ARE WE HEADING TOWARD A DISEMBODIED EDUCATION?

Antonio Borgogni[1]
University of Bergamo
antonio.borgogni@unibg.it

Agnese Graticola
University of Bergamo
agnese.graticola@unibg.it

Dario Acquaroli
University of Bergamo
dario.acquaroli@unibg.it

Silvia Sangalli
University of Bergamo
silvia.sangalli@unibg.it

Double-blind Peer Review

Citation
Borgogni A., Graticola A., Acquaroli D., Sangalli S. (2026). Are We Heading Toward a Disembodied Education? *Italian Journal of Health Education, Sports and Inclusive Didactics10*(4).

Doi: https://doi.org/10.32043/gsd.v1i4.1857

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gsdjournal.it
ISSN: 3103-5744

ABSTRACT
Han argues that the "new" power of (digital)neoliberalism rejected the body as the object of industrial production and social control. The body has been reduced to a commodity to be "purchased" in gyms and through beauty and health treatments. The end of the phase of social control organized through defined spaces (schools, barracks, offices, prisons, gyms, etc.) results in a stronger transition to self-containment. Bodies are no longer the objects of control because we submit to the power by simply clicking "like" (a quasi-bodiless action) without actually being physically constrained.
Is the body becoming obsolete in education? Even those facing this "dilemma" (Panciroli & Rivoltella, 2023) hesitate to explore the theme of the already marginalized body. Will the "absent presence" of the pandemic permanently characterize education? A corporeal, human, and analogical turn (Sheets-Johnstone, 2011) in education is therefore necessary to valorize adults' and pupils' bodily experiences, limits, and errors.

KEYWORDS
Corporeal Turn, absent Presence, digital Neoliberalism

Received 09-07-2026
Accepted 26-09-2026
Published 30-10-2026

[1] A.B., conceptualization; writing original draft preparation (paragraphs: introduction, 1, 2, 3, 4, and conclusions), revision, and editing; corresponding author;
S.S., writing original draft preparation (paragraph 3), revision, and editing;
D.A.: co-writing paragraph 1; revision and editing;
A.G.: co-writing paragraph 2; revision and editing.

1. Introduction

For centuries, scholars have debated the body–mind(–soul) relationship as a "knot of the world." Feigl (1967) stated that Schopenhauer "rightly viewed the mind–body problem as the Weltknoten [a cluster of scientific, epistemological, syntactical, semantical, and pragmatic] intricate puzzles." It was a very complex knot that, beyond ideological, religious, or mainstream scientific reflections, was deemed unsolvable.

The irruption of artificial intelligence (AI) into daily life, as well as into scientific and academic procedures and writings, presents us with a new challenge that calls into question the essence of the relationship and transforms the two units of the binomial themselves: the body risks annihilating or dis-embodying (it)self, and the mind seems replaceable.

2. Discussing Artificial Intelligence

In a video interview, Sir Roger Penrose, the 2020 Nobel laureate in Physics, argued that the very name is wrong: artificial intelligence is not intelligent because it lacks consciousness, a characteristic that a machine will never have. He said that "AI is a bad term; it means artificial intelligence. Now, in my opinion, intelligence is conscious. This is what intelligence is all about. So how can I call it artificial?" (This is The World, 2025). While semantics are relevant, Penrose's thinking goes deeper: people have been mesmerized because they have stopped wondering what intelligence really is, and the entire field has thereby lost its thread.

The point is the difference between cleverness and understanding. People can repeat what they have learned, calculate brilliantly, and apply formulas with precision. None of those "performances" proves that they understand what they are doing. Machines process, pattern-match, and even generate, but they do not reach the human level of understanding in the deeper sense.

Penrose's broader theory, built across decades of study and rooted in Gödel's incompleteness theorem, is that consciousness involves processes that no algorithm can replicate. Computation alone cannot cross that gap. His position is not anti-AI or anti-progress. Penrose has no problem with the technology itself; his objection is to the language we use, and the assumptions hidden inside it (This is The World, 2025).

