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New Social Media and the Technomoral Virtues

IN PART III we investigate how various forms of emerging technology, depending upon how we choose to develop and engage them, may enable or frustrate our efforts to individually and collectively become virtuous: to make ourselves into the sorts of human beings able to live truly *good* lives. Here our framework of technomoral habits and virtues is put to work.

Since humans and technologies evolve in tandem, we will be asking not only how these emerging technologies shape our moral character for better and for worse, but also how cultivating technomoral virtue can help us to develop better technologies and wiser technosocial practices. Our aim is constructive: we will not hesitate to criticize suboptimal human-technology relations and effects, but the goal is to think about how those relations can be changed for the better, and how our technologies, communities, and *selves* can be made better in the process. For the ultimate engineering task is the fragile, endless, and sublime human project of using the culture we produce to make ourselves into the beings we wish to become. The main topic of this and subsequent chapters is whether and how emerging digital, robotic, artificially intelligent, or biomedical technologies can assist us in this task.

7.1 New Social Media and the Good Life

The scope of this chapter is limited in its precision by the constantly shifting forms and increasingly permeable boundaries of the digital media technologies that are its subject matter. Our focus, however, will be the innovations most responsible for the rise of 21st century digital culture: mobile media devices and software applications, online social networking platforms, and the encompassing architecture of Web 2.0.[1] In the early 2000's Web 2.0 standards transformed the Internet from a large collection of relatively static personal, institutional, and commercial webpages to a highly interactive and dynamic multimedia environment. Social networking and media sharing sites such as Facebook, Twitter, YouTube, and Instagram dominate this new landscape, along with Google, Apple, Amazon, and other corporate titans. But the distinctive feature of Web 2.0 is that it is *users* who create and share the vast majority of its content: the videos, music, photos, stories, mashups, satires, reviews, comments, complaints, opinions, hashtags, jokes, and memes that make up our new digital media culture. Just as essential to Web 2.0 as digital content is the distinctly *social* character of new media consumption. It is the constant stream of new connections and exchanges between billions of individual content creators and sharers that gives the Internet its present character as a *global* social network.

The unrestrained, even irrational early hype trumpeting the Internet's power to cure all the world's ills (*or*, in the eyes of its most careless critics, to destroy everything true, beautiful, and good) has thankfully given way to more realistic and nuanced assessments of its many benefits, dangers, and trade-offs. Most researchers today prefer a critical posture reflected succinctly in the title of leading Internet researcher danah boyd's book on teens and new social media: *It's Complicated*.[2] Yet there is still a strong conviction among many that the social Internet is a powerful force for human well-being, a silicon-paved path to the good life. Among those championing this view most loudly, we should not be surprised to find those technology leaders and innovators whose pockets are lined by public faith in the Internet.[3] But resolutely positive assessments of digital culture's impact on human well-being have also been voiced by many scholars presumably less invested in the verdict.

In their 2012 book *Networked: The New Social Operating System*, sociologist Barry Wellman and technology researcher Lee Rainie championed the new "networked individualism" as a force destined to engender a more educated, creative, productive, and happier society. Their core research metric is *social capital*—a sociological construct used to quantify the amount of social support from which an individual can draw in order to solve problems and meet her needs. Empirical research suggests strong links between social capital and psychological well-being or 'life satisfaction.' Yet the empirical measures of well-being privileged by sociologists and psychologists are simply *not* measurements of the same type of well-being with which virtue ethics is concerned, the type of human flourishing that Aristotle called *eudaimonia* and that is the motivating aim of ethical life.

Empirical studies of well-being often employ instruments such as the Diener Satisfaction With Life Scale (SWLS) or the Diener Flourishing Scale (FS). These are simple 5-to-8-item questionnaires that take no more than one or two minutes for a typical subject to complete. On the Flourishing Scale, for example, subjects rank items such as "I lead a purposeful and meaningful life" on a scale of 1 to 7, from "strongly disagree" to "strongly agree."[4] As useful as these instruments may be for many purposes, they do not tell us whether these subjects are *actually* living well or flourishing—at best they tell us whether the subjects *believe* themselves to be living well, based on a cursory review of a small number of criteria. That one is living well in the ethical sense is a fact that one can be mistaken about. A successful sociopath, a violent and unrepentant serial abuser, or an oblivious narcissist may readily score their own lives highly on such scales without actually meeting any of the requirements of a good life. If this isn't obvious, consider the fact that most parents' greatest desire is that their children flourish and live well, yet most would be horrified at the thought of having raised a self-satisfied and unrepentant sociopath.

Living well in the ethical sense, then, is an external and holistic condition that is not entailed by subjective reports or feelings of personal happiness and life satisfaction. Although most virtue ethicists regard living well in the ethical sense to strongly *support* such positive feelings, even to be the most reliable means of attaining them, it is psychologically possible for a person to be satisfied with a terrible, ignoble life. A person can also be *dis*satisfied, at least temporarily, with a life that is objectively noble and choiceworthy.[5] This means that the sorts of empirical data often used as evidence of a strong correlation between new social media and the good life are instructive, but not adequate for our inquiry. We need to look more deeply at the relationships between particular new media practices and the moral habits and virtues that enable and even *constitute* living well in the fullest possible sense.

7.1.1 New Media Habits and Rituals: The Virtues of Communicative Friction

My career as an emerging technology ethicist started with new social media for a simple reason: No technology that I had ever encountered had a comparable power to so rapidly and profoundly transform people's communicative habits, and given the communicative structure of moral life, it seemed obvious that these shifts had clear implications for human character development, and especially for the cultivation of our moral capacities. I began to write about how new social media habits might impact the development of what I called 'communicative virtues' such as honesty, patience, and empathy.[6]

Compared with traditional media, new social media foster communicative acts that are more rapid, flexible, concise, varied in style and content, and fluid in tone, pace, scope, and structure. Yet they also promote a dubious ideal: *frictionless* interactions that deftly evade the boredom, awkwardness, conflict, fear, misunderstanding, exasperation, and uncomfortable intimacies that often arise from traditional communications, especially face-to-face encounters in physical space.

Of course, such frictions still *do* arise in digital media connections. Yet when they do, the emerging norms of new media increasingly afford me or my interlocutor a quick and easy escape. We text 'gotta go,' log off Facebook, or close an app, tab, or window and quickly open another, safer, more attractive, and less demanding connection. And who can resist availing themselves of such escape routes, given that doing so is socially accepted, even increasingly expected?

