footprints are not always in kids' own control as peers can record and post moments online, tagging or naming those featured without their permission.

Along with online expression comes consequential dilemmas: When does trying out a new identity online cross over to deception ... or harm? Should people face consequences later in life for social media posts they shared when they were young? 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? Rather than trying to simply evoke fear about ambiguous future consequences, we believe classroom approaches to exploring digital footprints must reflect the vexing realities of today's co-constructed footprints and the rapidly evolving digital landscape.

In the Digital Footprint & Identity lessons, students consider the benefits and risks of online sharing of one's digital footprint, and exploring how digital expressions affect one's sense of self, reputation, and relationships. Students consider the personal, moral, and ethical issues associated with the potentially persistent nature of their online identities. Dispositions which are emphasized include, "slow down and self-reflect" prior to sharing things online; "explore perspectives with

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88 Boyd, "Taken out of context.”
curiosity and empathy” as students take the perspective of audiences who may view and judge their posts; and "envision options and impacts" as students consider the impact of what they share online on themselves, others, and the future.

Below are lesson examples on Digital Footprint & Identity:

<table>
<thead>
<tr>
<th>Lesson Example</th>
<th>Key Question</th>
<th>Core Dispositions</th>
<th>Cornerstones of the Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Trails (elementary</td>
<td>What information is OK to have in your digital footprint?</td>
<td>→ Slow down and self-reflect</td>
<td>Students learn that the information they share online leaves a digital footprint or &quot;trail.&quot; They pretend to be detectives to solve a dilemma of which animal left the bigger digital footprint. Students compare different trails and think critically about what kinds of information they want to leave behind.</td>
</tr>
<tr>
<td>school)</td>
<td></td>
<td>→ Seek facts and evaluate evidence</td>
<td></td>
</tr>
<tr>
<td>The Power of Digital Footprints (middle school)</td>
<td>How might our digital footprints shape our future?</td>
<td>→ Explore perspectives with curiosity and empathy</td>
<td>Students analyze how different parts of their digital footprint can lead others to draw conclusions -- both positive and negative -- about who they are. They use the Take a Stand thinking routine to examine a dilemma about digital footprints.</td>
</tr>
<tr>
<td>Protecting Online Reputations (high school school)</td>
<td>How can you respect the privacy of others online?</td>
<td>→ Explore perspectives with curiosity and empathy</td>
<td>Students identify examples of social media posts that can have a positive or negative effect. They use a perspective-taking activity to consider the causes and effects of posting about others online. They consider their responsibilities as it affects the digital footprints of others in their community and the broader online world, drawing from the Rings of Responsibility.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ Envision options and impacts</td>
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</tbody>
</table>
Relationships & Communication

Students' relationships and needs for peer validation take on increased prominence as they move from elementary into the teenage years. As parents are well aware, kids and teens increasingly spend time with their friends online, through games, live video, and social media. As children get older, they are figuring out how to communicate and carry out these close relationships through digital media. Social media and gaming can be key sites where these social interactions take place.

How can I communicate effectively and positively to build relationships?

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. Yet teens have mixed views on the positive and negative effects of technology and social media on those relationships. They acknowledge ways technology can support closeness: 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. In addition to using social media to support their in-person friendships, teens are making new friends online, too. A majority have made at least one new friend online, mainly through social media or online gameplay. Online multiplayer games can also be distinct and

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90 Anderson & Jiang, "Teens, Social Media, & Technology"; Rideout & Robb, Teens reveal their experiences.
91 Lenhart, "Teens, technology and friendships."
92 Lenhart, "Teens, technology and friendships."
positive spaces for forming close friendships. Online-only friendships are often forged based on shared interests and/or mutual friends.

Yet digital life raises dilemmas for social connection and relational challenges. 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. Given the possibility of constant, immediate access to others through smartphones and other devices, young people describe struggles with boundaries and feeling uncertainty and stress about how much communication with friends and romantic partners is too much, not enough, or just right. A smaller percentage of teens, particularly those who struggle with depression, report more intense and heightened emotional responses to social media use, including social challenges like feeling left out.

Adults continue to express concern about tweens and teens being targeted by online predators, though this experience is relatively uncommon. 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.

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95 Underwood & Ehrenreich, “The power and the pain.”

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crimes do occur, perpetrators are most likely to be known others (from school, church, or the neighborhood).  

