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Smart Living in the Digital Age[1]

Abstract:

The digital age is the age of smart systems. Smart living has already emerged as the conceptual hallmark of the digital future. We have we or will soon have smart homes, cities, and all sorts of smart interconnected objects. This paper deals, firstly, with the meaning of smart as related to the Greek concept of metis or cunning intelligence, the contexts of use being not only of human beings but also of gods, animals and artificial devices. The 19th century application of the concept referred to devices in general and in the 20th century to digital devices and systems in particular for which the leading sense is human intelligence. At present, it is not human but digital intelligence that leads the meaning of smart. Artificial smart systems receive their goals from the outside even if they can further develop such goals, giving the impression that they have conceived their goals on their own. They behave as if they were guided by a 'who' while in fact it is just a reified one, or a 'what'. The difference between who and what is the basis of ethical thinking in the age of smart systems.

Agenda:

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Introduction

The digital age is the age of smart systems. What does smart mean? According to the "Oxford Learner's Dictionaries" the adjective smart means "intelligent," "showing good judgement," "rude, computer-controlled, clean/neat, fashionable, quick," "opposite to stupid." As a verb it means "to feel a sharp stinging pain in a part of your body," "to feel upset about a criticism, failure, etc." The "Oxford Etymology Dictionary" records in a concise manner the history of the meanings of smart as follows:

- Smart as verb: "Old English *smeortan* "be painful," from Proto-Germanic **smarta-* [...] Old High German *smerzan*, German *schmerzen* "to pain," originally "to bite") [...].
- Smart as adjective: "late Old English *smeart* "painful, severe, stinging; causing a sharp pain," related to *smeortan* [...] ". Meaning "executed with force and vigor" is from c. 1300. Meaning "quick, active, clever" is attested from c. 1300, from the notion of "cutting" wit, words, etc., or else "keen in bargaining." Meaning "trim in attire" first attested 1718 [...]. In reference to devices, the sense of "behaving as though guided by intelligence" (as in *smart bomb*) first attested 1972. *Smarts* "good sense, intelligence," is first recorded 1968 (Middle English had *ingeny* "intellectual capacity, cleverness" (early 15c.)). *Smart cookie* is from 1948."
- Smart as noun: "sharp pain," c. 1200, from smart (adj.). Cognate with Middle Dutch *smerte*, Dutch *smart*, Old High German *smerzo*, German *Schmerz* "pain."

This overview of the word shows a broad spectrum of meanings for the word smart as it relates to human behaviour until the late 20th century when the term is first applied to digital devices. A detailed comparative analysis of the etymology and history of ideas of smart and related terms in English would clarify how "intellectual capacity, cleverness" of Middle English *ingeny* was replaced by smart and how it came into its widespread use in the context of all kinds of systems, particularly of those based on digital technology. Some early examples include "smart bomb," and "smart cookie" being paradigmatic for the 20th century and pre-announcing the no less paradigmatic smart phone.

Cunning Intelligence

The meanings of smart are closely related to the Greek concept of *metis* or cunning intelligence as analyzed by Marcel Detienne and Jean-Pierre Vernant (Detienne/Vernant 1991), although the contexts of its use are not only applicable to human beings but also to gods, animals and artificial devices as far as they are intelligently used by gods and humans. This is best exemplified by Athena herself, the goddess of practical intelligence, daughter of Zeus and the goddess Métis (Μῆτις) called *polumetis*, her prudence being the *metis,* her knowledge close to the knowledge of Hephaestus, the god of blacksmiths. She is "the goddess with the 'brilliant gaze' (*glaukopis*) and the power 'with the sharp eye' (*oxuderkes*)" who "mercilessly transfixes her enemies."

(Detienne/Vernant, 1991,182). The parallelism of the meanings of smart and *metis*, such as quick, active, clever, causing a sharp pain, executed with force and vigor and particularly, behaving as though guided by intelligence, are apparent. What is remarkable in the Greek *metis* is its use not only with regard to gods and humans but also to animals. Cunning intelligence is something common to all of them but not in the same regard. According to Detienne and Vernant, Western metaphysics, particularly Plato and later on Christianity, gave the primacy to truth and human rationality, overshadowing other kinds of understanding such as cunning, emphasising thus the epistemological divide between humans and other animals (Detienne and Vernant 1991, 318).

