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Civic Reasoning and Discourse

Rethinking Digital Citizenship: Learning about Media, Literacy, and Race in Turbulent Times

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Abstract

The practice of politics is changing in the digital age. Indeed, whether one considers mainstream electoral politics or major social movements, the central role of social media and of the digital revolution more generally is clear. Youth are at the forefront of these changes (Krueger, 2002) as exemplified by their leading roles in large scale movements such as #blacklivesmatter, #marchforourlives, and the DREAMer movement. Overall, youth participate in politics online at higher rates than adults (Smith, 2013). These online political activities are interactive, often peer-based, and generally not deferential to institutional or elite guidance. This shift has transformed the ways that information is accessed and the ways that discourse and reasoning occur. In this paper, we focus on the opportunities and challenges created by this transformation and on ways that educators might better prepare youth for civic reasoning and discourse in the digital age. More specifically, we analyze efforts to support reasoning and discourse by helping youth to interact safely and productively in online spaces, assess the reliability of information, leverage the power of connected learning opportunities, and engage in political action online. We find that there is a need to rethink what it means to educate for digital citizenship. Current efforts have value, but they often focus on individual skills, behaviors, and orientations and fail to prepare students to understand, recognize, and respond to structural factors and, in particular, racism as they relate to discourse and reasoning in the digital age.

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21 The practice of politics is changing in the digital age. Indeed, whether one considers
22 mainstream electoral politics or major social movements, the central role of social media and of
23 the digital revolution more generally is clear. Youth are at the forefront of these changes
24 (Krueger, 2002) and are showcasing their sense of agency, strategic creativity, and commitment
25 as exemplified by their central roles in large scale movements such as #blacklivesmatter,
26 #marchfourlives, and the DREAMer movement. Overall, youth participate in politics online at
27 higher rates than adults (Smith, 2013). These new political practices have been described in
28 various ways, including ‘connective action’ (Bennett & Segerberg, 2012), ‘e-expressive’
29 participation (Gibson & Cantijoch, 2013), ‘connected civics’ (Ito et al., 2015), and ‘online
30 participatory politics’ (Cohen et al., 2012). Such online political activities are interactive, often
31 peer-based, and generally not deferential to institutional or elite guidance. This shift has
32 transformed the ways that information is accessed, the ways that discourse and reasoning occur,
33 and ultimately, the tools of political participation. To be sure, this transformation creates
34 opportunities; in other ways, it creates challenges.

35 In this paper, we focus on these opportunities and challenges and on ways that educators
36 might better prepare youth for civic reasoning and discourse in the digital age.¹ More
37 specifically, we analyze differing efforts to support reasoning and discourse by helping youth to

¹ Along with others in this volume, we define *Civic Reasoning* broadly as an effort to respond to the question, “What should we do?” Civic reasoning is done by both individuals and groups and should be informed by many factors including empirical understanding of the situation and the impact of varied responses, strategy and emotions such as empathy and righteous indignation. Similarly, we use the term *Discourse* to refer to discussions that might occur through varied media and again should be both guided by and influence one’s civic reasoning (Levine...).

38 interact safely and civilly in online spaces, assess the reliability of information, leverage the
39 power of connected learning opportunities, and engage in political action online. We find that
40 there is a need to rethink what it means to educate for digital citizenship. Current media literacy
41 efforts have value, but they often focus on individual skills, behaviors, and orientations and fail
42 to prepare students to understand, recognize, and respond to structural factors and, in particular,
43 racism as they relate to discourse and reasoning in the digital age.

44 **Broad Shifts in Technology, Politics, and Culture that Alter Civic Discourse and Reasoning**

45 Over the past 20 years, our understanding of our digitally networked (Castells, 2000;
46 Raine & Wellman, 2014), participatory (Jenkins, 2006), and connected (Ito et al., 2013) society
47 has shifted substantially. Rather than signaling a separation between how individuals interact
48 online and how they do so in the physical world, the past two decades highlight how digital
49 technologies mediate nearly every setting in our lives. Digital tools and culture affect how
50 individuals learn, communicate, and reason civically. More than a decade ago, media scholar
51 Henry Jenkins (2006) argued that these changes signaled a *participatory culture*, acknowledging
52 that people today do not simply consume media-- they also produce, remix, and expand upon it.

53 This kind of peer-to-peer communication altered the nature of institutional influence.
54 Indeed, one used to need institutional support from, for example, a TV producer or a newspaper
55 editor to share a perspective with a sizable public. Individuals' opportunities for discourse
56 generally occurred at meetings unless it was between family and friends. Now, as a result of
57 online social networks, media platforms, and varied websites, an individual can share one's ideas

58 at scale with far less institutional oversight.² Many youths take advantage of these opportunities.
59 As Jenkins et al. (2006) highlighted, both youth and adults can now “archive, annotate,
60 appropriate, and recirculate media content in powerful new ways” (p. 9). And young people, in
61 many ways more than others, are engaging with these opportunities. In 2013, 36% of youth ages
62 15-18 reported creating or sharing media with a political focus in the prior 12 months. By way of
63 contrast, 6% in this age group worked on a campaign and 4% donated money to a cause or
64 politician (Kahne et al., 2016). Moreover, while many youth do not actively create politically
65 oriented content, they do rely heavily on social media and their participation in online social
66 networks for news (Gottfried et al., 2016; Robb, 2017). In addition, studies have found that
67 online political engagement is more equitably distributed across race and social class than many
68 other forms of political participation such as voting (Cohen et al., 2012; Correa & Jeong, 2011).
69 Indeed, these efforts by youth, and perhaps especially by youth of color, highlight their
70 creativity, their ability to resist ongoing and, at times life threatening forms of oppression, and,
71 fundamentally, their resilience and their desire to engage. Youth engagement has powered
72 several of the most important social movements of our era. These movements aim to change the
73 answers to critically important questions regarding how the police behave, whether and when
74 racism and sexism are addressed, who gets to be a citizen, who one gets to marry, and the
75 sustainability of our planet. As a result, increased engagement in these online participatory

² To be sure, the web platforms and search engines are institutions and, in some important respects can play gatekeeping roles – structuring opportunities for discourse and exposure to content. As we will discuss below, the roles they play, however, are rarely shaped by traditional journalistic values (see Madison & DeJarnette, 2017).

76 practices - practices that in this paper we label participatory politics - have the potential to
77 promote political voice and influence and to do so in ways that are more equitable.

78 This relatively hopeful framing, taken as a statement of the possibilities of media
79 production for shaping and engaging in civic reasoning and discourse, highlights youth agency
80 and the potentially empowering opportunities of digital culture. Moreover, it is, we believe, a
81 helpful counterpoint to the disparaging rhetoric often aimed at youth capacities and activities
82 generally and at their engagement with social media. Indeed, this framing of participatory
83 culture - drawing as it does on youth interests and prosocial leanings - has substantially informed
84 how many progressive educators consider modernizing classroom instruction to align with the 21st
85 century needs of learners (Mirra & Garcia, 2020). The optimism of possibility and the
86 proliferation of maturing civic participation in every crevice of the internet, however, must be
87 tempered. We do not wish to either glorify youth or to imply that digital politics are a panacea.
88 The technological, cultural, and political shifts that have taken place also create risks and
89 challenges related to discourse and reasoning.

90 One set of challenges grows out of the changed nature of gatekeeping. In earlier eras,
91 news organizations were largely able to mediate access to politically oriented information and
92 perspectives. The gatekeeping capacity of these legacy news organizations has been greatly
93 diminished because individuals and organizations have countless ways to share their perspectives
94 with sizable audiences (Madison & DeJarnette, 2017). Today, as Robb (2017) found, 13-18 were
95 more likely to get their news from social media than directly from an institution such as a news
96 show or newspaper. This does not mean that institutional influence has vanished. Rather, as the
97 influence of traditional news organizations has declined, the influence of other institutions has
98 grown. The largely invisible, implicit policies major platforms such as Facebook and Twitter

99 employ regarding user privacy, the forms of speech that are allowed, and the algorithms that
100 determine the kinds of content that users encounter are all calibrated to the interests of for-profit
101 companies that may not be motivated to promote high quality discourse or reasoning. For
102 example, Facebook controls what information can be seen and the processes through which
103 content can be flagged for moderation (e.g., Gray & Suri, 2019). In October, 2019, Facebook’s
104 terms of use policies allowed political ads to make false claims (Kang, 2019). As a result, an
105 advertisement with deliberate mistruths about presidential candidate Joe Biden circulated on
106 Facebook despite major networks like CNN refusing to air the ad. When Facebook decides to
107 enable fake videos of political figures to circulate, that choice is of enormous consequence for
108 both discourse and reasoning.

109 The places of participation matter: platforms shape the kinds of interactions and set the
110 rules of what is permissible and possible in these spaces. Reflecting on the ways that platforms
111 such as Facebook amass power, Srnicek (2016) explains how “platforms became an efficient
112 way to monopolise, extract, analyse, and use the increasingly large amounts of data that were
113 being recorded” (pp. 42–43). Rather than the vision--of just a decade earlier--of online space as a
114 freeing environment for participation, platforms limit where civic discourse occurs, through what
115 means, and for the gain of whom. This emphasis on *platforms* (van Dijck, Poell, & de Waal,
116 2018), shifts our understanding of an open and robust internet to one that is rather a
117 conglomeration of platforms with their own fiefdoms of values.

118 Technological change has also expanded choice regarding access to news and
119 perspectives. Specifically, the ease of accessing news and commentary on cable TV and on the
120 Internet have dramatically expanded opportunities for choice regarding exposure to civic
121 reasoning and discourse (Prior, 2007). In so doing, these changes have dramatically expanded the

122 need for educators to orient students towards seeking out a range of views and to enable students
123 to make informed judgments about the quality of what they find. News and media literacy
124 efforts, then, are intended to help young people learn to search for, evaluate, and select online
125 information while understanding the potential motivations, expertise, perspectives, and biases of
126 that information.

127 Finally, the digital age has dramatically changed the control (and lack of control) one has
128 over one’s political identity. For example, the digital revolution has expanded opportunities to
129 participate anonymously (which may make problematic engagement more common) and it has
130 also expanded varied forms of surveillance by platforms, other companies, and governments.
131 The permanence and broad access of others to one’s online content has also highlighted the
132 importance of what Lissa Soep (2014) termed the “Digital Afterlife” because one’s thoughts can
133 be repurposed by others to make points very different than those originally intended. Moreover,
134 unlike most politically relevant comments that youth make in face to face contexts, those made
135 online can be examined at a later date by, for example, potential employers or college admission
136 officers. These dynamics necessitate that educators help youth develop a new kind of
137 consciousness regarding expressions of one’s temporal political identity and beliefs.

138 The significance of these technological changes has been amplified by several broader
139 cultural shifts. Specifically, trust in institutions has declined over the past several decades. Trust
140 in government declined from its peak in 1964 at 77% to less than 25% for the past decade.
141 Similarly, trust in Mass Media declined from 72% in 1976 to 32% in 2016. What’s particularly
142 striking is that these declines occurred for most major institutions. For example, trust in public
143 schools has declined from 62% in 1975 to 31% in 2017 and trust in the medical system has
144 declined from 80% to 37% over the same period (Zuckerman, 2017).

145 Coupled with declining trust, partisanship has increasingly characterized our political
146 culture. For the first time since the Pew Research Center began tracking this topic in 1992, in
147 2016 a majority of both Democrats and Republicans said members of the opposing party “stirred
148 feelings of fear and anger in them” (Pew Research Center, 2016). This increasing partisanship
149 and the growing animosity towards those one disagrees with is relevant because research
150 indicates that such feelings introduce significant biases into the reasoning process. Scholars
151 studying ways that motivations impact reasoning or *motivated reasoning* (Kunda, 1990) find that
152 reasoning and discourse tied to highly charged issues often trigger “hot cognition” and that
153 affect-laden beliefs bias information processing (Lodge & Taber, 2005). This process prompts
154 individuals to look for evidence that aligns with their preexisting views (confirmation bias), to
155 find reasons to reject perspectives that contradict their beliefs (disconfirmation bias), and to view
156 arguments that align with their views more positively than equally supported arguments that do
157 not align with their prior perspectives (prior attitude effect) (see Kunda, 1990; Taber & Lodge,
158 2006). These processes also diminish the likelihood of learning through discourse and, in
159 particular, the likelihood of learning through exposure to divergent views. Indeed, rather than
160 learning from new information, studies find that when individuals are exposed to substantive
161 new information that contradicts prior strongly held beliefs, they often become even more
162 committed to their prior beliefs (Redlawsk, 2002).

163 The challenges posed by these technological, political, and cultural changes are
164 substantial and often reinforcing. The combination of diminished gatekeepers, the ease of
165 circulation, heightened partisanship, lack of trust in the news media, and the ability to post
166 content anonymously have both enabled and motivated the creation and circulation of deeply
167 combative and disrespectful discourse - content often imbued with racism. In a recent Youth and

168 Participatory Politics Survey, thirty-nine percent of all students, including 45% of Black and
169 47% of Latinx students, reported seeing or experiencing racist statements and interactions online
170 (Cohen & Berk, 2015). Similarly, a study of approximately 260 high school age youth's
171 experiences of direct and indirect racial discrimination on the Internet found that 71% of Black,
172 71% of White, and 67% of multiracial/other adolescents reported seeing racial discrimination
173 online, whereas, 29% of Black, 20% of White, and 42% of multiracial/other youth reported
174 experiencing racial discrimination (Tynes, Giang, Williams, & Thompson, 2008).

175 In addition, a tremendous volume of falsehoods circulate online. BuzzFeed's analysis
176 found, for instance, that false stories circulated to a greater degree than accurate stories in the
177 run-up to the 2016 election (Silverman, 2016). Increased partisanship and choice regarding
178 content have also led to increased engagement in echo chambers which may well make false and
179 offensive content more common. Such partisanship coupled with enhanced choice also appears
180 to have diminished the kind of cross-ideological interchange that is needed for groups to both
181 learn from and come to understand one another (Mutz 2006; Pariser, 2011).

