# Vallor, Shannon. Technology and the Virtues: A Philosophical Guide to a World Worth Wanting . New York: Oxford University Press, 2016. Pp. ix+309. $39.95 (cloth).

**Article** *in* Ethics · October 2017

DOI: 10.1086/692961

CITATION
1

READS
429

**1 author:**

Jason Kawall
Colgate University
**33** PUBLICATIONS **261** CITATIONS

SEE PROFILE

sense, like Temkin's impersonal bad), and *then* parcelling this impersonal badness out, and identifying it with particular individuals with whom it rests" (114).

This seems to rest on a novel axiological framework, but unfortunately Segall does not elaborate on it. Without an explicit statement and defense of the kind of axiological view that his account relies on, it is difficult to reconcile the seemingly contradicting claims that Segall makes in this book. He claims to defend the intrinsic value of equality but actually denies that equality has value at all. He rejects conditional egalitarianism yet argues that inequality is not always bad. He adopts Broome's understanding of value but claims to support—rather than reinterpret—Parfit's principle of equality, which arguably relies on a different conception of value. It would have been helpful to have more details about how these claims fit together into one coherent axiological framework. These criticisms aside, this book is a tour de force through the important but dense literature on telic egalitarianism, which makes it required reading for anyone interested in this area.

Adina Preda
*University of Limerick*

Vallor, Shannon. *Technology and the Virtues: A Philosophical Guide to a World Worth Wanting*.
New York: Oxford University Press, 2016. Pp. ix+309. $39.95 (cloth).

We are living in an era of unprecedented technological change. And such change seems set to become still more rapid and wide-ranging with ongoing advances in robotics, digital surveillance, biomedical enhancement technologies, and other fields. How are we to make wise moral decisions about these and other technologies—which ones to embrace and under what circumstances? Shannon Vallor's *Technology and the Virtues* is an extended exploration and defense of the claim that our best option is to develop "technomoral" virtues appropriate to these new circumstances.

Divided into three parts, Vallor's book is strikingly ambitious. Part 1 introduces virtue ethics and its potential role in the philosophy of technology. Vallor presents three prominent virtue ethical traditions—the Aristotelian, Confucian, and Buddhist—and argues that they provide a suitable background for understanding and cultivating the "technomoral virtues" we need for the twenty-first century. Part 2 begins with an extended look at common methods of virtue cultivation across the traditions, after which Vallor turns to characterizing twelve representative technomoral virtues. In part 3 Vallor applies these technomoral virtues to a range of important areas of technological change, including social media, digital surveillance and monitoring, robotics, and the bioenhancement of human beings.

Vallor argues that human virtues always operate in "technosocial" contexts (2). Diverse and changing technologies in manufacturing, transportation, the arts, medicine, and other domains shape our ways of life, our values, our possibilities for action, and so forth; the expression of our virtues varies with these changing

technosocial contexts. But given the vast recent and coming changes in technology, Vallor argues that we now need to think explicitly in terms of *technomoral* virtues. And while our technologies shape our cultures and values, our virtues and cultures in turn shape the technologies we pursue and how we use them. We must strive to cultivate technomoral virtues that allow us to choose wisely, and to develop technologies that can help us cultivate these very same virtues and provide a broader context that allows for human flourishing.

As noted above, Vallor draws on Aristotelian, Confucian, and Buddhist virtue traditions, providing helpful overviews of their key aspects. She stresses that there are important similarities between the views, while acknowledging that there are some differences. The prominent inclusion of non-Western virtue traditions is welcome and could help to make the book an attractive option for an upper-level undergraduate course on ethics and technology or related topics. Vallor is perhaps a little quick in focusing on their similarities and downplaying some significant differences (e.g., the quite different Buddhist understanding of the self compared to the Aristotelian and Confucian traditions). Still, her overall discussion is clear and informative.

Vallor devotes the first three chapters of part 2 to exploring the cultivation of moral virtues, holding that there are particularly strong similarities across the traditions with respect to the inculcation and development of virtue. Vallor hopes to arrive at a reasonable pluralism in her ethics by embracing a range of approaches to developing and understanding the virtues (as represented by different virtue traditions), while holding that human nature and psychology will place limits on what traits might qualify as virtues. She focuses on seven elements that she finds at the core of practices of moral self-cultivation across all three traditions: moral habituation, relational understanding, reflective self-examination, intentional self-direction of moral development, perceptual attention to moral salience, prudential judgment, and appropriate extension of moral concern. Her discussion here is deeply informative and could be read in isolation as a thorough, lucid introduction to methods of virtue cultivation across cultures.

