

Appendix

How We Got Here

Howard Gardner and Henry Jenkins

Henry: Peter, a typical American teenager, lives in a major metropolitan area in North America. The product of a broken home, he currently is under the supervision of his aunt and uncle. Peter considers himself to be a master of the Web, able to move rapidly from site to site and applying his emerging skills to promote social justice. Peter has engaged with typical identity play, adopting a flamboyant alter ego, an avatar that allows him to do and say things he would be hesitant to do otherwise. Peter belongs to a social network with kids from a nearby private academy who share his perception of being different from others around them. Peter uses Flickr to publish his photographs, some of which have been published professionally by the local newspaper under a Creative Commons attribution; the editor has been so impressed by Peter's work that he now lets him work freelance. Peter often interacts with adults who share his geeky interests online. Peter uses his computer to monitor suspicious activities in his community and is able to use a range of mobile technologies to respond anytime, anywhere to issues that concern him. He uses Twitter to maintain constant contact with his girlfriend, Mary Jane, who often has to stay after school to rehearse for drama productions.

Peter and his other friends are part of a generation that has embraced the expanded capacities of new media to more actively participate in their society. Peter doesn't like to consider himself a hero, but he has made a difference in the lives of the people around him. Indeed, Peter's Uncle Ben has told him that he enjoys the kind of power and knowledge that previous generations could only imagine but warns him that "with great power comes great responsibility." Peter knows less than he thinks he does, but more than the adults around him realize. While he makes mistakes, some of them costly, he is generally ready to confront the responsibilities thrust upon him by his circumstances.

Alert readers will have already recognized that Peter Parker is the protagonist of Marvel comics long-standing *Spider-Man* franchise. I've treated his story as if it were a case study from our research to make a point. Most of us already accept the idea—at least through fiction—that young people might be able to assume greater responsibilities than previous generations, that they might learn ways to use their emerging "powers" responsibly and ethically, and that the value of doing so may outweigh the

risks or challenges. Within the pages of a comic book, things, such as identity play, which sometimes worry adults, are much more normative, much as they are for the young people who have grown up defining their identities in relation to the online world. And there, we come to accept the value of young people "geeking out," rehearsing and deploying their skills within communities defined more through their shared interests than through fixed relations between adults and youth, and we come to recognize that young people may take on their own "missions" that motivate their learning and shape their understanding of their place in society. The *Spider-Man* comics even allow us to see Peter and his friends at Xavier Academy (The X-Men) make and learn from mistakes, often as part of a supportive social network which is there to pick up the pieces and offer valuable advice on the next steps in their personal journey. And it's a good thing that the Avengers, the predominantly adult organization of superheroes to which Spider-Man belongs, are not age-conscious, since one longtime member, Thor, is a five-hundred-plus-year-old immortal god and compared to him, all of us are "immature." Many of us grew up reading such stories, though we often forget them when we are confronting the messy business of helping adolescents acquire and master adult responsibilities.

For me, this project started with the recognition that there was a whole generation of youth who, like Peter, are deploying new media technologies and the processes associated with them to develop a clearer understanding of themselves and their place in the world. Many of these youth are becoming media makers, expressing their emerging understanding of the world through fan fiction, game mods, mp3 downloads, websites, YouTube videos, social-network profiles, Flickr photographs, and a wealth of other grassroots production practices. As they do so, some, though not all of them, are stepping into the support systems around what we call participatory culture. They are using these technologies to construct their identities, to make sense of their social networks, and to gain respect from adults who share their goals and backgrounds. Some of them are joining online communities that, at their best, meet their needs, but in other cases, fail them. Despite a tendency to talk of "digital natives," these young people are not born understanding how to navigate cyberspace and they don't always know the right thing to do as they confront situations that were not part of the childhood worlds of their parents or educators. Yes, they have acquired great power, yet they—and the adults around them—don't know how to exercise responsibility in this unfamiliar environment.

