



Are we done with (Wordy) manifestos? Towards an *introverted* digital humanism

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ABSTRACT

Beginning with a reconstruction of the anthropological paradigms underlying *The Vienna Manifesto* and *The Onlife Manifesto* (§ 1.1), this paper distinguishes between two possible approaches to digital humanism: an *extroverted* one, principally engaged in finding a way to humanize digital technologies, and an *introverted* one, pointing instead attention to how digital technologies can re-humanize us, particularly our “mindframe” (§ 1.2). On this basis, I stress that if we take seriously the consequences of the “mediatic turn”, according to which human reason is finally recognized as mediatically contingent (§ 2.1), then we should accept that just as the book created the poietic context for the development of traditional humanism and its “bookish” idea of private and public reason, so too digital psycho-technologies today provide the conditions for the rise of a new humanism (§ 2.2). I then discuss the possible humanizing potential of digital simulated worlds: I compare the symbolic-reconstructive mindset to the sensorimotor mindset (§ 3.1), and I highlight their respective mediological association with the book and the video game, advocating for the peculiar thinking and reasoning affordances now offered by the new digital psycho-technologies (§ 3.2).

1. The virtues of being introverted: Digital technologies and the human condition

1.1. A digital life rooted in an analog humanity?

Currently, digital humanism is mainly seen as a philosophical orientation that aims to preserve and promote human values, dignity, and well-being in the context of the rapid advancement of digital technologies. For this general framework, as well as for the existence of a specific debate on a possible digital humanism, we are strongly indebted to the “The Digital Humanism Initiative” led by the *Technischen Universität* of Vienna, which culminated – among other things – in the *Vienna Manifesto*, a public call to deliberate and act on technological development¹. In such a perspective (cf. mainly [Nida-Rümelin & Weidenfeld, 2022](#); [Werthner, Prem, Lee & Ghezzi, 2022](#)), “digital humanism” designates the project of building a society with humans at the centre of technological progress: it blends the humanistic ideals rooted in Renaissance Humanism with critical thoughts about technological progress, uniting the intellectual tradition of humanism with all similar movements that strive for an enlightened humanity. The final goal is to shape technologies in accordance with human values and needs,

ensuring human-centred innovation which fully respects universal human rights: the goal of technology – thus also of *digital* technology – is to serve humanity. Therefore, if digital technologies question our understanding of what it means to be human, digital humanism answers – to put it briefly – that what makes us human is *once again* our rationality and freedom, which allows every human being to understand, interpret, choose, be autonomous, and the like. This is the ground of all human values that can and should be instilled in digital technologies, guiding their design, use, and development.

This indebtedness to Renaissance Humanism also underlies the design of *The Onlife Manifesto*, which claims from its outset that the ever-increasing pervasiveness of ICTs radically affects the human condition, blurring – among other transformations – the distinctions between human, machine, and nature ([Floridi, 2015a: 7](#)), and exhibiting – as its main promoter stresses – the need for a fundamental re-engagement with the human project ([Floridi, 2015b: 21](#)). To follow [Floridi \(2016\)](#) again, one would also recognize that human dignity provides the foundation for all human rights (and also duties) in our digital, hyper-connected era, although not on the basis of some kind of human “exceptionalism + centralism” which views humanity as essentially distinct from any other entity, and thus as special and superior. Rather,

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¹ See the website <https://caiml.org/dighum/>.

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the exceptionalism is viewed through the lens of eccentricity, placing humans at the periphery of the universe and taking “special” to mean “strange” or “extraneous” to the normal course of nature. In this perspective, the human being is an outlier or an *apax legomenon* (an anomaly which appears only one time), such that human dignity indicates a *minus* and not a *plus*, that is, a deficiency or incompleteness – every cloud has a silver lining – that makes humanity a work-in-progress, an open software, a multi-potential being (*polytropos*). Thus, human exceptionalism would lie “in a special and perhaps irreproducible way of being successfully dysfunctional”, making humans “nature’s beautiful glitch”. This eccentric exceptionalism can in fact be found at the heart of the “manifesto of the Renaissance”, Pico della Mirandola’s *Oration on the Dignity of Man* (Floridi, 2016: 310). Thus, a genuine digital humanism would need to be built on that same humanistic basis, accounting for all the required updates: if we – extraneous to the chain of being – are neither angels nor brutes nor robots, it is because we are capable of becoming either, being endowed with consciousness, intelligence, mental life, and self-determination.