What virtues, then, ought we to be cultivating? Vallor presents twelve particular technomoral virtues to illustrate the potential of her virtue-based approach to address issues of technological and related social change. Vallor claims that "these will not be radically new traits of character, for they must remain consistent with the basic moral psychology of our species. Rather the technomoral virtues are new alignments of our existing moral capacities, adapted to a rapidly changing environment that increasingly calls for collective moral wisdom on a global scale" (10). For a sense of how the general characterization of such virtues manifests itself in particular cases, we can consider a representative set of technomoral virtues:

- "Let us define the technomoral virtue of honesty as *an exemplary respect for truth, along with the practical expertise to express that respect appropriately in technosocial contexts*" (122).
- "Let us define technomoral humility *as a recognition of the real limits of our technosocial knowledge and ability; reverence and wonder at the universe's retained power to surprise and confound us; and renunciation of the blind faith*

*that new technologies inevitably lead to human mastery and control of our environment*" (126–27).

- "[Empathy defined as a technomoral virtue] is a *cultivated openness to being morally moved to caring action by the emotions of other members of our technosocial world*" (133).

Vallor's discussion of these and other technomoral virtues is engaging and thought-provoking. She draws on well-chosen examples, and her work reflects a familiarity with the literature on related virtues.

Still, it is often rather unclear what purpose is served by the inclusion of such terms as "technosocial" and "technomoral," beyond emphasizing a concern with technology. For example, consider Vallor's characterization of technomoral flexibility as "*a reliable and skillful disposition to modulate action, belief, and feeling, as called for by novel, unpredictable, frustrating, or unstable technosocial conditions*" (145). What exactly would be lost if we were to drop the "technomoral" or "technosocial" qualifiers? Relatedly, in this case and others, Vallor does not make clear how we are to understand the relationship between, for example, flexibility and technomoral flexibility. That is, is technomoral flexibility a distinct form of flexibility that applies in all and only "technosocial" contexts? But then Vallor holds that all virtues are shaped by their technosocial context (2); there would not be a clear distinction. We might also wonder whether there could be a technomoral flexibility that applies precisely when dealing with robots, new social media, and cutting-edge surveillance technologies, but that is somehow distinct from the flexibility we might exhibit in other circumstances.

Or consider again technomoral honesty—is it a successor to our current honesty (as we update and modify honesty in the face of changing technosocial conditions), is it simply an application of "traditional" honesty to a particular range of situations involving new technologies, or is it a distinct but related virtue, one that applies to situations involving new technologies, while honesty as such applies to remaining situations? We are left with lingering questions about the relationship between technomoral and other virtues on Vallor's acccount.

In part 3 Vallor turns to the application of technomoral virtues (and virtue theory more generally) to a fascinating range of new and developing technologies. There is a good deal of insightful material in these chapters, as Vallor draws attention to new technologies and the important, sometimes subtle moral questions that they raise. She nicely illustrates how our character and virtues will shape which technologies we should develop and in what ways, while noting how technologies can also shape our societies and influence our values.

One common theme that runs through these chapters is that we should be careful not to rely on new technologies to escape all of our unpleasant—or even potentially dangerous—tasks or activities. For example, she considers cases of individuals avoiding boring or unpleasant family interactions by immersing themselves in their phones and social media, using more and more drones or robots to fight our wars, or having care robots take on all of the tasks of looking after our elderly or otherwise vulnerable family members. While there might be attractions in each case—ranging from merely avoiding boredom and awkwardness to potentially avoiding death—there are also costs. The teenager on her phone

loses the opportunity to develop social skills or to bond with her relative; with human soldiers removed, wealthy nations may become too willing to engage in war, while those without access to these technologies are forced into more and more extreme measures to fight in response; and caregivers lose opportunities to develop compassion and deepen their relationship with loved ones. Still, Vallor does not entirely reject these technologies; rather, she argues that we need to find appropriate, virtuous means. In the case of care robots, for example, this might involve using technology to help with physically demanding labor, or to detect signs of stress or strain in caregivers, but not simply turning all care over to technology.

In Vallor's final chapter she considers the possibilities of human bioenhancement. She rejects extremely conservative views that would reject all such enhancement, in part owing to inconsistencies and weak arguments for such views. But she also believes that we are entering a particularly difficult and complicated era in which humanity faces growing global threats (e.g., climate change), with increasing technological changes and challenges—and that we thus need to be open to the potentials of human enhancement. On the other hand, she worries that most enthusiasts of bioenhancement seem to have thought little about what, ultimately, would be appropriate enhancements. Instead, there tends to be an overly optimistic laissez-faire approach—let individuals or particular societies decide, and simply embrace a wide range of potential enhancements and experiments in new ways of life and flourishing. But Vallor worries that in the absence of a robust conception of good lives, human nature, and flourishing, we have no basis for believing that we are likely to choose worthwhile enhancements—we could well make unwise choices that threaten our futures. In turn, to make wise decisions—to choose enhancements that will facilitate future technosocial flourishing and moral cultivation—we must act soon, and on a wide scale, to cultivate technomoral virtues.