We could advocate for an educational–economic alliance to revise the design of AI responses in the top Google searches: 60% of searches in the United States end without clicking on a link. From an economic viewpoint, the AI summary reduces website traffic, making profit harder to achieve. From an educational (learning) viewpoint, it undermines curiosity - understood as the wish to bridge the gap between what you want to know and what you find out, and the state in which we better remember unrelated information (Gruber, Gelman & Ranganath, 2014) - both of which activate the reward mechanism in the brain (Oudeyer, Gottlieb & Lopes, 2016), and it thereby eradicates incidental learning, the mechanism adding serendipity to the research hidden behind many discoveries. As Le Cunff states:

> Our technology is increasingly treating the territory between the query and the answer as dead space to be eliminated, when that territory is where most of the learning actually happens […] the space between a question and an answer has a value (2026).

We could also think of an educational algorithm that, opposing the manipulative logic of the commercial algorithm, can "do it with emancipatory purposes, supporting the development of metacognitive skills" (Caligiuri, 2026, p. 84) while recognizing that this would involve a significant financial investment.

In any case, in light of Penrose's reflection, we would argue that "replacing" the mind with AI diminishes human consciousness. We should rediscover the human thread or, possibly, a new thread rooted in humanity's tangible experience.

3. Biopolitics and Psychopolitics

In this contribution, we think of the physical body as a "Trojan horse". Physical presence alone is not an all-embracing solution, but it can actively slow down, confuse, and disrupt AI's apparent dominance over us. In educational settings, a "present body" set against an "absent body" contests this overwhelming digital control. By stopping us from outsourcing our everyday choices and intellectual production to AI, physical engagement, through tangible experience, protects brain development and prevents cognitive decline.

However, according to Han (2025), these outsourcing processes began considerably earlier. The body, in fact, has been dismissed since the "new" power of (digital) neoliberalism rejected the body as the object of industrial

production and social control. The body has been reduced to a commodity to be "purchased" in gyms and through beauty and health treatments. The end of the phase of social control organized through defined spaces (schools, barracks, offices, prisons, gyms, etc.) results in a stronger transition to self-containment. Bodies are no longer the objects of control because we submit to authority by simply clicking "like" (a quasi-bodiless action) without being physically constrained.

The disciplinary regime was - and still is - a form of domination of industrial capitalism and takes a mechanical form. Each person is a cogwheel within the machine of disciplinary power. The latter insinuates itself into nerves and muscle fibers and creates a docile body, which can be subdued, used, transformed, and perfected. In this scenario, docile bodies, like production machines, are not carriers of data and information but carriers of energy. "Under a disciplinary regime, human beings are drilled to become labouring cattle" (Han, 2022, p. 2).

In the information regime, freedom entails clicking, "liking," and posting rather than engaging in action. We describe the information regime as that form of domination in which information and its diffusion determine decisively, through algorithms and AI, social, economic, and political processes (Han, 2022). Unlike under the Foucauldian disciplinary biopolitical regime, it is not bodies and energies that are exploited but information and data. Decisive for the attainment of power is not the possession of the means of production but rather access to information (AI is hungry for it) that is used for psychopolitical surveillance, control, and prediction of behavior. The information regime is accompanied by information capitalism, which evolves into surveillance capitalism and downgrades humans to "consumer cattle that provide data" (Han, 2022, p. 1).

