BEYOND DIGITAL LITERACY: TECHNOLOGICAL WISDOM FOR THE GOOD LIFE

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Abstract

This article introduces technoethics as a new philosophical context for the questions of modernity. It restates wisdom as a fruitful notion that recenters attention on the self and its capabilities in the present technosphere and infosphere. The ethical skills constituting this new form of wisdom can be conceived as a meta-culture in technological culture, or a meta-literacy, in which the prefix "meta" refers to the meta-attitudes defining the ethical stance. Another important aspect of technoethical wisdom is its implication in microactions of ordinary life, unlike the "heroic" wisdom that has lost credit today. The good life, then, is to be found in the ordinary of the technosphere.

Introduction

I suggest that we replace the saying "To survive today, one needs some digital literacy" by the saying "To flourish today, one needs some technological wisdom". The relationship between the two statements is certainly not a contradiction. It is a progression and I mean it to be both a broader and a deeper reconsideration, analogous to the relationship between wellbeing as surviving and wellbeing as flourishing.

This article starts with a brief characterization of its technoethical background. From this perspective, digital literacy is extended toward an existential literacy that reanimates the question of the good life. The notion of flourishing is summoned for addressing this question and it is elaborated in the terms of an ethics of modern virtues, authenticity and self-consistency in particular. I argue that technology and the digitalization of human existence provide by themselves valuable resources for a humanist response to the questions they pose, if only these questions are articulated in the specific context of contemporary technoethics.

1 Technoethics perspective

The question of the good life in the contemporary world is a central concern of technoethics, an approach that is emerging as a new field in philosophy (Luppicini (ed) 2008). For issues that we call "societal" and that are frequently discussed without solid philosophical references, the technoethical perspective can bring some innovative insights. This enrichment in terms of methods and concepts is largely due to technoethics's location at the intersection between at least three disciplines: philosophy of technology (Albert Borgmann's and Carl Mitcham's in particular), applied ethics

(recent trends in virtue ethics in particular), and digital media studies (in the sense of Charles Ess).

The current technological environment is disruptive for two main reasons: it is digital and it is pervasive. From the philosophical point of view, the combination of these two factors has progressively called into question the standards of life evaluation that were in use in the past, even in the recent Western past (the Industrial Revolution, continued into the 20th century). A common feature of the three approaches of modernity mentioned above as converging into technoethics is the diagnosis of a substantial modification in our value systems. We adapt with prodigious virtuosity to material innovation (the smartphone for instance) but perhaps not so smoothly to their moral, emotional, and social consequences. Technoethics focuses on individual existence, its phenomenology and its pragmatic value-laden behaviors, after decades of politico-social deciphering of technological change. Undeniably, the intimate appropriation of a new type of artifact (digital) is a novelty that has produced as its first apparent and massive consequence the "disappropriation" of the modern self ("alienation" in the old parlance). But after a phase of critique by the social sciences, this phenomenon calls for a bigger perspective if we want to or the assessment of digital life toward pragmatic suggestions and constructive contributions.

2 Digital literacy, necessary skills

The infosphere is a dimension of the technosphere, its most important dimension. There is nothing to withdraw from the conceptions and programs of digital literacy and digital education that are trying to accompany human existence in the technosphere. They inspire public action in almost every country today and they are with more or less goodwill implemented in almost every institution, starting with the workplace where the lack of digital capability means more and more a major work disability. However, there is quite a lot to be added to digital literacy from an ethical point of view.

Literacy is a definite stage in the process of cultural inclusion that constitutes human beings as such. What is required of a human being has evolved from orality to literacy, then to digital literacy. I argue that a new stage is now in progress, *existential literacy*. It encompasses and exceeds digital literacy and its essential purpose is to reconnect the dimensions of a disintegrated modern self (Briggle and Mitcham 2009). To reach the relevant level of intimacy of our contemporary artifacts, methods of ethical assessment inspired by engineering ethics and standard applied ethics can be creatively reinvested by existential analysis. The latter form of analysis possesses a more interpretative ambition and a resolute focus on the self. The objective of this approach is to delineate an existential non-neutrality of technology, more important than the ethical non-neutrality known as Kranzberg's law ("Technology is neither good nor bad; nor is it neutral"), and key to some of the yet poorly addressed issues of modernity.