We shall see later in this chapter the extent to which the new digital norm of frictionless sharing can imperil civic life. But intimate contexts of family and friendship are also impacted, in ways that may profoundly challenge character development. This risk came into sharp focus during the controversial 2013 Facebook Home ad campaign, which featured persons using the app to evade undesirable interactions at home, at work, and on an airplane. Technology ethicist Evan Selinger criticized the ads as "social engineering spectacles" that implicitly advocate "transforming vice into virtue."[7] Is this fair? Consider the 'Dinner' ad targeted by Selinger. It approvingly depicts a savvy teen's use of her phone's Facebook Home app to tune out a tiresome relative's story at a large family dinner. The ad asks us not only to sympathize with the teen's plight (and who doesn't?), but also to admire her bold solution. While her tablemates suffer and squirm, praying for deliverance, she smiles serenely into the glowing screen in her lap.

Yet what might she have done if using Facebook at a family dinner was simply beyond the social pale? She might have mustered the courage to interrupt and change the subject. She might have engaged in sympathetic eye-rolling with a fellow family hostage across the table. She might have started a quiet side conversation. She might have just sucked it up and patiently waited it out. What is important to recognize is that selecting well from these options calls for the skillful deployment of a range of moral habits, including attention (What is the offender droning on about? How engaged are others at the table?); relational understanding (Who is the offender? What is her position or status in the family? Is this a typical family dynamic?); reflective self-examination (Am I being a jerk here?); discerning and prudent judgment (How much deference does the offender deserve? When is the moment to act? What's the most defensible strategy? What technique will cause the least harm or insult?); and moral extension (Who should my solution benefit besides myself?). The person who has cultivated these habits and learned to respond reliably *well* in such situations possesses admirable virtues: self-control, social courage, empathy, care, flexibility, moral perspective—perhaps even practical wisdom. Where does our young Facebook Home user find *her* chance to practice these moral habits and cultivate these virtues?

Of course it would be silly to blame new media for the timeless ills of teenage boorishness, social haplessness, or self-absorption. Yet it is anything but silly to ask which new media habits will help teens *grow out* of that condition successfully, and which of today's new media habits tend to delay or impede that maturation. Empirical studies of the effects of new social media on youth lend increasing support to what is called the 'rich get richer' thesis: young people who are already well on their way to mature social competence and who have acquired above-average skills of social discernment, empathy, care, self-control, social courage, and confidence tend to *thrive* and gain important benefits from new social media practices.[8] On the other hand, young people who lack social competence, or who report high levels of social anxiety or loneliness, not only have less positive experiences online but in many cases seem to suffer increased anxiety and loneliness as a result of their new media habits. This 'rich get richer' hypothesis is entirely consistent with our account of moral self-cultivation thus far. It is not technologies *themselves* that determine whether or not we flourish socially, but rather the habits, skills, and virtues we have cultivated, with or without their help. Once we acquire those habits, skills, and virtues, we are not only better able to avoid harm in new social media environments, we are able to use new media in ways that further enrich our well-being.

Yet how did the already socially 'rich' *get* that way? Where did they acquire the social skills and warranted confidence that allowed them to flourish in the same new media environments that further impoverished their socially 'poorer' peers? While this topic has yet to be adequately researched, I venture the hypothesis that youth who flourish online acquired the lion's share of their social competences in environments that 1) did not permit or reward quick and easy escapes from social friction, challenge, or discomfort; 2) allowed considerable freedom to experiment with different communicative strategies for managing and coping with communicative friction; and 3) tempered that freedom with virtuous constraints—norms or rituals of communication designed to habituate them to social respect, competence, care, and wisdom.

Returning to the Facebook Home case, the girl in the ad is not forced to try out *any* of the techniques that we considered for negotiating the boring, alienating experience of the family dinner—she can simply nullify the experience by means of her social media escape pod. The problem is not the technology alone, but the technology *plus* the lack of an appropriate virtue-inducing constraint—such as a rule or strong social expectation that *one does not use Facebook at family dinners*. It is illuminating to consider that many high-tech leaders impose a surprising level of restraint upon *their* childrens' technology and new media usage at home, banning electronic screens from the family table, child bedrooms, and/or on school nights.[9] Such constraints are not plainly *not* the refuge of the technophobic; if anything, *they are the rituals of the technologically wise*.

As Selinger points out in his scathing commentary on the Facebook Home campaign, communicative norms that foster vice don't only impoverish the young and immature:

> Ignored Aunt will soon question why she's bothering to put in effort with her distant younger niece. Eventually, she'll adapt to the Facebook Home-idealized situation and stop caring. . . . Selfishness is contagious, after all. Once it spreads to a future scene where everyone behaves like Selfish Girl, with their eyes glued to their own Home screens, the Facebook ads portend the death of family gatherings. More specifically, they depict the end of connecting through effort.[10]

Selinger notes that the ad campaign idealizes a world where we tune out anyone whom we did not ourselves *select* as a social connection on the basis of shared interests and their personal entertainment value. Aside from the deep disrespect for family bonds that this evokes, it is a profoundly *immature* moral viewpoint. Indeed it reflects a value-system suited to Facebook's own origins: the narrow social aims of college undergrads away from home and, for the first time, free to assemble their own social network from a pool of strangers on the *sole* basis of their own personal desires and tastes. This is a liberating experience and an important stage in a young person's development. But its generalization as a universal norm of social life would be devastating. A frictionless world where every social bond and duty was conditional upon the ongoing ability of others to keep us stimulated and pleased would diminish us all.

In particular, it would render meaningless technomoral virtues such as *care*—the skillful, attentive, and emotionally responsive disposition to labor to meet the needs of other members of our technosocial world. The moral world of adulthood, *in any culture*, is one in which relational bonds of family, friendship, work, and civic life require us to care for, understand, and engage deeply with people who we at least initially find to be boring, weird, irritating, alienating, or exasperating. Some of those people we will learn to enjoy with ease. Others will always require more effort to be around, but we will come to respect, admire, and even love many of them anyway. A world where this kind of care and flexibility is not expected or even desired is one that very few of us would want to live in, and that none of us *should* want. It is a world without true friendship or love.[11] As Selinger points out, the Facebook Home campaign shields us from this horror by ensuring that in each ad, there is only one lucky soul using the app; everyone else in the room is still doing the heavy lifting of keeping the social fabric whole. But the campaign doesn't target just *one* family member, or one airplane passenger, or one person in the boring business meeting. The ads target us *all*—and therein lies their fundamental dishonesty.