Smart is said in many ways. As Aristotle would say, the central sense or *pros hen* means the *human* capacity of acting quickly, clever, with "force and vigor" in order to attain a goal which can be "painful, severe, stinging; causing a sharp pain." The 19th century application to "devices in general" and in the 20th century to digital devices and systems in particular opens a new context, namely "behaving as though guided by intelligence" for which the central sense, as in the case of *artificial* intelligence, is at first sight human intelligence, even if that is not always explicit. But if it is the case that today's leading horizon of interpretation of all beings in their being, is digitability, then, paradoxically, it is not human but digital intelligence that is the prime analogy (*primum analogatum)*. This makes a difference also regarding the meaning of smart, namely: what is smart is digital, but not everything that is digital is smart. Smart intelligence would even take the lead regarding the meaning of intelligence *tout court*. What is digitalizable can be implemented in different kinds of devices and systems becoming more or less smart, that is to say, intelligent. The practical sense of intelligence becomes apparent.

Leibniz's dictum: "Cum DEUS calculat et cogitationem exercet, fit mundus" (When God calculates and develops thought, he creates the world) (Leibniz 1996, 30) turns into "Cum homo calculat et computationem exercet, fit mundus." The "et cogitationem exercet" means the practical application of theoretical intelligence, not reduced to situations in which cunning intelligence is needed in order to find a way out of what resists the aims of the agent, but enlarged to the whole of reality. Leibniz envisaged a divine smart intelligence that is echoed in Hegel's "List der Vernunft" ("cunning reason"). This was criticized by Nietzsche as giving the power of instrumental reason to a high-level intelligence instead of letting practical intelligence play a different role in which the outwitted can take the lead (Guzzoni 1999).

Ethics in the Age of Smart Systems

Artificial smart systems "behaving as though guided by intelligence" interact with natural human and animal smart intelligence. What makes the difference? Firstly, natural smart intelligence arises from the being itself and concerns its own goals. Artificial smart systems get their goals from the outside even if they can further develop it by giving the impression "as though" they were their own. Secondly, their intelligence is based on

stochastic processes. Such processes are random as opposed to deterministic ones. The Greek word στοχαστικός (stochastikós) is derived from στοχάζομαι (stocházomai) meaning to aim at a target, from Greek στόχος (stóchos) aim. Artificial smart systems — or, better to say, their human designers — *calculate* the best way to attain a goal given to them based on stochastic models that they can change *as if* they were learning not only by themselves but also for themselves as in the case of natural smart systems. They can do this quickly and shrewdly *as if* they were making a conjecture about the best way to attain a goal *as if* it were their *own* goal. Hubert Dreyfus did foundational work on the difference between expert systems, the smart systems at that time, and human experts (Dreyfus 1972). His phenomenological and hermeneutic arguments are as fresh as they were fifty years ago.

Ethics in the age of smart systems means to ask the question of the relation between cunning intelligence and moral intelligence called prudence (phronesis) by Aristotle in the Nicomachean Ethics (Aristotle 1962; Capurro 2020). Although Aristotle does not use the term metis he uses other similar terms such as skill (deinotes) and cunning (panourgia). Skill is praised in cases where the goals are good, otherwise it is just cunning. Prudence (phronesis) implies cunning but not vice versa. Wickedness (mochtheria) and falsehood (diapseudesthai) distort the judgement of reason (Aristotle, NE 1143 b 23-36). Phronesis mediates between the knowledge of what is permanent (sophia) and the realm of human action (ta anthrophina) particularly regarding the means to attain happiness (eudaimonia) (Aristotle, NE 1143 b 20). The reason why metis is not mentioned by Aristotle in his analysis of the relation between phronesis and cunning intelligence might be his taking a critical distance from mythical metis as well as its use in human and non-human contexts blurring the differences. Aristotle acknowledges that some animals have the capacity of previewing (dynamin pronoetiken) but he does not agree with "some people" who believe that "animals have prudence (phronima)." (Aristotle, NE 1141 a 27). Detienne and Vernant remark that the link between human logos and living beings without logos (aloga zoia) might become problematic if human phronesis interferes with animal intelligence although he gives conjectural knowledge a positive value in contrast to Plato who devalues knowledge based on probability as contrary to the ethical value of temperance (sophrosyne). For Aristotle, sagacity (anchinoia) implies a certain flexibility of the soul in contrast to the quietness (hesuchia) of temperance (Detienne and Vernant 1974, 304-306).

The Aristotelian analysis of the relation between phronesis and cunning intelligence provides a framework for dealing with today's ethical issues of smart systems that can be compared, for instance, with the famous Chinese "Thirty-six stratagems" as analyzed by Swiss sinologist Harro von Senger (Senger 1993).