The case of the smartphone is paramount of ordinary technology existential significance. Through this "wearable" device in our pocket or bag we are immersed into the digital, which is the new interface with the world. More and more of our activities are mediated by one of the functions of the smartphone (from GPS to calendar, from dictionary to clock or camera). This existential experience goes beyond the "device paradigm" of contemporary technology (Borgmann 1984), it goes beyond functions and uses. The infosphere provides us with *capabilities*, directly through the operational

empowerment of the ordinary person, and indirectly because of the additional capabilities that become virtually accessible in the infosphere.

For this reason, the debate is no longer about the necessary skills for thriving in the infosphere – they are part of ordinary life for the digital natives – but rather about the meaning of thriving. It is not about what you need to know to have a job (or an unemployment compensation), that is to say digital literacy, but about what you have to do for flourishing in the contemporary environment. The abundance that we have to face is an abundance of means that solicit us in a cultural moment when ends seem to be scarce. The existential situation of mankind is no longer defined by the search for means and skills, in order to satisfy obvious needs (survival, subsistence, elementary comfort). The skills that we need in the contemporary technosphere and infosphere bear on the awareness and self-reliance that would allow the construction of a self from the abundance of means and stimuli. More than a literacy, it is a culture and in fact it is a meta-culture, a culture of the use of cultural resources. Digital literacy bears on how to use Google and Wikipedia and it remains a functional skill. Digital meta-culture bears on how to assess data retrieved from the Web, how to make sense of them in the project of personal appropriation and self-constitution. Digital differacy, in its functional dimension, is learned by the new generations through acquaintance. But the metaculture and wisdom that I am trying to define requires voluntary effort and a specific awareness, independently of one's generation.

3 The question of the good life reanimated

Beyond social "functioning", wellbeing requires existential assessments of value that pertain to wisdom and not to functional optimization. The problem is that we have almost entirely lost the meaning and the methods of the fundamental questions of ethics. The combined effects of the discredit of ideologies (political and religious) and of the easy comfort of abundance in the technosphere have given the impression that radical decisions of value are no longer necessary in modernity. A quiet existence made of acceptable work (functioning in production) and private life (functioning in consumption) could set the limits of a peaceful post-modern horizon. The push for a meta-culture and for an ambitious technoethics disturbs this quiet consensus. The notions of good life and wellbeing are receiving more attention because they are no longer considered private life matters, as they were as long as ethical issues were tacitly embedded in consumer choice options. But it appears that the post-modern lifestyle options, where pluralism meant relativism, do not provide a real ethics for modernity.

Traces of this evolution can be found in mainstream philosophy – where the question of the good life may even prove to be instrumental in the survival of philosophy as a discipline beyond sterile standard academism. In philosophy of technology, Borgmann's seminal book (1984) inaugurated a wide "wisdom approach" to modernity and the intellectual resources of this book are still active in the most recent research on the good life in our technological age (Brey at al. (eds) 2012). The main innovation in this trend of research is that human wellbeing or good life is no longer approached as something to be preserved against technology, but rather as multiple possibilities to flourish inside the technosphere. In spite of a lot of studies that remain technophobic, the spirit of the new approach in the contributions collected under the title "The good life in a technological age" is captured in Verbeek's provocative question about "what kind of hybrids we want to be" (Brey at al. (eds) 2012: 265) and the

requirements that for him will allow us to "accompany" technological evolution for the best (Brey at al. (eds) 2012: 270): a critical attitude, assessing technological mediation beyond their functional aspect, and an engagement in *designing* technologies, beyond their simple use. This design activity is the authentic technological culture, which deserves to be enlarged and understood as a practice of the self in the technosphere.