This is why it is essential that we pay closer attention to the ethical impact of new social media on human character in different contexts, avoiding mindless celebration *or* demonization of these technologies. One important context involves the individual. As we have seen, socially well-habituated individuals are more likely to use new media to enrich, rather than to diminish, their flourishing. Another kind of context is the concrete situation. If our Facebook Home girl had a close friend undergoing life-saving surgery, we would not question her need to periodically check for updates on her phone, assuming she had explained to her family the legitimate reason for her distraction. A third kind of context is cultural—for the specific moral norms, habits, and rituals that structure one's environment help to determine the moral meaning of one's actions in that space. For example, philosopher of technology Pak-Hang Wong argues that today's new media architectures flatten relational structures in ways that are inconsistent with Confucian values centered on family roles and hierarchies. He claims that the personal freedom to manage one's own social media presence, without constant supervision and approval by family elders, might be genuinely unethical in a Confucian home—even though most Western virtue ethicists would find such oversight and control unduly intrusive.[12]

Context also drives ethical issues with new media that are increasingly hard to regulate, such as privacy, copyright, and cyberbullying. As Helen Nissenbaum notes, respecting privacy online requires acknowledging the *contextual integrity* of situations in which the disclosure of personal data is a factor. What users reasonably expect to happen with their data in one context may be entirely different in another, even where the covering laws are the same. Exclusive control over the use and reproduction of creative digital property is in some cultural contexts an inalienable right of the author, and in others a selfish inclination to hoard the fruits of one's creative efforts.[13] Speech that is hateful cyberbullying in one online context may be edgy humor in another. These contextual challenges cannot simply be resolved by imposing fixed rules or principles of a universal order. They require effective moral communication, sincere cooperation, and prudent, flexible negotiation, often across cultural lines. It is time for a closer look at the technomoral virtues that can best facilitate such exchanges in personal, local, and global contexts.

7.2 New Social Media and the Virtue of Self-Control

In chapter 6, we saw that the technomoral virtue of self-control is *an exemplary ability in technosocial contexts to choose, and ideally to desire for their own sakes, those* *goods and experiences that most contribute to our and others' flourishing.* It is a reliable disposition to discern and eventually to author *right* desires, those compatible with the good life. And as we saw in chapter 3, self-control begins in childhood with socially imposed habituation to right action. Ideally, this eventually gives us the moral continence to act only on desires that we correctly discern to be good, and to restrain ourselves from acting on vicious desires that often arise spontaneously. As moral understanding, experience, and motivation grow, restrained continence can mature into virtuous temperance, a state in which we become increasingly free to act on our desires, because our dominant desires have themselves become good.

Perhaps the greatest 21st century challenge to self-control is a culture in which consumption itself is the most valued activity of citizens. But new media deepen this challenge by means of the vastly expanded range of goods now available for our consumption through digital channels, and the associated fragmentation of social consensus about which goods and experiences are worthy of our consumption. These developments have a clear benefit: instead of cultures curated by a handful of state-owned or corporate gatekeepers, we have a newly enriched and constantly changing global tapestry of offerings at our fingertips. No longer can monolithic powers so easily restrict what citizens see, hear, discuss, or buy, or dictate which goods, topics, events, or creative acts are worthy of their attention. This is a benefit we should not wish to surrender. The trade-offs, however, have been considerable. Moreover, our digital liberation from cultural hegemony is itself endangered by multinational media consolidation and the deliberate design of 'sticky' digital media delivery systems that exploit neurological and psychological mechanisms to undermine our self-control.

Concerns about new media and self-control are often expressed by psychologists in terms of Internet 'addiction' or compulsion. While empirical research is ramping up, reliable studies of the true scope, severity, and causes of online media 'addiction' remain in short supply.[14] Early indications of a problem are not so hard to come by. A quick Google or Amazon search reveals a rapidly expanding cottage industry of books, blog posts, editorials, and software tools devoted to helping consumers diagnose, treat, or mitigate the harms produced by their new media addictions. Apps such as Freedom, Anti-Social, and SelfControl allow you to lock yourself out of part or the whole of the Internet for a fixed period of time, serving as modern-day Faraday cages for new media addicts like myself who are self-aware enough to know that they have a problem. These are less radical versions of the solution Nicholas Carr was compelled to adopt to finish his 2010 book on the Internet's impact on our brains, *The Shallows*: move to an isolated mountain town with no cell service or broadband connection.

What is interesting is that neither myself nor Carr, nor the many other scholars and creative professionals who seek such measures, can easily restrain *ourselves* from excessive and unproductive new media consumption. This is remarkable in a population of people who earlier in life proved themselves disciplined enough to write lengthy technical dissertations or other creative works requiring intensive concentration and self-discipline. Even Carr, whose book details the ways that new media change our brains in ways we do not choose, admitted that he slipped back into his new media habits once his book was done; voluntarily (or perhaps not?) surrendering the mental clarity, focus, and power he says he regained during his digital media sabbatical.[15] Perhaps Carr and I are in fact not self-disciplined at all; perhaps we are viciously incontinent or self-indulgent. But I venture that many readers know from personal experience that some new media habits pose an unusually strong challenge to our faculties of self-control.

Neuroscientific explanations of Internet addiction tell a story about operant conditioning, reward schedules, and dopamine receptors.[16] But the underlying social mechanism is rarely discussed: the techniques of those who develop, market, and measure the success of new media technologies. From the popular software industry site *Re/Code*, here is a remarkably frank admission of the deliberately addictive design of new media, in a post from Suhail Doshi, the CEO of Mixpanel—an analytics firm that sells developers tools for measuring how users interact with their software. The title of the post is "Mixpanel: How Addictive is Your App?":

> Whether you're building a game, a social network or a CRM tool, your ideal customers are the people who engage with your product at least once every day — *better still if they're using it constantly*. We've taken this a step further by introducing a new analytics report — *Addiction* — which will be available to users soon, and which tells companies how frequently people use their apps throughout the day. For example, if you've built a game, and a customer plays once in the morning, once at lunch, and once on the commute home, they've engaged with your product during three separate hours: As such, they'll fall into the three-hour bucket. (For the record, about 22 percent of actual game players fall into the three-hour addiction bucket, which makes sense — only a very lucky few can spend the entire day gaming.) . . . *Social apps have a stable, consistent and thoroughly addicted user base*, with 50 percent of people engaging with social networks for *more than five hours a day*, and even a small percentage logging time during *every waking hour*. (emphasis added)[17]

If it's not already obvious that an addicted user base is the explicit design goal for many app developers, Doshi reminds his audience that if users aren't logging on multiple times a day, they are doing something profoundly wrong, but if "most users are lighting up your Addiction report by using your app for 10 hours every day, you're doing something very, very right."[18]

If self-control is as essential to human well-being today as it was in Aristotle's, Kongzi's, or the Buddha's time, then we have a serious ethical problem on our hands. On the one hand, the pleasures of new media culture are vast and unprecedented; not many that have tasted them, even among the highly educated and culturally literate, would wish to surrender them. Thus new media seem to survive John Stuart Mill's test for discerning true goods—after all, he tells us, "What is there to decide whether a particular pleasure is worth purchasing at the cost of a particular pain, except the feelings and judgment of the experienced?"[19] On the other hand, many new media pleasures are consciously designed to be delivered to us in ways that undermine our cognitive autonomy and moral agency. They make it harder, not easier, for us to choose well. Even a utilitarian such as Mill understood the role of character, especially the virtue of self-control, in sustaining our ability to not merely know, but actually *choose* the good life:

