



Balancing Caution and the Need for Change: The General Contextual Integrity Approach

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Received: 3 October 2023 / Accepted: 8 October 2023 / Published online: 16 October 2023
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Abstract

In this reply to van de Poel's (*Philosophy & Technology*, 35(3), 82, 2022) commentary on O'Neill (*Philosophy & Technology*, 35(79), 2022), I discuss two worries about the general contextual integrity approach to evaluating technological change. First, I address van de Poel's concern that the general contextual integrity approach will not supply the right guidance in cases where morally problematic technological change poses no threat to contextual integrity. Second, I elaborate on how the approach supplies mechanisms for balancing caution with the need for change.

Keywords Contextual integrity · Socially disruptive technologies · Technological change · Norm change · Value change · Ethics of technology

In O'Neill (2022), I proposed generalizing Nissenbaum's (2009) concept of contextual integrity (CI). Although Nissenbaum proposed CI as a tool for analyzing how technological changes can affect privacy, if we broaden our interpretation of the concept, we can use it to help us analyze how technological changes affect the full range of human values and concerns.

In his commentary, van de Poel (2022) raises two main worries: first, that there are some technological changes that would not reduce general CI yet are morally problematic—and the general CI approach would not correctly classify those changes as problematic; and, second, that the conservatism associated with CI is sometimes counterproductive. I will address each of these in turn.

I am happy to grant the point that there are some morally problematic technological changes that do not threaten general CI. Examining only how a technological change affects general CI will not suffice to identify such cases. However, I would highlight that the final step in the general CI approach, in which the evaluator draws their evaluative conclusion about the technological change in question, goes beyond the CI concept: “the evaluator may also look beyond CI and shared ends and appeal

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to additional considerations, such as ethical principles, theories, or values that diverge from those accepted by either the society under study or her interlocutor” (2022, 13). Via this part of the procedure, the evaluator might still find the technological change morally problematic. For example, van de Poel suggests the general CI approach would not properly deal with the introduction of environment-damaging coal plants (say, in a society that prioritizes progress, industry, and wealth, and that places no value on the natural world.) However, an outside evaluator (or internal dissenter), after having gone through the first four steps of the procedure and discovered no CI violation, in the last step could still invoke arguments for the inherent value of nature (for example) and conclude that coal plants are morally problematic.

More broadly, van de Poel thinks the general CI approach may have trouble with cases where technologies affect multiple contexts. In particular, he says, some technologies blur existing contexts in potentially problematic ways, and in those cases we will not be able to identify and then solve associated problems solely by looking at existing contextual norms and assessing whether they serve shared ends. In response to this, I would emphasize that in addition to checking whether a technological change threatens contextual norms and whether those norms serve shared ends, one also considers how the technological change is likely to affect cross-contextual norms (Step 2c), individual ends (Step 3), and shared ends (both general and context-specific) (Step 4). Let me also take this opportunity to add that inasmuch as I view contexts as nested and as existing at different scales, I would say that it is sometimes useful to consider each society as a whole as a context, with the result that we can say of an entire society that it has, for instance, a moderate degree of general CI in the education contexts, a low degree of general CI in the legal, agricultural, industrial, and civil contexts, and that it has a low *overall* degree of general CI. The definition of generalized CI suggested in O'Neill (2022) is that a “context has integrity to the extent that the shared ends of the individuals participating in the context are advanced through the pattern of practices, norms, and other normative elements that are characteristic of the context” (7). This means that if we find that the blurring of two lower-level contexts is undermining shared ends, we may infer that there is a general CI violation at a higher-level context—the societal level.

Lastly, another potentially tricky type of case that van de Poel raises are those situations in which a technological change “reinforces existing power imbalances and injustices but *without* violating entrenched norms” (and thus, without reducing CI) (3). Even in the absence of entrenched norm violations, the general CI approach still supplies some resources for this kind of case, because in the third and fourth steps of the process, one examines what effects the technological change is likely to have on individual and shared ends, and this can inform the evaluator’s final evaluation of the technological change in the last step of the procedure (in which the evaluator may invoke ethical arguments independent from CI). In addition, in some cases where no norms are violated—including in some cases of substantial power imbalance—it will turn out that the society has a low level of CI to begin with: i.e., shared ends are poorly advanced by the norms the society has in place. This diagnosis could lead members of that society to conclude both that the technological change is problematic and that additional measures (e.g. the implementation of more egalitarian norms) should be taken to better advance shared ends (e.g., wealth).

In the remainder of this response, I will elaborate on the limited and specific sense in which the general CI approach is conservative. The approach is meant to supply a middle way between kneejerk conservatism and kneejerk pursuit of novelty.¹

I consider the facilitation of change to be a crucial feature of the general CI approach. This is because I find it plausible that in most conditions, humans have reason to pursue change, in the sense that they have pro tanto reasons to look for changes they could make to themselves or the world that would better advance their ends. As a simple example, consider the rates at which modern humans and even earlier *Homo sapiens* have died during pregnancy and while giving birth. For all those humans who wished such deaths would not occur, there have been reasons to consider whether something could be done differently to prevent them. This is not to say that such humans had reason to *implement* any potential change that might reduce death rates (presumably, for millennia, humans could do little to improve the situation)—it is only to say that they had reason to look out for and *consider* implementing changes that might reduce death rates.