182 Given the complex and fast changing context of discourse and reasoning, the need to
183 develop a wide range of skills for digital reasoning and discourse -- capacities for collaboration,
184 participation, critique, and expression -- is substantial (see Hobbs, 2010; Jenkins et al., 2006;
185 Mihailidis & Thevenin, 2013). As Howard Rheingold has written:

186 This population is both self-guided and in need of guidance: although a willingness to
187 learn new media by point-and-click exploration might come naturally to today's student
188 cohort, there's nothing innate about knowing how to apply their skills to the processes of
189 democracy. (2008, p. 99)

190 The complex forms of dialogue, the deep knowledge it often requires of community members,
191 and the ways individuals' expertise is networked illustrate the layers of learning that shape and
192 are shaped by participatory, digital civic literacies. Ito and colleagues (2013) refer to these forms
193 of learning that are “socially embedded, interest-driven, and oriented toward educational,
194 economic, or political opportunity” as “connected learning” (p. 6). Focusing on the kinds of out-
195 of-school civic practices that youth and adults engage in, Ito et al.'s (2010) delineation of
196 connected learning stems from their scrutiny of how youth are often “hanging out, messing
197 around, and geeking out” with peers in digital contexts.

198 Connected learning centers socialization and community in how individuals frame
199 changes in our digitally-mediated culture; not simply seeing new civic uses of digital tools, we
200 can consider societal changes as opening up new practices, such as acknowledging the digital
201 spaces in which participatory culture thrives as “connected civics”—“a form of learning fostered
202 via participatory politics that emerges when young people achieve civic agency linked to their
203 deeply felt interests, identities, and affinities” (Ito et al., 2015, p. 17). These practices involve
204 “little p” politics that contrasts with more overtly “‘big P’ Politics” that Jenkins, Ito, & boyd
205 describe (2015, p. 162). By casting light through this participatory lens, youth cultural activities
206 that can be seen as disconnected from partisan, political beliefs are reified as complex forms of
207 civic reasoning.

208 Though connected learning originally emphasized learning outside of schools, efforts to
209 understand how youth connected learning is fostered and supported in schools has shaped
210 literacies, civics, and educational technology research over the past decade. Further, concerted
211 efforts to bridge out of school literacy practices and interests into classrooms has long been
212 recognized as a form of powerful pedagogical practice. From emphasizing how youth popular

213 culture can meaningfully elevate some classroom learning (e.g., Ladson-Billings, 1995; Morrell,
214 2008) to exploring forms of youth media production (Halverson, 2010; Jocson, 2018) to focusing
215 on the tools for media participation in schools (Ortlieb et al., 2018; Wissman & Costello, 2014),
216 a participatory lens can recast what work, assessment, and learning look like in schools.

217 **Re-Designing Civic Education for a Digital Democracy**

218 As the accompanying chapters in this volume illustrate, the prospect of engaging students
219 in civic reasoning and discourse in the context of formal classroom instruction has always been a
220 fraught proposition for public school educators. Considering the delicate negotiations involved in
221 introducing potentially controversial current issues to the curriculum – including managing
222 student disagreements, parent concerns, and their own opinions and beliefs – teachers are often
223 wary of taking on the task (Hess & McAvoy, 2014). Arguably, the advent of the digital age
224 amidst increasing political polarization has made these practices even more difficult to
225 implement as a connected culture has created a two-way mirror effect – a full range of voices
226 and perspectives can be present in the classroom alongside the students in the seats at any
227 moment, and what happens in that classroom can be communicated back out into the public
228 sphere to become the subject of heated discussion and debate (Allen & Light, 2015).

229 Yet despite the challenges, educators are finding it more necessary than ever to engage in
230 these efforts, particularly in light of both the opportunities afforded by a vibrant participatory
231 culture and the challenges posed by hate speech, virulent online racism, and online
232 misinformation campaigns (Mirra & Garcia, 2017). The rancorous discourse and voter
233 manipulation efforts surrounding the 2016 presidential election have sparked renewed interest in
234 the role of schools in offering students a rigorous civic education that can prepare them to
235 participate effectively in democratic life that is becoming increasingly digital.

236 In this section, we first note existing efforts in research and practice to define and
237 promote skills for digital reasoning and discourse, highlighting the discourse and reasoning skills
238 that are most frequently addressed. We examine three current priorities- safety and civility,
239 information analysis, and civic voice and engagement- and the ways that educators are grappling
240 with them. In doing so, we summarize the extant research literature on these practices and their
241 effects. We also discuss gaps in the research literature and ways to respond.

242 Our analysis and suggestions regarding needed studies, however, moves beyond
243 suggesting ways to examine these efforts on their own terms. We believe that current efforts
244 frame the need too narrowly. In particular, we argue that increased attention to race and racism is
245 essential and that there is great need for approaches to teaching digital reasoning and discourse
246 that are grounded in values of equity, empathy, and anti-racism. We find that as educators,
247 researchers, and policymakers seek to define “digital citizenship” and the roles that schools
248 should play in fostering it, some define the term apolitically to encompass how young people
249 should comport themselves online while others define it in terms of supporting youth to raise
250 their voices and produce media for the purpose of social activism (Choi, 2016). This finding
251 leads us to articulate a broader critique and provocation to the field about the need to situate civic
252 discourse and reasoning skills within the broader social, political, and cultural contexts of digital
253 communication and to clarify what we believe the normative values and ethics are that should
254 guide democratic discourse and reasoning writ large in online (and offline) settings.

255 The last section of our review provides a case study focusing on young people’s need for
256 skills for digital reasoning and discourse that are attentive to race and anti-racism. Following this
257 review, we discuss policy options and other broader implications.

258 **Current Digital Citizenship Education Efforts**

259 Based on our review of the limited (but growing) body of research studies and curricular
260 resources available, we have developed a typology of digital citizenship illustrating three
261 domains of the digital civic learning context that educators are currently attempting to address, to
262 varying degrees, in schools (see Figure 1). While these domains overlap in practice, we tease
263 them apart here for the purpose of highlighting trends across the civic education landscape.

264 In the **safety/civility** domain, educators focus on the reasoning and discourse skills that
265 students need to understand and manage their online presence, identify and avoid risky online
266 behavior, and interact with others safely and respectfully. This focus emerges as a response to
267 concerns raised above about the longevity of young people’s “digital footprints” that can follow
268 them into adulthood, the collection of individual data by educational institutions and
269 corporations, and the rancorous, divisive tone of much online discourse.

270 In the **information analysis** domain, educators focus on the reasoning skills that students
271 need to understand and analyze the source, nature, and purpose of the information they encounter
272 online. This focus reflects recognition of the multiple forces leading to the circulation of
273 misleading and inaccurate content that is influencing today’s civic and political discourse.

274 In the **civic voice/engagement** domain, educators focus on the reasoning and discourse
275 skills that students need to leverage online platforms to develop and share their perspectives on
276 civic issues and engage in authentic digital civic participation. This focus speaks to continued
277 efforts to spark youth interest in public life and translate engagement into digital contexts.



278

279 **Figure 1. Typology of Current Digital Citizenship Education**

280 ***Safety/Civility***

281 *Marcus is an eighth-grader at the local middle school. He creates a fake Instagram*
282 *account, not under his name, and posts a picture of his rival school's basketball team.*
283 *The rival school's basketball team is mostly black, and Marcus posts a racist message*
284 *about the players underneath the image. Other students from Marcus' school find the*
285 *post and also post racist jokes about the players. (Common Sense Education, n.d.)*

286 The scenario above is drawn from an 8th grade lesson plan published by the nonprofit
287 organization, Common Sense, as part of their Digital Citizenship curriculum (Common Sense
288 Education, n.d.; James et al., 2019). The lesson aims to help students develop strategies they
289 can utilize when encountering cyberbullying and hate speech online; teachers are instructed to
290 guide students toward becoming “upstanders” rather than bystanders by taking actions such as
291 “defending the person being targeted” and “raising general awareness about the issue at school

292 or in your community.” The tagline for this strand of the curriculum reads, “We are kind and
293 courageous.”

294 This lesson is indicative of the most common understanding and enactment of digital
295 citizenship operating in schools today, which revolves around considerations of safety, privacy,
296 and internet etiquette. A national study of teachers conducted by Common Sense reported 58%
297 of teachers have used a digital citizenship curriculum and that “digital drama, cyberbullying
298 and hate speech” and “privacy and safety” were the the first (46%) and second (43%) most
299 common digital competencies taught in US schools (Vega & Robb, 2019). In multiple states
300 that have proposed or passed laws mandating the inclusion of digital learning in school
301 standards, including Texas and California, the term “digital citizenship” is embedded within
302 calls for students to weigh the benefits and risks of their online decisions and make
303 responsible, positive choices in their online reasoning and dialogue (see SB1839, 2017; SB-
304 830, 2018). These calls largely focus on individual behaviors and actions rather than analysis
305 of deeper structural influences and collective challenges.

306 For instance, in the lesson about online hate speech excerpted above, racism is both
307 conceptualized and addressed at the interpersonal level; an individual expresses racist ideas
308 and other individuals (e.g., the students in class) develop strategies to counter or silence those
309 ideas and instead promote kindness and acceptance. The lesson does not delve into the ways
310 that online environments operate to perpetuate and magnify discourses that have long
311 undergirded systemic racism in the U.S. and beyond, nor does it offer avenues to pursue
312 change beyond individual expressions of tolerance.

313 Despite the ubiquity of curricula that highlight the “civil” in civic discourse, it is crucial
314 to note that the research base informing the development and effectiveness of these

315 instructional materials is extremely thin. For instance, while organizations like Common Sense
316 and Google publish ‘research reports,’ this research generally does not include evaluations of
317 the impact of their curriculum. Often their reports draw on e surveys of parents or teachers or
318 youth or conceptual arguments from education writers (e.g., calls for students to be taught
319 “digital hygiene” [Sklar, 2017]). Sometimes these groups draw on summaries of general
320 research on youth digital practices and factors that shape it to provide a rationale for the design
321 and focus of their curriculum (e.g., James et al., 2019). In Google’s report, “Future of the
322 Classroom” (Google, n.d.), the authors cite the work of Ellen Middaugh and colleagues (2017)
323 to support their claim that “including online safety within the school’s curriculum is key to
324 helping children become safe and responsible users of technologies” (Google, p. 7) despite the
325 fact that the cited article specifically states that more active and robust digital engagement –
326 rather than narrow safety instruction – contributes to positive student outcomes. In addition,
327 despite the fact that as of May 2020, the Common Sense curriculum has 91,187 registered
328 schools globally, and ~77K in the U.S, including 75% of all Title I schools, the effectiveness of
329 the program has not been systematically evaluated (personal communication, May 4, 2020).

330 Evaluations of internet safety programs, which we consider as separate from digital
331 citizenship programs due to their specific focus on consumption and risk, appear to be lacking as
332 well. The National Institute of Justice supported one of the first quasi-experimental studies of the
333 effectiveness of the I-Safe curriculum and found that participants in the treatment group
334 improved their internet safety knowledge (Chibnall, Wallace, & Lunghofer, 2006). Large effect
335 sizes were noted in treatment vs control group, however no changes in risky behavior were
336 noted, perhaps due to low baseline levels. Other studies of the Missing (Crombie & Trineer,

337 2003) and HAHASO—Help, Assert Yourself, Humor, Avoid, Self-talk, Own it—program show
338 little to no changes in participants’ behavior (see Mishna et al., 2011).

339 The Crimes Against Children Research Center conducted a content analysis of internet
340 safety programs, including iSafe, Netsmartz, WebWiseKids and iKeepSafe (Jones, Mitchell, &
341 Walsh, 2014). Researchers noted the digital literacy messages students received asked them to
342 “think before you click or post” (66% of materials), “check your social network privacy settings
343 and be careful who you friend” (55%), and “consider what information you put online says about
344 you” (55%). They also found that no program they reviewed had full lessons on one topic across
345 sessions and none were able to integrate homework assignments into the lesson. In addition,
346 researchers note, like other digital citizenship curricula, that few of the programs have rigorous
347 evaluations of their effectiveness (Jones et al., 2014).

348 Perhaps because of decades old literature on developing and evaluating programs,
349 bullying and cyberbullying prevention and interventions diverge from this pattern. Recent meta-
350 analyses and systematic review of 100 evaluations of school bullying interventions show that
351 they are effective at reducing perpetration by 19-20% and victimization by 15-16% (Gaffney,
352 Ttofi, & Farrington, 2019). Similarly, a meta-analysis of 24 studies (15 of which were
353 randomized controlled trials) evaluating anti-cyberbullying programs shows they are effective at
354 reducing victimization by 14% and perpetration by 10-15% (Gaffney, Farrington, Espelage, &
355 Ttofi, 2019). Only a small number of these studies were conducted in the US, however.

356 With the exception of anti-bullying programs, the classroom practices in this domain,
357 while attracting a great deal of attention and concern among parents, educators, and curriculum
358 developers, appear to lack a solid evidence base and highlight the need for more inquiry into
359 their appropriate place within a more complex and nuanced digital citizenship approach.

360 ***Information Analysis***

361 A person searching online for information on Martin Luther King, Jr. might have, until a
362 few years ago, seen martinlutherking.org in the first several results in a search for information
363 about the civil rights leader. The website, entitled “Martin Luther King: A True Historical
364 Examination,” bore several commonly understood markers of trustworthiness. In addition to its
365 often high ranking in search results, it had a straightforward URL with King’s full name, a “.org”
366 top-level domain, and relatively clean web design. However, the site was anything but neutral. In
367 fact, it was owned and run by the white supremacist organization Stormfront. The main page of
368 the site uses decontextualized quotes from FBI audio tapes to attempt to portray Dr. King in a
369 negative light and de-legitimize him as a leader in the civil rights movement.

370 Martinlutherking.org was an early example of a cloaked website, or one “published by
371 individuals or groups that conceal authorship or feign legitimacy in order to deliberately disguise
372 a hidden political agenda” (Daniels, 2009a, p. 661; Ray & Marsh, 2001). Daniels (2009b)
373 interviewed students as they attempted to evaluate the martinlutherking.org and reported that
374 they struggled to uncover the sponsorship and aims of the site. This example highlights the fact
375 that young people need support to learn how to evaluate online information. However, it is also
376 important for young people to understand and critically analyze the political motivations and
377 strategies underlying online information. There is a particular need to support students to
378 critically analyze the backers, motivations, and messages of and consider ways to respond to
379 race-related and racist digital content.

380 Research on how young people evaluate digital content builds on and extends decades of
381 research in media literacy, the “active inquiry and critical thinking about the messages we
382 receive and create” (Hobbs & Jenson, 2009). According to the National Association for Media

383 Literacy Education, media literacy entails “the ability to access, analyze, evaluate, create, and act
384 using all forms of communication” (National Association for Media Literacy Education, n.d.)
385 and is conceived as both a way of protecting oneself against misinformation and a component of
386 engaged, empowered civic activity (e.g., Hobbs, 2010; Mihailidis & Thevenin, 2013). Critical
387 media literacy goes a step further to situate such reasoning within structures of power, voice, and
388 equity, focusing not just on helping students determine the reliability of information online but
389 on the structures that highlight certain voices while attempting to minimize others (Middaugh,
390 2018).

