LIVING WITH TECHNOLOGY: HUMAN ENHANCEMENT OR HUMAN DEVELOPMENT?

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ABSTRACT: Given the extent of our immersion in a technological world, just what it could it mean to sustain a free relation to technology? Heidegger's reflections about the possibility of establishing a "free relation" to technology take on a renewed urgency today in the context of the push toward hybridisation and human enhancement. The present paper grapples with this question by engaging the debate between mediation theorists and proponents of the capability approach. I contend that while mediation theory has been heralded as a great advance in rethinking our relationship to technology, it goes too far in blurring the distinction between the human and the technological, thereby eroding the possibility of establishing a free relation. While the so-called capability approach holds out the promise of correcting for this excess, it threatens to fall prey to a purely instrumentalist conception of the relationship. In response, the present paper seeks to build on the strengths of the capability approach while correcting for its weaknesses by reinforcing its ontological and ethical credentials through appeal to both Heidegger and Aristotle. Thus construed, it is contended, this approach can provide a framework within which we can still productively shape and direct technological advances notwithstanding the extent of our immersion in a technological world. In this sense, it can be seen to hold out the possibility of sustaining a free relation to technology.

KEYWORDS: Capability Approach; Mediation Theory; Coeckelbergh; Heidegger; Aristotle

MEDIATION THEORY

In the not-too-distant past, technology was conceived primarily as applied science. Post-Heidegger, however, there has been an increasing awareness of its pervasive, autonomous, and indeed potentiality threatening character, along with a realisation that technology does not merely stand outside us in a kind of subject-

object relation. Rather, technology is in some measure constitutive of who we are as humans. This is even more the case following the digital revolution. In recent decades, mediation theory has proved to be an influential stimulus in rethinking our relation to technology along these lines. As such, it provides a useful starting point for our present exploration of what is at issue in the debate about human enhancement. The following brief introduction focusses on highlighting its strong endorsement of hybridisation, and therewith of human enhancement.[1]

Heidegger's analysis notwithstanding, in everyday life it is still all too easy to conceptualise our relation to our technological devices, mobile phone or tablet, in simple instrumental, means-ends, terms; and to conceive their overall impact merely as the sum total of individual such activities. In unreflective moments, it can still seem that our relationship to technology begins and ends there. But in foregrounding co-constitution and hybridisation, mediation theorists—most notably, Bruno Latour, Don Idhe, and Peter-Paul Verbeek-- frame the issues very differently. While regarding technological advancement more positively than Heidegger, they share his appreciation of its pervasive, enveloping, and transformative character. Far from being an inert instrument that we can simply take up and put down at will, technology transforms us even as we believe ourselves to mastering it. Not only is technology thus transformative, it is—and always has been--*constitutive* of who we, humans, are. From this perspective, then, far from being a scientistic distortion, hybridisation—the merging of the technological and the human—is simply a given. For as Plessner, an early forerunner of this position, famously asserted: we are "naturally artificial" (Plessner 1928, in Coeckelbergh 2011, 86). Or as Verbeek more recently puts it:

> The central idea … is that human beings and technological artifacts cannot be separated in our understanding of reality; they co-constitute each other, and for this reason, both human beings and technologies need to be understood as hybrid entities. (2012, 260)

Or again:

> There is no way to understand human beings and technologies separately; we need

[1] Needless to mention, there are significant differences between the positions and theorists here referred to under this heading. Clearly too, a considerably more extended analysis would be needed to do justice to the complexity of these positions. Nonetheless the use of this common designation seems justified for the purposes at hand, namely, for briefly foregrounding a shared emphasis on technology's pervasive, enveloping, and transformative character and its connection with human enhancement.

> to understand the human in terms of the technological and vice versa. ... Not only have we never been modern—we have always been hybrids. (Verbeek 2012, 262)

This re-conceptualisation of our relation to technology directly reinforces the possibility—even desirability—of human enhancement. For, as Verbeek again puts it, on this view: "Human beings 'expand' themselves with technologies, or better: They reshape themselves in close interaction with technologies. … Living with technologies is an active process in which the very character of human existence is continually put at stake" (Verbeek 2012, 263). Moreover, thus construed, human enhancement has a specific agenda:

> Human enhancement aims at using technology to create better humans. … it does not restore humans to a 'normal' state but wants to create humans that are 'better than normal', 'better than human'. (Coeckelbergh 2011, 85)

While mediation theorists are aware of the dangers that human enhancement can pose—and the associated potential for intemperate hubris (e.g. Verbeek 2012, 262)—this does not cause them to question its viability, but rather to challenge the tenability of current ethical thinking about what it is to be human. Accordingly, Verbeek contends that:

> The central question in the ethics of technology is not so much where we have to draw the line—for humans, or for technologies—but how we are best to give direction to the ongoing process of blurring the line ... (Verbeek 2012, 263)

In response, mediation theorists tend to favour empirical research and adoption of a Foucauldian-style project of "governing and fashioning one's own existence" (cf. Dorrestijn 2012, 234; Verbeek 2012, 264f.). In engaging with Coeckelbergh below, we will have an opportunity to further explore and critically appraise this line of thinking. But first, a brief reflection on the possibility of establishing a free relation to technology.