I do not want to claim that we should simply reject such images of humanity by stating, to the contrary, that we are irrational, non-autonomous, and unworthy, or that – if rationality and dignity have ever been our key features – we are no longer the only rational, free, and worthy beings, as happens when issues about the cognitive and moral status of robots, inforgs, AI, and the like are raised, more or less critically (cf. e.g., Coeckelberg, 2012; Danaher, 2019; Floridi & Sanders, 2004; Frischmann & Selinger, 2018; Gunkel, 2012; Himma, 2009; Nyholm, 2020; Søraker, 2014). Rather, I intend to highlight that when discussing the project of a digital humanism we should not ignore the key question: “what makes us human and how does the interaction with digital machines change us?” (Nowotny, 2022: 319). Taking this question seriously means that it is perhaps not enough to say that digital technologies question our *understanding* of what it means to be human; in fact, we find that they question our very *being* itself, namely, what it actually means to be human. If this is the case (which is nonetheless still questionable), the attempt to preserve or boost something (human rationality and intelligence) while it undergoes or is about to undergo a relevant change seems somewhat precarious, calling on us instead to inquire about the effective and/or potential impact of digital technologies on the human condition because how humans interface with the world truly matters. In this spirit, I propose to distinguish between an *extroverted* and an *introverted* digital humanism. Let me explain.

1.2. Between humanizing and being humanized

The digital or informational revolution has been described as the fourth “big turn” in human history, namely, as a new breakthrough producing great impacts both extrovertly and introvertly: this means that computer science and digital technologies not only change our comprehension of the external world but also modify our conception of who we are, that is, they affect our understanding of the external world as well as our self-understanding (Floridi, 2014: 87-100). In addition, this revolution is not simply epistemological, but also and perhaps foremost ontological: the digital revolution is not merely changing how we understand the world and ourselves (our representations of reality) but is directly transforming the world and – now most importantly – ourselves (reality itself). Digital technologies are effectively changing the world (extroversion) while changing us (introversion) and vice versa: after all, we are part of the world.

The difference between an extroverted digital humanist and an introverted one lies in what follows: an extroverted digital humanist is more focused on external transformations, tends to take an exterior point of view on digital technologies, and thus behaves consequently, trying to find a way to use digital technologies well, that is, to orient them towards the full development of humanity (or Humanity); an *introverted* digital humanist is more directed towards internal transformations and pays more attention to the fact that humanity, not being

a fixed essence, is actually affected by the use of technology (cf. also, in a similar vein, De Cesaris, 2018). Hence, an introverted digital humanist is more inclined to take an internal point of view on digital technologies, becoming more introspective and accepting the full consequences of the fact that we human beings are modified by our “own” technologies.

This is easier said than done, because an introverted digital humanist also has struggles to avoid the three most common biases or prejudices which affect anthropological-technological and anthropological-philosophical discourses, i.e.:

- a) *The dualistic stance*: that humans and technologies are a priori distinct as entities
- b) *The hierarchical stance*: that humans are the users (if not the masters) and technologies are the tools (if not the slaves).
- c) *The mind-purity stance*: that humans (maybe) are truly shaped by the technologies that they themselves design, but only when the interaction concerns the body, and by no means the mind.

In other words, it is difficult to endorse a truly relational view of the interplay between humans and technologies in general, as is suggested, for instance, by the so-called post-phenomenological approach to the philosophy of technology, according to which humans (as technologies too) should be seen not simply as the “pole” of an interaction, but as *the result* of such an interaction, that is, as something which is shaped in and through the relation (see at least Ihde, 2009; Selinger, 2006; Verbeek, 2015). But it is still much more challenging to endorse it when it comes to “psycho-technologies” (de Kerckhove, 1990), which in several ways affect our cognition while at the same time enhancing, reversing, retrieving, and obsolescing our faculties (McLuhan & McLuhan, 1988): not by chance, for a long time and partially still today, “despite the enormous impact of artifacts upon human cognition, most of our scientific understanding is of the unaided mind: of memory, attention, perception, action, and thought, unaided by external devices” (Norman, 1991: 17). The same philosophy of technology has now largely recognized that there are no human actions without technological mediation, in the deep sense that they are even moulded by interaction with technology, but its scholars do not yet seem to have seriously begun to ask what mediations concretely enable their own work, i.e., what the actual *technologies of philosophy* are and in what ways they can influence intellectual labours.