391 When deciding whether a source is credible, users should consider whether a source is
392 trustworthy: is the person or organization presenting the information honest and unlikely to
393 attempt to deceive the reader? Users should also consider expertise: what are the source’s
394 background, training, and experiences, and do those make the source likely to provide accurate
395 information? Decisions users make about trustworthiness and expertise, and ultimately
396 credibility, may vary because credibility is not an objective feature of a source. Instead,
397 judgments of credibility are contextual and vary based on the motivations, expectations, beliefs,
398 experiences, and perspectives of the person judging information—as well what other information
399 is available on the same topic (Metzger, 2007). Even if they focus on a process for evaluating
400 information instead of on determining the credibility of discrete sources, teachers still privilege
401 certain epistemologies and forms of evidence while discounting others (e.g., boyd, 2018).

402 The abundance of online information and the motivation, skills, and knowledge required
403 to effectively navigate it present a challenge to young people. In a 2017 survey (Robb, 2017), 44
404 percent of students 15- to 18 years old said they could identify fake news stories and nearly a
405 third admitted that they had shared a story online that they later found out was inaccurate. In

406 another survey (Cohen et al., 2012), 84% of youth reported that they and their friends would
407 benefit from instruction in how to tell if a given source of online news was trustworthy.

408 Young people’s belief that they need more support learning to reason about online
409 information is born out in studies of their approaches to evaluating digital content. In studies in
410 which students navigated search results to find information, students often clicked on the first or
411 second result and expressed the belief that, the higher a site was listed in the results, the more
412 trustworthy it was (Gwizdka & Bilal, 2017; Hargittai et al., 2010; Pan et al., 2007). Instead of
413 recognizing how algorithms generate results and how results can be manipulated through search
414 engine optimization, these students trusted search engines to rank results by credibility. Once on
415 webpages, students rarely judged information based on its source (List et al., 2016; Walraven et
416 al., 2009). Instead, students focused on how closely the information matched what they were
417 searching for and on the appearance of the website, including whether it appeared to present a lot
418 of evidence (Barzilai & Zohar, 2012; Coiro et al., 2015; McGrew et al., 2018). Thus, young
419 people may use the projected usability of information as a key element of their decision to use it
420 (Gasser et al., 2012).

421 Most studies in this area have not asked students to evaluate information on social and
422 political topics that are pertinent to civic reasoning and discourse, and more research is needed
423 on how young people approach evaluations of contentious information. The need for such work
424 is especially great given studies showing that directional motivation (a desire to find information
425 that backs up beliefs one already holds) is often a powerful driver of behavior in the political
426 realm (Ditto et al., 1998). Additionally, research is needed into young people’s evaluation
427 behaviors in out-of-school environments as they interact with information of their choosing.
428 Ethnographic studies like that of Horst et al. (2010) could examine the strategies, resources, and

429 knowledge young people draw on as they search for, evaluate, and use information online in
430 their day-to-day lives. Attempts to learn more about these behaviors through surveys and
431 interviews (e.g., Madden et al., 2017) are limited because young people’s self-reports of their
432 evaluation behaviors may differ from what they actually do in practice (Flanagin & Metzger,
433 2010; Hargittai et al., 2010). Finally, more attention needs to be paid to unequal access to
434 opportunities to learn online evaluations skills. Gaps in digital skills exist along lines of race,
435 class, and gender, even among those with equivalent access to the Internet (Gasser et al., 2012;
436 Hargittai, 2010). For example, Leu and colleagues (2014) found that more affluent students had
437 an additional year’s worth of instruction related to online reading abilities that are key for online
438 reasoning and discourse (i.e., abilities to find, evaluate, integrate, and communicate online
439 information) compared to students from lower income families.

440 Current support for curricular focus on evaluating digital content is quite thin. For
441 example, in a 2013 study 33% of high school students did not report having a single class that
442 focused on how to tell if information found online was trustworthy and only 16% reported
443 having more than a few class sessions on this topic (Kahne et al., 2016). A 2015 nationally
444 representative survey of high school age youth (Kahne & Bowyer, 2019) asked if they had had
445 opportunities in school to learn how to effectively share their perspectives online in the last 12
446 months: 64% responded “never”.

447 When students have opportunities to learn to evaluate online information, they can
448 improve. In a nationally representative survey of 15- to 27-year olds, Kahne and Bowyer (2017)
449 found that students who reported having media literacy learning opportunities were better at
450 rating the accuracy of posts containing political arguments and evidence. Additionally,
451 intervention studies suggest that instruction in online evaluations can improve students’ abilities

452 at a range of grade levels, from elementary school through college (McGrew et al., 2019;
453 Walraven et al., 2013; Wiley et al., 2009; Zhang & Duke, 2011). These studies have tested a
454 range of approaches, including prompting students to draw inferences about a source’s authority,
455 motivations, and overall trustworthiness (e.g., Kammerer et al., 2016; Pérez et al., 2018; Zhang
456 & Duke, 2011), outlining and supporting students to practice components of information
457 problem solving on the Internet (e.g., Argelagós & Pifarré, 2012; Caviglia & Delfino, 2016;
458 Ibieta, Hinostroza, & Labbé, 2019; Walraven et al., 2013) and using acronyms to present steps
459 for evaluating online information (e.g., SEEK; Mason et al., 2014; Wiley et al., 2009).

460 Another set of studies tested a set of lessons designed to teach students approaches to
461 evaluating information based on understanding of expert practice. Wineburg and McGrew (2019)
462 conducted a study of the online search and evaluation strategies of professional fact checkers,
463 historians, and Stanford undergraduates. They found that fact checkers used a set of strategies to
464 efficiently and effectively find and evaluate online information. Perhaps most importantly, fact
465 checkers engaged in lateral reading. Landing on an unfamiliar site, they prioritized finding out
466 more about the site’s sponsoring organization or author and opened new tabs to search for
467 information about the author or organization outside the site itself. In contrast, most historians
468 and students engaged in vertical reading—they stayed on webpages and evaluated them based on
469 surface-level cues like web page appearance, name of organization, and lists of references. These
470 findings were used as the basis for studies that tested lessons to teach high school (McGrew,
471 2020) and college students (McGrew et al., 2019) to evaluate social and political information
472 online using strategies like lateral reading. For example, McGrew et al. (2019) reported that
473 college students improved in their online evaluation skills after a 150-minute intervention in a

474 first-year writing course in comparison to students in another class who received no instruction
475 in evaluating digital sources.

476 In addition to these curricular interventions developed by university-based researchers,
477 several non-profit organizations have developed media and news literacy lessons. For example,
478 the News Literacy Project developed Checkology, a series of digitally delivered lessons that are
479 designed to teach students to evaluate news sources and arguments. However, these programs
480 have not all published evidence of efficacy. Some, including the News Literacy Project, base
481 claims of success on surveys of teachers and self-reports from students after completing the
482 lessons but not on measures of students' ability to evaluate digital content.

483 Although these projects have taken promising steps in investigating the student learning
484 that may result from lessons in digital evaluations, more is needed. First, investigations are
485 needed of attempts to embed lessons in digital evaluations in the content and disciplinary
486 learning goals of classrooms. This may help ensure that digital evaluations do not become just a
487 curricular add on, but are instead seen as part of a larger effort that includes generating questions,
488 discussing and debating issues and evidence, and planning and taking action. Secondly, more
489 interventions that address evaluations of contentious information are needed. Given the
490 prevalence of divisive social and political content online and the role that directional reasoning
491 plays in influencing decisions about whether information is credible, digital literacy lessons are
492 limited if they do not engage with politically charged topics. Finally, research is currently limited
493 by the quality and range of measures available. More diverse measures that reliably assess
494 students' search and evaluations strategies are needed. These measures should account for
495 students' prior knowledge and beliefs on the topics they are asked to evaluate and gauge
496 students' motivation to engage in effortful evaluations.

497 Furthermore, current media literacy efforts need to expand to include a focus on the
498 contexts, power, and motivations that underlie the production and spread of mis- and
499 disinformation. In particular, efforts should help youth understand the ways in which mis- and
500 disinformation is often produced and spread purposefully for political or ideological gain-- as in
501 Stormfront’s design and promotion of martinlutherking.org. More research is needed about the
502 ways teachers could support students to understand the production and spread of misinformation
503 as a political act, and often one intended to promote racism and white supremacy. Young people
504 need help considering not only how their analysis of information should change, but what actions
505 they could take in response to misinformation that might discourage the spread of racist
506 misinformation and promote greater racial equity. If young people learn to see the production
507 and spread of misinformation as political instead of accidental, they may be better positioned to
508 do this work.

509 Additional hurdles remain. Even if they know how to evaluate information, people may
510 still willfully post and share misinformation that aligns with their political views or ideological
511 positions. In a 2016 survey, 14% of respondents said they shared a story they knew was fake
512 (Barthel et al., 2016). Further, some theorists argue that media literacy may even backfire
513 because its goal of growing students’ skepticism and ability to critically question evidence aligns
514 with the goals of groups responsible for spreading disinformation—and doing so by sowing
515 distrust and skepticism of evidence. As media studies scholar boyd (2018) argued:

516 It’s an entirely different thing to talk about these issues when the very act of
517 asking questions is what’s being weaponized. This isn’t historical propaganda
518 distributed through mass media. Or an exercise in understanding state power.

519 This is about making sense of an information landscape where the very tools that

520 people use to make sense of the world around them have been strategically
521 perverted. (n.p.)

522 Further, boyd (2018) warns that attempts to “fact check and moderate our way out of this
523 conundrum” (n.p.) with citizens with vastly different epistemological frames of civic life will fail
524 without deeper soul-searching about how to talk through deep ideological differences in ways
525 that invite vulnerability and storytelling but maintain the literal and symbolic safety of
526 minoritized civic groups. Thus, even robust media literacy education that includes supports for
527 students to analyze and critique structures of power and politics, will not, on their own, fix the
528 torrent of online mis- and disinformation or necessarily lead to a more well-informed electorate.
529 We return to this challenge in the section on next steps for the field.

530 *Civic Voice/Engagement*

531 “Accessing competent care is another hurdle Black folks shouldn’t have to navigate”
532 “Is COVID-19 a crisis within a crisis for Black women?”

533 These headlines were featured prominently in May 2020 on the homepage of The Black
534 Youth Project website (blackyouthproject.com), a digital platform “that highlights the voices and
535 ideas of Black millennials” (Black Youth Project, n.d.). This platform is one strand of a larger
536 nonprofit and research initiative that seeks to create authentic and relevant content by and for
537 members of the Black community in order to support their civic awareness and engagement.
538 Digital media production and dissemination outlets are creating conduits that collapse the
539 boundaries between civic discourse and action by connecting young people to public audiences
540 and facilitating the expression of their civic reasoning. In turn, as a growing number of teachers
541 seek to help their students transition from analyzing digital civic discourse to engaging in it

542 themselves, they are wrestling with questions regarding who young people should be in
543 conversation with and what this dialogue should seek to accomplish.

544 Just a few years ago, teachers and students had to engage in concerted efforts to make the
545 writing produced in classrooms visible to a wider audience beyond the school building. Digital
546 media now makes it possible for students to share their writing with a public beyond their
547 teachers and classroom communities, adding levels of authenticity and relevance to what were
548 previously solely academic exercises. For example, student efforts to write memos or essays
549 stating and supporting their opinions about controversial social issues can now be posted online
550 as blogs or transformed into multimodal social media posts, which research suggests could
551 increase interest in civic issues (Levy et al., 2015). The tension over who to make these posts
552 available to speaks to the broader concern addressed at the start of this section about the status of
553 young people in schools as not-quite-citizens and the role of schools in supporting youth civic
554 expression; while some educators keep blogs and posts restricted in the classroom, others seek
555 mediated engagement with a wider audience (Levine, 2008).

556 Small-scale descriptive studies are beginning to document the ways that educators seek to
557 leverage these digital tools as a means for students to practice digital civic discourse and its
558 potential impacts. Middaugh (2019) suggests that instruction about how to recognize and
559 interrupt “outrage language” online – what she calls “mindful circulation” – can help young
560 people produce more nuanced and productive online conversation, thereby contributing to the
561 creation of healthier democratic counterpublics. Further research suggests that encouraging
562 young people to compose and publish multimodal texts that reflect their civic experiences and
563 aspirations – and carry the potential for authentic response from members of the public – can
564 help young people feel motivated to pursue further forms of online and offline civic engagement

565 even amidst their continued hesitance regarding the divisive context of online discussion (James
566 & Cotnam-Kappel, 2019; Journell et al., 2013; Middaugh & Evans, 2018). In addition, drawing
567 on an original longitudinal survey, Kahne and Bowyer (2019) found that youth who had
568 instruction tied to creating, commenting on, or sharing digital media became much more likely to
569 engage politically using digital tools in the year following that instruction.

570 Some educational organizations have responded to the desire to encourage youth civic
571 discourse while maintaining the boundaries of school-sanctioned speech by launching youth
572 publishing platforms. Such platforms connect young people across geographic boundaries
573 around common topics of public concern through allowing them to post and comment on others'
574 content while simultaneously providing identity protections and content monitoring to mitigate
575 fears about privacy and incivility, thus creating mediated liminal publics that can serve as a
576 training ground for the unfiltered digital public sphere. KQED, a northern California public radio
577 station, produces a wide variety of youth-directed interactive content; in the run-up to the 2016
578 presidential election, it spearheaded the Letters to the Next President project in conjunction with
579 the National Writing Project, which asked young people from across the United States (with
580 guidance from their teachers) to post multimodal 'letters' discussing issues that they hoped to see
581 addressed by the president-elect. The letters were published on a platform that allowed members
582 of the public to get a sweeping view of the civic interests of nearly 12,000 young people who
583 represented a wide span of demographic groups – and to analyze how young people engaged in
584 civic reasoning and discourse (Garcia et al., 2019). Participants reflected the diversity of youth in
585 U.S. schools, with more than 92% of the letters coming from public schools, 39% from Title I
586 eligible schools, and 36% from schools with more than 50% non-white students. The research
587 indicated that the letters reflected civic interests that were mediated by the students' identities

588 and the challenges facing the particular communities in which they lived stratified by the social
589 constructs of race and class. Digital media thus provided a bridge between various civic levels
590 (local, national, global) and between individual and structural views of civic life. The National
591 Writing Project has developed additional opportunities for youth publishing about civic issues,
592 including the Writing Our Future Project and the Marginal Syllabus Project. The latter takes
593 advantage of open-source annotation software to allow any text to become a site of remixing and
594 community dialogue (Mirra, 2018b).