When students we surveyed described worries about "stranger danger," they named notably graphic fears about kidnapping, rape, and threats to their physical safety from people online. Looking back to studies in the early 2010s shows that tweens have long reported hearing messages about "stranger danger" from teachers and adults, which may perpetuate enduring fears.  

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.  

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."

Teens also use social media to "friend", "like," flirt, joke around with, and get to know crushes or potential partners. By 2015, over half of teens were already using social media to flirt with or talk to someone they're interested in romantically. In some cases, flirting may escalate to more risky sharing. Sexting, or sending "nudes," is also a concern among parents and educators. 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. Some sexting is consensual (and perhaps increasingly prevalent, as indicated by meta-analyses). Yet notably concerning is nonconsensual forwarding of sexts 12 percent of teens report forwarding a sext without consent.

Sexting is a top concern in schools' reports of digital challenges their communities are facing. Twenty-seven percent of high school teachers, 19% of middle school teachers, 5% of third to fifth grade teachers, and 9% of kindergarten to second grade teachers reported that sexting occurred

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100 Dedkova, "Stranger is not always danger"; Wolak & Finkelhor, "Crimes by online predators."
105 Madigan et al, "Prevalence of multiple forms."
106 Madigan et al, "Prevalence of multiple forms."
Educators express particular concerns about pressured sexting, revenge porn, sextortion, 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—such as the desire to establish intimacy; desire for social connection; desire for peer validation—that drive adolescents' behaviors and development.

Young people need effective strategies appropriately aligned with their different ages and stages, and classroom conversations that reflect the complex pressures they may face when, for example, they worry that turning down a request for nudes will damage a relationship that is important to them. Whether and how to address sexting in school contexts remains a [hot topic], though some sexting researchers have urged for a shift to educating about 'safer sexting' practices as an important direction for sex education. 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 are often concerned about how technology may disrupt face-to-face relationships. Indeed, teens prefer texting and messaging as their main form of communication more so than face-to-face communication. As students use various forms of online communication, such as texting, messaging, and video chat, they need to understand the benefits (e.g., immediacy, convenience) and drawbacks (e.g., lack of verbal and nonverbal cues) to prevent misunderstanding and miscommunication. They also need to learn how to select and use the right modes of communication for the right audience and purpose. For example, is using informal text-speak in an email to a teacher effective communication? Is a text the best way to resolve a conflict with a friend? If students are to become clear and effective communicators, they need to make responsible decisions about the modes and options available to them.

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107 This study does not include the context or information about the who, what, or when of why sexting occurred in the classroom; Vega & Robb, "Inside the 21st-century classroom."

108 For more resources on sexting, see 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. Also, see Sextortion resources from the National Center for Missing and Exploited Children.


111 Rideout & Robb, Teens reveal their experiences.
In the Relationships & Communication lessons, students explore the benefits and drawbacks of digital media in their relationships. In elementary grades, students focus on the differences between online versus offline, and between verbal versus nonverbal communication, 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). Secondary grades also address risky disclosure behaviors, such as oversharing and sexting, setting boundaries with friends, and building positive relationships.

The concept of a "red flag feeling" is used in several lessons, guiding students to pay attention to cues in dilemmas they may face. The Feelings & Options thinking routine is used with digital life dilemmas throughout several secondary lessons. Dispositions which are emphasized include "explore perspectives with curiosity and empathy" as students take the perspective of friends or others in relationship dilemmas; "envision options and impacts" as students consider how what they and do can impact the lives of others; and "take action and responsibility" as students identify what exactly they might say or do if faced with certain situations.

Below are lesson examples on Relationships & Communication:

<table>
<thead>
<tr>
<th>Lesson Example</th>
<th>Key Question</th>
<th>Core Dispositions</th>
<th>Cornerstones of the Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pause &amp; Think Online (elementary school)</td>
<td>How can we be safe, responsible, and respectful online?</td>
<td>→ Slow down and self-reflect&lt;br&gt;→ Explore perspectives with curiosity and empathy</td>
<td>Students learn and sing the song &quot;Pause &amp; Think Online&quot; with the Digital Citizens characters, and also learn hand movements that go along with the song. Through repetition, students learn how the mantra &quot;pause and think online&quot; applies to how we treat others and how our actions impact others on the internet.</td>
</tr>
<tr>
<td>Chatting Safely Online (middle school)</td>
<td>How do you chat safely with people you meet online?</td>
<td>→ Slow down and self-reflect&lt;br&gt;→ Envision options and impacts&lt;br&gt;→ Take action and responsibility</td>
<td>Students analyze how well they know people they interact with online, what information is safe to share with different types of online friends, and learn to recognize &quot;red flag feelings&quot; if something feels off. Using the Feelings &amp; Options routine, they explore a risky chat dilemma.</td>
</tr>
<tr>
<td>Rewarding Relationships (high school)</td>
<td>How can I make sure my relationships are healthy and positive?</td>
<td>→ Explore perspectives with curiosity and empathy&lt;br&gt;→ Envision options and impacts&lt;br&gt;→ Take action and responsibility</td>
<td>Students reflect on how their relationships are affected by devices and the internet, identify the qualities of healthy and rewarding relationships, and they use the Feelings &amp; Options routine with a dilemma about navigating a potentially unhealthy relationships and setting boundaries.</td>
</tr>
</tbody>
</table>