It is as if we have come to terms with the fact that technologies express our nature and that we exist and are organized thanks to them, at least on the surface of our discourses and practices; moreover, when things become more serious, we fail to incorporate such principles into our theoretical and pragmatical attitude. Thus, we continue to believe that technology is simply something “made” and in no way a “maker”, i. e., an anthropogenic factor, a fortiori when the “spiritual” side of our existence is at stake. Only with the dawn of the electric age (McLuhan, 1964) we have become familiar with the presence of machines generally understood to be “mental”, “smart”, “intelligent”, “communicative”, “interactive”, and the like, because they are engaged in cognitive tasks that require them to receive, store, process, and transmit information and data, such that we increasingly delegate and outsource to them our hitherto (*apparently*) internal intellectual activities. Indeed, this condition unsettles and displaces us, because digital technologies – from the first rudimentary PC to the latest generations of AI – by virtue of possessing or appearing to possess several properties traditionally exclusive to human beings, raise doubts about who or what humans really are and which properties (if any) are strictly human, particularly on the cognitive level.

This reaction is totally understandable but risks focusing much more on what humans are/were/have always been, and much less – or not at all – on what humans are becoming/could become, especially when the turn of rationality and cognitive features comes. And finally, instead of just or initially focusing *extrovertly* on what we can do with and to digital technologies, asking how we can humanize them, the real challenge for

an aspiring digital humanist is also or primarily to ask *introvertly* what such technologies can do *with* and *to* us, in the very deep sense of making us different, of re-humanizing us and – even more specifically – of making us “spiritually” different, affecting our “mindframe”.

2. Mind-building matters: Psycho-technologies and humanism

2.1. Machines that make us think

I am not merely advocating for a sort of post-humanistic or – more precisely – trans-humanistic stance, according to which our brain will be always more integrated with all the kinds of neurophenomenological technologies and consciousness technologies that one can imagine. Rather than pointing at “phenotechnologies” (Metzinger, 2009: chap. 8) or “neuroprosthetics” (Heersmink, 2021: 585-586), I want to stress that just as we are likely to accept that a “body-technology” such as the car has affected our way of moving in a sense that is far more than superficial (i.e., concretely reshaping our perception, posture, coordination, etc.), we are called to do the same with respect to a “mind-technology” such as ChatGPT, which uses the inputs of our minds to produce information that none of us previously had in mind (Esposito, 2022): it can truly affect our way of reasoning and not merely in a superficial sense. Our own history repeatedly demonstrates that whatever accompanies our *bodily habitus* holds also for our *mental habitus*: body-building and mind-building through technologies are two sides of the same coin in human experience.

Thus, I neither want to suggest that human beings and machines are indistinguishable, nor that there is nothing particular about our specific being, nor that we need to give up the attempt to avoid being de-humanized by these new “thinking machines”; rather, I want to insist that – if it really is the case – there can be no “de-humanization” without a further “re-humanization”. Therefore, a heartfelt plea for rationality (or whatever) might miss the target or just not suffice to describe our relation with technology because this very characteristic is changing or might change: there is scant reason to believe that our reason is destined to remain techno-materially unaltered – even assuming that it is a universal shared by all beings considered human regardless of any socio-cultural distinctions. An *introverted* digital humanist should make the most of this condition because it expresses, paradoxically, what in fact makes us human – a condition that seems really impossible to ignore today. Indeed, not only our mind is extended by objects and artifacts:

the primary source of our intelligence is our habit of extruding our minds (that is, our mental projects and activities) into the surrounding world, where a host of peripheral devices we construct can store, process, and re-represent our meanings, streamlining, enhancing, and protecting the processes of transformation that are our thinking (Dennett, 1996: 134-135).

Further, mind has as such “an artifactual character”, namely, the very fabric of our thinking not only is exosomatically embodied, but it also unfolds through and is shaped by external objects and technical artifacts, which activate new modes of thinking (Aydin, 2015):

an intellectual technology exteriorizes, objectivizes, virtualizes a cognitive function, a mental activity. In doing so, it reorganizes the intellectual economy or ecology as a whole and modifies in turn the cognitive function it was intended merely to support or strengthen (Lévy, 1998: 50).

From this perspective, an introverted digital humanist is firmly rooted within the “mediatic turn”, according to which human reason is finally recognized as mediatically contingent (Margreiter, 1999), such that the metaphysical equivalence of thinking and being is gradually replaced by the realization that if the thinking of being develops in time (naturally and historically), it also requires an external medium: not only the natural one of language, but also the artificial ones represented by all the cultural media of experience (de Mul, 2008: 155-157). On the

basis of such a truth, digital technologies, insofar as they offer “spiritual” scaffolding, are inscribed in the historical process of reason’s exteriorization and prosthesis through which our intellectual and cognitive tasks are offloaded into the environment and thus installed into material instruments and tools. These release the mind from the burden of some performances and at the same time liberate it to explore others, lending support to these explorations and tracking their possible direction. We could believe, to provide a counterexample, that the digital systems of automatic vocal transcription actually alienate us from a fundamental human ability to transcribe; however, they more likely provide an opportunity to delegate an annoying task to technology so that we are free to re-explore those same discourses, now re-objectified, from a renewed perspective. A thinking machine is always also a machine that makes us think – that invites us to reason differently, like it or not: it makes us free to have thoughts different than those that came before.