Herein lies the "crisis of freedom" (Han, 2025, p. 1) at the exact moment when freedom and surveillance correspond, allowing surveillance free rein to be coercive. This is, moreover, a classless auto-exploitation that Marx did not foresee either: exploiters and the exploited alike share the same tools and, ultimately, share the same mentality[2]: the social revolution thus becomes impossible. The accommodating benevolence of almost total transparency produces conformity that seeks to suppress deviation. "We had just freed ourselves from the disciplinary panopticon - then we threw ourselves into a

[2] It is perhaps necessary to refer to the cultural and methodological historiographic approach developed by the École des Annales: the history of mentality (Histoire des mentalités) as an analysis of collective representations, beliefs, fears, and intimacy.

new, and even more efficient, panopticon" (p. 6). Completing Han's reflection, we think that freedom from the disciplinary panopticon has not been resolved and that the two surveillance systems are working together, a sort of contemporary and post-contemporary controlling alliance, in which one separates people, and the other connects them[3].

Disciplinary techniques, such as spatial isolation, strict labor regulation, or physical training, are rendered obsolete in the information capitalism regime, which is founded on connection and communication. In the information regime, individuals are neither docile nor obedient. They are submissive precisely because they believe they can produce and perform their true selves while believing they are free, authentic, and creative. The target of disciplinary biopolitical power was - and still is- the body. For capitalist society, it is the biopolitical that is paramount, the biological, the somatic, the corporeal. Within the biopolitical regime, bodies are subjected to a production and surveillance mechanism that optimizes them through "disciplinary orthopedics." We would like to highlight the extent to which this surveillance system has been, and continues to be, evident in the control of bodies in our educational institutions.

On the contrary, the information regime does not pursue any biopolitics. It is not interested in the body but takes possession of the mind through psychopolitics. According to Han (2025), today the body is primarily a sanitary, aesthetic, and performative object. At least under Western information capitalism, the body is largely emancipated from authoritative power that conditioned it to function as a labor unit; thus, it becomes a small pawn in the beauty industry.

4. Pedagogy, Body, and Artificial Intelligence

Panciroli and Rivoltella (2023), in their navigation through the culture of AI, highlight three key instances.

Postmediality determines the end of the era in which the apparatuses of power controlled the mode of communication, which was one-to-many. This mediation was a distinctive characteristic of mass communication (Panciroli & Rivoltella, 2023, p. 12). The space of the public debate had only been possible through this mediation, which we would like to add was also the origin of the communication, representing itself as a reliable source. The de-mediatization

[3] "Connecting people" has been the Nokia slogan since 1992.

transforms the spectator into a sort of spectator-author, able to interact, thus influencing the media programs.

Platformization overcomes the need to build and own the infrastructures used earlier, a sort of light capitalism (e.g., online trading) identifying itself with the reciprocal flow of information between the holder of power (in this case, the owner of the data) and users and no longer with agricultural products or consumer goods. This "digital capitalism" is voracious for our personal data, which constitutes the "informational self" of the person (Floridi, 2011), while "we are our data" (Panciroli & Rivoltella, 2023, p. 15). The algorithms are the core business of the platforms: the more we feed the system, the more, at least theoretically, the algorithm learns about our preferences.

From here to *datization* is a short step away, because it induces us to speak of a "code society" (Rivoltella, 2020) or, noting Accoto (2019), a "data society." This leads us "to think of a social form in which the code proposes itself as a dispositif capable of imagining and building, in whole or in part, the society itself, or acts as a condition of a priori thinkability of artifacts and services" (Panciroli & Rivoltella, 2023, p. 16). Pasta (2024) reminds us in a very interesting review of the book in which he also embraces Han's viewpoint - that triple educational perspective (to educate "at," "with," and "the" AI) should then face the dilemma of the "Inevitability of the 'what to do'?" (p. 284).

5. What to Do in Education? The Monkey's Wrench

The initial answer to accept, as a given, that the body, this undocile "thing" that wanders around the school, has become outdated in education. Even those facing the educational "dilemma" (Panciroli & Rivoltella, 2023) hesitate to explore the theme of the already marginalized body, perhaps precisely because it is disregarded. Thus, will the "absent presence" of the pandemic permanently characterize education? Has it been just the first phase of a definitive exclusion of the bodily dimension in education, and of the construct of corporeality in pedagogy and philosophy? Did the school solve, pragmatically, the mind–body problem by simply removing one of the two terms of the binomial? Are remote classes, then, the future of education? Fortunately, looking at school experiences in some countries, we cannot maintain that the body is universally marginalized. Unfortunately, considering other countries including Italy, this appears to be an immediate risk (Borgogni, 2018).