In what sense is the general CI approach conservative? We can distinguish two senses in which the approach involves conservatism. First, general CI advises that we take care when changing deeply rooted aspects of normative life, particularly when we lack a strong grasp on what roles they play in furthering human ends. Second, general CI works from the evaluator's existing ends: one ultimately evaluates by appealing to ends that one has rather than ends one does not have. I view this 'conservatism' as an essential feature of reasoning and rational decision-making. It bears emphasizing that because general CI treats the evaluator's ends as the final arbiter, it gives no reason to *revert* to old values or ways of doing things, *except inasmuch as doing so would advance the evaluator's current ends*.

One might think of the general CI approach as supplying a method for identifying and reasoning through the considerations that favor change and experimentation on the one hand and caution on the other hand. Here are some of the mechanisms by which the general CI procedure facilitates change:

First, the *degree* of presumptive conservatism to take toward an element of normative life varies—depending on, e.g., the degree to which it is entrenched and our degree of confidence in our understanding of how the element fits into a system and advances ends. General CI encourages us to consider the degree to which an apparently entrenched element of normative life is entrenched—for instance, by examining the origins of the element. Some aspects of contemporary life that many people take for granted or assume are traditional are in some sense not very old at all—e.g., practices related to photography, the nuclear family, or monoculture planting. As a rule of thumb, the older the element, the stronger our initial reason to think that it is deeply embedded, playing an important role in advancing important shared ends. In addition, the older the element, the more reason to suspect that society has identified and mitigated its *adverse* effects on other important ends. The newer the element, the weaker our reasons for presumptive

¹ As I understand it, Nissenbaum's original CI account, too, is meant to supply a middle path between strict conservatism and unbridled change.

conservatism. In addition, the better we understand the relationship between an element and what roles it plays in advancing ends, the more confident we may be to diverge from conservatism and make changes to that element—even if it is very old. In response to van de Poel's commentary, an additional rule of thumb I would suggest is that the more one's environment has changed, the weaker one's initial reasons favoring presumptive conservatism.

With newer elements of normative life, there remains a possibility that the element has already become deeply embedded, intertwined with many practices and contexts and having a substantial influence on important ends. The internet or digital technologies are potential examples. In these cases, although age does not lead us to presumptive conservatism, the constitutive and causal relationships between the element and our current systems may still lead us to caution. The deeper our understanding of the roles that element plays in furthering ends, though, the more confidently we can make changes. Conversely, the shallower or narrower our understanding, the more presumptively conservative we have reason to be.

Second, even when a normative element is highly entrenched and one begins one's investigation with a high degree of presumptive conservatism, a CI-based evaluation may well lead one to conclude that the element should be modified or abandoned. Even an ancient tradition can be overturned by appeal to CI, if our analysis reveals that the tradition no longer advances (or never did advance) current ends well. Returning to an earlier example, consider the ancient tradition of pregnancy and the possibility that humans could use artificial wombs to nurture their offspring for the first nine months of life (Frank et al., 2023). Having followed the general CI procedure, an evaluator might well conclude that allowing use of artificial wombs would be overall better than complete reliance on traditional pregnancy. Assume for simplicity the evaluator endorses the shared ends of the society in question. The evaluator could conceivably find that artificial womb use would increase overall CI, despite disrupting numerous norms (e.g. that women have a special role to play in childrearing) and undermining valued things (e.g. the bond that parent and offspring may develop during pregnancy). The evaluator might find, for instance, that some of those disrupted norms hinder deeper shared ends (e.g. equality), that valued consequences of the traditional practice can be replaced with alternatives (e.g. different ways for parent and child to bond), and that using the technology would dramatically improve the health of parents and infants—a highly important shared end in the society in question. Here the evaluator approves of the technological change because it increases general CI.

Third, in the last step of the procedure, the evaluator assesses whether they assent to the shared ends of the society involved. That is, the evaluator may question and reject shared societal ends, no matter how deep their history. This is another point within the procedure at which the evaluator may diverge from tradition. Technological change might decrease general CI, yet the evaluator approves of the technological change. Conversely, technological change might leave general CI unchanged or increased, and yet the evaluator (drawing on considerations unrelated to CI) diverges from society's traditional norms and shared ends to oppose the technological change (as in the coal plant case discussed above).

Thus, the general CI approach is conservative in a tempered way, varying the degree of presumptive conservatism called for in different circumstances and featuring multiple mechanisms by which an evaluator may depart from tradition. In this way, the general CI approach supplies a procedure for balancing caution with the need for change.

Abbreviation *C.I.*: Contextual integrity

Acknowledgements I am grateful for support from the Netherlands Organisation for Scientific Research under grant numbers 024.004.031 and 406.XS.03.070 and for travel support from the Cornell Tech Digital Life Initiative Associates program.

Authors' Contributions E.O. is the sole author of this article.

Funding This research has been supported by the Ethics of Socially Disruptive Technologies research program, which is funded through the Gravitation program of the Dutch Ministry of Education, Culture, and Science and the Netherlands Organisation for Scientific Research under grant number 024.004.031. It has also been supported by the Netherlands Organisation for Scientific Research under grant number 406.XS.03.070 and by travel funding from the Cornell Tech Digital Life Initiative Associates program.

Data Availability Not applicable.

Declarations

Ethics Approval Not applicable.

Consent to Participate Not applicable.

Consent to Publish Not applicable.

Competing Interests The author is part of the same large, multi-university research program on Ethics of Socially Disruptive Technologies as Ibo van de Poel.

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