> Capacity for the nobler feelings is in most natures a very tender plant, easily killed, not only by hostile influences, but by mere want of sustenance; and in the majority of young persons it speedily dies away if the occupations to which their position in life has devoted them, and the society into which it has thrown them, are not favourable to keeping that higher capacity in exercise. Men lose their high aspirations as they lose their intellectual tastes, because they have not time or opportunity for indulging them; and they addict themselves to inferior pleasures, not because they deliberately prefer them, but because they are either the only ones to which they have access, or the only ones which they are any longer capable of enjoying.[20]

If I were a more temperate person, I would *still* choose to use new media technologies—but I would do so consciously and selectively, not at times when it disrupts family life, not at times when I need to focus for an extended period of time on a single creative or intellectual effort, and not at times when I need to attend closely to my physical and moral environment. The question is: How do I and others become temperate or even adequately *continent* in our use of new social media? There is no simple answer, but an adequate solution must go beyond the habits of the individual consumer. I, like many others, can already manage to grit my teeth and activate my Freedom app when I am at home writing alone, and perhaps over time such individual practices can make us all more continent in this regard. Perhaps someday I will be able to turn on Freedom without gritting my teeth. Perhaps one day I will stop trying to open my browser every 15 minutes *even though I know that I am still locked out*. It helps that I have a small but supportive community of fellow writers with the same struggles, who directed me to the app in the first place. Our struggle, however, is greatly intensified in social environments where there is no such support: such as conferences where not only do fellow scholars openly use social media while presenters are speaking, but where we are asked by conference organizers, or even speakers themselves, to tweet the event in real time!

Likewise, setting a no-phones rule at your own table is easy enough, but what does one do at a dinner out with friends or colleagues that is already lit up by six different glowing, beeping screens? At that point imposing your own self-control seems pointless, since there is no one present enough to receive your undivided attention, and even self-defeating, as it leaves one stewing in a morally unhelpful mix of resentment, boredom, and holier-than-thou superiority. Of course, one can just seek new dinner companions, but most of us can't avail ourselves of this nuclear option easily or often. Instead, satisfactory solutions to digital media 'stickiness' will have to involve *collective* cultural agreements to seek healthier digital norms or social rituals, which will be specific to particular contexts but globally concerned with promoting the cultivation of technomoral self-control. An early example of this was the spread of the restaurant 'phone stack'; but such remedies remain thin and inconsistently practiced.

Another part of the solution will require engaging more assertively with software industry professionals on the social and moral impact of their designs. As Evgeny Morozov notes in his recent book *To Save Everything, Click Here*, this is a challenging hurdle to clear, given the false but widespread and resilient belief that "The Internet" in its current form (and by extension, the structures of the diverse technologies of which it is really composed) is a fixed given—an Archimedean point with which it is either futile or disastrous to tinker. He asks us why is it that when we find ourselves harmed by the digital media environment, the only responses we can think of are to block our access to our own digital tools, or flee their reach?[21] Or as I have asked elsewhere: Why must we choose between debilitating tools, and digital lockboxes to keep us away from them? Why not demand *useful tools that do not debilitate us*?[22]

While ethics in the software industry is a hot-button issue, too many new social media investors, developers, and engineers still believe that ethics is not their business—or even that it is inimical to innovation and productivity. In response to a media question about whether his company had ever thought of hiring an ethicist to consult on their decision to conduct secret experiments on their users, Christian Rudder, co-founder of the online dating site OK Cupid, joked "To wring his hands all day for $100,000 a year? . . . No, we have not thought of that."[23] Such attitudes in the software industry need to change, and soon—not just for users' sake, but for the sake of the health and growth of digital media culture itself. Too many inside the Silicon Valley 'thought bubble' are oblivious to the fact that ethics matters, not because academics or media critics say so, but because people will *always* want good lives, and will eventually turn on any technology or industry that is widely perceived as indifferent or destructive to that end. It only took a few decades for cigarette companies to go from corporate models of consumer loyalty and affection to being seen as merchants of addiction, sickness, and death, whose products are increasingly unwelcome in public or private spaces. Only extravagant hubris or magical thinking could make software industry leaders think they are shielded from a similar reversal of fortune.

The cultivation of self-control requires more support from industry and social norms, but it also remains within the reach of our own moral practices, especially the habit of *moral attention*. Indeed, *executive* attention, the ability to notice what in our physical or mental environment we are thinking about and consciously modify or redirect that thinking, is an essential part of self-control, involving the ability to delay gratification, moderate our emotional impulses, and restrain reflexive, unthinking actions. If new social media habits challenge our self-control, it likely has much to do with our attentional capacities in technosocial environments. How do new social media shape our habits of paying moral attention, and the virtues such habits foster?

7.3 Media Multitasking, Moral Attention, and the Cultivation of Empathy

Much has been written on the topic of new media and attention; unfortunately the news is not very encouraging. A growing body of empirical evidence suggests that new media practices, especially the ubiquitous habit of *media multitasking*, have profoundly negative effects on attention, along with other cognitive faculties including problem-solving, task switching, knowledge transfer, working memory, and memory consolidation. Many of these effects appear to endure for some time after multitasking exposure has ceased.[24] This has obvious implications for learning and productivity, but less often noted are its *ethical* implications.

Attention subserves our moral capacities no less than our narrowly cognitive ones. Reviewing the research on attention and empathy, psychologist and science writer Daniel Goleman notes that while sociopaths can often reason quite competently about human emotions, they lack the affective sensitivity to others' emotions that stimulates emotional empathy from the bottom up. Goleman describes affective empathy as a neurological process that begins with a form of attention, in which the anterior cingulate 'tunes in' to another's emotional state and

activates the anterior insula and amygdala to produce genuine affective pairing or co-feeling.[25] This brain activity makes possible the feeling of 'being moved' which, as we saw in chapter 6, is essential to the virtue of *empathic concern*. Unfortunately for media multitaskers, their resulting distractibility may be a significant obstacle to this experience, for there is evidence that the neural mechanisms of attention that produce empathic moral concern require considerably more time to activate than others.[26]

Moreover, empathic concern relies heavily on the ability to read emotional cues from the faces and bodies of others, since it is this embodied perception that activates the bottom-up circuitry of affective empathy.[27] Simply being told of a person's emotional state does not produce the same affective response in us as does directly *perceiving* that state. But how can I discern the emotional cues on my friend's face if, as he describes his weekend for me over coffee, I am simultaneously glancing at the texts, Twitter, and email notifications popping up on my phone? How can I read the emotional state of my patient if I spend the majority of the appointment attending to my handy medical records app, designed like most apps to maximize attention capture and user engagement? Looking up every few minutes to make a second or two of eye contact is unlikely to be sufficient either to accurately read another's emotional state or to activate the higher-order moral circuitry of empathic concern. Moreover, there is evidence that in addition to empathy, bottom-up processes of moral attention facilitate other important virtues, such as flexibility, care, and perspective.[28]