A red flag feeling is defined as: when something happens on digital media that makes you feel uncomfortable, worried, sad, or anxious.
Cyberbullying, Digital Drama & Hate Speech

Just as bullying occurs in school hallways or on school grounds, it can also happen online and through texting. It can range from full-blown cyberbullying to subtle jabs in online comments and everything in between. Cyberbullying is the use of digital devices, sites, and apps to intimidate, harm, and upset someone. Young people who are 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.

How can I connect positively, treat others respectfully, and create a culture of kindness?

Research on cyberbullying in middle and high schools from 2019 indicated that, on average, 37 percent of students have been targets of cyberbullying, and nearly 15 percent of students admit to cyberbullying others. Importantly, how cyberbullying is defined affects findings on the prevalence of cyberbullying experiences across different studies. 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. Justin Patchin of the Cyberbullying Research Center describes

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113 Weinstein & James, What teens are facing.
cyberbullying as "neither an epidemic nor a rarity ... [b]ut ... something that everyone has a responsibility to work toward ending."\(^{117}\)

Harmful and abusive digital behavior can also take the form of one-off mean comments and subtle but pointed posts that send signals about inclusion/exclusion. Tweens and teens may use the term "drama" to capture a range of behaviors that lead to harms.\(^ {118}\) Of teens on social media, 68 percent have experienced drama among their friends on social media.\(^ {119}\) Of teens who perceive social media as having a "mostly negative effect," the primary reason is the role social apps play in perpetuating rumors and bullying.\(^ {120}\)

While cyberbullying and digital drama are not new, they continue to be a top concern 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.\(^ {121}\)

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.\(^ {122}\) 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


\(^{119}\) Lenhart, "Teens, technology and friendships.

\(^{120}\) Anderson & Jiang, "Teens, Social Media, & Technology;

\(^{121}\) Anderson, "A majority of teens.

\(^{122}\) Rideout & Robb, Teens reveal their experiences.
religious minorities and other vulnerable groups. These trends underscore a need for distinct supports keyed to hate speech and incivility, in addition to cyberbullying-related supports.

In the Cyberbullying, Digital Drama, & Hate Speech lessons, students take on tough topics regarding how we communicate online and how we treat others. Students learn what to do if they’re bullied online, how to be an upstander and ally for others who are bullied, and learn strategies for combating online cruelty and building positive, supportive communities. Elementary students explore how mean behavior and bullying can occur online, how this makes people feel, and what to do if they see or experience cyberbullying. 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 that support perspective-taking and strategies to de-escalate harmful situations and be upstanders and allies for others. They focus on their responsibilities to their communities and the broader online world in the Rings of Responsibility. Dispositions that are emphasized in this topic include: "explore perspectives with empathy," "envision options and impacts," and "take action and responsibility."

Below are lesson examples on Cyberbullying, Digital Drama & Hate Speech:

<table>
<thead>
<tr>
<th>Lesson Example</th>
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</tr>
</thead>
<tbody>
<tr>
<td>The Power of Words (elementary school)</td>
<td>What should you do when someone uses mean or hurtful language on the internet?</td>
<td>➔ Slow down and self-reflect ➔ Explore perspectives with curiosity and empathy ➔ Envision options and impacts</td>
<td>Students consider the importance of the words we use, analyze an online bullying dilemma, decide what kinds of statements are OK or not OK to say online, and learn to identify ways to respond to mean words online, using and repeating the S-T-O-P acronym.</td>
</tr>
<tr>
<td>Responding to Online Hate Speech (middle school)</td>
<td>How should you respond to online hate speech?</td>
<td>➔ Explore perspectives with curiosity and empathy ➔ Envision options and impacts ➔ Take action and responsibility</td>
<td>Students analyze an online hate speech dilemma using the Feelings &amp; Options routine. They identify specific actions to positively affect a situation involving hate speech.</td>
</tr>
<tr>
<td>What You Send In “That Moment When…” (high school)</td>
<td>How can we act with empathy and positivity when we’re online?</td>
<td>➔ Explore perspectives with curiosity and empathy ➔ Envision options and impacts ➔ Take action and responsibility</td>
<td>Students identify examples of online behaviors that may hurt, embarrass, or offend others. They then use the Feelings &amp; Options routine to analyze and respond to a dilemma involving a bullying situation with two teens.</td>
</tr>
</tbody>
</table>


