Wong, Pak-Hang, and Tom Xiaowei WANG, eds., *Harmonious Technology: A Confucian Ethics of Technology*

London: Routledge, 2021, xii + 117 pages

Billy Wheeler[1]

Philosophers are paying increasing attention to the implications of technology. While technologies have always transformed the way we live, the speed of technological change in recent decades has made this more acute than ever. For philosophers, new technologies like artificial intelligence, robotics, and social media raise important ethical issues that are difficult to answer. To date much of this discussion has taken place within the context of Anglo-American and European philosophy. Yet these technologies are impacting every society around the world. As the editors Pak-Hang WONG and Tom Xiaowei WANG explain in their Introduction, what is needed is a "multicultural turn" (3) that investigates how technologies are both *affecting* and *affected by* ethical beliefs. In their anthology, Wong and Wang have edited the first book-length collection of essays in English on Confucian ethics and technology.

Why Confucianism? Alongside Buddhism and Daoism, Confucianism is a cornerstone of ethical values in the cultures of East and Southeast Asia. Wang and Wong point out that recent Chinese policy on technology governance appears framed in terms of Confucian ideas such as "harmony" and the "wellbeing of humanity" (4). In addition, many countries with Confucian-based cultures are turning to emerging technologies as a solution to social challenges. Is this a reflection of their Confucian roots? Or does it in fact go against important Confucian virtues like filial piety? These are questions a Confucian ethics of technology should be able to answer.

The book contains six articles. In Chapter 1, "Confucian Ritual Technicity and Philosophy of Technology," Tom Xiaowei WANG begins with a discussion of postphenomenological philosophy of technology, especially the ideas of "mediation" (how technology affects our experience of the world), and "relational ontology" (how humans and technology form a single unit of existence) (12). Wang focusses on the role of emotion and experience in the rituals of an exemplary person (*junzi* 君子). One

✉ Billy Wheeler
   billy.w@vinuni.edu.vn

1   Philosophy, Science and Society, Faculty of Arts and Sciences, VinUniversity, Vinhomes Ocean Park, Gia Lam, Hanoi, Vietnam

aspect often overlooked is what he calls "ritual technicity." This is defined in terms of *yigu xingwu* 以故興物—"to summon specific ritual feelings by deploying artifacts in the demanded manner" (17). Wang illustrates ritual technicity with the case of the *taishi* 太師 chair. The uncomfortable design forces the user to maintain a straight back (symbolizing integrity); the top takes the shape of an official's hat (symbolizing rank); and the legs are connected by four bars of differing height (symbolizing hierarchy). To the user and observer, the chair invites feelings of ritual propriety that go beyond its sitting function.

Wang brings a new dimension to "ethical design" that is not just about forcing a person to act in a certain way, but instead creates an experience that induces contemplation and understanding of virtue (25). The case of the *taishi* chair appears convincing; however, the relationship to modern technology looks more tenuous. Regarding gene editing, Wang argues the ritualistic component lies in it facilitating discourse into the "foundation of humanity" (23). Yet this is vague: how could we know such activity encourages a move to realize *Confucian* rather than *Christian* or *utilitarian* values? What possible redesign would be needed to achieve this? I also found the setup of the article in terms of postphenomenological theory distracting, as it contradicts one of the aims of the anthology, which is to develop a Confucian ethics of technology on its own terms.

Chapter 2, "Dao, Harmony, and Personhood: Toward a Confucian Ethics of Technology" is a reprint of a previous article by Pak-Hong Wong (*Philosophy & Technology* 25, pp. 67–86. 2012). Wong's chapter aims to uncover Confucian resources for an ethics of technology. He does not aim to provide a comprehensive system; instead, he explores three notions: "*dao* 道," "*harmony* 和," and "personhood." Acknowledging that *dao* plays several roles, Wong emphasizes its importance as a social or ethical guiding principle (32). To speak of a *dao* means that there is a right way humans should live (*rendao* 人道), which is itself a reflection of the heavenly *dao* (*tiandao* 天道). This provides the moral realism that underpins Confucianism's normativity. However, Wong is at pains to point out that Confucianism is a form of moral particularism. As to harmony, Wong reminds us that Confucius does not equate harmony with "sameness," but with "balance"—a process of creating a society beneficial for all (33). The Confucian concept of personhood is separated from the Western idea of an "independent, rational, and self-determining being" (34) to one that is rooted in the development of virtue: we become persons through doing what is right in our social roles.