With digital technologies, not only the outsourcing and supplementation of human reason marks an entirely new phase of life, but its radicality could even be compared to the externalization of thinking through (alphabetical-typographical) writing, which provided the cognitive platform for skills such as documentation, codification, classification, organization, interiorization of language, self- and other-consciousness, meta-consciousness, abstraction, conceptualizing, interpreting, critiquing, inferring, analysing, synthesizing, etc. (cf. e.g., de Vos & de Kerckhove, 2013; Goody, 1977; 1986; Olson, 1994; 2017; Ong, 1982). Following this line, Bachimont points to a possible transition from “graphical reason” based on the deployment of time in space (the flux of speech becomes the lines of words), to “computational reason” based on the deployment of space in time (the running of a program): such a transformation results primarily in the emergence of a cognitive function linked with the systematic exploration of complex, dynamic, and interrelated spaces of abstract possibility through calculation – what is more commonly called digital simulation (Bachimont, 2010).

To simplify the idea, whereas we used to think in terms of listing, classifying, and organizing according to classes (spatially), we now become more accustomed to thinking in terms of possible relations that run and are executed through time (temporally); similarly, whereas we used to think about thinking itself in linguistic terms (as inner speech, inner dialogue, inner writing, etc.), we now think it in terms of code (as inner open software, inner simulation, inner programming, etc.). Equally, Nyiri claims that reason in the age of post-literacy is destined not only to deal with “networks, interactions and flows”, rather than focusing on “self-contained entities, concepts, or meanings”, but also to come to grips with “identities, implications, and demonstrations involving images and sounds”, rather than confining itself “to a logic of mere texts” (Nyiri, 2002: 195). These are possible examples of the contours not simply of something like a calculative, binary rationality, as if we were to think like the machines or vice versa, nor of a mere change in the objects of thought, but more profoundly of a new and different rationality *made through* the mediation of digital technologies.

2.2. When in a medium, do as the medium does

Discussing such a possibility implies that we do not gloss over the fact that traditional humanism, rooted in the Renaissance and/or the Enlightenment, is by no means technologically neutral; indeed, it is indissociable from a particular kind of psychotechnology – in a nutshell, *the book*.

It is no exaggeration to say not only that the rational discourse of Enlightenment was based upon the book, so that without it we would not have a culture drawing on reason (cf. e.g., Habermas, 1989; 2023; Sher, 2006), but also that – still earlier – Renaissance humanism would not have flourished without the relatively cheaper and more available production, consumption, and accumulation of books, which changed the very shape of knowledge and allowed doubt and first-hand thinking to become viral. “The influence of printing press was not limited to the dissemination of ideas; rather, it shaped the character of the Renaissance

itself”, although not in a mere unilateral deterministic way, because “the message of the printing press was the Renaissance and likewise the medium of the Renaissance was the printing press”, in a “bootstrap operation” through which they “created the conditions for their mutual development” (Logan, 1986: 185; see also e.g., Davies, 1996; Eisenstein, 1983; Füssel, 2005; Richardson, 1994). So, if the analog device of the book acted as the poietic context in which traditional humanism could develop, in the same way digital technology also creates the conditions for the rise of a new humanism (Gualeni, 2015).

Hence, it could be more fruitful to view digital humanism as a true transformation of, or even a challenge to, traditional humanism, rather than its reprisal or renewal. This often means that the dominant idea of the human based on the white, cisgender, heteronormative, able-bodied, adult, autonomous, independent, urbanized, handsome, healthy, etc. man – the so-called WASP (White Anglo-Saxon Protestant) or WEIRD (Western, Educated, Industrialized, Rich, and Democratic) – needs to be assessed critically and thrown away (Braidotti, 2022). Instead, the challenge here becomes also and above all *mediatic*, that is, a true technological issue: digital technologies taint our inherited humanistic culture of printing and books deeply affecting how we transmit and share knowledge, that is, the ways we produce, evaluate, receive, and transmit culture. In this way, “digital humanism” names the attempt to create new tools and establish new practices which better correspond to the specific affordances prompted by digital objects and environments, such as the new ways in which ideas circulate, expertise emerges, and documents are perceived as problematic (Doueïhi, 2011a; 2011b). Briefly, in this perspective a digital humanist is first of all one who tests and builds a new digital literacy, a new “reading & writing” competence: a new way of thinking and reasoning, openly stressing the need to revisit “the legacy of the Enlightenment”, anchored to the “fulfilment of the culture of the book and its institutions (university, publishing, press)” (Doueïhi, 2011a: 4).