ON THE POSSIBILITY OF A "FREE RELATION" TO TECHNOLOGY

While Heidegger famously desists from elucidating specifically what it means to sustain a "free relation" to technology, I suggest that at a minimum this would entail:

(i) maintaining a principled ontological distinction between the human and the technological notwithstanding the heretofore under-appreciated extent of human/technological co-evolution;

(ii) appropriating technological developments productively and creatively in a manner conducive to enhancing human well-being and flourishing notwithstanding the ontological, cultural as well as empirical "dangers" posed by these developments; and

(iii) relating ethically to technological advances in ways that respect human dignity and integrity while contributing to forging authentic community and good stewardship of resources.

Accordingly, I contend that, although a complex and valuable contribution in its own right, in unduly blurring the distinction between the human and the technological, mediation theory falls short of what is required in this regard both ontologically and ethically. As a corrective, I propose that an enhanced capabilities approach can provide a productive framework for exploring what it means to sustain a free relation to technology, and hence for navigating the challenges posed by the contemporary debate between human enhancement and human development theorists. To this end, following a brief introduction and critical appraisal of the original version, I argue that while the capability approach would benefit from Coeckelbergh's proposed reappropriation, this in turn needs to be rethought from a human development perspective to meet the criteria for a free relationship to technology as outlined above. But first, a brief background.

CAPABILITY APPROACH

As formulated by Sen and Nussbaum a couple of decades back, the capability approach (CA) was intended to guide to human development, including economic development in developing countries. It has since been adopted as the human development paradigm for the United Nations Development Program (see further Oosterlaken 2012). As the name suggests, it focuses on expanding capabilities -- on what people have the capacity to do given their actual abilities and circumstances—rather than on entities or resources as such, with a view to empowering people to live better lives. After all, giving someone a computer—or indeed a bicycle--will enhance their development only if, or when, they have the capability to use it.

More recently, it has been adapted by philosophers of technology as a framework for conceptualising our relationship to technology (see, e.g., van den Hoven 2012). A version has even been adopted as a framework for the Australian

High School Information Communication Technology (ICT) curriculum.[2] Suitably reappropriated, it can, I contend, provide a productive framework for underwriting a free relation to technology, a framework that can harness the benefits of technological advancement in the service of human well-being and flourishing while preserving, and building on, a principled distinction between the human and the technological. But this requires rethinking Nussbaum's human development orientation so as to maximise its strengths while minimising its weaknesses from an ICT perspective.

RETHINKING NUSSBAUM'S HUMAN DEVELOPMENT ORIENTATION

The capability approach furnishes a cohesive philosophical framework oriented toward human development which can provide a counterpoint to the potential excesses of mediation theory. Very simply stated, the core idea is that the primary aim of technological development is to expand and enhance human capabilities and possibilities in ethically desirable ways (cf. Oosterlaken 2012). Its strengths include: its human-centred orientation, its concern with respecting human dignity and enhancing human well-being; a robust sense of individual agency and freedom (e.g., Poolman 2012); and a strong normative-ethical framework focally concerned with the development of capabilities and possibilities in a manner commensurate with "living a worthwhile life in conformity with human dignity" (Oosterlaken 2012, 6), while sustaining and enhancing human well-being (*eudaimonia*). Such an approach puts *human* development first (cf. Oosterlaken 2012, 22). As such, it provides a productive basis on which to build to further elucidate the possibility of developing a free relationship to technology in a manner conducive to advancing human well-being and flourishing. But this requires overcoming some significant limitations, most notably the following.