News & Media Literacy

News and media literacy covers a broad set of skills and dispositions related to how students understand, evaluate, and create media messages.\(^\text{125}\) This topic includes media literacy, news literacy, information literacy, and copyright and fair use, all of which emphasize kids' roles as media consumers and creators.

Students are increasingly getting their news from social media. In 2020, 77% of kids age 10 to 18 got their news and headlines from social media. Thirty-nine percent of teens "often" get news from personalities, influencers, and celebrities on social media and YouTube, even though they don't see these sources as particularly trustworthy.\(^\text{126}\)

Over the past few years, societal challenges related to misinformation, disinformation, and conspiracy theories have increased. An internet that relies on an advertising model, media platform design, user-generated content, and powerful algorithms that keep individuals in a filter bubble can have polarized individuals on topics such as political campaigns, racial tensions, climate change, and COVID-19. News and media literacy is seen as a solution in the "misinformation crisis," especially with young people.\(^\text{127}\)

\(^{125}\) U.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, Media Lit One Sheet, 2018. https://namle.net/ml-onesheet/).


\(^{127}\) Though news literacy and media literacy are important solutions to the misinformation crisis, they need to be partnered with solutions for government and industry.
How can I be a critical consumer and creator of news and media?

Assessing credibility online is essential, given the ways in which news consumption is changing. Many young people age 10 to 18 are aware that they are struggling with information credibility: Less 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.128 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.129

Teachers are justifiably concerned, naming particular worries about students’ being able to assess the credibility of online information and identify misinformation, disinformation, and “fake news.” And 35% of teachers report that their students “frequently” or “very frequently” “lack skills to critically evaluate information.”130

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. 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.131

130 Vega & Robb, "Inside the 21st-century classroom."
Educators report trying to tackle news and media literacy with their students. In addition to teaching students how to critically examine and triangulate sources and evaluate online news, educators we surveyed 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. News literacy is a bigger set of skills and dispositions than fact-checking and identifying credible sources. Students need to focus on evaluating their own biases and the polarized culture that encourages people to believe and share misinformation in the first place.

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. Students need guidance in understanding the complicated landscape of how advertisers target them on the internet. Educators can support students in identifying problematic stereotypes in advertising and understanding marketers' motivations.

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

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133 Ito et al., “Hanging out, messing around.”
134 James, “Disconnected: Youth, new media.”
The News & Media Literacy lessons focus on skills and dispositions to identify credibility and trustworthiness in digital news and information sources, and for students to reflect on their responsibilities as thoughtful media creators and consumers. 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 opinion and confirmation bias shape our understanding 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. Lessons focus on the dispositions "seeking facts and evidence" as students learn to analyze media and news messages, and "taking action" with practical steps they can take to be critical media consumers and creators.

Below are lesson examples on News & Media Literacy:

<table>
<thead>
<tr>
<th>Lesson Example</th>
<th>Key Question</th>
<th>Core Dispositions</th>
<th>Cornerstones of the Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Creator's Rights and</td>
<td>What rights and responsibilities do you have as a creator?</td>
<td>→ Slow down and self-reflect</td>
<td>Students define &quot;copyright&quot; and explain how it applies to creative work, and describe their rights and responsibilities as creators. They then use the &quot;Ask &amp; Attribute&quot; copyright principles repeatedly to real-life dilemmas.</td>
</tr>
<tr>
<td>Responsibilities (elementary</td>
<td></td>
<td>→ Envision options and impacts</td>
<td></td>
</tr>
<tr>
<td>school)</td>
<td></td>
<td>→ Take action and responsibility</td>
<td></td>
</tr>
<tr>
<td>Finding Credible News</td>
<td>How do we find credible information on the internet?</td>
<td>→ Seek facts and evaluate evidence</td>
<td>Students learn criteria for differentiating fake news from credible news, and practice evaluating the credibility of information they find on the internet. They apply the &quot;Internet Investigator Checklist&quot; steps to analyze a breaking news dilemma in order to flag what might and might not be true.</td>
</tr>
<tr>
<td>(middle school)</td>
<td></td>
<td>→ Envision options and impacts</td>
<td></td>
</tr>
<tr>
<td>Clicks for Cash</td>
<td>How does internet advertising contribute to the spread of disinformation?</td>
<td>→ Explore perspectives with curiosity and empathy</td>
<td>Students describe how advertisers and publishers make money through online advertising, and how clickbait can contribute to the spread of fake news and disinformation. They then use the Take a Stand routine to a dilemma to consider whose responsibility it is to fight disinformation.</td>
</tr>
<tr>
<td>(high school)</td>
<td></td>
<td>→ Seek facts and evaluate evidence</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ Envision options and impacts</td>
<td></td>
</tr>
</tbody>
</table>