This is not the same as simply saying that we should attempt a sort of digitalization of our past and present cultural products, nor merely that we should be open to communicate scholarship through digital artifacts which reach beyond the limits of traditional, conservative, paper-centric humanism, and thus most of the humanities, and take particular advantage of the new disruptive tools and methods of visualization (see e.g., Bourget, 2010: 364-365; Hall, 2011: 4; Hayles, 2021: 88-90; Hoffmann, 2015; Staley, 2017). Such a reflexive approach toward how we teach, do research, and publish is absolutely relevant and should provide the basis for new human objects and practices; however, it only scratches the surface of what penetrates the very heart of human embodiment: the process of learning to think *digitally* in the same sense that we think “bookishly” – a matter of the so-called *forma mentis*. Given this, are we sure that a manifesto is the most appropriate way to express the ideas and the project of a digital humanism? It is a matter of form rather than content – a form that shapes the matrix of any possible content. A manifesto is made of nothing but written words; it is not a video game, a short video, a graphic essay, an infographic, etc. Stressing this may seem captious, but it is absolutely revealing, as the act of producing a manifesto assumes that publicity – in the socio-political sense of being public – means immediately and uniquely, or at least first and foremost, making use of verbal-textual communication, namely, that the *Public Discourse*TM is made of written words.

The problem is that things are evidently changing, even under this aspect, because today – as has been made abundantly clear – “the new public sphere is mediated by the artificial intelligence”: it is *digitally* mediated, and “from static text on paper, we’ve moved on to ubiquitous hypertext, then to the surrealist Architext, which brings together all symbols”, such that “a virtual memory began to grow, secreted by billions of living and dead people, teeming with languages, music and images” (Lévy, 2023: § 2). If this is true, it seems difficult to keep taking for granted that the best if not the one and only way of reasoning is mediated – in the deep sense of being informed – by the “old school” humanistic technology par excellence, the book: in fact, it ceases to be

the *trend setter* in the market of knowledge production and transmission, such that its mediatic monopoly appears to be over or at least weakening (see e.g., Flusser, 2011: 3-4; Kittler, 1986: 4-7). Thus, for a true and radical introverted digital humanist, the challenge is not to produce yet another written manifesto that thinks and calls others to think, but to explore the other mediatic possibilities already affecting us.

Formulations like these may appear too rigid, because technologies and media go through a process of overlapping, hybridisation, intersection and remediation². Nevertheless, insisting on the specific affordances that digital technologies and media can offer us is at least a necessary first step if we really want to try to come to conceptual terms “with the fact that the dominance of the printed book as the medium of communication has become challenged by the rise of the new, electric and electronic media” (Nyiri, 2002: 185). It is true that “challenged” does not mean “defeated”, “replaced” and so on, but we cannot simply ignore that a challenge also gives us the opportunity to do a kind of stress test, by plotting a “what if” exploration of what it would be like to think differently, i.e. in a “non-bookcentric” way. In this vein, I argue that if today a humanist like Machiavelli were to feel the desire to give wise counsel to present and future political leaders, the most effective choice would be to design and build *The Prince* as a video game rather than as a book, taking full advantage of this new way of learning and knowing, and thus of thinking and reasoning, which had been marginalized – if not totally rejected – by the culture of the book.

The choice of referring to Machiavelli is not by accident: perhaps surprisingly, the Florentine humanist can help us to understand the specific formative, *humanizing*, power of simulation, i.e. the “mind-building” made possible through what we today call virtuality or virtual worlds – a process that he clearly predicted not in letter, but surely in spirit. The next and final section of the essay will clarify this claim.

3. Doing yoga with call of duty: The humanizing potential of digital worlds

3.1. The physical and mental fatigue of being a Prince

For Machiavelli (2009: 57-59), the art of command and the art of war were deeply intertwined: a true ruler “must have no other aim or consideration, nor seek to develop any other vocation outside war, the organization of the army and military discipline”, in order to be ready for any eventuality. With war, it is not a matter not of “if” but “when”: thus, the ruler “must never stop thinking about war and preparing for war and he must work at it even more in peacetime than in war itself”. Machiavelli explains that the ruler exercises two fundamental forms of continuous training: one physical, and the other mental. The mental form is relatively simple: it involves studying, that is, “reading history, in particular accounts of great leaders and their achievements”. The physical form, however, requires the ruler to keep his men “exercised and disciplined” (viz., make *them* train), but also that he hunts in order to “toughen up his body” and to master a more refined practical knowledge of the conformation of the territory (viz., training in first person). In all this, the Prince “should study really carefully”, because “this kind of knowledge is useful in two ways”: it will improve his ability not just to defend the country, but also to evaluate unknown territories, taking advantage of that similarity (*certa similitudine*) between home provinces and foreign ones, which allows the former to serve as a model for the latter.