CA's strengths are attenuated by its unduly individualist, instrumentalist and static conception of the relation between the human and the technological, which fails to do justice to the inherently dynamic, intersubjective, and transformative character of the relation as foregrounded by mediation theory. In the process, it loses sight of the extent to which technological interventions can impact all aspects of life beyond individual intentions (cf. Whyte et al. 2017). In these

[2] See further: https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/information-and-communication-technology-ict-capability/.

respects, the capability approach could be said to epitomise the kind of "modernist" approach to technology that Verbeek and colleagues heavily criticise. Significantly too, while the capability approach embodies a strong ethical commitment to preserving dignity and advancing human well-being, its eudaimonic dimension remains underdeveloped. Furthermore, while the capability approach embodies a clear distinction between the human and the technological and imbues the human with significant agency in pursuing the ideal of "living good, flourishing lives", it fails to ground these factors ontologically, making it more difficult to defend a human development over a human enhancement orientation.

In what follows. then, I seek to preserve the strengths of Nussbaum's human development orientation while correcting for the foregoing weaknesses, by drawing on the strengths of Coeckelbergh's reappropriation of the capability approach while challenging his endorsement of human enhancement.

RETHINKING COECKELBERGH'S HUMAN ENHANCEMENT ORIENTATION

In rethinking Nussbaum's capability approach, Coeckelbergh seeks to correct for its limitations in the ICT context by reappraising it in light of the (transhumanist) case for human enhancement and how this can contribute to its "alternative development". But in reappropriating the capability approach from this perspective, like mediation theorists, Coeckelbergh readily assumes an irrevocably "blurred boundary" between the natural and the artificial, such that we, humans, may be deemed "naturally artificial" (see especially 2011, 85-86).[3] In critically reappraising Coeckelbergh's stance, I seek to reverse its problematic inversion of the capability approach's human-centred focus by building on the strengths of his Nussbaum reappropriation to reinforce the case for maintaining a human development orientation, committed to preserving autonomy while advancing human well-being and flourishing. I thus seek to preserve the strengths

[3] Although it is not Coeckelbergh's aim here to explicitly defend or argumentatively assess the case for human enhancement, as reflected in what follows, he nonetheless implicitly assumes a transhumanist perspective in reappropriating Nussbaum's human development orientation. For a more thoroughgoing and critically nuanced discussion of the complexities of human enhancement, including a short summary of human enhancement critics and criticisms, see Coeckelbergh 2018; for a still more extended discussion, see Coeckelbergh 2013.

of Coeckelbergh's Nussbaum reappropriation while overcoming its limitations from a human development perspective.

Thus, firstly, in critically reappropriating the Nussbaum version, Coeckelbergh defends an inherently dynamic and interactive conception of the human/technology relationship as a corrective for Nussbaum's comparatively static and individualist conception. As he aptly puts it, "There is a dynamic relation between capabilities and technologies which can neither exhaustively nor adequately be defined in terms of ends and means" (2011, 86). He likewise foregrounds the enveloping and transformative character of technological advancement as a corrective for an unduly instrumentalist conception of human/technology interaction, a transformative impact that can extend to reshaping whole cultures and forms of life (e.g. 2017, 344). In reconceptualising capabilities in this more expansive, ever-changing and processual sense, Coeckelbergh (2017) also factors in a concern for our "existential vulnerabilities" (see further Coeckelbergh 2013, where this concept assumes a central role). He likewise valorises "descriptive" research (2011, 87) and the exercise of "moral imagination" (2012, 85; cf. 2017, 340-41) for establishing the permissible limits of human enhancement. Correlatively, he foregrounds the idea that living well with technology need not be at odds with pursuing human well-being: "The art of living well with ICTs is not alien to the art of becoming an excellent person who leads the good life, but is part of it" (2017, 341), an assessment which contrasts sharply with the more pessimistic trend of much post-Heideggerian analysis. But from a human development perspective, these strengths are counterbalanced by some telling shortcomings.

The weaknesses of Coeckelbergh's proposed Nussbaum reappropriation derive from his implicit acceptance of core transhumanist presuppositions regarding the inevitability, validity, and desirability of hybridisation and human enhancement, which remain highly questionable from a human development perspective.[4] Thus in particular, Coeckelbergh:

[4] As already intimated, Coeckelbergh's stated aim is neither to endorse the capability approach nor transhumanism in its "standard" form, but rather to promote a mutually productive dialogue between these positions (see especially 2011, 81-83, 85-86, 91-92). But notwithstanding the genuine possibilities inherent in such a project, it is nonetheless the case that as a starting point Coeckelbergh at least implicitly endorses transhumanist assumptions regarding the inherently "blurred boundaries" between the human and the technological and the ethical implications that follow therefrom. Without prejudicing the value of further

- Implicitly endorses a blurring of the boundaries between the human and the technological.
- Accepts the transhumanist presumption in favour of hybridisation and human enhancement and, correlatively, its presumption in favour of creating "better humans".
- Proposes that "moral imagination" and/or empirical research can license transgressing established ethical frameworks (2012, 85; cf. 2017, 340-41).
- Interprets the concept of living a good, *eudaimonia*-oriented, life as "becoming a person with a beautiful character" (2017, 340).
- Underestimates the significance of the ontological dimension.