The application of these concepts comes at the end of the chapter. What struck me as the most promising, overall, is that the rightness of a technology depends on the role of the user (42). Given particularism, a Confucian ethics of technology denies universal principles in favor of context. For example, it might be right for a parent to use a thermostat to regulate temperature and wrong for a child to do so, even if the child does so in a way that is beneficial. It might be right for the government to use browsing cookies and wrong for private businesses to do so, even if businesses can sometimes use that data for social good. This separation from the *right* and *good* based on *role* highlights a significant departure for Confucian thinking about technology.

Ching Hung's Chapter 3, "Technological Mediation *In* and *For* Confucian-Based Cultures," continues the trend of discussing Confucian ethics from phenomenological theory. Hung begins by describing "technological mediation theory" (TMT) as a less

pessimistic way to further the ideas of Heidegger. He draws attention to the ways our experience of the world is mediated by technology. First, the "embodiment relation" can be found in examples whereby our use of technology affects the way we see and utilize the world. Second, the "hermeneutic relation" can be found in examples whereby the world we experience is presented (communicated) to us via technology. What is essential to both is an emphasis on the *relational* nature of the human experience, one that is intimately bound up with technological artifacts.

Hung finds that the conception of "personhood" in Confucianism resonates with TMT, because both take a relational stance and should "be open to artifacts as a kind of 'others' in helping people to behave morally" (54). Confucianism ought to endorse ethical design in the production of technology and Hung references the idea of a "nudge" made famous by Cass Sunstein and Richard Taylor (2009. *Nudge*. New York: Penguin Books). A nudge is an aspect of design that influences people's behavior without restricting their freedom. Hung gives as an example the design of mobile phones in Japan, which do not allow you to disable the shutter sound, making it difficult for people to take pictures of others without their permission. This design "mediates users' behaviors toward a moral direction, helping them to practice *li* and thereby harmonizing them with one another" (61).

I have reservations about whether Confucianism could endorse nudging. First, I worry that Hung overstates the relational conception of a person. On the most common interpretation of Confucianism, personhood is only acquired through social roles. But the relations are moral ones. The relations between humans and artifacts given by TMT seem instead metaphysical or epistemological. It is difficult to see why this should have moral implications. Second, nudging is too blunt to bring about the harmonious society Confucians want, where everyone is not merely acting in the correct way (*li* 禮), but doing so *because* it is right (*yi* 義). This is to be contrasted with Wang's "ritual technicity" (Chapter 1), which actively invites contemplation and understanding, a point emphasized in *Analects* 3.26. Lastly, Confucian particularism is anathema to nudging which takes a universal stance. Speed bumps are examples of a nudge. Yet one can easily imagine a situation when it is right to drive fast, for example, by a policeman or ambulance.

In Chapter 4, "Self-Cultivation of the Confucian Engineer," Qin ZHU explains how Confucianism could improve the existing ethics education of engineers. He complains that existing courses tend to treat ethical issues the same way they do engineering issues: namely, as problems to be solved by the application of a theory or principle. Assessing students' ethical education on this approach is purely epistemological, as Zhu puts it, since it comes down to assessing knowledge and skills. However, Confucianism emphasizes cultivation of the self. This suggests "one needs to cultivate oneself before trying to work on much larger projects, including bringing harmony to the world working on any other public affairs projects" (69). Ethics education should therefore also focus on promoting and assessing self-cultivation.

Zhu outlines five ways this might be achieved. First, students must be conscious of their own transformation throughout their career. Second, it is crucial "to reflect on the social and cultural norms practiced by themselves and other engineers" (73). Professional codes of ethics should not be followed blindly, but with understanding, and where appropriate, should be subject to critical reflection. Third, ethics education should be a lifelong process. Fourth, engineers should learn from those professional

peers who act as excellent moral exemplars (*zunxian* 尊賢). Finally, engineers should understand the cultural, social, and historical context of their profession.