A more rational and wiser response can follow at least two paths leading from the exploitation of the aforementioned partial freedom from the disciplinary panopticon.

The first path takes the form of undergraduate and continuing education for teachers, primarily to avoid the risk of addressing bodily psychopolitics with a biopolitically-minded educational approach (by which didactic relating to the body is infiltrated). Education, however, should not promote the use of digital and AI substitutes, sometimes a *deus ex machina*, either to address teaching difficulties or as teaching slogans. Rather, education is required on the use of the digital world as a tool - a hammer, or rather a "monkey's wrench"[4] (Levi, 1986) - a tool to be used to succeed in a continuous learning process, because the pedagogical challenge to AI needs a change of paradigm, a new reactive paradigm.

Alongside and intertwined with education, the second path is symbolized by the triple invocation "body, body, body" (asserted while dancing, acting, walking, playing, jumping, etc.) as an antidote to the distorted use of digital tools and AI. In a bodiless school, in a school without corporeal experience, digital tools and AI risk becoming the preeminent form of learning[5]; in a school based on experience, digital and AI learning are integrated alongside other forms of learning.

Our country's education system - like others but to a greater extent - has forgotten the body as a protagonist and mediator of learning: apart from good practices in nurseries and kindergartens, the bodies of our children, the zero point of the world (Foucault, 2006[6]), are relegated to impersonal spaces of very poor-quality construction, made to sit for five hours and, increasingly in the post-pandemic period, forced to remain seated even during breaks. What educator, psychologist, pediatrician, or philosopher has ever suggested this? Where is the scientific literature demonstrating the benefits of this educational atrophy?

At least in Italy, with significant exceptions (primarily the work on embodied cognition and embodied education, e.g., Damiani, 2022; Damiani & Gomez Paloma, 2021; Gomez Paloma & Damiani, 2021; Gomez Paloma, 2017; Peluso

[4] The "Chiave a stella" (adjustable spanner or monkey's wrench) is the title of a novel by Primo Levi, originally published in 1976.
[5] The pre-eminence means not only in the didactics use.
[6] The chapter is a transcription translated into English (by. L. Allais and the Editor) of a Foucault 1966 radio broadcast (Le corps utopique) published in 2004 by the Institut National d'Audiovisuel, Paris.

Cassese & Torreggiani, 2017), there is a lack of a substantial body of scientific work that acknowledges the role of the body in learning processes. Today, we offer a cultural model of corporeality (school, parental, regulatory), an educational habitus that simultaneously regiments, controls, and forgets bodies.

Therefore, in a disembodied education, how can we avoid falling into the void of constant use of media and, more recently, AI? For pedagogy too, how do we fill that space? How do we discern truth from information (well understanding that digital tools, media, and AI are involved in this dust-raising wind, including adult educators, parents, and young students, all cocooned in the same mentality)?

6. Discussion and Conclusions

According to Han, there are, apparently, no solutions.

He mentions Hanna Arendt when highlighting the existential meaning of truth, characterized by duration versus the ephemeral nature of information: "Conceptually, we may call truth what we cannot change; metaphorically, it is the ground on which we stand and the sky that stretches above us" (Arendt, 1967, p. 264). Han maintains that Arendt "still lived in the terrestrial order. In the digital order, this stability gives way to the fleetingness of information […] The age of truth appears to be over. The regime of information has supplanted the regime of truth" (2022, p. 58).