In redressing these shortcomings, the aim is to reappropriate the strengths of Coeckelbergh's stance in the service of a human development orientation which preserves a tenable distinction between the human and the technological, notwithstanding the heretofore under-appreciated extent of their co-evolution, through rethinking his ontological and ethical presuppositions.

PRESERVING STRENGTHS/OVERCOMING WEAKNESSES

Ontologically speaking, the major shortcoming is Coeckelbergh's implicit acceptance of the transhumanist presumption in favour of the validity, and indeed inevitably, of hybridisation and human enhancement, while from a human development perspective, the validity of this contention remains highly problematic. I will reprise the important challenge of defending an ontologically grounded distinction between the human and the technological following elaboration on the transhumanist ethical problems inherited by Coeckelbergh.

On the ethical front, a first telling shortcoming is that Coeckelbergh leaves unchallenged the ethical permissibility of the strong transhumanist commitment to creating "better humans":

> Human enhancement aims at using technology to create better humans. … it does not restore humans to a 'normal' state but wants to create humans that are 'better than normal', 'better than human'. (2011, 85; cf. 2017, 344)

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dialogue between these seemingly polarised positions, my aim here is to challenge the assumption that the human-technological boundaries are as blurred as transhumanists so readily assume. For a detailed articulation of his proposed alternative, incorporating further critical appraisal of both the human development and human enhancement approaches, see Coeckelbergh 2013.

As before, from a human development perspective, the validity of this contention remains highly problematic. Instead, from this perspective, the core ethical challenge remains that of determining the permissible scope and limits of technological enhancement in a manner commensurate with human well-being and flourishing. The foregoing problem is exacerbated by a failure to elucidate what is meant by creating "better" humans. Clearly, this leaves in abeyance the question as to "better" in what sense. It is one thing to contend that technological devices augment our memory capacity, our computing power, or indeed our social networking capabilities. But, as Scharff observes in a related context, it begs the question as to whether "there may be significant possibilities in life that will never get their best interpretation in any technoscientific way" (Scharff 2014, 579). "Are we, for example, better now at asking about the Good Life, the Just Society, or the Nature of Beauty ... ? Is life more spiritually satisfying, our political economy more democratic?" (576).[5]

Related aspects of the transhumanist's ethical stance as appropriated by Coeckelbergh are equally problematic. Thus, while this approach rightly valorises the need for focussed empirical research which asks "descriptive questions about which capabilities and related practices change in which contexts, how they change, and as a result of which interventions they change, and about their likely effects" (Coeckelbergh 2011, 87), it seems clear that such empirical studies cannot of themselves determine the normative limits of the permissible with regard to human enhancement. Since, as we know, the "is" cannot determine the "ought", future as well as present developments need to conform to defensible ethical standards, informed by ongoing debate about what it is to be human. Correlatively, while Coeckelbergh rightly valorises the need for "moral imagination" in envisioning and appraising new technological possibilities for human enhancement, this cannot be at the expense of respect for human dignity as endorsed by Nussbaum or the exercise of sound ethical judgment (*phronesis*) as originally valorised by Aristotle. Rather, it is within such parameters that moral imagination can legitimately and productively be exercised in this

[5] "If there are such possibilities", Scharff observes, "considering them will require a "free" and "thoughtful" relation with technoscience rather than just more of it, or "new and improved" versions of it." (2014, 579).

domain.[6]

While Coeckelbergh does not altogether neglect the eudaimonic dimension, he fails to do it justice when, like mediation theorists, he favours interpreting it as "becoming a person with a beautiful character" (2017, 341). As elaborated below, this aesthetic interpretation falls far short of what is intended by the original Aristotelian conception of living a worthwhile human life.

More generally, Coeckelbergh's tendency to favour transgressing traditional ethical boundaries is underwritten throughout by the transhumanist presumption that there is no tenable ontological distinction between the human and the technological, that we are instead "naturally artificial" in virtue of the putative co-constitution of the human and the technological. Here again, Coeckelbergh's reappropriation of the capability approach converges with mediation theory, as well as, more generally, with postmodernism. In response, I suggest that Heidegger's early analytic of Dasein can still provide a defensible ontological framework within which to characterise the human, notwithstanding Heidegger's own later "turn" and related criticisms.