Those of us on the Project New Media Literacies (NML) team felt that it was too easy to talk about "media effects," as if these young people were simply victims of these new technologies, or to identify risks without recognizing the many potential benefits of teens' online lives. As a society, we have spent too much time focused on *what media are doing to young people* and not enough time asking *what young people are doing with media*. We need to embrace an approach based on media ethics, one that

empowers young people to take greater responsibility for their own actions and holds them accountable for the choices they make as media producers or as members of online communities.

I first began to write about "participatory culture" almost two decades ago (Jenkins, 1992) through my work on fan communities. As a fan myself, I had long recognized that exotic media stereotypes about "Trekkies" did not do justice to the ways fans were constructing their own meanings, producing their own cultural artifacts, and forging new social relations through their borrowings from popular culture. At the time, fans were going to their local copy centers to edit, print, publish, and circulate their own zines. I wanted to stress their ability to actively participate in popular culture rather than accepting a more passive position as spectators and consumers. As the years have passed, I have seen more and more young people taking media in their own hands, thanks to the rise of online platforms and networks. Through the years, my interests have broadened from an attempt to understand the aesthetics and politics of these production practices towards a recognition of their civic and pedagogical value. Young people are learning important things about themselves and the world through their engagement with these new forms of participatory culture, though educators are only starting to recognize their full potential.

NML (Jenkins et al, 2007) has identified some core social skills and cultural competencies that some young people are acquiring through their day-to-day engagement with the digital world. These skills build on the foundations of traditional literacy, research skills, technical skills, and critical-analysis skills taught in the classroom. The new media literacies can then be understood as offering ways of thinking (mindsets—for example, "collective intelligence") and ways of doing (skill sets—for example, "transmedia navigation") that recruit reading and writing into new kinds of literacy practices. The new media literacies include:

- **PLAY**—the capacity to experiment with one's surroundings as a form of problem solving.
- **PERFORMANCE**—the ability to adopt alternative identities for the purpose of improvisation and discovery.
- **SIMULATION**—the ability to interpret and construct dynamic models of real-world processes.
- **APPROPRIATION**—the ability to meaningfully sample and remix media content.
- **MULTITASKING**—the ability to scan one's environment and shift focus as needed to salient details.
- **DISTRIBUTED COGNITION**—the ability to interact meaningfully with tools that expand mental capacities.

- **COLLECTIVE INTELLIGENCE**—the ability to pool knowledge and compare notes with others toward a common goal.
- **JUDGMENT**—the ability to evaluate the reliability and credibility of different information sources.
- **TRANSMEDIA NAVIGATION**—the ability to follow the flow of stories and information across multiple modalities.
- **NETWORKING**—the ability to search for, synthesize, and disseminate information.
- **NEGOTIATION**—the ability to travel across diverse communities, discerning and respecting multiple perspectives and grasping and following alternative norms.
- **VISUALIZATION**—the ability to interpret and create data representations for the purposes of expressing ideas, finding patterns, and identifying trends.

Under the leadership of Erin Reilly, Project NML has been developing pedagogical methods and curricular materials to insert these skills and experiences into their learning ecology, recognizing the need for better integration between what they learn through schools, what they learn through after-school programs, and what they learn informally through their everyday activities on- and offline. Media literacy in America has historically been an afterthought, something that happened, if at all, at the end of the school week if the kids had been good. We see the new media literacies as a paradigm shift that potentially impacts the full school curriculum at a time when every institution and practice in our society is being rethought in response to two decades of sustained media change.

Every school subject has something to contribute to our understanding of the mediated world and each has an obligation to incorporate skills and ethical concerns that are part of their historic missions. Several decades ago, the media literacy movement emphasized critical-reading skills at a time when few of us could exert a direct influence on the media environment. Today, more of us have the power to communicate our thoughts through grassroots communications systems and to share "content" we created with others, and the media literacy movement has embraced the conception of young people as media makers. Just as you would not regard someone as literate if they could read but not write, we should see media literacy as including not only critical consumption of existing media messages but also the capacity to generate and circulate media content. Historically, this turn towards a focus on media production has been understood in largely individualistic terms, much as we see creative writing as a form of "self-expression." We are now recognizing that these expressive activities can have much larger impacts on society in an era of networked communications and that young people are increasingly creating content through collaboration with others and building upon raw materials appropriated from

the culture around them. Given this context, NML is reframing media literacy as a valuable set of social skills rather than individual capacities, and is viewing participatory culture through a lens of media ethics.