I think it is quite clear: on the mental side, Machiavelli is saying that reading books can strengthen your intellectual and declarative knowledge, a “knowing-that” which provides a wider range of mental representations associated with war, strengthening one’s abstract, reflexive, and critical attitude towards it. On the physical side, Machiavelli is defending the formative power of play and simulation, or – we can say –

² I would like to thank the second anonymous reviewer for raising this issue.

of *simulative play*, namely, a “knowing-how” in which sensorimotor learning can take place in a freer way. “Freer” means that it is relatively free, viz., with more freedom *than*: compared to a virtual war, hunting is more dangerous for sure; but compared to a traditional physical war, hunting is clearly less dangerous – and that is why it can be truly formative: you can act *as if* you were in war, focusing on learning, discovering, testing, experimenting, exploring, and so on. In the same vein, Machiavelli also stresses the importance of what is called “bar sport” in Italy, that is, the verbal exploration of possible worlds with friends that accompanies sporting events – when fans stand in the coach’s shoes and advance hypotheses, suggest scenarios, give opinions, propose solutions, and so on. He points to the Achaean leader Philopoemen, who promoted a version of “bar war” during his army missions in which anyone could—in this case—stand in the strategist’s shoes:

even in peacetime he thought of nothing but military strategy and when he was in the country with his friends he would often stop and ask them: If the enemy were over there on that hill and we were down here with our army, who would be in the better position? How could we attack them without breaking ranks? If we decided to retreat, how would we do it? And if they retreated, how would we go after them? And as he and his friends went along he would list all the predicaments an army can find itself in. He listened to their ideas, expressed and explained his own; so much so that, thanks to this constant work of mental preparation, when he was back leading his armies there was simply nothing that could happen that he didn’t know how to deal with (Machiavelli, 2009: 57-58).

The mental and physical exercises invoked here by Machiavelli correspond to two fundamental kinds of knowledge and learning: the symbolic-reconstructive mindset and the sensorimotor mindset. For the purpose of this paper, it does not matter if one form of knowledge and learning is better than the other (basically, it depends on which formative and educational goals have been fixed – be it directly or indirectly); rather, what counts here is to interpret such a distinction through a mediological lens³. First of all, their main differences can be summarized through the following table and explanation (I draw particularly on Antinucci, 2011; Gee, 2003; Kondor, 2008; Lacković & Olteanu, 2021) (Table 1).

The symbolic-reconstructive mindset is the kind of situation directly implied by the book: there are lines of symbols that follow one unique direction and compress all possible information and perceptual contents; one should decipher (recognize their aspect) and decode them (find what they stand for), before reconstructing the reference of the discourse and interpret the intention of the author, in order to finally master a set

of facts. In other words, one is called to understand and represent the meaning of the discourse in one’s mind, gaining a detached comprehension of what is described by the written characters into which any possible bodily and sensory process is converted, now freed from of its material conditions. In this way, one is encouraged to reason via logic and general abstract principles detached from experience, making grand generalizations, finding comprehensive rules, contemplating passively, etc., as to store facts and memorize definitions and descriptions which are not necessarily – and even should not be – associated with images, actions, experiences, and interactions in situated worlds. Despite the possible cultural differences, educational interactions in many disciplines today still remain uncritically entrenched in this kind of “bookish” mindset: this happens mainly when the *humanities* are involved, as they are structurally based on general and purely verbal meanings, providing little opportunity for embodied actions in extra-textual contexts – if not prescribing stillness (try to read this paper while running!). Briefly, a symbolic-reconstructive mindset provides general, decontextualized, and disembodied meanings which are made to be represented and not to be practiced – meanings that one has to be “conscious of”: this is where both its merits and demerits arise.

The sensorimotor mindset, on the other hand, concerns the design of concrete experiences whose environment generates effective and multidimensional engagement, that is, allows the learner or user to move and perceive, thus to interact, in an environment which supports and promotes the possibility of circumspection, perspection, inspection, intervention, modification, coordination, and so on. This produces a reinforcing feedback circle of effective pro-jection or action and retro-jection or counter-action, made of repetition and improvement, manipulation and critical reflection, observation and transformation, etc.: it is an iterative and augmentative cycle to probe, hypothesize, reprobe, and rethink, in which perception and action cooperate in building a first person and first-hand apprehending, grasping, and catching in a truly pragmatic sense. This time, movement is prescribed (try to swim without moving!). Briefly, the sensorimotor mindset provides situated, embedded, and embodied meanings (viz., experiences), which need not be verbalized and stated uniquely to be significant: again, this is where both its affordances and limits originate. That said, the most important thing to be stressed here is that this mindset brings the digital technologies into play – literally.