The emphasis on character development that Zhu places at the heart of ethics education should be important for all students, particularly those going into professions with a public-facing component. On the one hand, this is a benefit of Zhu's approach. On the other hand, this shows that perhaps the existing framework is too imprecise to be of immediate use for engineering instructors. For example, what character traits do we expect to be developed in engineers rather than, say, healthcare practitioners? What kinds of peer mentors within the engineering field are available for deference? These are the questions that need to be answered before this framework could be applied.

Wong provides a second contribution with Chapter 5, "Artificial Intelligence, Personal Decisions, Consent, and the Confucian Idea of Oneness." Unlike the others, this chapter focuses on a particular technology and the ethical problems it creates. Wong begins with an example of how online AI systems can have unexpected effects. He introduces the fictitious example of Jack, who is using a job matching platform. Based on Jack's personal information and search history, the AI system makes job recommendations. Because Jack frequently searches for junior and intermediate positions despite having a good educational background, he is only shown low-skilled jobs. The algorithm places Jack in the category of "low-potential" and creates a profile matching his personal data. Bob is another user, with a similar background. When Bob first logs into the system he is also shown low-skilled jobs, as the algorithm has "learned" that these are most likely to be searched for by a user with this profile.

Wong asks: "Is it justified for Bob to blame Jack for his decisions and behaviors on the platform? Has Jack wronged Bob for costing his chance to match more senior or even executive positions?" (79). There is a sense in which our choices affect others when we are placed into a group by AI systems. Wong argues that this is problematic for liberal conceptions of responsibility that appeal to *consent*. Within AI systems it is difficult for me to seek consent from the individuals my actions affect. First, the number affected can be large; second, users do not have access to the identities of others in the group. Wong explains how the idea of "oneness" (*yiti* 一體) from Neo-Confucianism helps articulate a new account of responsibility better suited for personal-group decisions and actions. He draws on ZHANG Zai's 張載 (1020–1077) *Western Inscription* 西銘, where Zhang famously calls all people his brothers and sisters on the grounds that everything forms a single body or substance. Individuals who use AI systems "ought to consider others' values and interests" and "be mindful of the impacts their decisions and actions can have" (89). Not doing so is a *moral failing* on a par with self-harm (90).

The approach Wong takes here is distinct from the one he takes in Chapter 2. That is not surprising, given that the earlier chapter explores classical Confucian, and the later chapter, Neo-Confucian ideas. However, it is disappointing that there is no mention of the significance of "personhood" and "harmony" and how they fit into the Neo-Confucian picture. The subtitle of the book is "*A Confucian Ethics of Technology*" and ones gets the impression that one of the aims was to bring together different strands of Confucian thinking into a more-or-less consistent picture. This isn't helped by Wong's interpretation of oneness in utilitarian terms. He says "Jack ought to have considered how his decisions and behaviors on the platform could have promoted the *well-being* of other users (and non-users), which is required by the normative ideal of oneness" (90). It is true that Zhang's concept of oneness is sometimes interpreted as

Mohist. But this is not the only interpretation. Siu-chi Huang argued in a 1971 paper that Zhang's conception of oneness provides the metaphysical ground for the intrinsic knowledge of *ren* 仁 ("The Moral Point of View of Chang Tsai." *Philosophy East and West* 21.2: 141–156). This does not mean I have equal obligations toward all people: roles and expectations such as those found in the five relationships (*wulun* 五倫) still require different responsibilities. It does not follow from oneness, therefore, that I ought to have any *special* responsibility toward others in the same group. That my decisions might affect them is not sufficient to produce additional moral obligations.