The pronouns surrounding these digital practices suggest an uncertainty about the balance between individual and collective experience in the online world. Consider, for example, the "you" in YouTube. In English, "you" can be both singular and multiple, blurring distinctions that are carved into other languages. So when we talk about YouTube, do we see it as a space of personal or individualized expression, or do we see it as a space for shared, networked communications? What about the "my" in Myspace, given the fact that our personal sites are simply portals into a much more fully integrated social network that links us, directly or indirectly, to every other user of the site? We've chosen to call this guide "Our Space" to emphasize the social dimensions of participatory culture: "Our" suggests a shared ownership and responsibility over what happens in the online world. Ideally, transforming the pronoun here encourages us to recognize that our individual choices have social consequences, that what we do online may impact others, and as such, online sites should be sites of ethical reflection.

NML's pedagogical interventions have been informed by contemporary quantitative and qualitative research, much of it conducted by others in the MacArthur Digital Learning network, which gives us insights into what young people are doing when they spend time "hanging out," "messaging around," and "geeking out" with new media (Ito et al, 2009). This research has led us to a deeper respect for how some young people have benefited through tapping into social networks, sharing media they've produced, and seeking out information from a range of different knowledge communities. Young people are joining Networked Publics at an early age, making contributions to collaborative problem-solving or creative projects, and interfacing with others who they may never meet face to face. They are learning to manage the information they disclose through such social networks; they are learning to see themselves as authors who draw upon but also have to respect the intellectual property of others.

Those young people who have found their way into the heart of the participatory culture often benefit from the informal mentorship of more experienced participants—some other youths, some adults—as they learn to make difficult decisions about what's right and wrong to do as part of online communities or as media producers and distributors. Many others lack access to meaningful resources for reflecting upon their own practices and anticipating their impacts on others. Some young people have little to no access to the cultural practices through which their contemporaries are developing an understanding of this networked society. All of these young people need help in developing an ethical framework.

Teenagers sharing their thoughts on their blogs may reach many more readers than previous

generations who wrote for school newspapers or edited the newspaper, but they lack access to adult advisors who understand the norms of these communities. A teen leading a game guild may accept responsibilities over more people than a young person running for class president, but again, he/she may be given little guidance about the best ways to exert that leadership. As we confronted such challenges, we recognized the need for expertise in how people acquire and practice their ethical codes and so we reached out to our collaborators at the GoodWork Project.

Howard: The background to our group's participation in the Ethics Handbook is quite different from that of Henry Jenkins and of the New Media Literacies group. I believe that this contrast makes for a more interesting and synergistic collaboration.

Since 1967, I've been a member of Harvard Project Zero (HPZ), a research group at the Harvard Graduate School of Education. Interdisciplinary in nature, but with psychology as a key discipline, HPZ researchers over the years have studied human cognition, learning, teaching, thinking through empirical and sometimes experimental research. Much of our work has been in the arts, and as a consequence, we have often confronted and grappled with issues of media and communication. From time to time, dating back to the days of the Commodore and Compaq, we have done research on the use of computers, but until recently, that has not been a principal focus of our investigators.

In the middle 1990s, for a variety of reasons, my colleagues in psychology and I began to focus on the nature of work in the professions (for our goals and rationale, see goodworkproject.org). We began an ambitious study of the nature and realization of "good work"—work that we now define as technically Excellent, personally Engaging and meaningful, and carried out in an Ethical (responsible) way. As an organizing graphic image, we depict good work as a triple helix of three intertwined Es—a cultural ENA, if you will.