595 These platforms share a commitment to providing opportunities for young people to
596 develop civic voice. Initial studies of youth online civic discourse suggest that young people are
597 motivated to participate in authentic communication with individuals beyond their immediate
598 context because it supports their developing sense of themselves as citizens and makes them feel
599 that their views on public issues matter (James et al., 2016; Middaugh & Kirshner, 2014). Efforts
600 to construct conceptual frameworks for quality online civic discourse are just beginning; Hodgin
601 (2016) suggests that such efforts need to consider interpersonal, pedagogical, and wider political
602 implications. What kinds of discourse moves invite or shut down dialogue? How do these moves
603 correspond to particular types of civic reasoning? What are the best approaches to teaching such
604 moves? Mirra and Garcia (2020) suggest that intentionally designed online communities that
605 engage students from different geographic and demographic locations in civic dialogue mediated
606 by teacher instruction about critical civic empathy (Mirra, 2018a) may offer a potential path
607 forward, but much more empirical research is needed to tease out the structure and impact of
608 such efforts.

609 As the field seeks to address these questions, teachers and researchers are also pushing to
610 articulate the relationship between civic discourse and action with young people; while discourse

611 itself represents an important form of action, civic discourse has a particular relationship to
612 further forms of participation and engagement in a democratic society. The extent to which
613 educators should be facilitating opportunities for students to engage in online and offline civic
614 and political action represents another (and thornier) frontier for civic education in the digital
615 age.

616 Roughly concurrent with the proliferation of digital media over the past fifteen years has
617 been a turn in civic education scholarship and practice toward youth-centered and action-oriented
618 approaches to civic learning in schools that adds complexity to conceptualizations of reasoning
619 and discourse. Whereas previous approaches to formal civics stressed the elements of existing
620 community and political structures and practices and sought to integrate young people into them,
621 emerging research is seeking to privilege the experiences of young people as a starting point and
622 support them in leveraging the levers of democracy to create civic change (Blevins et al., 2016).
623 This focus on action and change in both online and offline contexts presents more possibilities
624 and dilemmas regarding the appropriate role of schools in supporting youth voice (Greene et al.,
625 2018).

626 As we have discussed earlier in this chapter, the rise of youth engagement in participatory
627 politics within informal learning contexts has exposed both opportunities and problems of
628 practice around discourse and reasoning that school-based educators can play a role in
629 addressing. A lived civics approach insists that to address issues like hate speech and
630 misinformation, educators should begin by engaging meaningfully with the experiences of young
631 people – including those they have online - and move beyond the classroom and into the
632 community so that young people can explore both what they have experienced and ways they
633 can act on issues central to their lives and priorities (Cohen et al., 2018). A complementary

634 approach of connected civics advocates for the merging of popular culture, participatory politics,
635 and student interest in the formation of shared civic purpose (Ito et al, 2015). These frameworks
636 are in conversation with ‘action civics’ programs in schools, including Generation Citizen and
637 Mikva Challenge, that encourage students to conduct inquiry around issues they see in their
638 communities and present the results of their research in multimodal forms to civic leaders in
639 order to seek solutions.

640 Such programs are becoming popular in school districts because their curricula leverage
641 student civic discourse and reasoning for the purpose of authentic action in communities and
642 support them to inquire into controversial and political topics. Participatory politics has
643 highlighted the range of civic action in which youth can be engaged prior to reaching voting age
644 that tackle the deepest challenges of American life (e.g., racial inequity, climate change, gun
645 violence), and as such is ushering in a reckoning about young people as political actors whose
646 beliefs and opinions do not switch off when they enter school buildings.

647 Youth participatory action research (YPAR) is a civic education practice that for years
648 has been utilizing digital media as a tool to amplify the voices of young people and highlighting
649 critical consciousness as a fundamental aspect of youth civic reasoning in an inequitable society
650 (Akom et al., 2016; Garcia et al., 2015). YPAR challenges the positioning of young people in
651 public life as ‘not-yet-citizens’ and asserts their status as knowledge producers and bearers of
652 expertise about the challenges they experience in their communities; it also challenges normative
653 ideas about what kinds of discourse and reasoning can be considered valid in public decision-
654 making. For instance, YPAR inquiries encourage young people to consider their own testimonies
655 and the stories of their elders as data just as valid as sociological statistics in describing
656 communities, and they insist upon the right of young people to express their expertise in a

657 myriad of forms, from spoken word to video documentaries to memes, rather than conforming to
658 normative forms of deliberation (Mirra et al., 2015).

659 These stances have made YPAR a much more contested civic education practice in
660 schools than action civics or more consumption-oriented forms of media literacy. YPAR
661 practitioners and others who advocate for practices of civic interrogation have documented the
662 tensions inherent in encouraging students to engage in critique of structures of schooling and
663 society while operating within those schooling structures (Kwon & de los Ríos, 2019). These
664 instances embody the tensions of fostering authentic youth civic discourse and reasoning in
665 school settings and speak to challenges that researchers and practitioners need to address to
666 navigate complex issues of political identity, controversy, protest, and issues of power in
667 merging online and offline publics. These tensions inform our critique of current digital
668 citizenship education efforts.

669 **Pushing the Field Further: Confronting Inequity**

670 As we analyzed the existing efforts to define and address digital civic discourse and
671 reasoning skills, we found that many of them operate from a narrow philosophy regarding the
672 nature and purpose of citizenship. For instance, many of the practices in the safety/civility
673 domain seek to promote respectful dialogue and warn young people of the dangers of
674 cyberbullying, but do not elaborate upon the ways that trolling and online hate speech often
675 transcend the interpersonal and reflect structural manifestations of racism, misogyny, and other
676 systemic social ills. And many of the practices in the information analysis domain that encourage
677 young people to evaluate the online sources they encounter should do more to engage with
678 accompanying social and cultural considerations related to the influence of existing beliefs,
679 prejudices, and trust that influence what we choose to believe.

680 While some may have initially hoped that digital public sphere would transcend the
681 intractable social challenges of analog society and offer an egalitarian – or even utopian –
682 context for discourse and reasoning, the proliferation of hate, misinformation, and discord online
683 reinforces the fact that digital citizenship education cannot pretend to take place in a vacuum.

684 In order to more vividly illustrate how practices of civic discourse and reasoning are
685 mediated by social context in ways that demand further consideration of shared values, the next
686 section of our paper offers an exploration of how race is represented in online communication.
687 This exploration adds complexity to each of the domains of the digital citizenship typology
688 presented earlier. It complicates the safety domain by showing how racism proliferates in online
689 dialogue. It complicates the information analysis domain by showing how misinformation is
690 often designed to maintain systemic inequity across institutions. And it pushes the civic voice
691 and engagement domain to incorporate racial literacy into considerations of democratic
692 education. An exploration of this problem of practice will provide the catalyst for our discussion
693 of a reconstructed vision of digital citizenship.

694 **Problem of Practice**

695 We have outlined extant research on civic discourse and reasoning along with the forms
696 digital citizenship efforts may take in traditional settings. As noted, this research neglects the
697 increasing amounts of race related messages youth are exposed to online, the informal learning
698 opportunities youth may receive online, the demeaning messages young people need to be
699 equipped to counter and critique, the recent disinformation campaign designed to sow racial
700 division in the US, and skills youth may possess to assist with race-related information analysis.

701 The research cited below provides case studies and currently unpublished data to support
702 a need for critical race digital literacy (Tynes, Stewart, Hamilton, & Willis, 2020), which

703 includes a focus on media-as in research using the term “critical race media literacy” (King,
704 2017; Mills & Unsworth, 2018; Yosso, 2005), but moves beyond this term to account for the
705 race-related digital skills required to navigate a post-2020 online landscape. This term is
706 informed by critical race theory (Crenshaw et al., 1995), traditional definitions of digital literacy
707 (e.g. Buckingham, 2008; Martin, 2008) and calls for educators to help youth develop a critical
708 lens to read race in words and the world (Yosso, 2005).

709 Critical race digital literacy is the knowledge, skill, and awareness required to access,
710 identify, organize, integrate, evaluate, synthesize, critique, counter, and cope with race-related
711 media and technologies; the ability to recognize and subvert the ways that technologies
712 (artificial intelligence, computational propaganda, bots, etc.) oppress certain groups while
713 maintaining the status quo for others, and foment racial division to suit political and economic
714 ends; the development of historical knowledge and a lens to situate racist content; an
715 understanding of how attention and emotion have been weaponized in complex digital terrains,
716 including internet politics, education, work, social interaction and entertainment, and cultivating
717 capacities to navigate them; creating digital media, artifacts and processes in ways that embody a
718 person’s interests and help to organize and liberate communities; and being able to reflect on
719 each of these competencies (Tynes et al., 2020).

720 In online contexts, this skill focuses on how youth read race in digital space (e.g., a fake
721 Facebook profile created by Russians to deliberately mislead White conservative social media
722 users, deep fake videos, etc.) along with understanding how forms of oppression based on race,
723 class, LGBTQ status and sex may overlap. Students should understand that racism is endemic in
724 American culture and history, not simply a feature of exceptionally bad individuals or groups
725 (Crenshaw et al, 1995; Delgado & Stefancic, 2000). It certainly is not simply the result of one

726 presidential campaign or a network of Russian bots. A critical race digital literacy perspective
727 predicts that both mainstream and false news creators are likely drawing on over 500 years of
728 racist propaganda narratives that circulate ambiently within US culture (Kendi, 2016). It is
729 extremely important for all youth to be able to critically identify and analyze these narratives.

730 **Learning Opportunities**

731 A number of studies suggest that youth can be provided opportunities to learn critical
732 race digital literacy skills and broader 21st Century skills needed to become full participants in
733 our democracy. In an analysis of discussions on BlackPlanet.com, for example, Dara Byrne
734 (2007) found that race-specific conversations were most commonly engaged, with education,
735 slavery, racism, AIDS, voting and justice as the keywords most used. Other studies have shown
736 that participants are also engaging in political organizing, critiquing dominant narratives and
737 policing racist infractions modeled for them on social media platforms (Tynes et al., 2011).
738 Studies also suggest that social media sites and their affordances provide this generation with a
739 unique opportunity to engage in complex discussions about race with those expressing divergent
740 views, those who are similarly positioned, as well as those that are more advanced and culturally
741 sensitive. Despite the presence of online racial discrimination, social media platforms are
742 important tools that empower youth to construct identities that counter dominant discourses
743 about underrepresented groups. They also allow group members to become powerful political
744 forces that collectively can help to reshape aspects of the American racial landscape, as was the
745 case with social media more broadly in the 2008 presidential election. (Tynes et al., 2011).

746 Young people are able to further develop their critical race digital literacy skills through
747 participation in political movements online such as the Never Again Movement and Black Lives
748 Matter. For example, in their study of more than 40 million tweets related to #blacklivesmatter,

749 Freelon and colleagues (2016) found that Twitter was used on several occasions for informal
750 learning. Participants were exposed to conversations about police brutality that often countered
751 mainstream narratives or went unreported (Freelon et al., 2016). Interestingly, they noted under
752 BLM hashtags, conservatives could educate themselves with the images, videos and comments
753 from the tweets. Other research has shown that people using these hashtags could engage in
754 digital counterpublics and pedagogies of resistance to a range of community concerns (Hill,
755 2018). They might also resist criminalizing techniques of State power as technologies allow for
756 “new surveillances” or “a reconstitution of the relations of surveillance between individuals and
757 the State” (Hill, 2018, p. 290). Perhaps most important are the opportunities to mobilize and
758 extend online civic practices into offline life (Tynes et al., 2016).

759 In their research on the largely white, middle to upper class Never Again Movement
760 against gun violence, Jenkins and Lopez (2018) found that students acquired the skills to lead the
761 movement through debate, newspaper, student government and drama clubs as well as civics and
762 public speaking classes. More specifically the skills included investigation, dialogue, and
763 feedback, circulation, production and mobilization (as previously outlined in Kahne et al., 2016).
764 One of the movement’s leaders and Stoneman Douglas shooting survivor, David Hogg,
765 recounted in his bestselling book on the movement, that his teachers “put such a huge emphasis
766 on studying real world problems in the world today, so we already knew a lot about politics and
767 social issues and just presumed that we could do something about them” (Hogg & Hogg, 2018,
768 p. 20). Students appeared to also be trained to understand white privilege as they often called out
769 their positive coverage in the media along with widespread support and the lack of coverage on
770 issues of police brutality that affect other groups (Jenkins & Lopez, 2018).

771 **Adolescent Online Reasoning About Race**

772 Despite the myriad formal and informal learning opportunities youth may have, they may
773 fall short with respect to preparing youth for a post-2016 and 2020 digital landscape. There is no
774 greater example of this than the ways that a foreign power was able to exploit deep-seated racial
775 divides in efforts to undermine US democratic institutions. The US Senate Select Committee on
776 Intelligence commissioned New Knowledge to conduct an analysis on tactics used by the
777 Russian Federation’s Internet Research Agency (IRA) to infiltrate the 2016 presidential election.
778 Their report titled “The Tactics & Tropes of the Internet Research Agency” (2018) recounts
779 influence operations of the Russian government from 2014-2017. They note that this interference
780 took three distinct forms: attempts to hack the voting systems, cyberattack of the democratic
781 National Committee, and a multiyear disinformation campaign designed to exacerbate social
782 divisions (DiResta et al., 2018). The report further outlines the sheer reach of the Russian
783 government on a number of platforms, including Twitter, Facebook, Instagram and YouTube.
784 For example, the dataset included 10.4 million tweets across more than 3,800 accounts, 116,000
785 posts across 133 Instagram accounts, and 61,500 unique Facebook posts across 81 pages. In
786 addition, there were 187 million, 76.5 and 73 million engagements on Instagram, Facebook, and
787 Twitter respectively. The report also estimates the Facebook operation reached 126 million
788 people. Most importantly, the efforts were specifically directed at Black Americans and white
789 conservatives.

790 The Russian government’s sophisticated operation with Black Americans included an
791 army of people attempting to engage them, as well as authentic Black media. The goal was to
792 exploit the trust of Black audiences and create an immersive ecosystem, the report further notes
793 (DiResta et al., 2018). Of the 1107 YouTube videos for example, 1063 focused on Black Lives
794 Matter and police brutality. For the 81 Facebook pages, the largest number, 30, targeted Black

795 people (with the Right coming in second with 25). The report also notes that the IRA created
796 media mirages that surrounded targeted audiences. The report concludes by asserting that the
797 IRA intended to blur the lines between fact and fiction and erode trust in media and the
798 information environment. They also intended to sway opinion toward positions that were
799 advantageous to Russians. These findings have implications for the lived experiences of Black
800 Americans along with the ways in which blackness is viewed in the minds of other US citizens.