ENHANCING THE ONTOLOGICAL DIMENSION: REHABILITATING DASEIN

Although transhumanists typically deny the possibility of making a tenable distinction between the human and the technological, their stance would seem to presuppose (the existence of) persons who are capable of posing penetrating questions about the nature of our relationship to technology, who can exercise "moral imagination", conduct related empirical enquiries, and aspire to develop a "beautiful character" in their interactions with technology. Indeed, to attempt to deny this would seem to embroil one in a performative contradiction. After all, as Coeckelbergh (2012) puts it about a related issue, the question about our relationship to technology is "our question" (86). Nor need the threat of falling prey to dualism or essentialism preclude the possibility of uncovering an ontological grounding capable of underwriting our distinctive human capabilities

[6] While these issues receive more extended and nuanced treatment in Coeckelbergh 2013, it remains the case that, from a human development perspective, established ethical frameworks need to retain greater weight in these debates that Coeckelbergh seems prepared to accord them.

and possibilities. On the contrary, I suggest, Heidegger's analytic of Dasein can still effectively perform this function.

Specifically at issue are the core Heideggerian "existentialia" beginning with the recognition that "Dasein is ontically distinctive in that it *is* ontological", since "in its very Being, that Being is an issue for it" as is the question of Being more generally (Heidegger 1962, 32). Likewise, as "being-in-the-world", Dasein primarily participates in a world of meanings and relations, of which Dasein is the ultimate "whereunto" (*Worunwillen*), such that "if there were no Dasein there would be no world" (Heidegger 1962, Sec 18; Gorner, 2007, 44). Hence, the very disclosure of a technological world presupposes the existence of Dasein. Equally primordially, as "Being-in" and "Being-with", Dasein simultaneously participates in both an equipmental world and a "with-world, which of course, entails not just our ontological relatedness to other people, but also participation in a common domain of meaning, a tradition or culture, of which our relation to technology is a constitutive aspect. Crucially, of course, temporality is likewise constitutive such that Dasein can be said to *temporalise* time, in the confluence of the three temporal ecstases--future, past, and present (Heidegger 1962, Sec 65). Moreover, as "being-towards-death", Dasein is simultaneously an open nexus of possibilities and inherently finite (Heidegger 1962, Sec 46f). As this indicative selection indicates, the Heideggerian existentialia are constitutive of the finite, historical and situated character of our distinctively human mode of being, such that it is as "thrown projection" seeking to realise our ownmost potentialities together-with-others that we, humans, must navigate, and negotiate, our ongoing relationship to technology. In this, I contend, we are indeed ontologically distinguishable from our technological creations. Correlatively, I contend that Coeckelbergh's own proffered commitment to "empowering people to live better lives" (2012, 78) requires reappropriation of a more robust Aristotelian ethic focused on advancing human well-being and flourishing than his embrace of aesthetic self-stylisation can allow for.

ENHANCING THE ETHICAL DIMENSION: REAPPROPRIATING EUDAIMONIA

Thus firstly, for Aristotle, to pursue *eudaimonia* is, as Davidson puts it, "to choose a *bios*, a way of life, that is the best realization of *those capacities that are essential to*

being human" (Davidson 1995, 29: italics added). This presupposes the cultivation of virtues that "dispose their possessors toward activity that promotes human flourishing" (Vallor 2012, 194) . This, in turn, entails the formation of settled dispositions to engage in activities conducive to human well-being and flourishing such as would win the moral approval of others in a manner beyond that connoted by a commitment to aesthetic self-stylisation (cf. Vallor 2012, 200-201, n 2). It is in this Aristotelian sense that *eudaimonia* constitutes an appropriate reference point for conceptualising our relation to technology. As Tabachnick puts it, "The point for Aristotle is that technology is good only when subordinated by higher virtues" (2013, 33). Similarly, Van den Hoven points out that the aim of introducing new technology has always been to improve the human condition: "the aim always is and has been to make things better ... [to contribute] to people's capabilities to lead flourishing human lives" (2012, 32- 33*)*.

Thus construed, I suggest, *eudaimonia* and its correlate *phronesis* (sound ethical judgment), which in their original Aristotelian sense bear an intrinsic relation to the well-being of the community and not just of the individual, still constitute appropriate—and indeed necessary--yardsticks for assessing the tenability, desirability, and quality of our relationship to technology. As such, they should remain integral to our thinking about what it means to sustain a free relation to technology, and hence central to our ongoing efforts to navigate the complex terrain between human development and human enhancement, now and in the future.

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