3.2. Don’t make me read. Let me play!

Traditionally, the sensorimotor mindset was found in educational situations such as lab activities, craft knowledge transmitted within ateliers, apprenticeships, and the like: it did not have a specific extra-organic medium through which it could be stored, transmitted, shared, modified, etc., that is, become fully public; eventually, it would be converted into the format of the written text, or translated into pseudo-interactive representations such as theater (before cinema and tv).

Notably, this kind of operation is exactly what video games and virtual simulated worlds in general provide today – for the first time in our history; in fact, simulation is a powerful tool for designing and communicating a set of possible actions, that is, for making a world and acting in a world, for creating a situation and playing within a situation. Thus, it is not surprising that video games have been (correctly) described as a technique to inscribe and transmit sculpted agencies, letting us share and store modes of agency, finally creating a public archive or library of agencies: this means that video games represent the crystallizations of practical action – they sculpt structures of practical reason. In this perspective, video games find their own peculiar place in the history of the technologies invented for recording aspects of our experience: just as paintings, photographs, and movies record sights, and novels, movies, and songs record stories, so too do video games record agencies, creating the possibility to live the experience of choosing, deciding, and strategizing, trying out unfamiliar ways of

Table 1

The main differences between the symbolic-reconstructive mindset and the sensorimotor mindset.

<i>Symbolic-reconstructive mindset</i>	<i>Sensorimotor mindset</i>
unidirectional	multidirectional
unidimensional	multidimensional
decoding	perceiving
extracting	moving
interpreting	acting
reconstruct	repeat
→ meaning	→ experience

³ After all, the same sharp separation between intellectual and e-motional learning, which culminates in the contraposition “between knowing and doing, theory and practice, mind as the end and spirit of action and the body as its organ and means” (Dewey, 2001: 343), represents one of the most relevant by-products of alphabetical-printing culture.

being, more easily – with a greater flexibility. Briefly, video games offer a true *yoga for agency* (on all this, see [Nguyen, 2020](#): 74-100).

Thus, virtual digitalized worlds offer a true *agency training*: they enable us to build experiential gyms, pushing our ability to conceive and realize games, i.e., our playing attitude, to its extreme limits. Paradoxically, it is as if our play has now become *really virtual* or *truly fictional*: we can fake seriously, such that games can represent the true organon of culture, that is – Schiller's triumph – the main medium for the education of human beings (cf. [de Mul, 2016](#)) for their humanization. This also means that our old mental games, simulations, or experiments now become extra-mental games more easily, extending their range to others: they can actually be materialized, externalized, manipulated, transmitted, interacted, and so on and so forth – in a word, executed ([Schulzke, 2014](#)). Hence, we are dealing with new ways of developing, negotiating, understanding, shaping, disseminating, etc. our ideas, notions, arguments, concepts, and the like, which promotes the design of interactive, environmental, and operative experiences, able to activate peculiar mental exercises and thought processes. These can present a consistent degree of “unreality” and “speculation”, or can reproduce, with higher fidelity, those very same patterns normally encountered in typical material circumstances.

In other words, what in the past was conveyed by writing can now be made directly playable, and more precisely, video-playable: it is a truly epoch-making transformation. Let me explain with an example, as trivial as it is revealing. In the pre-digital era, if a chef wanted to teach how to cook a sublime *pasta carbonara*, the most rapid and accessible way was to describe the recipe in a written text, viz., to publish a book (possibly an illustrated one), which could reach infinitely more people than a face-to-face workshop. In the digital era, instead, it is much more efficacious to share the recipe by recording a YouTube or TikTok video, or to hold a cooking class by streaming on Twitch, or to make it more participative by using Zoom & C., or even – why not – to design a virtual interactive cooking experience through a video game, VR-environment, or whatever. One should not fall into the usual trap: a video-played *carbonara pasta* is not like the physical one that you can eat, for sure, but the same goes with a textual *carbonara*, which is neither edible nor inedible – in this regard, they are both virtual, even if in different ways.