Smart Living

Smart living has already emerged as the conceptual hallmark of the digital future. Not only will we — but, indeed, who? — have smart homes, cities, and all sorts of smart interconnected objects, but we (who?) ourselves will become *smart*, overcoming natural human intelligence, which is the product of biological evolution. In a nod to Hamlet, "to be digital or not to be" is the choice we need to make when we imagine a future in which the difference between what is real and what is digital, as a potential vision of life, is perceived as confusing or may have been invalidated. But every future, with its potential successes and failures, can only be partially glimpsed from the present. We cannot seize it, we can only allow it to manifest itself, instead of projecting it from our subjectivity and our willpower. We need two things to open ourselves to potential futures that appear and disappear: critical thinking and time. Both are scarce in the age of smart systems. Being smart means to resist the temptation to let smart systems make quick decisions for us. Prudence is a key virtue in the age of smart systems. We can unmask some of the negative aspects of digital futures that appear as being smart, especially the one that imagines the smart digital future as a monolithic, unambiguous, and as the ultimate entity (Morozov, 2013). Sceptical thinking about digital futures means resisting the obsession of digital order planned with absolute ambitions. This sort of "foresight" is a digital gnosis, i.e., a substitute for religious dogmatism.

We have learned to interact with animal intelligence over thousands of years and we learnt from our failures concerning the dystopia of becoming the masters of nature. How should we deal with smart systems that look *as if* they were intelligent, systems that appear to have goals of their own? The anthropomorphic attribution of humanity to machine is no more and no less than digital fetishism. Instead, we should ask: what kind of smart system is needed or not and for whom? When is it a good option for me or others to relinquish personal and social critical reflection and freedom temporarily to smart systems and when is it not? We have been looking for individual and social solutions to this question since at least the time of the Industrial Revolution. Marx critiqued the ways that ideas of order had decomposed in industrial-age capitalist societies, and his criticism also opens the doors to thinking about smart systems in the digital age. If we want to imagine potential liveable smart futures and realize them both in the private and in the public sphere, we must let thinking emerge as a sort of forethought to action with regard to sustainable and unsustainable ways of social and ecological coexistence (Capurro, 2008; Zuboff, 2019). Marx's famous eleventh thesis on Feuerbach reads: "Philosophers have hitherto only interpreted the world in various ways; the point is to change it." (Marx, 1969, 5). Although this thesis is commonly understood as a critique to "philosophers" and a defence of action, what it actually does is indicate that any possibility to change the world is built on a new interpretation.

Conclusion

Where, for whom, to what extent, and at what price do smart systems make sense? What are the limits of their use in private and political life? What is good as a possibility for the community as a whole and what is good for me or for us? What should we promote or forbid by law and what should we not? How can we initiate a lasting (academic and daily) critical reflection on good living with smart systems?

Immanuel Kant wondered: "Do we live in an enlightened age?" (Kant, 1975, 59). Even if the answer was no, he did think it was an age of enlightenment. Kant expected that when "the urge for and the vocation of free thought" had developed, it would gradually impact not only the population, making citizens more capable of "acting in freedom", but also on "the fundamentals of government", which would treat each human, "who is now more than a machine, in accord with his dignity" (Kant, 1975, p. 61). What better guidance for thinking and acting in digital futures than these words by Kant published in Königsberg on 30 September 1784? The dignity of the human person that wonders "who am I?" is different from its digitalisation, which can change and answers the question "what am I?" (Capurro, 2017b; Capurro, Eldred, & Nagel, 2013). Smart systems behave "as though guided by intelligence", that is to say, as if they were guided by a 'who' while in fact it is just a reified one, or a 'what'.

Understanding the difference between the *who* and the *what* is the basis of ethical thinking, particularly in the age of smart systems. We must learn the vocation of free thinking outside the greenhorn field of algorithms guiding smart systems (Seyfert & Roberge, 2016), and to this end we must expand the concept of digital enlightenment or digital literacy (Limberg, Sundin, & Talja, 2012). This is because this concept is generally understood as education in the use of digital technologies in general and smart systems in particular and not as the task of reflecting upon individual and collective life and considering sustainable digital futures. Do we live in a smart age? No, we live in the age of smart systems that look sometimes as if they behaved as guided by intelligence while being, in fact, stupid. The ethical challenge is to envisage smart living within and beyond the stochastic horizon of smart systems. To put it shortly: be smart in the age of smart systems!

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