With a sufficiently ambitious notion of the self, empowerment for the good life, in and through technology, *is* the good life. Three dimensions of this empowerment shape the project of building oneself as a self in the contemporary environment: (1) cognitive empowerment, accessible because the infosphere is becoming the new provider of information and knowledge, independently of institutional influence and domination; (2) pragmatic empowerment, because the know-how for action and the resources for initiating common action are more and more available through digital mediation; (3) ethical empowerment, because as the capacity for awareness and the capacity for action grow a third empowerment emerges, concerning the ends, the value systems, the self-governance of one's life. This progression is a transition from digital literacy to the philosophical domain of wisdom.

4 Flourishing

Broad and narrow concepts of the good life are in use. The focus on a precise definition of the good life is part of the project of technochics, if we want to substantiate the original idea of wisdom for the technosphere. The notion of *flourishing* is dynamic and pluralist enough to make it distinct from pure "functional happiness", a concept that could sum up a variety of views, from sophisticated utilitarianism to the most philistine satisfaction of greed. *Flourishing* is also a bridge concept between environmental ethics and wisdom ethics, a path pioneered by Arne Naess. His concept of self-realization is embedded in a universal project of flourishing for all life-forms that arguably constitutes one of the most promising frameworks for a global ethics of modernity, within which the self, nature and technology could find a legitimate place (Naess 1989, particularly Chap. 4. "Ecosophy, technology, and lifestyle"). His notion of "mixed communities", including non human life forms and the ecosystem, can be made tolerant enough to accommodate the technosphere and infosphere as technological environments. The project of harmony in the flourishing of these intricate ecosystems sets the global frame of wisdom initiative for modernity.

The "buen vivir" movement is a South American alternative values system (Balch 2013) that needs not to be taken as technophobic but that, on the contrary, should contribute to technology-based cultural resistance movements. The inspiration for "lateral steps" toward a sustainable development of technology and of the production/consumption system has been ripe since the 1970s through the works of Ivan Illich or E.F. Schumacher – texts that a facetious teacher today can very easily "sell" to contemporary students as hot contemporary interventions, almost half a century afterward. They are more topical than ever because the digital technosphere provides the means to reorient our development, collective and personal, toward sustainability, ecological and ethical. A sort of minority tradition in the world cultures (for instance H.D. Thoreau in the West and Buddhism in the East) has maintained models of flourishing that are certainly different but largely compatible. Universal access, through the infosphere, to these philosophical resources puts the present generation in the

unique situation of a wisdom "à la carte", picking from the global offer of lifestyles and values. More than choosing value references, which may change and be adapted, the meta-attitude of being in charge of one's life orientation, caring about what we care about (Frankfurt 1988: 92), embodies the change from functional well-being in technology to self-construction in a perspective of wisdom. This is the ethically acceptable form of the good life for humans.

Wisdom, in a specific form for the digital age, is an alternative to the infantilization and disappropriation brought about by recent technology, subverted as it is by the mass medias and the advertisement industry. In the present phase of this process, a reasonable stance would be to recognize that it is not impossible for human beings and values to flourish in the technosphere but it requires a resolute effort. The needed changes were experimented on the political level and they were supported by theories of political economy. The present state of the technosphere and the prominence of the infosphere suggest a technoethical move, after which the resolute effort bears on personal behavior, particularly micro-actions, and not on changing the politicians in charge or the owners of factories. Wellbeing and flourishing concern the individual, the self, why did we look for their external social, political, economic) circumstances as the only path to realize them? My hypothesis is: because our vision of the world was narrowly conditioned by engineering – the rational planning of a process that would operate the transformation of a part of reality and in the end deliver the desired state of facts. This attitude, the technological vision of the world, in the industrial age, has brought us where we are. The problem is now to envision a metaattitude to go beyond prosperity to the well-being and possible flourishing that belong to the existential domain and not only to the industrial production and distribution system.