Following the first wave of studies of veteran professionals, members of the GoodWork project focused in the first years of the new millennium on the attitudes of young Americans toward the world of work, and, in particular, toward that amalgam that we term "good work." We found that young Americans—the proverbial "best and brightest"—knew, often admired, and at least in some instances were exemplary good workers. But we also made a more troubling discovery. A healthy proportion of these young people felt that good work was something for "later in life"—once they had gained fame, power, worldly success, then they would practice good work, model it, and seek to nurture it in others. For now, however, since they did not trust their peers to be good workers, they did not want to be held just yet to

a high ethical standard themselves (Fischman et al 2004). Studies by other researchers confirm this dystopic state of affairs.

Disappointed, indeed alarmed, by this finding, we began to work directly with young people—particularly secondary-school students and college students—in efforts to promote good work. This applied research took various forms in various venues. An important handmaiden in this effort is the GoodWork Toolkit—a series of true cases in which ethical dilemmas arise in the process of work (Barendsen and Fischman, 2007). To our pleasure, both students and teachers find these dilemmas quite fascinating; they like to engage in discussion about what others (or they themselves) should do in a comparable situation. While it is too early to know whether work with the Toolkit has a significant effect on behavior later in life, we are encouraged by the very positive reaction to the sessions that we've been conducting with young persons.

In a social conversation with Jonathan Fanton, president of the MacArthur Foundation, I first learned about the initiative of the foundation in the area of "Digital Media and Learning." President Fanton told me that he and his colleagues were fascinated by the effects on young persons of a life that is increasingly carried out in front of computer screens, in a virtual rather than a real physical space. He outlined the different facets of human development that were being examined by researchers through the lens of the new digital media. I asked President Fanton whether research was being undertaken on the ethical dimensions of the media, and he replied that this was not an area currently under exploration. There followed several months of back-and-forth, and a number of grant drafts; a few key meetings with Henry Jenkins, our colleague three miles down the river at MIT; and in the summer of 2006, the GoodPlay project was born.

Since that time, my collaborator Carrie James and several other talented researchers have been examining the use by young persons of the new digital media, with a clear focus on ethical issues and facets entailed in that involvement. In speaking of ethical issues, we refer particularly to the responsibilities and obligations that accompany specific roles in society—for example, the roles of worker, citizen, and participant in real or virtual communities. Going beyond neighborhood morality, which involves the ways in which persons deal with those in their immediate vicinity, an ethical stance entails the capacity to think abstractly; and going beyond the assertion of rights, an ethical stance foregrounds those responsibilities that one should assume, even when—indeed, especially when—they go against one's own self interest.

We spent a full year interviewing experts on the media about ethical dimensions and dilemmas as they saw them. We also combed the literature and did a fair amount of surfing, experimenting, and pilot

observations on our own. At the end of that yearlong survey, we identified five areas which we believed (and still believe) raise significant ethical issues for young persons (and, of course, for persons who are no longer young). In each case, there are the positive potentials outlined by Henry Jenkins and many other commentators; but the possibility of harming oneself or harming others is also present:

- 1.** Identity—Who you are, how you present yourself online. In how many ways can you present yourself (accurately and inaccurately)? How do others present themselves to you? What are the implications of online spaces for adolescent's identity development?
- 2.** Privacy—What are the benefits and costs of being able to share information with others (anonymously or not) online? How do you protect your own privacy? How do you respect the privacy of others? What does privacy mean in a digital age?
- 3.** Authorship and Ownership—At a time when it is easy to download and distribute anything that can be digitalized, how does one respect the investment that individuals have made in creating works? How do young people conceive of ownership and authorship in a world in which LimeWire, YouTube, and Wikipedia thrive? How can youth become successful and responsible users and creators in these environments? How does one make sure that important, usable creations do not remain under copyright for too long a period of time?
- 4.** Trustworthiness and Credibility—How does one determine who or what to trust and what not? How does one become worthy of trust? What does credibility mean in different online communities? How does one convey their trustworthiness or credibility online?
- 5.** Participation in a Community—What is a community in cyberspace? Who belongs to a community? How are norms established and how do they change? And, most critically, what are one's responsibilities to other members of a community, especially when the size and duration of that community is inherently unknowable?