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Implementing Digital Citizenship

Schools and districts implement digital citizenship for a variety of reasons. Many schools are motivated because they know a solid foundation of digital citizenship creates a positive culture of media and technology in their school. Other schools and districts note policy reasons and E-rate funding. Increasingly, schools are seeing the value of digital citizenship beyond "safety," and instead see it as laying an essential foundation for effective digital learning. But one question the Common Sense Education team hears a lot from school and district leaders is: "How do we implement digital citizenship?"

Since 2010, Common Sense Education has worked on the ground with schools and districts to support them with digital citizenship implementation. We've learned that there is not a one-size-fits-all approach to implementing digital citizenship—it's 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 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.

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

135 E-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). See more Common Sense Education’s Essential Guide to Digital Citizenship for CIPA and E-Rate.
We have identified a process and best practices for implementing digital citizenship. In our Digital Citizenship Implementation Guide, we outline three steps for school and district leaders:

1. **Plan**
   - Assess needs, align to initiatives, and get buy-in from key stakeholders.

2. **Implement**
   - Train educators, teach students, and engage families.

3. **Evaluate**
   - Define and measure impact, celebrate achievements, and reflect on progress.

The Digital Citizenship Implementation Guide includes planning templates, checklists, videos, and success stories from school districts. We also provide schools and educators free online Professional Development and the Common Sense Education Recognition Program as a road map for implementation, and also as a way to celebrate their accomplishments.

### Engaging Families

Parents and caregivers have many concerns about media, technology, and devices. Whether it's screen time, inappropriate content, online privacy, consumerism, or supporting their children with learning at home, parents look to schools and educators for advice. 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.

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136 Common Sense Media was founded to provide ratings, reviews, and advice around children’s media for parents and families. Schools are an important channel to reach families with helpful information to guide their children’s media use.
Supporting parents in an ongoing way is vital for a few reasons. First of all, successful technology integration relies on successful school and family communication. Challenging situations, such as conflict or bullying among classmates, inappropriate sharing, plagiarism and cheating, digital distractions (e.g., cellphones), or other behavioral issues, often unfold dynamically across school and home. School faculty and caregivers need to work together to resolve issues. In addition, schools can build on what we learned during the coronavirus pandemic about how to strengthen support for learning at home. Communication and partnership between schools and parents is a necessity for supporting students and creating a culture of digital citizenship.

Second, many young people feel that their parents or caregivers don’t “get it,” because they don’t understand their digital lives, or the challenges they face. This gap can prevent young people from seeking support from caregivers, and undermine valuable opportunities for caregivers to offer guidance. It’s not acceptable for caregivers to say, “I don’t know what my kids are doing online.” They need to be involved, educated, and armed with strategies to support their children.

Third, young people have their own frustrations about their parents’ digital habits—such as adults’ distracted driving or being glued to their own devices—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. An unexpected theme in our Digital Dilemmas Educator surveys, 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. 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

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**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
seen. As these examples suggest, parents’ online behaviors can influence school culture.

To create a positive culture around media and technology, Common Sense Education advocates a whole-community approach by including a strong family education component. Family Engagement Resources are provided to schools to host a family night, share in their e-newsletters, or link from the school website.

**Conclusion**

Meeting students "where they are" is a rallying cry among many educators. In today’s world, this goal requires attention to dilemmas in 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 digital citizens.

Ultimately, we want young people to get the best out of media and technology in their lives. Together, we can help them tap into the positive opportunities to thrive as learners, leaders, and citizens in the digital age.
About the Authors

Carrie James is a research associate and principal investigator at Project Zero. 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 of two technology-loving children, age 11 and 15.