Fei Teng provides Chapter 6, "Confucian Personhood and the Scientific Spirit." She responds to the complaint that Confucianism is incompatible with what she calls "the scientific spirit." Her arguments mostly draw on the ideas of Tang Junyi 唐君毅 (1909–1978), a New Confucian (*xinrujia* 新儒家), who attempts to modernize Confucianism to show its relevance to today's society. She starts by distancing herself from the social-role interpretation of Confucian ethics. Although social relations are important, these "are merely external indicators for people to cultivate their inner virtue" (98). As a result, roles can be flexible and adjust to new realities. It is this that makes New Confucianism (*xinrujia* 新儒家) more suited for explaining the value of science and technology. Science is a platform for individuals to develop virtue.

How is this achieved? According to Teng, "the purpose of scientific and technological development ... is to empower people to realize their very (human) nature" (105). She highlights two specific dimensions. First, virtuous scientific activity serves as a buffer to what might be called "technological solutionism," namely that every social problem can be solved by technology. Only technologies that develop *ren* are sufficient to guide the use of knowledge—purely theoretical frameworks are insufficient (102). Second, fully realizing *ren* means also aiding in the development of all. Science and technology assist through the production of better material goods. I would add that Teng overlooks the social roles that are needed for scientific knowledge and technological innovation. Particularly in modern science, discoveries are not the outcome of a single person, but involve a team with individual roles to function effectively. This is not necessarily a criticism of Teng's approach, but it does highlight an additional social dimension within science from which *ren* can be developed.

The volume ends with an epilogue written by the editors. They summarize three themes that emerge from the chapters: *personhood*, *everydayness*, and *harmony*. Personhood is shown to be *relational* and grounded in *ren*. There is no doubt that this view has implications for the ethics of technology, and has been demonstrated in Chapters 1, 2, and 3. Everydayness refers to the fact that the development of virtue, which invokes ethical considerations, happens in the small as well as the big actions we take. This is reflected in Wang's concept of ritual technicity (Chapter 1) as well as in our encounters with seemingly amoral decisions, like putting personal information into an AI system (Chapter 5) and undertaking a particular career (Chapter 4). Finally, a theme that runs through all the chapters is harmony. In Chapters 1, 2, and 3, harmony takes place in the encounter between humans and technological artifacts, whereas in Chapters 4 and 5, harmony between individuals is the goal. Despite drawing from New Confucianism, Teng's chapter returns to a more traditional Confucian way of thinking about harmony. If each individual attends to their own virtuous development, then harmony between science, technology, and society will emerge as a natural result.

After reading all the contributions, I have two main criticisms regarding the overall approach and content. First, there is little discussion of Confucian texts and what they might reveal about our relationship with technology. This is an oversight that the editors admit as a "justified complaint" and an important "task for developing a more comprehensive Confucian ethics of technology" (113). The emphasis on "phenomenology" and "postphenomenology" in Chapters 1 and 3 seems like a diversion, given the volume's stated goals of understanding the ethics of technology in Confucian terms. A similar complaint can be made about Teng's reliance on the Western idea of the "scientific spirit" in Chapter 6. Confucian texts contain many references to artifacts, instruments, and technologies, and these provide potential insights into the role they might play in developing virtue. Consider the story of DONG Yong 董永 from *The Twenty-Four Paragons of Filial Piety* 二十四孝. Dong's decision to use a cart to take his father with him to work is a commendable example of filial piety (*xiao* 孝). Technology, however, is not just an enabler of virtue; it must be used deliberately and consciously in service of that goal.

Second, beyond Wong's Chapter 5, there is very little discussion of real-world technologies. One thing that history teaches us is that it is difficult to predict *a priori* how new technologies impact society. Emerging technologies like AI, robotics, the internet of things, 3D printing, virtual reality, and so on, are affording new possibilities and challenges that no doubt have ethical ramifications. It would have been nice to see some of these challenges and how Confucians should or might respond discussed explicitly.

Despite this, Wang and Wong should be commended for bringing together strands of thought on the interaction between Confucianism and technology to a global audience. The volume contains many foundational avenues for further exploration. Perhaps it is necessary to forego detailed textual analysis and real-world examples to introduce Confucianism to a new audience. If this widens participation, that is surely worthwhile. More than a quarter of the world's population lives in or comes from countries shaped by Confucian values. Like all people, they must navigate a complex and unpredictable relationship with technology. This book goes some way to making that relationship more harmonious.