801 Because so much of youth learning and development is done online where they are faced
802 with a barrage of race-related material, they need critical race digital literacy skills to generate
803 informed opinions (Kahne et al., 2012; Mihailidis & Thevenin, 2013), challenge oppressive and
804 racist media narratives (Mills & Unsworth, 2018) and evaluate race-related material in general.
805 To understand how youth reason about race online, Tynes and colleagues (2020) conducted a
806 nationally representative survey of 10 – 19 year-old participants. Researchers extended the civic
807 online reasoning framework from the Stanford History Education Group (Wineburg, McGrew,
808 Breakstone & Ortega, 2016) to specific tasks related to critically reasoning about race-related
809 content online (Tynes et al., 2020). Mastery level responses acknowledged that race or racism
810 might play a role in what is being expressed in the online materials. Responses to four online
811 tasks were evaluated and coded based on their competency levels for evaluating the race-related
812 content presented.

813 One of the tasks asked youth to evaluate a Facebook page from the Russian
814 disinformation campaign previously noted. The task presented participants with the following
815 prompt: “Below is a screenshot of a Facebook group. Please review the group image and answer
816 the follow-up questions.” The screenshot was of a Facebook page entitled Blactivist, a fake
817 group that grew a following by espousing a commitment to Black issues and unity. The picture

818 showed an event announcement for a “Black Unity March” on the feed. Participants were asked
819 if they would join the Facebook group and why (or why not). Results indicate that about 60% of
820 the respondents reported that they would NOT join the Facebook group, while 9.3% said they
821 would join the group. About 31% said “I’m not sure”. Only 8% of respondents were scored as
822 “Mastery” indicating that they would not join the group because the profile was fake. Results of
823 this study suggest a dire need for teachers *and* students to develop critical race digital literacy.

824 **The Need for Tools to Critique Negative Messages**

825 Despite the focus in digital civic education on safety and civility, no curricula, project or
826 program systematically helps youth to counter the racist messages (or messages about superiority
827 for white students) they receive online. In the first study to specifically focus on adolescents’
828 race-related discourse in monitored vs unmonitored chat rooms, Tynes and colleagues (2004)
829 found much of the dialogue was positive, but in the absence of social controls (in this case a
830 host), the nature of discourse would shift to become more derogatory and racist in unmonitored
831 rooms. Subsequent research has shown an exponential increase in these types of demeaning
832 messages about race across the past decade (Tynes et al., 2015). Examples are provided in
833 interviews from the NICHD-funded Teen Life Online and in Schools Project (Tynes, Principal
834 Investigator) conducted via Google Chat and Yahoo Messenger (2011-2014) on 10-19 year-old
835 participants. Black and Latinx adolescents report being stereotyped as unintelligent, as criminals,
836 lazy and dirty. When asked to recount their experience a participant noted,

837 Well I was on Facebook and I was scrolling on my news feed and it had a post and it said
838 "black people be like" and it had three African American people and it showed them
839 sounding out words with a book on their lap.

840 In addition, both are depicted as a scourge on the country that should not be afforded certain
841 rights: “it was especially during the 2012 election that people were saying that black people and
842 Latinos shouldn't be allowed to vote”.

843 Where experiences diverge includes reports of African Americans being represented as
844 animals (e.g. President Obama's face on a monkey) and Latinx participants being constructed as
845 perpetual outsiders who are in the country illegally. Mexican participants report the following
846 experiences:

847 ...my brother has a lot of friends online and i have some of the same friends and they
848 were joking around first but then it got serious they said "go back to Mexico you
849 be*ner"[asterisk included by this study's authors] and “umm people would say Mexicans
850 stink and they shouldn't be in USA” and things like that.

851 They are also mocked for having perceived stereotypical careers or large families:

852 ...People would make stereotypical jokes about me because im mexican like that i was
853 going to end up pregnant or that i was going to be a lawnmower and just making
854 stereotypes like that.

855 Reports of being demeaned for being Spanish speakers or for language ability are also common.

856 It is important to note that though the majority of participants were born in the US and lived in
857 the Midwest, they were exposed to images, videos and language that may be directed at Latinx
858 immigrants in other parts of the country such as the Southwest.

859 Perhaps most egregious is the majority group inciting violence against Latinx and African
860 American communities. For Latinx participants this could also be accompanied by justification
861 for strict anti-immigrant laws such as Arizona's Senate Bill 1070 which made it a misdemeanor
862 to be caught not carrying proper documentation of immigration status. Participants provided a

863 link to a video (KingCurtisJayy, 2012) in which three Arizona women advocated shooting
864 immigrants and went on to complain about teachers having to move at a slower pace so that
865 English Language Learners can keep up.



866
867 **Figure 3 “Happy National N----- Day”**

868 Violence is incited and justified for African American participants as well, often using
869 images of lynching Black bodies or nooses (for a more recent example, see Figure 3 of Utah high
870 school student “celebrating” Martin Luther King, Jr. Day; Carlisle, 2018). African Americans also
871 witness calls for genocide: “I was on Youtube one day, watching an informational video about
872 ethnicity and such, and someone put up a comment saying something like "white is the superior
873 race, all black people should be extinct" and I was really surprised because I thought it was just a
874 cruel joke, but it was not because they had a paragraph explaining why blacks are ruining the
875 world and should "go". Participants note justification for widely publicized killings of Black
876 people, including Trayvon Martin. These experiences echo mainstreamed white supremacist

877 dialogue that is prevalent on a range of online platforms. They also preceded the widespread
878 acceptance of a presidential candidate (now president) who incited violence and demeaned
879 African American and Mexican people, calling the latter criminals and rapists (CNN, 2015); they
880 were also followed by numerous police killings (Mapping Police Violence, 2015) and a rise in
881 hate crimes, particularly in places where the president held rallies (Eligon, 2018; Feinberg et al.,
882 2019).

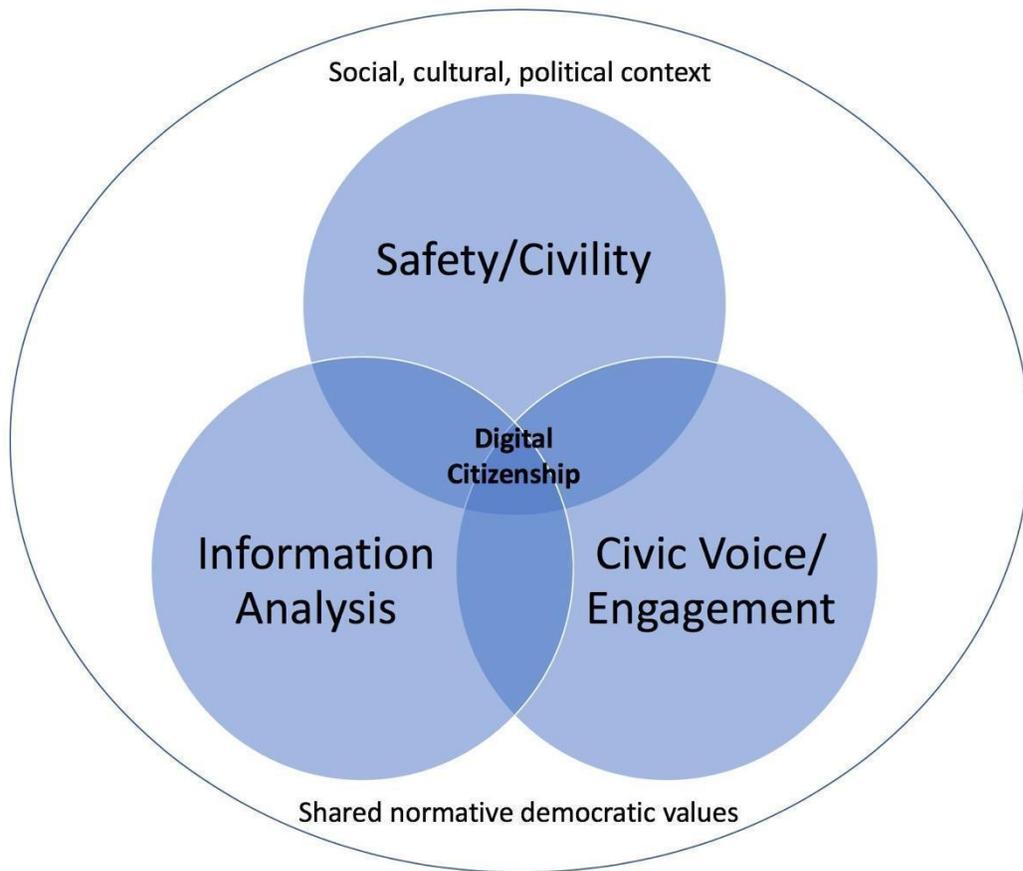
883 **Rethinking Digital Citizenship**

884 Civics and reasoning in this current digital age offer myriad, important issues that
885 educators, policy makers, parents, and students must consider. We presently see a need for forms
886 of digital citizenship education that center digital contexts of learning, that ground such work in
887 racial awareness, and that offer pathways for civic discourse that are not cordoned off solely by
888 considerations of safety and civility in the new contexts of online socialization and distance
889 learning.

890 Societal pivots to online interaction in the digital age have dramatically increased the
891 need for new forms of digital citizenship education. In line with these needs, there is clear
892 evidence that the new media described throughout this paper have created opportunities for
893 increased and relatively equitable political participation by young people - opportunities to enact
894 agency, voice, and influence. Youth are tapping this potential as exhibited most prominently in
895 movements such as #blacklivesmatter and #marchforourlives. At the same time, there is evidence
896 that many youth do not engage actively in these forms of activity. Just as civic learning
897 opportunities in the physical world are engaged with at different levels, so are opportunities for
898 civic learning in online spaces.

899 In light of the disparities in who participates and the various forms of online civic
900 reasoning, we end this paper with a specific focus on the gaps that feel most pressing and suggest
901 a revised and reconstructed typology for digital citizenship today.

902 Specifically, we suggest that authentic and meaningful digital citizenship education must
903 explicitly engage with the social, cultural, and political contexts that are reflected and extended
904 in online spaces and take principled positions on the values that should guide democratic
905 discourse and reasoning in a polarized 21st century society. Figure 2 illustrates how these
906 priorities encircle the domains--and thus each individual digital citizenship intervention.



907

908 **Figure 2. Emphasizing Context and Values in Digital Citizenship Education**

909 To further specify our call to recognize social, cultural, and political context in digital
910 civics education, we suggest that efforts to address digital civic reasoning and discourse should

911 be embedded in a pedagogical paradigm that explicitly acknowledges how social (and civic)
912 institutions reflect hierarchies of power and privilege and how they can serve to perpetuate
913 and/or challenge structural inequity across the social constructs of race, class, gender, religion,
914 national origin, and more.

915 Situating digital civic reasoning and discourse within such a paradigm pushes our field to
916 articulate a coherent response to the question: what values should guide how citizens
917 communicate and make shared decisions in civic life against a backdrop of systemic inequity and
918 the powerful forces of division that digital media magnifies? While civics education has
919 historically been committed to a liberal vision of reasoned and mutually respectful deliberation,
920 we suggest that more inquiry is needed about what such deliberation can and should look like
921 when grounded in values of equity, empathy, and anti-racism – and how to support educators to
922 teach toward this delicate balance. We argue that this is the crucial task of digital citizenship
923 education in the years to come. We turn now to a further explication of the ‘moves’ that can aid
924 educators and policymakers in articulating these values and lead toward an accompanying set of
925 learning principles to be used in practice.

926 **Moving Beyond Safety and Civility**

927 There are widespread curricula on safety and civility, but few studies of whether they
928 have any impact. Moreover, the focus of the curriculum and the framing of the goals are often
929 problematic in that they obscure the ways that ills within our culture such as racism and
930 misogyny and heterosexism are often the factors that structure the problems people face with
931 respect to safety and civility. Instead the focus is on individuals and the need to be careful and
932 polite. Yes, there is value in teaching kids to be careful and polite. However, curriculum that
933 stops there is deeply problematic. Curriculum should also teach youth about the more structural

934 aspects of the brutal things that go on online - the exposure to racism, misogyny etc - so they
935 have a way both to understand it and can discuss ways to respond to it.

936 **Moving Beyond Discourse and Reasoning**

937 While we have focused in this paper on how individuals communicate and interpret
938 across civic contexts in a digital age, considerations of youth civic engagement and innovation
939 must also be taken seriously. Many of the movements online that opened this paper reflect forms
940 of participation that challenge the instructional foci of discourse and reasoning. Because we can
941 see key features of these practices leading youth to be more equitably engaged than other forms
942 of political expression and action, this is a key gap in existing literature. Studies and school-
943 based supports for these practices are relatively rare despite emerging evidence that these
944 practices help build civic capacity and interest.

945 **Affirming the Centrality and Importance of Critical Race Digital Literacy**

946 While we've addressed some of the few, preliminary findings in this area. Current forms
947 of online harassment, disinformation, and coordinated civic disruption are fomented across racist
948 contexts. Too, we are aware that the racist vitriol seen online can mirror and even inspire similar
949 forms of hate in physical settings (Southern Poverty Law Center, 2016, 2019). For example, after
950 the 2016 election, Teaching Tolerance surveyed educators across the country and noted a
951 dramatic uptick in racial slurs, symbols, harassment and bigotry of students of color (Southern
952 Poverty Law Center, 2016). They noted students emulating the course, racist language of the
953 newly elected president. Two years later, they surveyed 2,776 educators and two-thirds of them
954 witnessed a hate or bias incident; racism was most common as a motivating factor in 33% of the
955 cases (anti-LGBTQ-25%, anti-immigrant-18%, anti-Semitic-11%, and anti-Muslim-6%) and
956 57% of these went unreported (Southern Poverty Law Center, 2019). Further, educators reported

957 that there was no response from administrators in 9 out of 10 racist or biased incidents. While
958 there are concerns about how race is interpreted as part of civic discourse and reasoning across
959 the digital typology, common pedagogical or scholarly commitments are not shared yet.