Emily Weinstein is a senior researcher at Project Zero. Her work examines how social technologies influence the everyday lives of tweens, teens, and young adults. Emily’s research appears in academic journals like the *Journal of Adolescent Research, New Media & Society*, and *Computers in Human Behavior*, and has been covered by a number of popular publications. She is passionate about the translation of research into practical supports for 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. She is also the mom of a toddler.

Kelly Mendoza is Vice President of Education Programs at Common Sense Education, overseeing the Digital Citizenship Curriculum, edtech ratings and reviews, and articles and advice content for educators. 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 has also developed curricula and resources for Classroom Champions, Resilient Educator, Lucas Learning, and the Media Education Lab. Kelly has a Ph.D. in media and communication from Temple University. She is the parent of a daughter who’s a fan of Harry Potter … 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: About the Research

The Digital Dilemmas (DD) project is a mixed-methods research initiative that tours perspectives on digital life, especially from young people and educators. The research explores how the contemporary landscape of digital media use necessitates new or updated approaches from adults
interested in supporting students. A key practical aim of the phase of this research from 2017 to 2020 was to revisit and revise, as appropriate, the overarching topics, lessons, and approaches in Common Sense Education's Digital Citizenship Curriculum. Our findings had theoretical, pedagogical, and practical significance for the curriculum. Updated features include a guiding framework of Dispositions for Digital Citizenship, Digital Life Dilemmas relevant to current challenges teens face, and new pedagogical approaches (Thinking Routines) intentionally designed to support target Dispositions. This appendix provides an overview of how several key insights from that research shaped implications for updates to the middle and high school curriculum in 2019.

STUDENT SURVEYS
Aims: To explore young people’s perspectives about contemporary digital citizenship topics and including bright spots and challenges, tap into areas where current approaches might be falling short, and consider grade-related differences that may have implications for digital citizenship education in the classroom.

Sample: Between 2018 and 2019, the DD team surveyed more than 3,600 fifth through twelfth graders in 15 U.S. middle and high schools. Participating schools were located across 10 U.S. states in the Mid-Atlantic, Northeast, Southeast, Southwest, Midwest, and West regions, and included seven traditional public schools, seven public charter schools, and one private school. Of those who reported demographic information, approximately 48% identified as female, 44% male, 2% nonbinary. The sample was disproportionately middle school; 67% of respondents were in grades 5 to 8, and 33% were in grades 9 to 12. With respect to race and ethnicity, students could ‘select all that apply’; of those who responded, 52% identified as White, 19% as Hispanic/Latinx, 17% as Black or African American, 8% as Asian or Asian American, 5% Native American/American Indian/Alaska Native, 2% Middle Eastern or North African, 1% Pacific Islander/Native Hawaiian, and 9% Other.

Key questions: Questions asked students about their top worries about digital life, prompted for open-ended descriptions of tech-related benefits and challenges, and then used Likert-style scales with open-ended elaboration to explore views on various digital dilemmas, including those related to friendship, sexting, hate speech, and digital footprints.
One survey question we asked was especially revealing: *What worries you most about today’s digital world?* Participants chose from 10 options that reflected salient topics, including "being asked for inappropriate pictures," "comparing to others on social media," "connecting with strangers," "digital drama and cyberbullying," "digital footprints or online posts lasting forever," "pressure to always stay connected," "risks to private information," "seeing inappropriate content," "too much screen time," and "other (please specify)." All participants were prompted for an open-ended explanation (*Why is [response] your biggest worry?*). At the time, this list of options felt like a relatively comprehensive representation of relevant topics. If we were conducting the study in 2021, we would include additional topics that we know are salient (e.g., fake news and political polarization). Still, the data clarified a range of perspectives on these issues from young people who were especially concerned about them.

