Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2019 Volume I: Digital Lives

Introduction

Recent studies provide a variety of figures measuring Americans' everyday use of digital media, but they concur in reporting, one way or another, that our engagement with it is massive, and continuing to grow. One 2014 study concluded that Americans spend an average of 7.4 hours a day on screens; another study put its estimate at 8.5 hours. In 2015 Common Sense Research, a nonprofit devoted to studying education and technology, reported that teens were spending nearly 9 hours a day consuming digital media, with 2 hours of that on social media, while 8-12 year olds averaged nearly 6 hours. The average American reportedly spends 4.7 hours each day on their phone – a third of their waking hours. Compare those numbers to the average expenditure of 19 minutes a day on reading, or 17 minutes on sports or exercise.

This seminar for New Haven teachers was motivated by the conviction that we owe it to our students—and ourselves—to learn more, and to think more, about what this rapid, epochal change means for human culture and experience, including for education.

Some of the direct effects of the ubiquity of digital devices on education are easily evident: many teachers find they now have to compete with smartphones (or internet-connected laptops) for their students' attention. Even when digital devices are not posing an immediate distraction, our heavy use of them has changed the brains of both students and their teachers in ways that shape how learning takes place: a study by Microsoft concluded that the average attention span declined from 12 seconds to 8 between the years 2000 and 2015, and it linked that decline to the growing use of digital devices. Some teachers report that their current students are less able to read at length, and in depth, than previous generations; indeed, some highly educated adults report a decline in their own ability to sustain reading of a lengthy work, such as a novel, in ways they recall. At the same time, digital technologies have provided unprecedented access to information and forms of interactive learning that pose extraordinary new opportunities for education if used well.

The mixed effects of the rapid ascent of digital media are not confined, of course, to the sphere of education. The year in which our seminar met—2019—proved a kind of tipping point in cultural views of the impact of digital technologies on the quality of human life. While many digital tech companies began with utopian claims, a recent *New Yorker* article quotes the co-founder of an A.I. startup on the reaction he now anticipates when he reveals his line of work: before he tells a stranger that he works in tech, "I generally try to say some version of 'I wasn't one of the bad guys!'" ("Trouble in Paradise: Big Tech Searches for its Soul"; August 2019). In a frighteningly unstable time, the impact of digital technologies' rapid and unrestrained, profit-seeking spread is said to pose an existential threat in many domains: imperiling democracy; polarizing the populace; destroying individuals' privacy by extracting data like a raw material at every turn; endangering

mental health, with young people's levels of anxiety and suicide rising steeply in the iPhone age; eroding the ability of humans to communicate with each other, and to recognize each others' full humanity, in real-life encounters. Tristan Harris, a former Google manager and founder of the Center for Humane Technology, sums it all up as "Human Downgrading: A societal reduction of human capacity caused by technologies that dominate our human sensitivities" ("Trouble in Paradise"). Our seminar attempted to consider some of these sweeping claims without succumbing to catastrophism or a simple one-sided view.

Because the topic our seminar sought to address is vast and constantly changing, the seminar was especially exploratory and collaborative in nature. We reviewed some of the research that is emerging and considered current debates about the impacts of digital technologies (including work by Jean Twenge, Jaron Lanier, and Shoshana Zuboff) and their implications for our work with young people. We found ourselves often alerting each other to relevant "breaking news," whether new technologies, new studies, or new views. We turned as well to a variety of works of art—films (*Social Network*, *Ex Machina*, *Eighth Grade*), novels (Dave Eggers' *The Circle*), short stories (Forster's "The Machine Stops," Bradbury's "The Veldt" and "There Will Come Soft Rains"), and poetry in both print and born-digital forms—for the questions and insights that art offers about this new realm of human activity. Throughout, we considered how to engage our students of various ages in active reflection on their own experience of the many parts of their lives unfolding through digital means—in the hopes of promoting deliberate and intentional use of digital media to advance their own interests and choices.

Several curriculum units developed by seminar members highlight the positive potential of digital media for creative, educational, or civic purposes, leading students to discover the power of digital connectivity as a means to express themselves, to research in reliable sources, and to organize for social justice. Jamie Griffin's unit for first-graders encourages them to explore both physical and digital means to express their own feelings and to play with language by creating poems on paper and online. Lisa Finch's unit introduces the wonderful conception of "cell phone libraries" as a potentially rich resource for her fifth-grade students, many of whom do not have regular access to print sources in school or public libraries: reconceiving cell phones as a potential means to access a vast array of knowledge, rather than simply a distraction, the unit offers systematic training to young researchers in how to discriminate among the sources they find and to use them responsibly. Aron Meyer's unit for high-school students provocatively brings together the terms "speculative fiction, technology, and social justice"; exploring both the utopian and dystopian potential of new technologies through the capacities of science fiction to speculate and imagine, the unit culminates in a project-based assignment that asks students to make use of digital technologies to address an issue of social justice.

Other units as well combine the study of literary works with current writing and research to provoke students' reflection and analysis about the features and effects of their own "digital lives." In her unit for middle-school students, Eden Stein draws on students' interest in utopian and dystopian narratives to build an analytic vocabulary and historical framework for students to consider both the powers and the risks of absorption in digital activities. Barbara Sasso's unit cannily combines study of Mary Shelley's 1818 novel *Frankenstein* with exploration of the intended and unintended effects of the scientific "creation story" of our own time: the bringing-to-life of human-like machines wrought by rapid advances in artificial intelligence. In Simon Edgett's unit, the surprising relevance of Orwell's *1984* appears in the context of a threat to privacy not from Big Brother but from Big Tech. Aaron Brenner weaves together study of nonfiction and fictional works to develop his students' awareness of the impact of digital media and technologies, culminating in a creative writing assignment in which they have an opportunity to imagine what they think will happen next.

Two units in the seminar extend the reach of engagement with our topic to other kinds of classes: the theater

classroom and the technology classroom. Recognizing the powerful effects of young people's engagement in social media on their self-images and forms of self-expression, Christi Pidskalny's unit seeks to help students "free their voices" in the very different realms of "cyberspace" and the theater. Finally, as a teacher of technology, Furahi Achebe is acutely aware of the powers of influence bestowed by digital media on non-professional media-makers. Her unit cultivates an understanding of the powers and responsibilities of media-makers, leading finally to students' drafting of their own personal code of ethics for digital creation. These units remind us that our students—and we ourselves—are often creators as well as consumers of digital media. We want them to seize that power, and to use it deliberately, thoughtfully, and to the benefit of themselves and others.