960 The synthesis offered throughout this chapter supports our central premise that current
961 efforts to articulate a vision for and educate students toward the development of civic reasoning
962 and discourse skills in the digital age are largely occurring in ad hoc, patchwork fashion. We
963 suggest that a stronger conceptual framework and evidence base are needed in order to bolster
964 coherence and effectiveness in this developing field. Moreover, while parents, educators, and
965 policymakers have understandably been scrambling to respond to narratives of risk and adapt to
966 whirlwind advances in communication modalities, the field of educational research has a role to
967 play in offering rigorous and careful examination of the paradigms guiding digital citizenship
968 and the results they engender. In short, there is a need to rethink education for digital citizenship.
969 A broader focus is needed.

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References

Akom, A., Shah, A., Nakai, A., & Cruz, T. (2016). Youth participatory action research (YPAR) 2.0: How technological innovation and digital organizing sparked a food revolution in East Oakland. *International Journal of Qualitative Studies in Education*, 29(10), 1287–1307. <https://doi.org/10.1080/09518398.2016.1201609>

Allen, D., & Light, J. S. (Eds.). (2015). *From voice to influence: Understanding digital citizenship in the digital age*. The University of Chicago Press.

Argelagós, E., & Pifarré, M. (2012). Improving information problem solving skills in secondary education through embedded instruction. *Computers in Human Behavior*, 28, 515–526. <https://doi.org/10.1016/j.chb.2011.10.024>

Barthel, M., Mitchell, A., & Holcomb, J. (2016, December 15). *Many Americans believe fake news is sowing confusion*. Pew Research Center. <https://www.journalism.org/2016/12/15/many-americans-believe-fake-news-is-sowing-confusion/>

Barzilai, S., & Zohar, A. (2012). Epistemic thinking in action: Evaluating and integrating online sources. *Cognition and Instruction*, 30, 39–85. <https://doi.org/10.1080/07370008.2011.636495>

Bennett, W. L., and A. Segerberg. 2012. “The Logic of Connective Action: The Personalization of Contentious Politics.” *Information, Communication & Society* 15 (5): 739–768. <https://doi.org/10.1080/1369118X.2012.670661>

Black Youth Project. (n.d.). About Us - The Black Youth Project. Retrieved from <http://blackyouthproject.com/about-us/>

- 992 Blevins, B., LeCompte, K., & Wells, S. (2016). Innovations in civic education: Developing civic
993 agency through action civics. *Theory & Research in Social Education*, 44(3), 344-384.
994 <https://doi.org/10.1080/00933104.2016.1203853>
- 995 boyd, d. (2018, March 9). *You think you want media literacy... Do you?*
996 <https://points.datasociety.net/you-think-you-want-media-literacy-do-you-7cad6af18ec2>
- 997 Buckingham, D. (2008). Defining digital literacy-What do young people need to know about
998 digital media. In C. Lankshear & M. Knobel (Eds). *Digital literacies: Concepts, policies*
999 *and practices*. Peter Lang.
- 1000 Byrne, D. N. (2007). Public discourse, community concerns, and civic engagement: Exploring
1001 Black social networking traditions on BlackPlanet.com. *Journal of Computer-Mediated*
1002 *Communication*, 13(1), 319340. <https://doi.org/10.1111/j.1083-6101.2007.00398.x>
- 1003 Carlisle, N. (January, 2018). Teens in southern Utah posted a racist photo to Instagram on Martin
1004 Luther King Jr. Day, sparking outrage across the internet. The Salt Lake Tribune.
1005 [https://www.sltrib.com/news/education/2018/01/19/students-at-a-southern-utah-high-](https://www.sltrib.com/news/education/2018/01/19/students-at-a-southern-utah-high-school-posted-a-racist-photo-to-instagram-on-martin-luther-king-jr-day-sparking-outrage-across-the-internet/)
1006 [school-posted-a-racist-photo-to-instagram-on-martin-luther-king-jr-day-sparking-outrage-](https://www.sltrib.com/news/education/2018/01/19/students-at-a-southern-utah-high-school-posted-a-racist-photo-to-instagram-on-martin-luther-king-jr-day-sparking-outrage-across-the-internet/)
1007 [across-the-internet/](https://www.sltrib.com/news/education/2018/01/19/students-at-a-southern-utah-high-school-posted-a-racist-photo-to-instagram-on-martin-luther-king-jr-day-sparking-outrage-across-the-internet/)
- 1008 Castells, M. (2000). *The rise of the network society* (1st ed.). Blackwell.
1009 <https://dl.acm.org/doi/book/10.5555/518096>
- 1010 Caviglia, F., & Delfino, M. (2016). Foundational skills and dispositions for learning: an
1011 experience with information problem solving on the Web. *Technology, Pedagogy and*
1012 *Education*, 25, 487–512. <https://doi.org/10.1080/1475939X.2015.1080756>
- 1013 Chibnall, S., Wallace, M., Leicht, C., & Lunghofer, L. (2012). I-Safe evaluation, final report.
1014 Caliber. <https://www.ncjrs.gov/pdffiles1/nij/grants/213715.pdf>

- 1015 Choi, M. (2016). A concept analysis of digital citizenship for democratic citizenship education in
1016 the Internet age. *Theory & Research in Social Education*, 44, 565–607.
1017 <https://doi.org/10.1080/00933104.2016.1210549>
- 1018 CNN. (2015, June 25). *Donald Trump doubles down on calling Mexicans “rapists”* [Video].
1019 [https://www.cnn.com/videos/tv/2015/06/25/exp-presidential-candidate-donald-trump-](https://www.cnn.com/videos/tv/2015/06/25/exp-presidential-candidate-donald-trump-immigration-intv-erin.cnn)
1020 [immigration-intv-erin.cnn](https://www.cnn.com/videos/tv/2015/06/25/exp-presidential-candidate-donald-trump-immigration-intv-erin.cnn)
- 1021 Cohen, C., & Berk, C. (2015). *Re-thinking the digital divide: Participatory politics and equality*
1022 *in the digital age*. [Unpublished manuscript].
- 1023 Cohen, C., Kahne, J., & Marshall, J. (2018). *Let’s go there: Making a case for race, ethnicity,*
1024 *and a lived civics approach to civic education*. Civic Engagement Research Group,
1025 University of California, Riverside. <https://www.civicsurvey.org/publications/292>
- 1026 Cohen, C., J. Kahne, J., Bowyer, B., Middaugh, E., & Rogowski, J. (2012). *Participatory*
1027 *politics: new media and youth political action*. Youth and Participatory Politics Research
1028 Network. <https://ypp.dmlcentral.net/publications/107.html>.
- 1029 Coiro, J., Coscarelli, C., Maykel, C., & Forzani, E. (2015). Investigating the criteria that seventh
1030 graders use to evaluate the quality of online information. *Journal of Adolescent & Adult*
1031 *Literacy*, 59, 287–297. <https://doi.org/10.1002/jaal.448>
- 1032 Common Sense Education. (n.d.). Everything you need to teach digital citizenship. Common
1033 Sense Education. <https://www.commonsense.org/education/digital-citizenship>
- 1034 Correa, T., & Jeong, S. H. (2011). Race and online content creation: Why minorities are actively
1035 participating in the Web. *Information, Communication & Society*, 14(5), 638–659.
1036 <https://doi.org/10.1080/1369118X.2010.514355>

- 1037 Crenshaw, K., Gotanda, N. T., Peller, G., & Thomas, K. (Eds.). (1995). *Critical race theory: The*
1038 *key writings that formed the movement*. The New Press.
- 1039 Crombie, G., & Trinneer, A. (2003). Children and internet safety: An evaluation of the Missing
1040 program. Research and Evaluation Section of the National Crime Prevention Centre of
1041 Justice Canada.
- 1042 Daniels, J. (2009a). Cloaked websites: Propaganda, cyber-racism, and epistemology in the digital
1043 era. *New Media & Society*, 11(5), 659-683. <https://doi.org/10.1177/1461444809105345>
- 1044 Daniels, J. (2009b). *Cyber racism: White supremacy online and the new attack on civil rights*.
1045 Rowman and Littlefield.
- 1046 Delgado, R., & Stefancic, J. (Eds.). (2000). *Critical race theory: The cutting edge* (2nd ed.).
1047 Temple University Press.
- 1048 DiResta, R., Shaffer, K., Ruppel, B., Sullivan, D., Matney, R., Fox, R., Albright, J., & Johnson,
1049 B. (2018). *The tactics & tropes of the Internet Research Agency*. New Knowledge.
1050 https://cdn2.hubspot.net/hubfs/4326998/ira-report-rebrand_FinalJ14.pdf
- 1051 Ditto, P. H., Scepansky, J. A., Munro, G. D., Apanovitch, A. M., & Lockhart, L. K. (1998).
1052 Motivated sensitivity to preference-inconsistent information. *Journal of Personality and*
1053 *Social Psychology*, 75(1), 53–69. <https://doi.org/10.1037/0022-3514.75.1.53>
- 1054 Eligon, J. (2018, November). Hate crimes increase for the third consecutive year, FBI reports.
1055 *The New York Times*. Retrieved from [https://www.nytimes.com/2018/11/13/us/hate-](https://www.nytimes.com/2018/11/13/us/hate-crimes-fbi-2017.html)
1056 [crimes-fbi-2017.html](https://www.nytimes.com/2018/11/13/us/hate-crimes-fbi-2017.html)
- 1057
- 1058 Feinberg, A., Brandton, R., & Martinez-Ebers, V. (2019, March 22). Counties that hosted a 2016
1059 Trump rally saw a 226 percent increase in hate crimes. *The Washington Post*.

- 1060 <https://www.washingtonpost.com/politics/2019/03/22/trumps-rhetoric-does-inspire-more->
- 1061 [hate-crimes/](https://www.washingtonpost.com/politics/2019/03/22/trumps-rhetoric-does-inspire-more-hate-crimes/)
- 1062 Flanagin, A. J., & Metzger, M. J. (2010). *Kids and credibility: An empirical examination of*
- 1063 *youth, digital media use, and information credibility*. MIT Press.
- 1064 Freelon, D., McIlwain, C. D., & Clark, M. D. (2016). *Beyond the hashtags: #Ferguson,*
- 1065 *#Blacklivesmatter, and the online struggle for offline justice*. Center for Media & Social
- 1066 Impact, American University.
- 1067 Gaffney, H., Farrington, D. P., Espelage, D. L., & Ttofi, M. M. (2019). Are cyberbullying
- 1068 intervention and prevention programs effective? A systematic and meta-analytical
- 1069 review. *Aggression and violent behavior, 45*, 134-153.
- 1070 Gaffney, H., Ttofi, M. M., & Farrington, D. P. (2019). Evaluating the effectiveness of school-
- 1071 bullying prevention programs: An updated meta-analytical review. *Aggression and violent*
- 1072 *behavior, 45*, 111-133.
- 1073 Garcia, A., Levinson, A., & Gargroetzi, E. (2019). “Dear future president of the United States”:
- 1074 Analyzing youth civic writing within the 2016 Letters to the Next President project.
- 1075 *American Educational Research Journal, 57*(3), 1159–1202.
- 1076 <https://doi.org/10.3102/0002831219870129>
- 1077 Garcia, A., Mirra, N., Morrell, E., Martinez, A., & Scorza, D. (2015). The Council of Youth
- 1078 Research: Critical literacy and civic agency in the digital age. *Reading & Writing*
- 1079 *Quarterly, 31*(2), 151–167. <https://doi.org/10.1080/10573569.2014.962203>
- 1080 Gasser, U., Cortesi, S., Malik, M., and Lee, A. (2012). *Youth and digital media: From credibility*
- 1081 *to information quality* (Berkman Center Research Publication No. 2012-1). Berkman

- 1082 Klein Center for Internet & Society, Harvard University.
- 1083 <http://dx.doi.org/10.2139/ssrn.2005272>
- 1084 Gibson, R. & Cantijoch, M. (2013). Conceptualizing and Measuring Participation in the Age of
1085 the Internet: Is Online Political Engagement Really Different to Offline? *The Journal of*
1086 *Politics*, 75(3): 701–716. doi:10.1017/ S0022381613000431.
- 1087 Google. (n.d.). Future of the Classroom: Global Report. Google for Education. Retrieved from
1088 https://edu.google.com/latest-news/future-of-the-classroom/?modal_active=none
- 1089 Gottfried, J., Barthel, M., Shearer, E., & Mitchell, A. (2016). *The 2016 presidential campaign—a*
1090 *news event that’s hard to miss*. Pew Research Center.
- 1091 [https://www.journalism.org/2016/02/04/the-2016-presidential-campaign-a-news-event-](https://www.journalism.org/2016/02/04/the-2016-presidential-campaign-a-news-event-thats-hard-to-miss/)
1092 [thats-hard-to-miss/](https://www.journalism.org/2016/02/04/the-2016-presidential-campaign-a-news-event-thats-hard-to-miss/)
- 1093 Gray, M. L., & Suri, S. (2019). *Ghost work: How to stop Silicon Valley from building a new*
1094 *global underclass*. Houghton Mifflin Harcourt.
- 1095 Greene, S., Burke, K. J., & McKenna, M. K. (2018). A review of research connecting digital
1096 storytelling, photovoice, and civic engagement. *Review of Educational Research*, 88(6),
1097 844–878. <https://doi.org/10.3102%2F0034654318794134>
- 1098 Gwizdka, J., & Bilal, D. (2017). Analysis of children’s queries and click behavior on ranked
1099 results and their thought processes on Google search. In *Proceedings of the 2017*
1100 *Conference on Human Information Interaction and Retrieval* (pp. 377–380).
- 1101 <https://doi.org/10.1145/3020165.3022157>
- 1102 Halverson, E. R. (2010). Film as identity exploration: A multimodal analysis of youth-produced
1103 films. *Teachers College Record*, 112(9), 2352–2378.
- 1104 <https://www.tcrecord.org/content.asp?contentid=15948>

- 1105 Hargittai, E. (2010). Digital na(t)ives? Variation in Internet skills and uses among members of
1106 the “Net Generation.” *Sociological Inquiry*, 80(1), 92–113.
1107 <https://doi.org/10.1111/j.1475-682X.2009.00317.x>
- 1108 Hargittai, E., Fullerton, L., Menchen-Trevino, E., & Thomas, K. Y. (2010). Trust online: Young
1109 adults’ evaluation of web content. *International Journal of Communication*, 4, 468–494.
1110 <https://ijoc.org/index.php/ijoc/article/view/636>
- 1111 Hess, D. & McAvoy, P. (2014). *The political classroom: Evidence and ethics in democratic*
1112 *education*. New York, NY: Routledge.
- 1113 Hill, M. L. (2018). “Thank you, Black Twitter”: State violence, digital counterpublics, and
1114 pedagogies of resistance. *Urban Education*, 53(2), 286–302.
1115 <https://doi.org/10.1177/0042085917747124>
- 1116 Hobbs, R. (2010). *Digital and media literacy: A plan of action* [White paper]. The Aspen
1117 Institute.
1118 https://assets.aspeninstitute.org/content/uploads/2010/11/Digital_and_Media_Literacy.pdf
1119 [f](https://assets.aspeninstitute.org/content/uploads/2010/11/Digital_and_Media_Literacy.pdf)
- 1120 Hobbs, R., & Jenson, A. (2009). The past, present, and future of media literacy education.
1121 *Journal of Media Literacy Education*, 1(1), 1–11.
1122 <https://digitalcommons.uri.edu/jmle/vol1/iss1/1/>
- 1123 Hodgins, E. (2016). Educating youth for online civic and political dialogue: A conceptual
1124 framework for the digital age. *Journal of Digital and Media Literacy*, 4(1).
1125 <https://www.civicsurvey.org/file/303>
- 1126 Hogg, D., & Hogg, L. (2018). *#NeverAgain: A new generation draws the line*. New York:
1127 Random House.