Our findings from this initial exploration were informative and we have recently described them in our report “Young People, Ethics, and the New Digital Media” (James et al., 2009). One unexpected finding was the power of the fifth arena, “Participation in a Community.” Once one enters the digital world, whether one wishes to or not, one becomes a member of communities whose dimensions and longevity cannot be ascertained. Particularly for young people, who cannot easily think about long-term impacts and effects, their potential for membership in numerous, often ill-defined communities is properly a matter of concern.

As we completed our survey, we entered into more active dialogue with Henry Jenkins and other involved in the New Media Literacies group at MIT. As we began to discuss such issues in depth, we

discovered a comfortable synergy between the social and cultural skills related to new media identified by Henry Jenkins and colleagues, on the one hand, and the areas of ethical concern that we had been probing, on the other. Accordingly we resolved to combine forces and to create the curricular units that are assembled here. And we determined to prepare materials that would be of use to ordinary students and teachers, as well as those with specialized knowledge and/or deep involvement in the new digital media.

OUR APPROACHES TO LEARNING

Henry: Our conversations with the GoodPlay Project have been generative for all involved, bringing a much broader array of experiences and expertise to the table than either team could have mustered on its own. Howard and I came to this project with different disciplinary backgrounds, different intellectual commitments, and different experiences with digital media and popular culture. These differences were reflected as well in the graduate students and researchers who worked on our respective teams. We have not always agreed and, indeed, we've sometimes had heated disagreements. Bringing these teams together has meant that in any given conversation, there was a healthy skepticism displayed towards all claims, allowing for a finished product that reflects both the risks and the benefits of the online world, explores both the decisions of individual agents and their larger socio-cultural context, balances traditional and emerging pedagogical practices, and can be deployed in a school that has one laptop per child and one that has no laptops at all. We hope that educators will not simply embrace those materials that match their preconceptions but rather will integrate the disagreements and debates around new media into their pedagogy. None of us know where all of this is going, so it is far too soon to adopt fixed positions.

Not every activity proposed here will work in every educational context. We are trusting educators to make their own decisions about which activities to deploy and how to adapt them or adjust them to local particulars. But we hope that educators will seek the same balanced perspective that has emerged through our multi-year conversations together—not giving themselves over to fear of the new media landscape, but always taking a skeptical, though not cynical, perspective.

As the GoodPlay team has been surveying young people to learn more about how they are already working through the ethical dilemmas they encounter or trying to define for themselves what constitutes "good play," NML has been building and field testing resources that will allow educators to promote what we see as the core social skills and cultural competencies required to enter the new participatory culture. We've been developing teacher's strategy guides about "reading" and "mapping" in a participatory culture and we've been developing a learning library designed to encourage young

people and educators to actively explore sites of cultural production and online communities. What we've learned through these projects has informed our contributions to "Our Space." All of NML's materials have been built on the assumption that young people need to learn through authentic experiences in a range of different communities of practice.

While the activities we've developed often expose students and their teachers to new tools and technologies, our real emphasis is on helping all involved to explore some of the emerging cultural practices that have grown up around new media platforms. Even those students who have rich and remarkable online lives may be too narrow in their exploration of the online world, while we imagine that future generations will need to acquire skills in navigating and negotiating across multiple communities, each with its own norms, practices, and traditions, and each posing its own standards and expectations. At the same time, because our emphasis is on skills and competencies, rather than on technologies, we have sought low-tech activities that might help those who have limited digital access to acquire habits of mind that will enable a fuller transition into cyberspace when and if the opportunity presents itself. Many of the skills we identify are not new; many have long been part of the educational process; but they have acquired new importance and new meaning in response to shifts in our information infrastructure.