One way of responding to these worries returns us to the virtue of self-control. If I can muster the discipline to put my phone or laptop away in the relevant circumstances, I should find it easier to be more attentive and more appropriately empathic. But we said above that executive attention is a *prerequisite* for self-control; so how do we first break out of the vicious circle of distraction? Fortunately, the executive ability to notice and manage our own mental states can be cultivated from a young age, by techniques that encourage children to envision and anticipate longer-term outcomes, show them how to direct attention away from immediate attractors, and teach them to experiment with modifying their own perspectives and emotions.[29] These are in fact not unlike the mindfulness trainings central to Buddhist practice. Thus one constructive response to a new media age is to devote considerably more educational and parenting resources than we do now to the active cultivation in children of techniques of executive attention, and in particular, to reward children for practicing those techniques *in new media environments*. It goes without saying that media multitasking adults can likely benefit from these same techniques, but the rewards are likely to be greater the earlier these habits are formed. Indeed, such attentional habits in beneficial and sometimes "impoverishing effects on the lives of users," enabling users to "navigate the Internet both tactically and strategically in ways that defy oppression and advance emancipation."[45] Bakardjieva is right to call for a more granular approach to new media ethics, one that eschews global judgments about the effects of new media in favor of a more empirical and particularist approach. For example, we might study some of the more 'tactical and strategic' uses of cellphone video amplified by social media to expose police brutality and racial injustice in the United States. During the protests that followed the 2014 police shooting of Michael Brown—an unarmed black teen in Ferguson, Missouri—such techniques were effective in reinvigorating, at least temporarily, a long-neglected discussion of these simmering civic issues in traditional media outlets, schools, and homes across the country.[46] Yet sustaining civic awareness through new media in a manner that produces substantial and lasting social change will require more than a heightened awareness of how the Internet can be used for civic purposes, and more than improved new media tools; it will require *deliberately cultivated skills and virtues*.

If people are going to use social media for cooperative civic purposes to reliably and effectively promote human flourishing, then these will need to be not just *any* kind of people, but people with strong *civic virtues* of the technomoral variant. Contrast the most effective civic uses of new media in the aftermath of Ferguson, those that exposed the deeper structural patterns of racial and economic injustice in the county of which Ferguson is a part, with the actions of the Anonymous hacker(s) who tweeted the name of an officer they had recklessly misidentified as responsible for the Ferguson shooting. The hacker responsible for the misidentification was abetted by other 'doxxers'—people who collect personal information on individuals for online release—exposing an innocent man to grave risk of vigilante violence.[47] Such actions not only show a morally blameworthy lack of judgment, they also weaken public faith in the reliability and moral legitimacy of social media activism, undermining their own professed cause. Civic practices of using new media to promote justice and accountability cannot stabilize in a moral vacuum; they require intelligent and skillful guidance by people of technomoral virtue.

We need the technomoral virtues in order to ensure that civic cooperation and flourishing are mutual and sincere aims of those involved, and that those who cooperate for this purpose have the habits and skills to enable their joint success. How might these virtues also aid us in realizing the untapped civic potential of new media technologies? Consider the technomoral virtue of honesty, which we defined as a *respect for truth in technosocial contexts*. How is it related to the civic use of new media? On the one hand, such media seem to be custom-made to expand truth seeking and sharing. Web 2.0 technologies enable citizen

journalism, foster vast knowledge-building projects such as Wikipedia, and allow anyone to generate and share data on an unprecedented scale. New social media have fostered new norms of institutional transparency and 'open government.' Truth can also be served by allowing a wider range of perspectives to have a public voice, and Web 2.0 technologies promote this goal. But of course, this is all too simple. Honesty as a virtue is a *discerning* respect for truth, not a mindless fetish for transparency or context-free data dumps.

Moreover, the relevant facts about many topics (quantum physics, global climate, evolution, high-frequency trading) are not equally accessible from all perspectives, so if adding more perspectives in these cases merely dilutes the views of those few who have reliable knowledge, the result will not be truth but confusion. Consider the global spread via social media of false and exceedingly dangerous beliefs about a causal link or correlation between autism and vaccines, which persists despite an overwhelming global scientific consensus that the totality of years of research shows no such link. Not only do these false beliefs persist, but the millions of parents who have acted on the social media advice of entertainment figures and conspiracy theorists have put others at grave risk by not vaccinating their children against fatal or disabling infectious pathogens. Is this the fate of truth-seeking 2.0? Or can we admit that cultivating respect for truth in the 21st century will require more than just handing everybody a louder microphone?

With respect to the volumes of 'big data' being mined from the new media 'social graph' and our associated online activities, it is far from obvious that more data always yields more knowledge, or more reliable access to truth. For one thing, data's relationship to knowledge and truth is still ruled by the enduring principle of 'garbage in, garbage out.' How much can a social scientist, politician, or public health researcher reasonably infer about human values, beliefs, needs, and preferences from inputs to a database that merely reflect superficial social media behaviors such as 'likes,' 'clicks,' and 'follows'? Furthermore, large datasets can and usually must be manipulated to yield any useful analysis, and these manipulations can mislead and obfuscate as much as they reveal. Every assumption, every highlighting or discounting of a variable is a human value judgment that does not come to the surface when the result is presented as the mechanical output of an unbiased, infallible algorithm. Finally, in our obsession with mining truth from the mountains of data embedded in the social graph, we risk a disastrous reduction of the meaning of truth *to* data. We forget that truth always has a context. We cannot respect truth by stripping it of all reference to the concrete worldly situations that *make* it true.

A further challenge to truth in social media environments is the cluster of concerns related to 'filter bubbles,' 'cyberbalkanization,' and 'echo chambers.'[48] Filter bubbles are the predicted effect of personalized browser search algorithms, says, "When the Way prevails everywhere, use it to pursue your personal cultivation. When the Way does not prevail, use your personal cultivation to pursue the Way."[39] The seven habits of moral self-cultivation outlined in Part II are still with us, and nothing in the world of new social media stops us from reclaiming their importance for our time, as Aristotle, Kongzi, and the Buddha did in theirs. In the next section we shall see why this is essential not only for *personal* flourishing, but also for preserving and enlarging the *civic* potential of new social media.