- 1128 Horst, H. A., Herr-Stephenson, B., & Robinson, L. (2010). Media ecologies. In M. Ito, S.
1129 Baumer, M. Bittanti, d. boyd, R. Cody, B. Herr Stephenson, H. A. Horst, P. G. Lange, D.
1130 Mahendran, K. Z. Martínez, C. J. Pascoe, D. Perkel, L. Robinson, C. Sims, & L. Tripp
1131 (Eds.), *Hanging out, messing around, and geeking out: Kids living and learning with new*
1132 *media* (1st ed., pp. 29–78). The John D. and Catherine T. MacArthur Foundation Series
1133 on Digital Media and Learning. MIT Press.
- 1134 Ibieta, A., Hinostroza, J. E., & Labbé, C. (2019). Improving students' Information Problem-
1135 Solving skills on the Web through explicit instruction and the use of customized search
1136 software. *Journal of Research on Technology in Education*, 51(3), 217–238.
1137 <https://doi.org/10.1080/15391523.2019.1576559>
- 1138 Ito, M., Baumer, S., Bittanti, M., boyd, D., Cody, R., Herr Stephenson, B., Horst, H.A., Lange,
1139 P.G., Mahendran, D., Martínez, K.Z., Pascoe, C.J., Perkel, D., Robinson, L., Sims, C., &
1140 Tripp, L. (Eds.) (2010). *Hanging out, messing around, and geeking out: Kids living and*
1141 *learning with new media*. Cambridge: MIT Press.
- 1142
1143
- 1144 Ito, M., Gutiérrez, K., Livingstone, S., Penuel, B., Rhodes, J., Salen, K., Schor, J., Sefton-Green,
1145 J., & Watkins, S. C. (2013). *Connected learning: An agenda for research and design*.
1146 Digital Media and Learning Research Hub. [https://dmlhub.net/wp-](https://dmlhub.net/wp-content/uploads/files/Connected_Learning_report.pdf)
1147 [content/uploads/files/Connected_Learning_report.pdf](https://dmlhub.net/wp-content/uploads/files/Connected_Learning_report.pdf)
- 1148 Ito, M., Soep, E., Kligler-Vilenchik, N., Shresthova, S., Gamber-Thompson, L., Zimmerman, A.
1149 (2015). Learning connected civics: Narratives, practices, infrastructures. *Curriculum*
1150 *Inquiry*, 45(1), 10–29. <https://doi.org/10.1080/03626784.2014.995063>

- 1151 James, C., & Cotnam-Kappel, M. (2019). Doubtful dialogue: How youth navigate the draw (and
1152 drawbacks) of online political dialogue. *Learning, Media and Technology*, 45(2), 129–
1153 150. <https://doi.org/10.1080/17439884.2020.1686013>
- 1154 James, C., Gruner, D. T., Lee, A., & Mullen, M. (2016). Getting into the fray: Civic youth,
1155 online dialogue, and implications for digital literacy education. *Journal of Digital and*
1156 *Media Literacy*, 4(1).
1157 https://www.researchgate.net/publication/324728452_Getting_Into_the_Fray_Civic_You
1158 [th_Online_Dialogue_and_Implications_for_Digital_Literacy_Education](https://www.researchgate.net/publication/324728452_Getting_Into_the_Fray_Civic_You)
- 1159 James, C., Weinstein, E., & Mendoza, K. (2019). *Teaching digital citizens in today's world:*
1160 *Research and insights behind the Common Sense K–12 Digital Citizenship Curriculum.*
1161 Common Sense Media.
1162 [https://d1e2bohyu2u2w9.cloudfront.net/education/sites/default/files/tlr_component/comm](https://d1e2bohyu2u2w9.cloudfront.net/education/sites/default/files/tlr_component/common_sense_media_research_background.pdf)
1163 [on_sense_education_digital_citizenship_research_backgrounder.pdf](https://d1e2bohyu2u2w9.cloudfront.net/education/sites/default/files/tlr_component/common_sense_media_research_background.pdf)
- 1164 Jenkins, H. (2006). *Convergence culture: Where old and new media collide.* New York
1165 University Press.
- 1166 Jenkins, H., Clinton, K., Purushotma, R., Robison, A. J., & Weigel, M. (2006). *Confronting the*
1167 *Challenges of Participatory Culture: Media Education for the 21st Century* [White
1168 paper]. John D. and Catherine T. MacArthur Foundation.
1169 https://www.macfound.org/media/article_pdfs/JENKINS_WHITE_PAPER.PDF
- 1170 Jenkins, H., Ito, M., & boyd, d. (2015). *Participatory culture in a networked era.* Cambridge,
1171 England: Polity.

- 1172 Jenkins, H., & Lopez, R. A. (2018). On Emma Gonzalez's jacket and other media: The
1173 participatory politics of the # NeverAgain movement. *Brown Journal of World Affairs*, 25,
1174 117.
- 1175 Jocson, K. M. (2018). *Youth media matters: Participatory cultures and literacies in education*.
1176 University of Minnesota Press. <http://dx.doi.org/10.5749/j.ctt1pwt78w>
- 1177 Jones, L. M., Mitchell, K. J., & Walsh, W. A. (2014). A content analysis of youth internet safety
1178 programs: Are effective prevention strategies being used?. The Crimes Against Children
1179 Research Center.
1180 <https://scholars.unh.edu/cgi/viewcontent.cgi?article=1040&context=ccrc>
- 1181 Journell, W., Ayers, C. A., & Walker Beeson, M. (2013). Joining the conversation: Twitter as a
1182 tool for student political engagement. *The Educational Forum*, 77(4), 466–480.
1183 <https://doi.org/10.1080/00131725.2013.822039>
- 1184 Kahne, J., & Bowyer, B. T. (2017). Educating for democracy in a partisan age: Confronting the
1185 challenges of motivated reasoning and misinformation. *American Educational Research*
1186 *Journal*, 54(1), 3–34. <https://doi.org/10.3102/0002831216679817>
- 1187 Kahne, J., & Bowyer, B. (2019). Can media literacy education increase digital engagement in
1188 politics? *Learning, Media and Technology*, 44(2), 211–224.
1189 <https://doi.org/10.1080/17439884.2019.1601108>
- 1190 Kahne, J., Hodgins, E., & Eidman-Aadahl, E. (2016). Redesigning civic education for the digital
1191 age: Participatory politics and the pursuit of democratic engagement. *Theory & Research*
1192 *in Social Education*, 44(1), 1–35. <https://doi.org/10.1080/00933104.2015.1132646>

- 1193 Kahne, J., Lee, N.-J., & Feezell, J. T. (2012). Digital media literacy education and online civic
1194 and political participation. *International Journal of Communication*, 6, 1-24.
1195 <https://ijoc.org/index.php/ijoc/article/view/999>
- 1196 Kammerer, Y., Meier, N., & Stahl, E. (2016). Fostering secondary-school students' intertext
1197 model formation when reading a set of websites: The effectiveness of source prompts.
1198 *Computers & Education*, 102, 52–64. <https://doi.org/10.1016/j.compedu.2016.07.001>
- 1199 Kang, C. (2019, October 8). Facebook's hands-off approach to political speech gets
1200 impeachment test. *The New York Times*.
1201 <https://www.nytimes.com/2019/10/08/technology/facebook-trump-biden-ad.html>
- 1202 Kendi, I. X. (2016). *Stamped from the beginning: The definitive history of racist ideas in*
1203 *America*. Nation Books.
- 1204 King, L. (2017). The media and black masculinity: Looking at the media through race[d] lenses.
1205 *Critical Education*, 8(2), 31–40. <https://doi.org/10.14288/ce.v8i2.186224>
- 1206 KingCurtisJay. (2012, January 6). *Arizona racist white ladies threaten Mexican people*.
1207 *RACISM EXPOSED* [Video]. YouTube. <https://youtu.be/BR4hqKzlgWA>
- 1208 Krueger, B. 2002. "Assessing the Potential of Internet Political participation in the United States:
1209 A Resource Approach." *American Political Research* 30 (5): 476–98.
1210 <https://doi.org/10.1177/1532673X02030005002>
- 1211 Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108(3), 480–498.
1212 <https://doi.org/10.1037/0033-2909.108.3.480>
- 1213 Kwon, L., & de los Ríos, C. V. (2019). "See, click, fix": Civic interrogation and digital tools in a
1214 ninth-grade ethnic studies course. *Equity & Excellence in Education*, 52(2-3), 154–166.
1215 <https://doi.org/10.1080/10665684.2019.1647809>

- 1216 Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American*
1217 *Educational Research Journal*, 32(3), 465–491.
1218 <https://doi.org/10.3102/00028312032003465>
- 1219 Leu, D. J., Forzani, E., Rhoads, C., Maykel, C., Kennedy, C., & Timbrell, N. (2014). The new
1220 literacies of online reading and comprehension: Rethinking the reading achievement gap.
1221 *Reading Research Quarterly*, 50(1), 37–59. <https://doi.org/10.1002/rrq.85>
- 1222 Levine, P. (2008). A public voice for youth: The audience problem in digital media and civic
1223 education. In Bennett, W. L. (Ed.), *Civic life online: Learning how digital media can*
1224 *engage youth* (pp. 119–138). MIT Press.
- 1225 Levy, B. L., Journell, W., He, Y., & Towns, B. (2015). Students blogging about politics: A study
1226 of students’ political engagement and a teacher’s pedagogy during a semester-long
1227 political blog assignment. *Computers and Education*, 88, 64–71.
1228 <https://doi.org/10.1016/j.compedu.2015.04.010>
- 1229 List, A., Grossnickle, E. M., & Alexander, P. A. (2016). Undergraduate students’ justifications
1230 for source selection in a digital academic context. *Journal of Educational Computing*
1231 *Research*, 54(1), 22–61. <https://doi.org/10.1177/0735633115606659>
- 1232 Lodge, M., & Taber, C. S. (2005). The automaticity of affect for political leaders, groups, and
1233 issues: An experimental test of the hot cognition hypothesis. *Political Psychology*, 26(3),
1234 455–482. <https://doi.org/10.1111/j.1467-9221.2005.00426.x>
- 1235 Madden, M., Lenhart, A., & Fontaine, C. (2017). *How youth navigate the news landscape*. Data
1236 & Society. [https://datasociety.net/wp-content/uploads/2020/02/Topos_KF_2017-02-](https://datasociety.net/wp-content/uploads/2020/02/Topos_KF_2017-02-22_Youth-News-Report_V4.pdf)
1237 [22_Youth-News-Report_V4.pdf](https://datasociety.net/wp-content/uploads/2020/02/Topos_KF_2017-02-22_Youth-News-Report_V4.pdf)

- 1238 Madison, E., & DeJarnette, B. (2017, June 21). *Journalism's Gatekeepers Lost Control of their*
1239 *Gates*. Medium. [https://medium.com/s/how-journalism-became-a-dirty-](https://medium.com/s/how-journalism-became-a-dirty-word/journalisms-gatekeepers-lost-control-of-their-gates-8548f1bec0a3)
1240 [word/journalisms-gatekeepers-lost-control-of-their-gates-8548f1bec0a3](https://medium.com/s/how-journalism-became-a-dirty-word/journalisms-gatekeepers-lost-control-of-their-gates-8548f1bec0a3)
- 1241 Mapping Police Violence. (2015). *2015 Police Violence Report*.
1242 <https://mappingpoliceviolence.org/2015>
- 1243 Martin, A. (2008). Digital literacy and the “Digital Society”. In C. Lankshear & M. Knobel
1244 (Eds). *Digital literacies: Concepts, policies and practices*. Peter Lang.
- 1245 Mason, L., Junyent, A. A., & Tornatora, M. C. (2014). Epistemic evaluation and comprehension
1246 of web-source information on controversial science-related topics: Effects of a short-term
1247 instructional intervention. *Computers & Education*, 76, 143–157.
1248 <https://doi.org/10.1016/j.compedu.2014.03.016>
- 1249 McGrew, S. (2020). Learning to evaluate: An intervention in civic online reasoning. *Computers*
1250 *& Education*, 145, 103711. <https://doi.org/10.1016/j.compedu.2019.103711>
- 1251 McGrew, S., Breakstone, J., Ortega, T., Smith, M., & Wineburg, S. (2018). Can students
1252 evaluate online sources? Learning from assessments of civic online reasoning. *Theory &*
1253 *Research in Social Education*, 46(2), 165–193.
1254 <https://doi.org/10.1080/00933104.2017.1416320>
- 1255 McGrew, S., Smith, M., Breakstone, J., Ortega, T., & Wineburg, S. (2019). Improving university
1256 students' web savvy: An intervention study. *British Journal of Educational Psychology*,
1257 89(3), 485–500. <https://doi.org/10.1111/bjep.12279>
- 1258 Metzger, M. J. (2007). Making sense of credibility on the Web: Models for evaluating
1259 information online and recommendations for future research. *Journal of the American*