The very end of his *Infocracy* is discouraging:

> In a totalitarian state that is built on a universal lie, speaking the truth is a revolutionary act. The parrhesiast has the courage of the truth. In the post-factual world of the information society, by contrast, the urgency of truth completely evaporates. It is lost amid the buzz of information. Truth collapses into informational dust, which is blown away by the digital wind. The reign of truth will turn out to have been a brief one (2022, p. 59).

According to Pasta (2024), who also mentions Han's categorical statements, the pedagogical perspective presented by Panciroli and Rivoltella aims to avoid the collapse of the truth into "informational dust" that is "blown away by the digital wind," opening a pedagogical perspective through the aforementioned education "at," "with," and "the" AI. Pasta maintains that education "exists exclusively as a process devoted to the change because the transformative

tension of reality is a crucial character of the pedagogy" (p. 285), whose origins lie precisely at the point when changes such as those due to AI occur. This discourse, however, does not seem to have influenced schools, at least not in Italy, where the spaces and times for the moving and expressive body have been gradually regimented by more restrictive rules.

We think that the three solid paths suggested by Panciroli and Rivoltella should be substantiated by a new corporeal turn: body, body, body!

As we discussed in other papers (Borgogni & Zappettini, 2022), the students' and teachers' bodies pervade schools every day. Swarming and inundating, bodies wander through buildings, gyms, schoolyards, offices, classrooms, converting them from neutral, lifeless physical spaces into lively, embodied, sometimes chaotic places (Bateson, 1977; Bocchi & Ceruti, 1985) where life exists (Eichberg, 2010). Life also goes on in the interstices of the regimented school timetable, behind the doors of the rooms, aiming to be freer during recesses.

A corporeal, human, and analogical turn in education is necessary for valorizing adults' and pupils' bodily experiences in schools. The "corporeal turn" emerged within the framework of post-1968 complexity and feminist studies, building a bridge between the humanities and the experimental sciences. The debate about correlations between the body (physical or biological) and the mind (soul, spiritual, or non-biological) emphasized the need for a comprehensive examination of corporeality as a post-modern, global phenomenon.

The sociology of the body and neo-feminist philosophies deserve credit for adding the body to the agenda of modern social theory. But: whose body? Perhaps "some bodies, then, are present but immediately rendered absent—they are mediate, rather than proximate; they slide from view at the boundary between the corporeal and the social" (Shilling, 1993).

The absence of the body is thus claimed: an absence of first-person experience at school, where the absence of the "body below the chest" is normal. The absences obscure the source of emotions; they constitute an absence of whole-body qualitative dynamics (Sheets-Johnstone, 2011).

As Kayman (2016) points out, the reciprocal relationship of the spectator with a body in schools is significant because it includes their own "corpus," meanings, values, others, and the environment. The interaction is shared by other members of the community. Reinforcing this perspective, Sheets-

Johnstone reminded us that contemporary attention is given to consciousness and the brain at the expense of proprioception and kinesthesia. She expressed the need to "de-elevate the brain and to begin seriously considering the […] heritage rooted in movement, that is, in the tactile–kinesthetic body" (2011, p. 162).

The rise of the somatic society (Turner, 1984; Juvin, 2010) has become the subject of various social and humanistic studies. The phenomenological approach offers a holistic viewpoint according to which the human being is seen as a unity of body and mind, behavior, and situation, since the body acts in different spheres including the physical, spiritual, emotional, and social.

Precisely now, when the "digital dust-raising wind" blows into schools' procedures and learning processes, and into people's minds, a new pedagogical, corporeal turn is required, aiming to revolutionize school educational rules and routines in order to offer pupils and adults a new paradigm of school based on experience[7].

That is, a new (after Floridi, 2011) re-ontologization of the self in education passing through a re-ontologization (meaning, according to Floridi [2011, p. 563], "change the very nature of") of the body in education.

Going further with an intentionally provocative ending: can we speak of an enminded body (Brandt, 2011) alongside embodied cognition?

[7] Many schools manage their organization, timetable, teaching as if Dewey or Montessori, and hundreds of scholars, had never existed.

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