So, a video-played war is neither like a live-action war (not considering how the second is being gradually reshaped by the first, in its instruments as in its modalities), nor is it like a traditional war drill on the field (just as video-hunting is not like physical hunting); and while one should never forget that the description of a war can never replace a live-action war, what matters for our discussion here is the genuine formative power of video-playing, i.e., its *humanizing* potential: designing and testing a video-played war – which, I agree, does not sound like the best possible example – is a way of expressing and shaping our soul, if one wants to use such a word. Just to mention a popular case, the F1 driver Max Verstappen declared that through “simracing” he not simply learns tracks, sharpens his reflexes, refines tactical intelligence, and improves other related abilities, but he also hones his in-track overtaking skills, to the point that – after overtaking the driver Felipe Nasr in Spa GP – he said (it was 2015 and he was just a rookie):

it's always good because you know how much space you have. Also on simracing, sometimes you go a bit too far and you know that you can't do it. I think it helps me. I mean I did it for Spa and I did it again for Monza and two times it worked on the real track. The overtake I did on Nasr, I did exactly the same in the sim again.

This corresponds to the kind of physical training Machiavelli described, albeit the simulation here is mediated digitally and not analogically; but at the same time, it also plays the role once designated for mental “bookish” training, while also transfiguring it. Significantly, it should also be emphasized that simracing is performed online, thus it involves a community of players, which supplements gaming action with dedicated chats, forums, servers, and the like. With this in mind, the training today for the ruler suggested by Machiavelli would consist

in – or, maybe better, be integrated with – *video-playing at war*: the prince would be called to engage with the multiple complex challenges of *Call of Duty* or whatever, which would also offer to a digital Philopoemen the possibility to play online with friends and the community of all other players, and to exchange ideas, tricks, moves, interpretations, etc. All this represents a genuine yoga for human agency, thus for human rationality: for humanity as such.

In the face of such mediological refreshes, can we really still be content with yet another wordy manifesto on digital humanism? Are we sure that writing a manifesto really does justice to the peculiar thinking and reasoning affordances which are offered by the new digital psycho-technologies? Why not design a *playable manifesto* for the digital humanist? To clarify once again: this is not to say that traditional, analog mental training (viz., writing/reading books) is going to be erased or must be erased, such that the symbolic-reconstructive mindset will be inexorably substituted or must be quickly substituted; but – to say the very least – we should recognize that such mind-building is destined to be more and more integrated with the new digitally virtual possibilities of expressing and shaping our mind, thus of re-designing our (always technologically mediated) ways of being human ([Pezzano, 2024](#)).

4. Conclusion

In this paper, I started with a reconstruction of the anthropological paradigms underlying *The Vienna Manifesto* and *The Onlife Manifesto*, insisting particularly on their rootedness in Renaissance and Enlightenment Humanism. Then, I distinguished two possible approaches to digital humanism: an *extroverted* one – today prevalent – and an *introverted* one. I claimed that while the first is principally engaged in finding a way to humanize digital technologies, the second points instead its attention on how digital technologies can re-humanize us, particularly our “mindframe”, putting effectively into question the dualistic framework according to which the anthropological-technological and anthropological-philosophical discourses still today tend to interpret the relationship between human beings and technologies. On this basis, I stressed that if we take seriously the consequences of the “mediatic turn”, then we should accept that just as it was the book that created the poetic context for the development of traditional humanism and its “bookish” idea of private and public reason, in the same way digital technologies can today produce the conditions for the rise of a new humanism and a new idea of private and public reason. In this vein, I offered an original reading of passages from Machiavelli's *The Prince*, in order to analyse the possible humanizing potential of digital simulated worlds: I compared the symbolic-reconstructive mindset and the sensorimotor mindset, highlighting their respective mediological association with the book and the video game, and stated the importance of taking advantage of the peculiar thinking and reasoning affordances which are now offered by the new digital psycho-technologies.

In particular, the hypothetical outline of a new digital rationality based on embeddedness and situatedness took shape: a way of reasoning that gives more relevance to perception and action in higher cognitive functions and connects practice and thinking more directly, problematizing the assumption that written language is the sole or main mediator of knowledge. This might even lead us to conclude that the same questions concerning the meaning of being human and the alteration of the human mind through technologies – which this paper has dealt with – are still tied to the medium of the book, for they seem to be posed in essentialist, abstract and universalizing terms. All this is not to say, however, that books are no longer needed, that the bookish mentality should disappear completely, and that the new media will finally make our reasoning free from any kind of limitation – i.e., omnipotent. A digitally simulated world cannot disclose new opportunities and chances without imposing at the same time some kind of restriction and constraint, because this fate is shared by every medium which truly shapes our mind – that is, which presents itself as a genuine *condition of real possibility* for thinking and reasoning. Hence, the task for a true

introverted digital humanist lies precisely in having skin in the game: to explore first-hand the territories of the digital psycho-technologies and test their limits. After all, this was already Machiavelli's advice: never stop practicing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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