These emerging skills are unevenly distributed across the culture, making it difficult to create a "one-size-fits-all" intervention that will serve the needs of these diverse constituencies. NML, thus, has developed a more modular approach: one that provides scaffolding for new teachers and inexperienced students but also serves the needs of more experienced participants. We see educators as important partners who are themselves appropriating and remixing our content on the ground and often on the fly. We want teachers to apply their own knowledge and experience to flesh out our activities. As we've seen our materials brought into school and after-school programs, they are deployed most effectively when teachers trust young people to make meaningful choices and value their own insights. Wherever possible, we want our activities to be open-ended and flexible. And wherever possible, we want students and teachers to go to the actual sites where cultural change is occurring rather than simulating these practices in the classroom.

In my book *Convergence Culture: Where Old and New Media Collide* (Jenkins, 2006), I warn about some of the challenges of bringing participatory culture into formal education: "It is not clear that the successes of affinity spaces can be duplicated by simply incorporating similar activities into the classroom. Schools impose a fixed leadership hierarchy (including very different roles for adults and teens).... Schools have less flexibility to support writers at different stages of their development. Even

the most progressive schools set limits on what students can write compared to the freedom they enjoy on their own."

And indeed, NML's field testing of our materials has shown just how realistic many of these concerns are. The fixed power relations between students and teachers sometimes ensures the imparting of knowledge across the generations, but may also constrain youth from seeking meaningful advice about ethical dilemmas they encounter from adults around them. By comparison, young people and adults who share the same interests are meeting online, often collaborating on projects together, in ways that respect and value what each participant has to contribute. Teachers in the classroom struggle with how to preserve their own expertise without recognizing that young people also may know things that need to be brought to the table. Popular culture often embraces values at odds with those of the schoolhouse, and students and teachers need to negotiate a set of guidelines about appropriate or inappropriate use of those materials in the classroom. (For more on this issue, see *Our Space, Our Guidelines*.)

In the digital age, classrooms are no longer isolated environments, cut off from the surrounding society, but rather nodes in a complex learning network. Our materials exploit the porousness of this new learning ecology, expanding the range of opportunities schools have historically offered their students, connecting learners to larger knowledge communities, and encouraging young people to voice their perspectives and share their creations with a larger public. As we prepare young people for a world that is more and more defined around collaboration and collective problem solving, we must help them acquire the social skills necessary to meaningfully contribute to a network of other learners. In a world where people who pool their knowledge and share their expertise can solve more complex problems than those working alone, we need to offer our students more difficult questions and give them an opportunity to confront them together.

Too often, educators are adopting positions that close off the exploration of the new media, rather than encouraging young people to acquire the skills needed to meaningfully participate, and fostering an ethical perspective that allows them to deploy their resources responsibly and safely. The activities included in this casebook adopt a different perspective, suggesting ways that teachers and young people might engage with Facebook and MySpace, Wikipedia, YouTube, Second Life and World of Warcraft. Without such training, young people are being left to deal with these new environments on their own. Some of them are being left out or left at risk as a consequence. Some teachers are advocating "just say no" to Wikipedia, for example, rather than helping young people understand the processes and norms through which Wikipedians evaluate and assess the reliability of information they are providing. Some schools are shutting out YouTube rather than helping young people to reflect on their roles as the

producers and distributors of media content. Some educational programs stress the rights of copyright holders but do not expose students to the fundamentals of fair use or to the emerging practices around Creative Commons licensing. And many adults worry about issues of personal privacy without understanding why young people might also place a value in sharing their personal experiences and insights within their extended social networks.

All of these, and many other issues, have been debated back and forth by the two teams in the course of developing this casebook. We know that different teachers will take different perspectives on these cultural, ideological, and pedagogical concerns. We've tried to design these materials in such a way that they can be taken in many different directions and still convey some fundamental ethical concepts that will help young people chart a meaningful course for themselves as media producers and members of online communities.

David Buckingham has suggested the value of approaching young people's use of technology in terms of their "beings" (respecting who and what they are now) rather than their "becomings" (seeing their present state as some stepping stone to their adult identities). While some of our activities confront the long-term consequences of their decisions, we also are trying to take seriously the activities that young people are already engaging with and the ethical issues they are already confronting in their day-to-day interactions with online communities.