7.5 New Social Media, Civic Virtue, and the Spiral of Silence

The civic potential of new social media has been championed since the dawn of Web 2.0, and while reality has since dampened the most naïve predictions of a global Internet utopia, many still embrace these technologies as humanity's best hope for expanded global democracy, freedom, enlightenment, and community. Among them are Google leaders Eric Schmidt and Jared Cohen, who breathlessly assure us that: "With so many people connected in so many places, the future will contain the most active, outspoken, and globalized civil society the world has ever known."[40] Not only will the new global citizen be active and outspoken, she will be informed, enlightened, and constructively engaged in building better civic institutions:

> The data revolution will bring untold benefits to the citizens of the future. They will have unprecedented insight into how other people think, behave and adhere to norms or deviate from them, both at home and in every society in the world. The newfound ability to obtain accurate and verified information online, easily, in native languages and in endless quantity, will usher in an era of critical thinking in societies around the world that before had been culturally isolated. In societies where the physical infrastructure is weak, connectivity will enable people to build businesses, engage in online commerce and interact with their government at an entirely new level. . . . Citizen participation will reach an all-time high as anyone with a mobile handset and access to the Internet will be able to play a part in promoting accountability and transparency.[41]

Perhaps the best-known prophet of a newly empowered and enlightened global media commons is writer and social media theorist Clay Shirky, who tells us that thanks to new social media, "we are living in the middle of a remarkable increase in our ability to share, to cooperate with one another, and to take collective action, all outside the framework of traditional institutions and organizations."[42]

Yet in his book's epilogue, Shirky confronts the reality that online collective action in the civic domain has fallen far short of fulfilling this promise. He admits that beyond the organization of coordinated protests, relatively few sustained civic projects of significant scale have resulted from the use of these tools, which seemed in the body of his book to be invested with nearly magical powers to enable spontaneous social change for the better. In the epilogue, he concludes that the solution is to supply citizens with yet *another* kind of tool, namely, new laws for incorporating online collectives so that they may benefit from formal civic standing.

This reflects a fundamental error in the thinking of Shirky and other heralds of a digital civic renaissance such as Kevin Kelly, Jeff Jarvis, Eric Schmidt, and Nicholas Negroponte: the assumption that you will get a thriving civil society *simply by supplying citizens with the proper tools.* 'If cooperative and fruitful civic action online is not forthcoming,' so the thinking goes, 'then we obviously have not yet given our would-be citizens of the global digital *polis* the right instruments with which to construct it.' The mantra seems to be: *if we equip them, they will build it.* What is missing is any attention to the particular civic characters, motivations, and capacities of the 'them' in question. The collective desire, skill, and virtue necessary to cooperatively wield new media technologies for civic aims are all (wrongly) assumed by this model.

Evgeny Morozov, who is among the harshest critics of such models, has argued that the ideology of technological solutionism reflected in these visions will fail for two reasons. First, it treats technologies as neutral tools for producing things and solving problems, rather than as extensions of the human value contexts in which they operate. Giving people a new media platform cannot 'solve' the 'problem' of civic apathy if the platform's affordances and values are shaped by the same political conditions as the problem. The ideology's other failure is its treatment of people as essentially identical and interchangeable nodes in a network of rational agents, rather than as the complex, diverse, and constantly developing creatures that we are.[43] The ideology seems to be that if technocrats just wire up all the human nodes in the right way and enable information flows between them in the proper directions and at the necessary speeds, the 'system' will magically self-optimize for the relevant values (in the case of Western technocrats things like efficiency, freedom, transparency, democracy, etc.).[44] But we are not identical nodes in a network. We don't all respond to or exchange information in the same fashion or with the same abilities, and most importantly, we aren't all trying to optimize the same set of values, or balance values in the same way.

Nor will the obstacles to a flourishing global commons be removed simply by raising greater awareness of them. Internet scholar Maria Bakardjieva calls for expanding critical research to illuminate the details of new media's sometimes such that, based on your online behavioral history, when you search for any given term—for example, 'vaccines,' 'climate,' 'Democrats,' 'guns,' or 'drones,'—you will be shown only those results that the algorithm predicts you *want* to see. This sounds like a good thing until we consider that respect for truth among an informed citizenry would likely be served better by inviting people to visit sites that they do not *already* want or expect to see. The worry is that personalized search algorithms magnify our existing cognitive biases and blind spots, and by ensuring that we encounter more and more perspectives that echo our own, reinforce inflexible belief patterns inconsistent with a civic environment that fosters respect for truth. This effect has not yet been empirically demonstrated to follow from personalized search alone, but in combination with other types of online personalization, the worry remains significant.

This is because social media platforms such as Facebook and Twitter also use sophisticated algorithms to determine what shows up on users' feeds; contrary to many users' belief that they are seeing an uncurated, real-time stream of all their friends' posts and shares, they are actually seeing a highly selective collage deliberately arranged *by* the platform to maximize their engagement *with* the platform. The problem is, what will maximize your engagement is likely to involve activity that closely aligns with your own existing values, beliefs, and affiliations. There is no 'dislike' button on Facebook, and no 'Unfavorite' on Twitter, so the permitted forms of engagement ensure that most users see limited content that disturbs, confuses, or disgusts them.

For example, the social media images and posts you see regarding conflict in the Middle East largely depend on your existing political and religious views and alliances. If you are a strong supporter of Israel, your feeds are curated in a way that deemphasizes pro-Palestinian posts and images, and vice versa.[49] Whether you see any content on this topic *at all* depends on your demonstrated interest in current events, religion, or politics. Nor are Facebook and Twitter alone in this practice; virtually all new media platforms, including the online presences of major news outlets such as the *Wall Street Journal* and the *Washington Post*, have developed such customization tools. These personalization algorithms and their effects are not disclosed to the public. To find out just how powerful they are, *Wired* contributor Mat Honan experimented with 'liking' every single item on Facebook for two days; he was stunned to find his feed overtaken by increasingly polarized and uninformed content:

> This is a problem much bigger than Facebook. It reminded me of what can go wrong in society, and why we now often talk at each other instead of to each other. . . . We go down rabbit holes of special interests until we're lost in the queen's garden, cursing everyone above ground. . . . But maybe worse than the fractious political tones my feed took on was how deeply stupid it became.[50]

It seems, then, that the new Eden of social media has yet to fulfill its promise. Or perhaps it has; after all, wasn't Eden its own filter bubble of blissful ignorance? Does this mean that social media technologies are by nature the enemy of truth and civic wisdom? Hardly. For one thing, not all social media platforms are alike; their algorithms, users, and design interfaces vary, and the environments for truth vary with them. Facebook is not Twitter, Twitter is not Instagram, and Instagram is not Vine. A platform such as Reddit is hardly a harmonious Eden of bland 'likes'—it can be a chaotic and morally bankrupt place, but it can also foster intellectual controversy and challenge. Of course technomoral honesty, like all virtues, is a mean between extremes. Overexcited Redditors can be more irresponsible in their relationship to truth than the most incurious and complacent Facebook users, as when a 'crowdsourced' Reddit search for the Boston Marathon bombers went horribly awry, targeting innocent citizens as collateral damage.[51]

Yet Reddit's management was quick to issue a thoughtful and self-searching public apology. It is noteworthy that unlike Facebook, Reddit has an explicit ethical code ['Reddiquette'] that asks users to, among other things, "Remember the human," "Moderate based on quality, not opinion," "Look for the original source of content," and "Actually read an article before you vote on it."[52] Such distinctions matter, whether or not they are enforceable or have the immediate results we would like. Reddit, Facebook, and Twitter are not fixed givens but fluid human creations whose norms, structures, and affordances are constantly being tinkered with. The question is, *what moral ends will inform that tinkering?* The point here is that new media do not offer a single path to the truth *or* a uniform threat to it; they are varied and *ongoing* human experiments with it and other values.

