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The Possible Body: corporeity and learning in the age of social media

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Abstract: This contribution stems from the need to reflect on the new configuration that the body and corporeity are taking on in the light of the introduction of digital media in recent years. The role of corporeity in learning processes, the possibility of projectually constructing informal learning places with the use of social media, calls into question the very role of education and instruction, reshaping the demands placed by society on educational institutions: societies and institutions that are fully experiencing the changing anthropological, cultural, communicative and educational landscapes. From the construction of new hybrid spaces to the possibility of activating multimedia and multimodal experiences, educational mediation changes and feeds on continuous innovations introduced at an increasing pace. The experience held in two secondary schools in the Marche region makes it possible to reflect on the depth of the issue and the need, in this wave of continuous change, to place the body, increasingly exposed to the risk of becoming impossible, at the centre of learning dynamics.

Keywords: Corporeality; Learning; Social Media; Education.

1. The body in learning

The Embodied Cognitive Science approach (Barsalou, 2008; Glenberg, 2008a, 2008b; Paas & Sweller 2012; Wilson & Foglia, 2011), and more specifically the Embodied Cognition paradigm, offers a privileged interpretative lens for understanding the nodal role of corporeality in all human cognitive acquisition. This paradigm is based on the idea that the brain, while central, is not the only resource available to generate cognitive behaviour and processes:

« Contemporary research broadens the cultural and pedagogical consideration of the body as a dimension that cannot be identified solely with the physical component of the person. From this point of view, corporeality represents the reflection of the wholeness of the person, which is first and foremost experienced, perceived, felt, recognised in a multiplicity of nuances, sensations, activities, and paths that we explore starting precisely from the body: playing, thinking, expressing emotions, communicating, loving are activities to which we could not give course without the decisive contribution of the body.» (Tosi et al., 2021, p. 73).

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This perspective, as Gomez Paloma (2013) points out, restores dignity to the body as a subject of cognition, capable of generating meanings and actively contributing to learning processes. In this sense, it is useful to reflect on the ways in which, from very early childhood, human beings experience the world around them: intentionality, the desire to reach for an object in order to grasp and manipulate it, produces intelligent behaviour (Shaffer, 2006). For example, the child is present in its actions with its whole body, and the same thought is translated into motor actions in a fluid and recursive manner (Ceciliani, 2018). Embodied Cognition is thus not only a scientific theory, but an operational model for rethinking teaching and learning in an ecological, dynamic and embodied perspective. In this framework, the body takes on the role of primary agent, making possible new processes of knowledge and learning based on the continuous interaction between the individual and the context.The functioning of mirror neurons (Rizzolatti, 2007; Gallese, 2007) as well as the theory of somatic markers (Damasio A., 1995; Damasio et. al.; 2000) refer to the idea that learning means learning to make predictions (Frith, 2007). In this sense, the role of experience in learning processes is central: having experienced in the past what happens in the presence of certain signals or behaviours and having encoded a repertoire of them at a cortical level (Rivoltella, 2012, p. 109). It is, therefore, fundamental to rediscover this aspect that -in fact- is in opposition to the current didactic approach, built on diametrically opposed parameters. As Gee (2007), one of the leading exponents of New Digital and Media Learning (2010), already pointed out:

« Traditional perspectives on learning emphasise the mind and not the body. It is believed that learning is a matter of generalisations, principles, rules, abstractions, logical calculations. The idea is that the human mind functions like a computer. Digital machines operate according to rules that tell them how to manipulate symbols and these symbols have no meaning beyond the manipulations that the computer performs on them.» (Gee, 2007,p.71)

Multimodality, multimedia, and the plurality of integrated languages are transforming the media through which we construct our knowledge. We are facing a real revolution that, to be constructive and not destructive, requires the development of new skills. The correct perspective seems to be to consider the different languages, including digital ones, as a kind of cognitive keyboard that it is a matter of making accessible is practicable by students. Through purposeful design (Cadzen, 2006), it is possible to solicit profound reflections in students with respect to learning mediated by interaction with digital media, without neglecting corporeality.

2. The places of Learning

Pedagogical action is founded in the context of the classroom understood as a learning environment, as well as a teaching environment. A composite, complex, systemic, concrete and factual environment on the one hand, emotional and relational on the other (Buondonno et al., 2019):

« Every human being, thanks to his or her body, experiences the environmental context, including people and objects, with which a shared space of action is created

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that is indispensable for the process of communication and understanding, typical of teaching action. The body (of the learner) in its interaction and full integration with a specific learning environment (classroom), in which the sensory stimuli are appropriately prepared (by the teacher), is a particular key to access the world of knowledge[...].» (Gomez Paloma, 2015, p.34)