*Key insights and implications for the curriculum:*

- Responses clarified the positive and even essential opportunities of digital life for social connection, learning, civic engagement, and more. Yet they also illuminated coexisting challenges. Many of these challenges reflected issues that are already well documented in research and reflected in the curriculum (e.g., cyberbullying concerns, privacy issues). Yet there were also challenges described in new ways and/or with new dimensions.
- Concerns about managing digital habits suggested a strong desire, for some young people, to feel less dependent on devices. They wanted to feel more in control of their tech use, and avoid getting ‘sucked in’ in ways that displace other needs and interests. After analyzing their responses about issues related to screen time, we began developing a protocol specifically designed to build both digital agency and healthy media balance, through taking stock and taking control of digital habits (*Digital Habits Check-Up*).
- Young people were divided on a range of digital dilemmas. Their own discussions of digital issues surfaced a collection of further tensions about social dilemmas that arise in their digital lives and often lack straightforward right or wrong answers. As they described various worries about growing up with today’s technologies, they also voiced concern that they do not (or would not) know what to do in a variety of social digital situations, from cyberbullying to privacy issues. This fueled our focus on creating a set of realistic scenarios without clear cut right or wrong answers (*Digital Life Dilemmas*) and a protocol to help tweens and teens think through those situations in ways that could support anticipatory reflection, perspective-taking, communication, and decision-making (*Feelings & Options*).
• Data from this group also underscored how social media intersects with civic issues and a polarized political landscape. The process of developing one’s own stances and participating civically now takes place with and through digital spaces and tools that can be public, permanent, and widely shared or viewed. This fueled development of a routine specifically keyed to civic digital dilemmas, and intentionally designed to support self-reflection, active listening, and discussion across differences (Take a Stand). Relatedly, concerns about fake news and misinformation bolstered an effort that was already in motion at Common Sense to design news literacy tools.

• Other topic-specific insights led to corresponding changes in lessons about topics like sexting, media balance, and hate speech. For example, young people described pressures related to sexting and particular concern about nonconsensual forwarding of nudes; accordingly, we developed a sexting-related Digital Life Dilemma that directly raises the issue of nonconsensual sharing of naked pictures.

EDUCATOR SURVEYS

Aims: To explore common and creative pedagogical approaches and emphases in lessons about digital citizenship as well as topic areas of concern and educators’ views on timely digital dilemmas.

Sample: In October 2017, the DD team surveyed 1,284 educators from across the United States, and over 80 educators in more than 24 countries. Respondents lived and taught in urban, suburban, and rural contexts in 49 U.S. states and abroad. These educators worked in public, private, and faith-based schools, and served young people from diverse socioeconomic, racial, ethnic, cultural, and religious backgrounds.

Key questions: Questions asked educators to describe details of their past lessons and interventions related to digital citizenship. We analyzed open-ended responses to glean common pedagogical approaches and emphases as well as to identify potentially promising and powerful practices (which we followed up on through subsequent in-depth interviews, described below). We also used multiple choice and Likert-type questions to ask about major topics/areas of concern and educator views on digital dilemmas.

Key insights and implications for the curriculum:
Educators self-described a tendency to fall back on individualistic and consequence-oriented messages when talking about digital topics (e.g., "Inappropriate posts can affect you in many ways both socially, academically, and legally," and "Posting comments online is like shouting them on the town square, except that they NEVER go away, and they do have consequences," and "You are what you post—now, tomorrow, and in the future." Considering the messages alongside the survey data makes it clear how and why such well-intentioned messages can fall short. For example, advice to "take care of your digital footprint" can fall short in a digital context where other people are co-authors of one’s footprint through (at times unwanted) photo posting and tagging. Attention to the moral responsibilities young people have to each another in this context is also crucial. We therefore focused on ensuring the curriculum's lessons direct both student and educator attention to multiple spheres of influence: Self & Personal Well-Being, Community & Close Ties, and Wider World & Civic Life, as reflected in the Rings of Responsibility framework (Rings of Responsibility).

Digital drama and cyberbullying remained a key issue from educators’ perspectives, and teachers described myriad forms of online meanness and fights that their schools grappled with in recent years. These included: hateful online speech directed at students or groups; hate pages and fake accounts designed to target individuals; composite, crowd-sourced accounts or lists (e.g., 'ugly lists,' unkind polls about students); threats of physical violence; strategic anonymity to post cruel content; videotaping and posting fights; publicly sharing embarrassing pictures; "subbing;" meanness in group text chats; intersections with hate speech; self-bullying; and mocking comments. These stories reinforced the importance of social and emotional learning related to digital citizenship (reflected through the lessons and thinking routines) and surfaced themes that are now reflected in Digital Life Dilemmas and lessons about Cyberbullying, Digital Drama & Hate Speech.

Educators acknowledged that students may have more digital expertise and even full vocabularies of apps and practices that are unfamiliar to adults. Thus, teachers voiced a recurring worry about how they, as facilitators, could and should support young people. **Thinking Routines**, which can be used repeatedly without extended preparation or requisite knowledge, provide touchstones or ‘dry land’ for facilitating lessons on digital situations that may feel foreign or beyond educators’ immediate expertise. We designed the routines to help educators focus on scaffolding certain types of thinking.
(self-reflection, exploring perspectives, envisioning options and impacts) that are both familiar and vital.