Once again, social media technologies are not neutral tools for seeking the good life, such that the only ethical question is whether we have got the right tool in our hands. Just as important as the tool is the question of *whose hands* the tool is presently in, and what the present character of that person allows them to build with it. What are the virtues of the people who most closely approach in practice the ideal Redditor? What sort of online platform could those persons create with an even *better* technomoral character? What are the vices of those who embody the ugliest side of that community? How do they inhibit the flourishing of the site and its best possibilities? Remember, the virtues and vices of humans wielding technologies shape how the technologies themselves evolve; thus let us ask not what social media technologies are doing *to* us and our world, but what our technologies are doing *with* us, and what we ought to do *with* them.

Among the early hopes for new social media was that they would enrich the quality of scientific, cultural, and political discourse, and foster a newly global, open, vibrant, and engaged public sphere. There were of course early skeptics; philosopher Albert Borgmann was among the first to claim that no true civic life can flourish in the social shallows of the Internet, where persons are necessarily drawn to commodify themselves as "glamorous and attractive personae" rather than citizens committed to working out together our "reasons for living."[53] As the dust has settled, however, most scholars have begun to acknowledge that the reality of civic life online is far more complicated than either the techno-optimists or techno-pessimists predicted.

On the one hand, online community is everywhere, in a dizzying and constantly evolving array of forms. Yet open, civil, and *reasonable* online discourse is a rarity. In the United States and United Kingdom, large majorities of users decline new media's political and civic opportunities.[54] One factor is the scourge of anonymous trolls dedicated to disrupting or preventing reasoned online discourse by means of deliberate provocation, misinformation, and abuse. Despite site hosts' efforts to restrain them, trolls have been successful in persuading millions of sincere participants to flee online comment boards, and many hosted discussion communities have had to be shut down. The cure would initially seem to be a technological one: simply restrict or eliminate anonymity in online civic fora, and hold people's local identities personally accountable to their fellow citizens for what they say. Certainly this might be part of the solution; our technologies have specific affordances that condition our behavior, and in many contexts, anonymity in online communities with civic aims is an 'unaffordable affordance' to trolling behavior.

However, things are not so simple. Paradoxically, making people socially accountable for what they say online can have an effect *contrary* to the aims of robust civic discourse. The Pew Research Center, which has historically conducted research that dispels negative prejudices about social media and the Internet, has released a worrisome study suggesting that social media platforms not only fail to reliably *foster* open civic discourse, they often *inhibit* it.[55] The study found that social media users are generally much *less* likely than non-users to be willing to discuss a controversial political issue with others, online *or* offline. Among the specific findings: "86% of Americans were willing to have an in-person conversation [about the issue]", but just 42% of Facebook and Twitter users were willing to post about it on those platforms."[56]

Reinforcing earlier worries about echo chambers, filter bubbles, and cyberbalkanization, the study found that, compared with non-users, social media users in the United States were more likely to believe that their friends, family, and acquaintances shared their own opinions, and more reluctant than non-users to discuss a political or civic issue if they felt their audience might not hold the same view. With remarkable consistency across the study metrics, the researchers found that social media users seem to be disproportionately inclined in civic life to fall victim to the phenomenon known as the 'spiral of silence.' This is the tendency of holders of a minority viewpoint to become increasingly inclined to self-censor in order to escape the social penalties for disagreement, which in turn artificially boosts the perceived strength of the majority opinion across the community, further quieting dissent. The study authors hypothesize that in online contexts,

> this heightened self-censorship might be tied to social media users' greater awareness of the opinions of others in their network (on this and other topics). Thus, they could be more aware of views that oppose their own. If their use of social media gives them broader exposure to the views of friends, family, and workmates, this might increase the likelihood that people will choose to withhold their opinion because they know more about the people who will object to it.[57]

One of the most disturbing features of the study is that this effect appears to spill over into offline civic contexts such as the family dinner table, the workplace, or a night out with friends. Thus it appears that social media practices may have a 'chilling effect' on civic discourse more broadly. Overall social media platforms were not seen as more welcoming or safer spaces for civic discourse: of 14% of responders who would not discuss a political issue in person, only 0.3% of them were willing to post about it online. Social media platforms may therefore distort our perceptions of others' values and interests, making political and civic issues, especially those that draw controversy, appear to us to be far *less* important to our fellows than they actually are.

This is a potentially serious obstacle to the cultivation and maintenance of technomoral virtues central to civic flourishing, including *justice, courage, civility, flexibility*, and *moral perspective*. My ability to reliably respond to injustices—especially those involving controversial issues such as race, gender, class, and religion—will be hampered if those platforms through which I learn about my world cause me to fear and avoid public expressions of concern about these very injustices. How can I cultivate and express technomoral *civility*, the disposition to cooperate successfully with others to pursue civic goods in technosocial contexts, if those same contexts obscure how many of my fellows share my interest in civic issues? How can I cultivate the tendency to make appropriately *flexible* civic judgments if I am shielded on social media from the true diversity of beliefs, values, and aims of my fellow citizens and stakeholders? How can I possibly cultivate an accurate *perspective* on the world as a moral whole if those social media platforms that promise me a wider view of that world actually deliver a view that is politically and morally denatured in the ways we have described?

Here we see the importance of designing technologies that afford habits between vicious technosocial extremes. For example, a civil person will resist aggressive and unyielding impositions of her political worldview, but *also* resist the habit of polite docility that encourages silence on issues of critical public concern. Furthermore, civility is expressed differently at different times and places, in a situationally intelligent manner. What is virtuous civility at a wedding, where the mildly ignorant prejudices of one's table companions are suffered in favor of social harmony (unless, perhaps, they are directed at other guests), may well be vicious if one tends to remain silent when those same common but harmful prejudices are voiced at town meetings or in classroom discussions. For millennia humans have negotiated nuanced and flexible practices of civility in offline spaces. The same situational intelligence must now be embodied in *technomoral* civility online. Yet we have a lot of learning to do in this new arena of civic virtue.