A place that, in recent years, has dematerialised in order to recompose itself of the digital, opening up new perspectives for reflection and research, a research that is increasingly necessary in this second educational revolution (Collins & Halverson, 2014) in which technologies challenge the school as the place of choice for the acquisition of knowledge. The younger generations are experiencing a multimedia space unknown to their parents and teachers (Rideout et al., 2010). The impact of ICTs is not only expressed in the need for a restructuring of school organisational models, but also on the very ontology of education, requiring careful reflection free from prejudice and neuromythologies (Rivoltella, 2012), free from apocalyptic defeatism or integrated quiescence. As early as 2006, Aviram & Talmi recognised a distinction between three main approaches to ICTs, distinguishing between Holists, Reformists and Technocrats with positions that were mutually exclusive without any real confrontation, with implicit or explicit adherence to one of the theories but without confrontation and mutual recognition of the respective positions. At a distance of almost twenty years, after huge investments by European policies that took concrete form in the PNRR allocations and that have invested the environments, tools and teaching methods (Gomez et al., 2024) in the light of the implementation of ICT in school spaces, the debate is certainly more heated and compelling: the two worlds, rather than meeting (Cesaretti, 2024), are re-acquainting themselves. With respect to the implementation of the new Artificial Intelligences, these are now posing themselves as a meta-technology (Panciroli et al., 2020) that manages various and multiple fields of human action, making clear the risk of moving towards elitist forms of education with a serious ethical implication (Alexandre, 2018). In this new dimension of educational practice, is it still possible to recreate teaching-learning dynamics on the basis of the non-technology-mediated relationship between teacher and learner? Is it possible for technologies to enhance this relationship? Or do we run the risk of dematerialising learning environments, effectively dematerialising the body and making it im-possible?

3. Learning, digital environments, metaphorisation and artefacts.

Given the general mistrust of the efficacy of the formal dimension, especially with reference to learning as a cognitive outcome of situated forms of experience, socials are sometimes considered as a context in which the boundaries between formal and informal dimensions dissolve almost naturally, placing the learner in an environment that is, by its very nature, informal (Raviolo, 2012). When the transfer of knowledge is intentional and deliberate, then it acquires the characteristic of formality. The foundational core of such action is located, therefore, in intentionality. The contemporary approach to learning (Morciano & Scardigno, 2023) highlights the importance of the learner's intentionality and motivation, leading to a substantial

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revision of the traditional role of the teacher (Raviolo, 2012, p. 84). Although, in the case of social media, the relational and communicative nature is evident, such an approach cannot automatically translate as an accelerator for learning: the characteristics of social media do not offer an improved alternative to interpersonal relationships and a revision of the roles of the actors themselves operating on the digitalised training scene is necessary. For Lovink (2012), social media seem to escape all dialectics and are based on simulacra of sociality based on weak and depthless ties. Intentionality, planning, and definition of objectives are inescapable aspects of reference for those who operate in dematerialised learning contexts in a spatial perspective that metaphorically extends to infinity, while relegating the body to an increasingly meagre space, and to a temporal one that inexorably thins out almost to the point of flattening out, declining substantially to the present (Rivoltella, 2015). We must, therefore, consider, as another substantial factor not only of an integrated didactic practice that wants to say it is intentionally directed towards learning, but also of any future life action integrated with technology, the new space-time factor within which the body finds itself acting. Furthermore, according to Damasio (2021, p.181-184), it would be necessary to open a new phase in the history of the implementation of AI, developing machines operating along the lines of homeostatic feelings, providing robots with a body that requires adjustments and adjustments in order to maintain itself: to add to the robustness of robotics an element of vulnerability in the tension towards the construction of 'machines capable of feeling'. This perception of vulnerability, which determines a series of intelligent adaptations to life, is what is essentially missing from artificial intelligences. For which, for the time being, an im-possible body is reserved. If digital technologies modify in everyday life and in productive activities the relationship between action and knowledge and between experience and conceptualisation, and if mediation processes, which characterise didactics, are aimed at building a bridge between the subject and the world and between experience and its understanding, what impact does the presence of digital artefacts, in society and in schools, have on didactic mediation (Rossi, 2016)? The most recent artefacts are fostering fluidity between iconic, symbolic and analogical mediators and many of the current apps are a synthesis of the three previous typologies to the extent that the mash-up also defines a didactic proposal, allowing transdisciplinary simulation paths to be activated, opening up the premises for a predictive rather than predictive logic in which the model represents a factual processuality that leads to a product that is substantially not traceable to the starting assumptions. Furthermore, unlike manipulative artefacts, in which the process consists of the explication of the meaning of one's own actions, in the digital artefact the explication of the processes underlying the production is more complex, as it is substantiated by a man-machine interaction that responds to stimuli and prompts and through which the student dialogues to determine new possibilities. At the centre of the didactic action there would not be a logic of relationship between concrete and abstract (Damiano, 2013), but rather a more profound directional and agentic logic even with respect to the artefact itself: the digital artefact makes the author a prosumer (Stella et al. 2014; Ertz, 2024): the greatest difficulty remains that of dif-

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ferentiating the moments of production and fruition, moments that require different capacities and analytical skills.