5 Authenticity and self-consistency

The Heideggerian tradition in philosophy of technology, broadly construed (from Albert Borgmann to Andrew Feenberg) insists on the restoration of authenticity and consistency in the technophere. These values can be self-sufficient, ends in themselves, in a consensual humanist definition of the dignity of human life, or even in a minimalist approach focused on simple decency for human life. They can also be focalized into the notion of wisdom and in this way they can reinvest the philosophy of the construction of the self in modern times through this core argument: wisdom means nothing but authentic selfhood.

The loss of engagement in modernity, deplored by Heidegger or Borgmann, can be remedied by technoethical awareness and resolution. They begin with the understanding that wellbeing and flourishing are not to be expected from a consumer attitude. Verbeek has taken a clear stance on this point: "Technology gives rise not only to disengaged consumption, but also to new possibilities for engagements," (Verbeek 2005: 190). "Mediated engagement" can be for example studied in the use of a PDA (Personal Digital Assistant, now included in the smartphone), writes Verbeek. A selective personal appropriation of digital technologies exploits a vast array of digital "helpers" for action, engagement, in the perspective of self-building. All the virtues of a project carrier – resolution, vision, initiative, collaborative skills and so on – can be mediated by the infosphere, and they are now, more and more. A famous slogan says

"There is an app for that", meaning: for anything you might want to do. The ironical application of this slogan to an ethical project of authenticity makes sense and brings solace in the gloomy context of usually technophobic social critique.

A redefinition of engagement is implied by this values system. It becomes the ethical turning point for reconstruction: "If we are to challenge *the rule of technology*, we can do so only through *the practice of engagement*" (Borgmann 1984: 207). In his redefinition of engagement Borgmann makes clear the non-conventional effort that I call technoethical: "Again it is to take a condescending view of people's energy and judgment to blame the politicians, the lobbies, and the media for civic apathy. Complacency bespeaks a general acceptance of the technological society," ("Borgmann 1984: 108-109). This new take does not deny the stupidification process that dominates the present "age of information" (media and advertisement industry in fact), notably because of the war on attention (Lanham 2006), but it affirms that stupidification can be resisted.

To put it all in a nutshell: it requires a self to be human person in the technosphere, and a strong self indeed. The constructive action on oneself is typically reflexive and it operates at a meta-level. The relevant level is the meta-culture for the technosphere and infosphere, a meta-literacy in a sense. The real empowerment is neither directly the information (information for action) furnished by Google or Wikipedia nor the material capacities afforded by a modern car or a credit card, it is in the capacity to invest these first-order empowerment with a second-order dedication to self constitution. Any online or material resource is an opportunity and then a challenge for flourishing and the good life, a challenge that requires agency. The resource is never a direct "good" to be stored and secured in one's existential stock, so to say.

Finally, the interesting notion of digital literacy (Prensky 2001, Berry (ed) 2012) must expand as the infosphere expands, to embrace the whole technosphere in its ordinary pervasiveness. The modern self is constantly solicited in a way that calls for technoethical literacy. When dealing with the smart artifacts of contemporary technology, self-reliance makes the ofference between being an object in the networks of techno-structures and being the subject of a life. A finger touch on the phone screen makes me visible, or invisible, or more or less easily visible, on the radar of datadevouring companies and corporations that are greedy for the micro-data of my ordinary life – or it can be parents or employers. The acceptance of a service ("We will let you know when your tem is ready with a text message, may I have your phone number?") makes us a target for unsolicited solicitations (called spam) that are currently spoiling the commons of communication free space. In all these instances, the self must be able to invent micro-resistance strategies. These skills amount to "outsmarting the smart". They can be philosophically substantiated by Foucault's last ideas on the resistive constitution of the subject through the reversal of domination structures that become resources for the self (Foucault 1994).