At several points Vallor argues against Kantian and utilitarian approaches to dealing with technosocial challenges, focusing on the moral epistemic problems raised by "technosocial opacity"—our inability to foresee all of the effects or challenges to be addressed in the face of rapid, widespread technological changes (241). Against Kantianism, she argues that

> to know whether to will a future full of social robots, you first need to know what *roles* such robots would play in our lives, and how they might transform human interactions. To will a future where all humans enhance their own bodies with technology, won't you first need to know which *parts* of ourselves we would enhance, in what ways, and what those changes would *do* to us in the long run, for example, whether we would end up improving or degrading our own ability to reason morally? Once even a fraction of the possible paths of technosocial development are considered, the practical uncertainties will swamp the cognitive powers of any Kantian agent, paralyzing her attempt to choose in a rational and universally consistent manner. (7)

And against utilitarianism, she argues, "Human–robot interaction demonstrably *changes* how humans feel about robots in ways that are not easily predicted, and that evolve in complex ways over time. Thus a person who finds the idea of using

a robot nanny deeply repugnant or alienating cannot know whether she will still have those unpleasant feelings after a month, or a year, of using one. . . . The point is that whatever utilitarian calculation one makes at a given point in time is radically destabilized by the power of social robots to alter our likes and dislikes in ways that continually surprise us" (209–10).

There are significant epistemic issues here. But won't similar worries apply to virtue theories, including Vallor's? The information mentioned above seems clearly morally relevant—it would be very helpful to know the ways in which interactions with robots might radically change our attitudes toward them, even if this information is difficult or perhaps even impossible to obtain in advance. A virtuous agent would make use of such knowledge if she had it, and would seek it if she thought she could obtain it. And wouldn't we properly worry that if a virtuous agent needed to make decisions about robot policy in the absence of such information, there is a good chance that she would make poor decisions—not through a lack of virtue, but through a lack of relevant knowledge? Mistakes seem inevitable, even among the virtuous, given the technosocial opacity that we face—perhaps the best we can do is to avoid culpable ignorance or blameworthiness and the like.

Vallor might claim that virtuous agents would ask different questions, or approach matters differently: "In this fluid moral landscape, what we need is an ethics that relies on the presence of flexible, discerning, and practically wise human agents, who actively cultivate the very traits needed to judge wisely and well in such unstable conditions. This, of course, is where virtue ethics begins. Whereas utilitarians or Kantians offer us a fixed formula or recipe to use in every moral judgment, virtue ethicists would rather we learn *how to become good judges*" (210). But how exactly is our flexible, discerning agent going to make reliably correct decisions if she lacks information about such things as how interactions with robots will change her family's attitudes over time—or how the robots will change? More generally, it is not at all clear how a good, virtuous agent will reliably make right decisions in light of the sweeping changes Vallor suggests will come with new technologies. On the other hand, suppose that the technomoral virtues do allow for reliably right choices and actions despite technosocial opacity. If so, utilitarians would also embrace technomoral flexibility, patience, humility, and such virtues (perhaps slightly modified) as effective means to maximizing utility. Vallor largely ignores the familiar distinction between standards of rightness and decision procedures. Few utilitarians, for example, would actually "offer us a fixed formula or recipe to use in every moral judgment" (210); they would instead encourage us to use whatever means would actually generate the greatest utility over time.

Vallor would have us direct our attention toward the technomorally virtuous and draw upon them as exemplars: "Someone who can achieve the delicate calibration and integration of multiple technomoral virtues is an exemplar of *technomoral wisdom*. Looking at the parties and stakeholders to the enhancement debate, how many such exemplars can we confidently identify at present? Who among them are the 21st century equivalents of the *phronimoi*, the *junzi*, or the *Sangha*?" (238). But a familiar worry for virtue ethics takes on new force: how are we to identify the technomorally virtuous? It's one thing to pick out familiar virtues under familiar circumstances—and even here many would worry about

our epistemic limitations. But we ordinary folk, who presumably only possess hints of the new technosocial virtues, likely don't yet know how these modified technomoral virtues should apply to rapidly changing circumstances, nor are we likely to know now who fully possesses them.

In a similar vein, Vallor suggests we need a rapid, global effort to cultivate the technomoral virtues (244). But how will we know how to cultivate the relevant virtues—how do we instill in our children virtues that we do not yet possess ourselves, intended for technosocial contexts that we cannot yet predict? And suppose we were to significantly enhance our brains, greatly increasing the scope of our empathy, and so on. Ultimately we may enhance and modify ourselves into a quite different beast, one whose virtues might be very different from those of current humans and our technosocial environments; human nature seems quite fluid in the face of genetic and other enhancements. As such, there may be significant moral epistemic worries ahead.

*Technology and the Virtues* is a valuable contribution to both virtue theory and philosophy of technology; those working at the intersection of these fields will need to take Vallor's work into account. At the same time, the book would work well in the classroom. Vallor leads her reader from the basics of virtue theory, through key virtue ethical traditions and new technosocial virtues, to compelling discussions of the application of virtue ethics—and technosocial virtues—to emerging technologies. While some epistemic and other concerns are left unaddressed, these are perhaps best seen as potential avenues for future work. As a starting point for investigating the application of virtue theory to technology, one would be hard-pressed to find a better option than this ambitious volume.

Jason Kawall
*Colgate University*