- Educators’ own responses to digital dilemma scenarios revealed deep polarization on a number of the specific issues addressed in the Digital Citizenship curriculum. Their polarized views on digital civic situations (such as use of social media to out and publicly shame someone for hate speech; who is ‘at fault’ when a sext is shared) underscored the complexity of thorny digital dilemmas and the need for specific facilitation tools and guidance.¹³⁷

EDUCATOR INTERVIEWS

Aims: To deepen understanding of pedagogical intentions, moves, approaches, and facilitation guidance from innovating digital citizenship educators.

Sample: In the fall of 2017 and winter of 2018, the DD team interviewed approximately 25 educators in North America and the U.K. Participants were respondents to the DD Educator Survey (see above) and were recruited for interviews based on their reported use of innovative approaches to teaching digital topics.

Key questions: In semi-structured interviews, we asked about the approaches (including pedagogies) innovating educators used as they taught challenging digital topics (e.g., sexting, digital footprints, online hate speech), as well as existing and desired resources that support their digital citizenship teaching.

Key insights and implications for the curriculum

- Innovating educators expressed a need for approaches to digital citizenship that go beyond naming risks and toward helping young people truly navigate digital life outside the classroom (e.g., when making real-world decisions about whether or not to send a risky picture at 10:00 p.m. on a Saturday night). This insight fueled the current focus on a dispositional approach to digital citizenship (Skills and Dispositions).
- Innovating educators used approaches that leaned into (rather than skirting) the complexity of thorny digital situations. Strategies included use of realistic scenarios and dilemmas, identification of ‘red flag’ moments and choice points, and anticipatory exercises

¹³⁷ Visit our educator center for templates and guidance on using Digital Life Dilemmas and Thinking Routines.
that help students develop language and communication skills for real digital situations. These insights led to inclusion of the collection of digital dilemma scenarios and of thinking routines that support personal reflection, ethics spotting, perspective-taking, communication skills, and agency building. These pedagogical moves are embedded throughout repeated lessons and all three Thinking Routines.

- Interviews also pointed to the value of classroom approaches to digital citizenship that are student-centered, and even student-led, which has been a long-standing emphasis of Common Sense lessons. The curriculum includes activities such as classroom debates (e.g., Take a Stand), engagement with authentic scenarios, and creating personal tech use challenges (Digital Habits Check-Up).

CLASSROOM FIELD RESEARCH

Aims: To iterate and refine the new thinking routines, test and develop a robust set of digital dilemma scenarios, and identify facilitation needs

Sample: Sixteen teachers and 435 students located across five U.S. regions in a range of settings and community contexts.

Key questions: Each educator was asked to teach the same thinking routine a minimum of three times. We collected and analyzed student work, surveyed students to examine their understanding of learning goals and conceptions of lesson takeaways, surveyed teachers immediately after lessons to capture lesson details, and conducted extended debrief interviews with educators.

Key insights and implications for the curriculum:

- Some of the new approaches we had designed were more successful than others. We considered pilot teachers’ facilitation approaches alongside pilot routines and dilemmas to identify elements that truly supported student engagement and target thinking aims (e.g., nuanced reflection, exploration of different perspectives). Based on pilot findings, we revised core Thinking Routines and the Digital Life Dilemmas set. We also created a guide, Keys to Using Digital Dilemmas, to help educators avoid common pitfalls in dilemma-based lessons.138

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138 Visit our educator center for templates and guidance on using Digital Life Dilemmas and Thinking Routines.
Universally, educators in the pilot became comfortable using the Thinking Routines. In some cases, they developed their own digital dilemmas to use with the routines (at times teaching with the routine well beyond the three times we had requested). These dilemmas reflected digital issues salient to their community contexts; we worked with several educators to create adaptations that are included in the final Digital Dilemmas set.

Educators adapted language in the routines and dilemmas to align with the ages/grade levels, learner profiles, and identities of their students. We examined these adaptations and in certain cases revised the wording of Thinking Routine steps and formal guidelines for their use.

We initially began by testing four Thinking Routines, but included only three in the curriculum because one routine failed to scaffold the intended kinds of thinking and dispositional aims.

To learn more about this research and read additional publications, visit Digital Dilemmas, Project Zero, Harvard Graduate School of Education.
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