6 Wisdom in the technosphere

Michel Foucault's notion of *technologies of the self* can be applied to corroborate the idea of wisdom in a technological age. In Foucault's last works, self-care is illuminated as a practice that constitutes the self through a permanent reappropriation and resistance process in front of the domination structures surrounding it. On the one hand, this form

of self-care inherits the most profound Hellenistic philosophies and, on the other hand, it fits perfectly well into the world of digitally smart Big (and Little) Brothers. The concept of *ordinary technology* (Puech 2013) sets the stage for practices of the self that can be conceived as a permanent philosophical exercise aiming at wisdom (awareness, consistence, authenticity). Foucault was deeply original in considering again, in modern times, the "practice of the self" as a *tekhnê tou biou* (in Greek), a technique of life, which is not a remedy (*therapeuein*) as in the Western Platonic metaphor of domination as a necessary medicine, but rather life hygiene (*hugiainon*) (Foucault 2001: 10, 305, 421). The exercise of life is construction and education of the self (*Selbstbildung* in German) and technology of the self (*technologie de soi* in French) at the same time (Foucault 2001: 46). Substantiated by both the precepts of ancient schools of wisdom and the contemporary opportunities offered by technology, self-constitution in this mode corresponds to the meta-attitude of self-care ("le souci du souci de soi") that I mentioned in this article in order to establish a form of technological practical wisdom as the method of flourishing in the technosphere.

Foucault's inspiration came from Stoic philosophy Marcus Aurelius, Seneca, Epictetus, Plutarch) but one can also draw similar notions from contemporary Zen-Buddhist scholars, in particular when they expound the infinite task of self-education as a "virtuosity" (Herschock 2006: chapter 8) or explicitly tackle the issues of the information age (Hershock 1999). The convergence of these Eastern and Western inspirations hints at a global wisdom that would be adequate for the global culture of today.

The essential novelty of the wisdom approach in technoethics is its attempt to reach beyond the functional requirements that so far frame the engineering and design approaches of technology practices. Reanimating questions like self-consistency and authenticity, technoethics explicitly addresses what tends to remain a vague aspiration in modern life: the need to "put onese together". There are abundant resources out there, waiting to be put together by a self that embraces a lucid project of selfconstitution. However, the awareness of this existential possibility and of its feasibility in modern times seems to be scarce. The second important novelty in the technoethics of wisdom is the infra-political level where it limits itself, a limit that breaks the ideological consensus about the dual necessity to understand technology from a political background and to act on technology through political action. The modest proposal of a self permanent education in ordinary life already makes sense for digital literacy: we learn a lot about electronic devices and online resources, by ourselves, in the daily practice of modern life – activities like finding one's way in an unknown city, hiring a babysitter, selling an old bicycle or locating the best Thai restaurant in town. The analogy of "wisdom beyond literacy" works as a paradigm of our time. Digital competence in ancient days was about code writing, code reading and understanding. Computer use required this expert knowledge. Then came Apple and natural interfaces of all sorts and suddenly only a small fraction of the billions of computer and smartphone users have an idea of what code or an operating system really is. Digital literacy today, then, is not programmer skills but rather user skills. Wisdom can be understood as following the same path, from expertise to ordinary use. Heroic wisdom in ancient times and classical cultures (including the 20th century ethics of war) was intended for specialists, experts who deserved to be distinguished form ordinary humanity: heroes. Not everybody has to be a hero. Ordinary wisdom in the technosphere and infosphere would rely on the same basis as the "ordinarization" of digital technology and ordinary existence, through the facilitation systematically brought about by contemporary technology. It no longer requires any expertise to book a hotel in Tokyo from one's little village in the Alps, nor to write, create or publish for (virtual) millions. No one has to be an expert to use the technophere and infosphere.

But in this world of virtual capabilities and infinite solicitation, one needs to be wise in order to be well, first point, and one does not need to be a hero to be a wise person in the technosphere and infosphere, second point. This wisdom means neither science nor technical qualification. Compared with digital literacy, it can be understood as a meta-literacy.

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