- 1260 *Society for Information Science and Technology*, 58(13), 2078–2091.
- 1261 <https://doi.org/10.1002/asi.20672>
- 1262 Middaugh, E. (2018). Civic media literacy in a transmedia world: Balancing personal experience,
1263 factual accuracy and emotional appeal as media consumers and circulators. *Journal of*
1264 *Media Literacy Education*, 10(2), 33–52. <https://doi.org/10.23860/JMLE-2018-10-2-3>
- 1265 Middaugh, E. (2019). More than just facts: Promoting civic media literacy in the era of outrage.
1266 *Peabody Journal of Education*, 94(1), 17–31.
1267 <https://doi.org/10.1080/0161956X.2019.1553582>
- 1268 Middaugh, E., & Evans, C. (2018). Did you know?! . . . Cultivating online public voice in youth.
1269 *Theory and Research in Social Education*, 46(4), 574–602.
1270 <https://doi.org/10.1080/00933104.2018.1474059>
- 1271 Middaugh, E., & Kirshner, B. (Eds.). (2014). *#youthaction: Becoming political in the digital age*.
1272 Information Age Publishing.
- 1273 Middaugh, E., Schofield Clark, L., & Ballard, P. (2017). Digital media, participatory politics,
1274 and positive youth development. *Pediatrics*, 140(S2), S127–S132.
1275 <https://doi.org/10.1542/peds.2016-1758Q>
- 1276 Mihailidis, P., & Thevenin, B. (2013). Media literacy as a core competency for engaged
1277 citizenship in participatory democracy. *American Behavioral Scientist*, 57(11), 1611–
1278 1622. <https://doi.org/10.1177/0002764213489015>
- 1279 Mills, K. A., & Unsworth, L. (2018). iPad animations: Powerful multimodal practices for
1280 adolescent literacy and emotional language. *Journal of Adolescent & Adult Literacy*,
1281 61(6), 609–620. <https://doi.org/10.1002/jaal.717>

- 1282 Mirra, N. (2018a). *Educating for empathy: Literacy learning and civic engagement*. Teachers
1283 College Press.
- 1284 Mirra, N. (2018b). Pursuing a commitment to public scholarship through the practice of
1285 annotation. *The Assembly*, 1(1).
1286 <https://journals.colorado.edu/index.php/assembly/article/view/21>
- 1287 Mirra, N., & Garcia, A. (2017). Civic participation re-imagined: Youth interrogation and
1288 innovation in the multimodal public sphere. *Review of Research in Education*, 41(1),
1289 136–158. <https://doi.org/10.3102/0091732X17690121>
- 1290 Mirra, N., & Garcia, A. (2020). I hesitate but I do have hope: Youth speculative civic literacies
1291 in troubled times. *Harvard Educational Review*, 90(2), 295–321.
1292 <https://doi.org/10.17763/1943-5045-90.2.295>
- 1293 Mirra, N., Garcia, A., & Morrell, E. (2015). *Doing youth participatory action research:
1294 Transforming inquiry with researchers, educators, and students*. Routledge.
- 1295 Mishna, F., Cook, C., Saini, M., Wu, M. J., & MacFadden, R. (2011). Interventions to prevent
1296 and reduce cyber abuse of youth: A systematic review. *Research on Social Work
1297 Practice*, 21(1), 5-14.
- 1298 Morrell, E. (2008). *Critical literacy and urban youth: Pedagogies of access, dissent, and
1299 liberation*. Routledge.
- 1300 Mutz, D. C. (2006). *Hearing the other side*. Cambridge University Press.
1301 <https://doi.org/10.1017/CBO9780511617201>
- 1302 National Association for Media Literacy Education. (n.d.). *Media literacy defined*.
1303 <https://namle.net/publications/media-literacy-definitions/>

- 1304 Ortlieb, E., Cheek Jr., E. H., & Semingson, P. (Eds.). (2018). *Best practices in teaching digital*
1305 *literacies* (Vol. 9). Emerald Group Publishing.
- 1306 Pan, B., Hembrooke, H., Joachims, T., Lorigo, L., Gay, G., & Granka, L. (2007). In Google we
1307 trust: Users' decisions on rank, position, and relevance. *Journal of Computer-Mediated*
1308 *Communication*, 12(3), 801–823. <https://doi.org/10.1111/j.1083-6101.2007.00351.x>
- 1309 Pariser, E. 2011. "Beware Online 'Filter Bubbles.'" TED video, 8:58, filmed March 2011.
1310 https://www.ted.com/talks/eli_pariser_beware_online_filter_bubbles.
- 1311 Pérez, A., Potocki, A., Stadtler, M., Macedo-Rouet, M., Paul, J., Salmerón, L., & Rouet, J.-F.
1312 (2018). Fostering teenagers' assessment of information reliability: Effects of a classroom
1313 intervention focused on critical source dimensions. *Learning and Instruction*, 58, 53–64.
1314 <https://doi.org/10.1016/j.learninstruc.2018.04.006>
- 1315 Pew Research Center. (2016, June 22). *Partisanship and political animosity in 2016*.
1316 [https://www.pewresearch.org/politics/2016/06/22/partisanship-and-political-animosity-](https://www.pewresearch.org/politics/2016/06/22/partisanship-and-political-animosity-in-2016/)
1317 [in-2016/](https://www.pewresearch.org/politics/2016/06/22/partisanship-and-political-animosity-in-2016/)
- 1318 Prior, M. (2007). *Post-broadcast democracy: How media choice increases inequality in political*
1319 *involvement and polarizes elections*. Cambridge University Press.
- 1320 Raine, L., & Wellman, B. (2014). *Networked: The new social operating system*. MIT Press.
- 1321 Ray, B. & Marsh, G. E. (2001). Recruitment by extremist groups on the Internet. *First Monday*,
1322 6(2). <https://firstmonday.org/ojs/index.php/fm/article/view/834/743>
- 1323 Redlawsk, D. P. (2002). Hot cognition or cool consideration? Testing the effects of motivated
1324 reasoning on political decision making. *Journal of Politics*, 64(4), 1021–1044.
1325 <https://doi.org/10.1111/1468-2508.00161>

- 1326 Rheingold, H. (2008). Using participatory media and public voice to encourage civic
1327 engagement.” In W. L. Bennett (Ed.), *Civic life online: Learning how digital media can*
1328 *engage youth* (pp. 97–118). MIT Press.
- 1329 Robb, M. B. (2017). *News and America’s kids: How young people perceive and are impacted by*
1330 *the news*. Common Sense.
1331 [https://www.commonsemmedia.org/sites/default/files/uploads/research/2017_common](https://www.commonsemmedia.org/sites/default/files/uploads/research/2017_commonsense_newsandamericaskids.pdf)
1332 [ense_newsandamericaskids.pdf](https://www.commonsemmedia.org/sites/default/files/uploads/research/2017_commonsense_newsandamericaskids.pdf)
- 1333 SB1839 Relating to the preparation, certification, and classification of and professional
1334 development for public school educators, Tex Edu Code § 21.001 (2017).
1335 <https://legiscan.com/TX/text/SB1839/id/1625445>
- 1336 SB-830 Pupil instruction: media literacy: resources, Cal Edu Code § 51206.4 (2018).
1337 https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB830
- 1338 Silverman, C. (2016, November 16). *This analysis shows how viral fake election news stories*
1339 *outperformed real news on Facebook*. BuzzFeed. Retrieved January 11, 2017, from
1340 [https://www.buzzfeed.com/craigsilverman/viral-fake-election-news-outperformed-real-](https://www.buzzfeed.com/craigsilverman/viral-fake-election-news-outperformed-real-news-on-facebook?utm_term=.vvpY6dXDR)
1341 [news-on-facebook?utm_term=.vvpY6dXDR](https://www.buzzfeed.com/craigsilverman/viral-fake-election-news-outperformed-real-news-on-facebook?utm_term=.vvpY6dXDR)
- 1342 Sklar, A. (2017). Sound, Smart, and Safe: A Plea for Teaching Good Digital Hygiene. *LEARNing*
1343 *Landscapes*, 10(2), 39-43. <https://doi.org/10.36510/learnland.v10i2.799>
- 1344 Southern Poverty Law Center. (2016). *The Trump effect: The impact of the presidential*
1345 *campaign on our nation’s schools*.
1346 https://www.splcenter.org/sites/default/files/splc_the_trump_effect.pdf
- 1347 Southern Poverty Law Center. (2019). *Hate at school*.
1348 https://www.splcenter.org/sites/default/files/tt_2019_hate_at_school_report_final_0.pdf

- 1349 Smith, A. (2013, April 25). *Civic engagement in the digital age*. Pew Research Center.
1350 <http://www.pewinternet.org/2013/04/25/civic-engagement-in-the-digital-age/>
- 1351 Soep, E. (2014). *Participatory politics: Next-generation tactics to remake public spheres*. MIT
1352 Press.
- 1353 Southern Poverty Law Center. (2018, January 31). *SPLC report: U.S. education on American*
1354 *slavery sorely lacking*. [https://www.splcenter.org/news/2018/01/31/splc-report-us-](https://www.splcenter.org/news/2018/01/31/splc-report-us-education-american-slavery-sorely-lacking)
1355 [education-american-slavery-sorely-lacking](https://www.splcenter.org/news/2018/01/31/splc-report-us-education-american-slavery-sorely-lacking)
- 1356 Srnicek, N. (2016). *Platform capitalism*. Polity Press.
- 1357 Taber, C. S., & Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs.
1358 *American Journal of Political Science*, 50(3), 755–769. [https://doi.org/10.1111/j.1540-](https://doi.org/10.1111/j.1540-5907.2006.00214.x)
1359 [5907.2006.00214.x](https://doi.org/10.1111/j.1540-5907.2006.00214.x)
- 1360 Tynes, B., Reynolds, L., & Greenfield, P. M. (2004). Adolescence, race, and ethnicity on the
1361 Internet: A comparison of discourse in monitored vs. unmonitored chat rooms. *Journal of*
1362 *Applied Developmental Psychology*, 25(6), 667–684.
1363 <http://doi.org/10.1016/j.appdev.2004.09.003>
- 1364 Tynes, B. M., Seaton, E. & Zuckerman, A. (2015, December). *Online racial discrimination: A*
1365 *growing problem among adolescents*. American Psychological Association.
1366 <https://www.apa.org/science/about/psa/2015/12/online-racial-discrimination>
- 1367 Tynes, B. M., Giang, M., Williams, D., & Thompson, G. (2008). Online racial discrimination and
1368 psychological adjustment among adolescents. *Journal of Adolescent Health*, 43(6), 565-
1369 569.

- 1370 Tynes, B. M., García, E. L., Giang, M. T., & Coleman, N. E. (2011). The racial landscape of
1371 social network sites: Forging identity, community, and civic engagement. *I/S: A Journal*
1372 *of Law and Policy for the Information Society*, 7(1), 71–100.
- 1373 Tynes, B. M., Schuschke, J., & Noble, S. U. (2016). Digital intersectionality theory and the
1374 #Blacklivesmatter movement. In S. U. Noble & B. M. Tynes, (Eds.), *The intersectional*
1375 *Internet: Race, sex, class and culture online* (pp. 21–40). Peter Lang.
- 1376 Tynes, B.M., Stewart, A., Hamilton, M., & Willis, H. (2020). From Google searches to Russian
1377 disinformation: Adolescent critical race digital literacy needs and skills. Manuscript
1378 submitted for publication.
- 1379 van Dijck, J., Poell, T., & de Waal, M. (2018). *The platform society*. Oxford, UK: Oxford
1380 University Press.
- 1381 Vega, V., & Robb, M. B. (2019). *The Common Sense census: Inside the 21st-century classroom*.
1382 Common Sense Media.
1383 [https://www.common sense media.org/sites/default/files/uploads/research/2019-educator-
census-inside-the-21st-century-classroom-key-findings.pdf](https://www.common sense media.org/sites/default/files/uploads/research/2019-educator-
1384 census-inside-the-21st-century-classroom-key-findings.pdf)
- 1385 Walraven, A., Brand-Gruwel, S., & Boshuizen, H. (2009). How students evaluate information
1386 and sources when searching the World Wide Web for information. *Computers &*
1387 *Education*, 52(1), 234–246. <https://doi.org/10.1016/j.compedu.2008.08.003>
- 1388 Walraven, A., Brand-Gruwel, S., & Boshuizen, H. P. A. (2013). Fostering students' evaluation
1389 behavior while searching the internet. *Instructional Science*, 41, 125–146.
1390 <http://doi.org/10.1007/s11251-012-9221-x>
- 1391 Wiley, J., Goldman, S. R., Graesser, A. C., Sanchez, C. A., Ash, I. K., & Hemmerich, J. A.
1392 (2009). Source evaluation, comprehension, and learning in Internet science inquiry tasks.

- 1393 *American Educational Research Journal*, 46(4), 1060–1106.
- 1394 <https://doi.org/10.3102/0002831209333183>
- 1395 Wineburg, S., & McGrew, S. (2019). Lateral reading: Reading less and learning more when
1396 evaluating digital information. *Teachers College Record*, 121(11), 1–40.
- 1397 <https://www.tcrecord.org/Content.asp?ContentId=22806>
- 1398 Wineburg, S., McGrew, S., Breakstone, J. & Ortega, T. (2016). Evaluating information: The
1399 cornerstone of civic online reasoning. Stanford Digital Repository.
- 1400 [https://stacks.stanford.edu/file/druid:fv751yt5934/SHEG%20Evaluating%20Information](https://stacks.stanford.edu/file/druid:fv751yt5934/SHEG%20Evaluating%20Information%20Online.pdf)
1401 [%20Online.pdf](https://stacks.stanford.edu/file/druid:fv751yt5934/SHEG%20Evaluating%20Information%20Online.pdf)
- 1402 Wissman, K. K., & Costello, S. (2014). Creating digital comics in response to literature:
1403 Aesthetics, aesthetic transactions, and meaning making. *Language Arts*, 92(2), 103–117.
- 1404 Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community
1405 cultural wealth. *Race Ethnicity and Education*, 8(1), 69-91.
- 1406 <https://doi.org/10.1080/1361332052000341006>
- 1407 Zhang, S., & Duke, N. K. (2011). The impact of instruction in the WWWDOT framework on
1408 students' disposition and ability to evaluate web sites as sources of information. *The*
1409 *Elementary School Journal*, 112(1), 132–154. <https://doi.org/10.1086/660687>
- 1410 Zuckerman, E. (2017). Mistrust, efficacy and the new civics: Understanding the deep roots of the
1411 crisis of faith in journalism. In *Knight Commission Workshop on Trust, Media and*
1412 *American Democracy*. Aspen Institute.
- 1413 [https://assets.aspeninstitute.org/content/uploads/2017/07/zuckerman.whitepaper.FINAL_](https://assets.aspeninstitute.org/content/uploads/2017/07/zuckerman.whitepaper.FINAL_.pdf)
1414 [pdf](https://assets.aspeninstitute.org/content/uploads/2017/07/zuckerman.whitepaper.FINAL_.pdf)