For example, when in 2014 the Chancellor of the University of Illinois, under pressure from donors and trustees, rescinded an offer of tenure to scholar Edward Salaita on the basis of his 'uncivil' use of Twitter to criticize Israel and its policies, she ignited a firestorm of debate about the potential conflict of a 'civility litmus test' for scholars with the norms of academic freedom and intellectual honesty.[58] Neither Twitter nor the classroom are appropriate places for the kind of bland civility one might maintain at a wedding, and the academic community was vocal and well-justified in its objections to what appeared to be the Chancellor's rhetorical abuse of the concept of civility for political ends. Yet this does not mean that Twitter or academia should be 'civility-free' zones. Just as we would be right to deem a scholar civilly unfit for the academic profession if he or she were in the habit of using their fists at conferences, or shouting down students with profanities and threats, we must recognize that on Twitter one can behave in a sufficiently uncivil manner as to warrant having one's tweets deleted or one's account blocked. Indeed, Twitter itself has adapted, if slowly, to evolving social expectations that users will be protected from threatening abuse and cyberstalking.[59]

What are we to make of all this? More importantly, what should we *do* about it? We must resist the easy temptation to lay the blame for civic docility *or* incivility at the feet of new social media platforms, as if their impact is independent of our moral agency. Yet it would be equally misguided to let them off the hook as neutral tools with no impact upon that agency. Technologies neither actively determine nor passively reveal our moral character, they *mediate* it by conditioning, *and* being conditioned by, our moral habits and practices.[60] New social media can shape our civic habits for better or for worse. At present, they too often shape it for the worse, by promoting both vicious extremes of abusive incivility and docile civic quietude. But let us resist the natural tendency to focus upon those for whom social media networks appear to be a barrier to civic flourishing; let us focus instead on the virtues of the few who seem to have *overcome* this barrier.

Let us return to the Pew study discussed above. Among those 42% of users who were willing to post online about a political issue, we can assume a large number did so only because they anticipated robust agreement from a like-minded audience. Let us set them aside. Who are the minority who ventured their opinions in the online public sphere even when they knew they would be challenged, and what is their civic character? Assume that some were abusive trolls—insincere or uncivil enemies of cooperative civic engagement. Set them aside too. Certainly some nonnegligible subset of our original group remains. How did *they* come by the distinctive habits and virtues that allow them to use physical spaces *and* social media platforms effectively for civic purposes? What habits and practices, on *and* offline, cultivated in them the technomoral excellence to courageously resist the 'spiral of silence' and speak up on important and controversial matters of global justice, security, and community? Such people play a significant role in launching those waves of political and moral consciousness that periodically sweep through social media and mobilize civic action. We can benefit from closer study of the character of such individuals, and, more importantly, how, where and from whom they began to acquire the technomoral virtues of *honesty, courage, civility,* and *perspective* they seem to exercise more readily than most. We might also learn how *they* would design or modify social media platforms to be more conducive to civic flourishing than they are at present.

7.6 Technomoral Wisdom and Leadership in a New Media Age: Looking Forward

Among those who recognize the intersection between new media practices and virtue is media scholar Nick Couldry, who has repeatedly called for a new emphasis on the role of character in global media ethics.[61] Arguing that accuracy, sincerity, and care are not just ethical norms of media practice but *virtues* to be cultivated in them, he writes:

> If we agree that media . . . are integral to the life conditions that humans now encounter, that is, lifeworlds of complex interconnection across large scales, then media are plausibly part of the practices that contribute to human excellence. Conducting the practice of media well—in accordance with its distinctive aims, and so that, overall, we can live well with and through media—is itself part of human excellence.[62]

Couldry's core *media virtues* of accuracy, sincerity, and care are consistent with a broader framework of technomoral virtue such as the one suggested in this book. Moreover, he reinforces the distinctively *global* character of emerging technomoral problems. As he notes, global interconnectivity forces the entire human family to pose to one another the following question: "How can we live *sustainably* with each other through media, even though media unavoidably expose us to our moral differences?"[63]

To answer Couldry's important question, living sustainably and well with emerging media technologies, especially social media, will require more than just finding the right media tools to put into human hands. We must also pay attention to the technomoral *character* of the diverse stakeholders wielding those tools. We must look at the different ways in which new media practices condition the habits through which technomoral character develops, such as moral attention, relational understanding, reflective self-examination, and prudential judgment. At the next level of analysis, specific technomoral virtues (e.g., self-control, honesty, empathy, care, justice, civility, flexibility, and perspective) need to be identified and empirically studied in action across a range of local and global media contexts and cultures.

Of course, studies of new media practices will uncover patterns of vice more often than virtue; virtue is always rarer, and takes more time to emerge and stabilize in social practices. Yet when confronted with the problem of fostering virtue in morally confused or apathetic times, neither Aristotle, Kongzi, nor the Buddha saw the practical obstacles as insuperable. Each offers us a compelling lesson in moral hope. None allowed the abstractions of moral theory to cloud the need for action, or the perfect to become the enemy of the good. Instead, each turned to the concrete question of how moral education and habituation could be strengthened in their respective worlds, in the contexts of family, political, religious or monastic life. They and their followers then moved to put these views into *practice*, with powerful and lasting effects, both on local moral cultures and the many other global cultures with which each eventually interacted. To begin to foster global *technomoral* virtue, we must follow their lead.

First and foremost, we must create more and better practical spaces for *technomoral education*, places where people may apply the habits of moral self-cultivation to the contemporary challenge of living well with emerging technologies, and the inevitable surprises awaiting us in our technosocial future. Technomoral education must eschew passive learning of fixed rules and the associated 'compliance mindset' in favor of active habituation and practice across a variety of technosocial contexts, fostering habits of technomoral reflection, the study of technomoral exemplars, and the skills of moral discernment and judgment needed to adapt and flourish in new and evolving technosocial circumstances.

We also need to become more adept at recognizing worthy targets of moral admiration and emulation in media practice—individuals and groups who already promote human flourishing, locally *and* globally, through their use of these technologies. Such models not only inspire and guide others toward living well with existing new media, but help us to develop *better* media technologies and practices. Here we need the rarest of technomoral virtues: *magnanimity* and *wisdom*. Among the most commonly bemoaned effects of the new media age is a loss of mature moral expertise and leadership. While men like Walter Cronkite and Edward R. Murrow were humanly imperfect media leaders, they embodied for many the media vocation's nobler ideals, and inspired many other minds to follow. Today, radical changes in the economic model of the industry have led to widespread collapse of public trust in the media, and in our age of increasing information-dependence, it is difficult to overstate the global social price of this collapse.

New social media and the broader Web have yet to fill the moral vacuum left by the traditional venues whose departure they hastened. Hans Jonas lamented in 1979 that "we need wisdom the most when we believe in it least."[64] Indeed, many today find more reliable moral leadership in media satirists than in those who seriously profess the vocation. Unless this changes soon, our hopes of meeting the challenge of living well together in a globally networked media society will be greatly dimmed. We must ask ourselves how we as new media consumers and producers can start to deliberately foster, identify, and encourage ambitious moral leaders with the courage, nobility, and wisdom to use and shape these technologies for our common good.