We also know that young people are not the only ones who will be learning as they work through these units: Many adults still know little about these emerging social communities and cultural practices; most are uncertain about what parts of our existing ethical toolkit still apply in these unfamiliar situations. We hope that educators will use these materials to test and strengthen their own conceptual frameworks, remaining open to new possibilities, even as they hold tight to long-standing values and standards. As educators, we are obligated to act through reason and not out of fear; that responsibility requires us to continually ask questions of ourselves and of our students. We are teaching them not to be too trustful of the information they read on Wikipedia; perhaps we also should learn not to trust sensational news stories that provoke moral panic about young people's digital lives.

Like Spider-Man, you have been given both great power and great responsibility. What are you going to do with it?

Howard: Our collaboration has sharpened my own understandings of significant fault lines—areas of uncertainty, tension, and controversy in the areas in which we have been jointly working. Some of these fault lines have to do with a general attitude toward new media, some with views of youth, some with

optimal venues and means for education. Here I will lay out a fault line in each of four areas that has loomed salient in the current enterprise. To make the contrasts clear, I'll paint the opposing views quite sharply and then bring them to bear on ethical issues.

1. *Views of New Media*

On one side, we have enthusiasts—individuals who believe in general in the powers of media, and, in particular, in their benevolent potentials. In the past century these enthusiasts welcomed the advent of radio, television, and various film and cinematic innovations. Their greatest enthusiasm has greeted the new digital media. Not only are the new media seen as uniquely powerful; they are seen as having special promise for democratizing society, bringing in new and previously unheard voices, allowing individuals of all sorts to express themselves creatively and collaboratively.

In contrast are the media-skeptics. These individuals have observed the lack of realization of utopias anticipated with previous media instantiations. Few realms of society, in their view, have been improved by radio, television, or the cinema. Moreover, rather than these media being democratic, they have sooner or later fallen under the sway of powerful media empires, ranging from Disney in the world of entertainment to Murdoch in the world of print and broadcast journalism. The “big sort” is as likely an outcome as a vigorous village square. There is little reason to think that the new digital media will usher in a different or happier era—indeed, it may just be a matter of time before we all work for Big Brother Google.

2. *View of Youth, in General and Today;*

For many who are no longer young, the hope of the future lies in young people: individuals who are innocent, well motivated, eager to learn, eager to do the right thing. These optimists are impressed by the large, perhaps unprecedented involvement of young people in social service, community service, and participatory forms of communication. As these elders see it, youth are our greatest untapped resource and they should be empowered to follow their genius.

While not in any sense opposing youth, more conservative spirits do not want to romanticize the young. The young are relatively unformed and, as such, can be mobilized for good, for evil, or for their own self-glorification. The youth on the Children's Crusades may have meant well but their efforts were a fiasco; Red Guards in China and members of Komsomol in the Soviet Union had no hesitation in turning against parents and teachers. *Lord of the Flies* vividly documents what

can happen—what may well happen—when youth are left completely to their own devices. As for the youths of today, their apparent involvement in social service is difficult to disaggregate from their desires to get into an elite college, en route to enriching their pockets on Wall Street or Hollywood.

3. *Optimal Venues for Education*

Few dispute the importance of education, but there are significant disagreements about where education will take place and where it should take place in the future. Visionary thinkers believe that the days of the egg-carton class and the Taylorized school are over. More and more of education will take place outside of formal, state-run institutions. It will take place at homes, in community centers, at the workplace, and especially in the digital world—via handheld or easily portable computers. On this view, schools as we know them have outlived their utility and their gradual demise is to be welcomed.

A contrasting point of view underscores the longevity and utility of schools. These institutions have been and remain the best way to educate large numbers of youths in literacy, the disciplines, and citizenship. Those countries with the best schools are the ones that are and will continue to be most successful in the world. Of course, schools can and should be improved, and, wherever possible, they should utilize the new digital media, and acknowledge new sites of informal learning online. But any thought that the days of formal schooling are numbered is either naïve or iniquitous.

4. *Optimal Support for Education*

For centuries if not millennia, schools have been top-down affairs. Teachers, the locus of knowledge and skill, stand in front of the room, read, lecture, and call on students to provide the right answer to questions. The students' job is to master the knowledge and skills of the past and to demonstrate their mastery through examinations of one sort or another. The thought that students might assume a constructive role in the formation/production of knowledge is seen as erroneous and threatening.

While this perspective is still dominant throughout most of the world, it is essentially absent among individuals who focus on the learning potentials of new digital media. And indeed, all of us working on this project would consider ourselves to be constructivists: That is, we believe that people of all ages need to be able to construct knowledge, if it is to be mastered, made to be

the learner's own, and capable of being mobilized appropriately in new and unfamiliar situations.

Here, however, a new tension arises. Some individuals are struck by the extent to which, left to their own devices, novices are likely to make erroneous assumptions, wander in useless or counterproductive directions, fail to develop the needed skills. And so they favor a considerable amount of scaffolding. That is, when an individual is introduced to a new problem or puzzle or concept, rather than being asked to start from scratch, the individual is given pointers on which ways to proceed are more or less productive. And from then on, additional hints or scaffolds are provided, to ease the route to mastery, and to prevent the waste of time and frustration. Of course, as the metaphor implies, once a productive course has been initiated, the scaffolding can and should be removed. The most talented students and teachers will require little or no scaffolding; they can truly “figure it out on their own.”

Those who take a more rigorous constructivist view are not fans of scaffolding. They see it as a form of “leading the witness,” and as a means of preventing genuine discoveries, including new and exciting discoveries that might not have been anticipated by the architect of the scaffolding. In their view, better to give the learner an inviting problem set, or game, and then get out of the way. There is an “inner genius” in most learners that will draw them away from unproductive pathways and provide those rich rewards that are contingent on one's own efforts.

Thus sketched, of course, these views are extreme, and deliberately so. Most readers are likely to position themselves between these contrasting horns of the dilemmas, and so were most of us connected with the project. Also, within each team, there were differences of emphasis, and many of us felt that we ourselves were wrestling perpetually with the antipodes sketched here.

I feel that it is productive to air these tensions. While some of us are aware of them, especially when we find ourselves in discussions or arguments with others, we may tend to be unaware of the extent to which we find ourselves gravitating toward one or another of the alternatives. While the position itself may be unexceptionable, awareness that one has taken the position, along with awareness that others—parents, colleagues, elders, youths—may position themselves differently on these issues can be salutary.

To make this concrete, let me take a specific example from the realm covered in this casebook—cheating, plagiarism, the unacknowledged use of material of others and submitting it as one's own. Almost no one would defend this practice totally, and yet it is now a fact that such cheating, enabled by the digital media, is virtually ubiquitous in classrooms throughout the developed world. The problem is

complicated by the growth of “remix culture,” including legitimate forms of appropriation such as new works inspired by classic novels, films, and musical compositions.

How does one think about this situation and how does one then go about trying to rectify it? One’s position on this will depend on where on the above spectra, on which side of the fault line, one finds oneself:

- 1.** Does one look to the new media as providing solutions or aggravating the problem?
- 2.** Does one expect that youth will develop new and reasonable norms or does one look to elder, experienced individuals for advice and models?
- 3.** Should issues of cheating be dealt with in school or are they better dealt with by other institutions and other media?
- 4.** In developing a new set of norms about the use of materials in the new digital media, should this be an enterprise involving a good deal of scaffolding or is such scaffolding either unnecessary or even unwise?

As you monitor your own reactions to these alternatives, you can see the extent to which you already have strong opinions on these topics. In the pages that follow, we review a number of ethical areas that arise in the new digital media. We present materials and provocations that bring these issues to the surface. Our aim is to encourage all of us—teachers, parents, students, researchers—to examine our own presuppositions and to engage as honestly and reflectively as possible with the quandaries that they present. My hope and that of my colleagues is that your thinking and your actions will be sharpened and complexified by the materials that we hereby present to you. We hope to hear your own thoughts soon.