4. New passages (and landscapes) of communication, social and educational

In the 'multiscreen' society (Pinto, 2005, p.259) characterised by an individualisation of perception, by the logic of spatial localisation of the subjects immersed in social relations, by new learning dynamics, a new function of the user attests in the fluidity and mutability (Mingrino, 2010, p.13) of digital media, such as to put an unprecedented agentivity back into his hands, making him the manipulator and active builder of cultural contents (Marzano et al., 2015). Let us take the mobile phone as an example: on a structural level, it continues to fulfil its main function, which is to make phone calls. On the other hand, however, today it also allows us to do many other things, such as connecting to the Internet, taking photographs or shooting videos, engaging in games and pastimes, moving, in essence, from multimedia tointermediality (Rivoltella, 2015), the characteristics of which consist of three substantial elements: portability, connectivity, and authorship. These elements modify the communicative landscape through which these media operate, transforming them into a connective tissue (Siemens,2004). By exploiting the protagonism of individuals, communications unravel along an extremely extensive reticular organisation, significantly lowering the separation between the real and virtual worlds and determining, in fact, the possibility of accessing infinite sources of information that can be used to build one's own original narrative. A narrative that can be reified as a semantic object or informational entity (Floridi, 2024) assuming an ontological status that can be compared to that of ordinary material objects. In this sense:

«By stripping nature of its material connotation and embodying narratives, the physical and cultural dimensions realign in the dimension of the virtual. In the light of this dialectic, the information society is the most recent, though not definitive, phase of a broader semantic process that makes the mental world increasingly part of the environment, if not the environment itself, in which an increasing number of people tend to live. » (Floridi, 2024, p.23)

All this reconfigures the anthropic landscape of communication (De Kerkhove et al.2022), firstly, and, secondly, has obvious repercussions in the very fabric of society, establishing an inescapable link between virtuality and reality that cannot be ignored, in which the effects of actions performed in virtual environments reappear in physical reality, reciprocally influencing each other and determining a new perception of the experience of reality, augmented thanks to the high choice media environment (Bentivegna & Altieri, 2022). If from a relational and social point of view, the network amplifies the possibility of extending the range of interactions and that of being active users, in the sense that the Internet is a text both read and written by its users (Hine, 2000), on the other hand it tends to reify the body through its cancellation making it obsolete, to be lived in absentia, in a form of asociality of enjoyment (Barthes, 1999), disseminating it in virtual reality, exposing it to the impossibility of the possible, mystifying it, leading it, in the final analysis, towards a risky drift

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of identity (Caronia, 1996). Precisely because of the effect that the new media have on the construction of identity, of social relations, and in view of the fact that each individual becomes an integral part of the network by being a node of it and at the same time contributing to its survival, what are the implications for the new generations? According to Sonia Livingstone (2009, 2010, 2012), being young does not automatically give one greater familiarity with new technologies: this requires practice, experience, special knowledge that cannot be taken for granted. Entrusting children with expertise merely because they are digital natives (Prensky, 2013), means delegitimising their right to have public policies that accompany them on the path of acquiring fundamental skills in the use of new media (Tirocchi, 2013). The idea of young experts, not exactly adhering to reality, does not depend solely on them, but also and above all on institutional policies of access to the web and restrictive and limiting attitudes, such as those of anxious parents or unskilled teachers, as well as inattentive politicians. In the final analysis, according to Livingstone, the Internet is not a very welcoming place for young people, despite the rhetoric of digital natives and the Internet generation claiming the contrary, and all considerations on the risks and opportunities of the Net can never be considered definitive, but remain open (D'Antonio, 2022). What, then, is the role of the school in approaching such a scenario? If on the one hand it is clear that teaching the exercise of critical thinking can no longer suffice (Rivoltella, 2016) and it is necessary to educate not only the consumer but also the producer of cultural content, the school can direct its intervention by declining it according to a principle of responsibility (Jonas, 2009) recovering in the education of the person, the ethical dimension that is necessary and contributes to the construction of critical thinking, shifting the asset of reflection on education from 'knowing things' to 'knowing how to be' with respect to them (Gomez Paloma, 2004). It is necessary to look at the new landscapes of sociality mediated by the network with a new spirit of observation, starting from the assumption that the new technologies have migrated into our lives, also modifying the role of the school, a school that can be a place of transmission, more than of mere knowledge, of knowledge systems (Rivoltella & Garavaglia, 2017) and making a decisive paradigm shift with respect to what has been the basis of teachers' teaching actions until now. It is no longer possible to simply prohibit the use of digital devices in the classroom, institutionalising more passable and structured didactic forms such as the various Lims, Tics and educational software, but to flex and reflect on one's action in the search for an education for life, an education for life (Sibilio, 2012) . It is necessary for the school to take on the responsibility of research, in an effort to fully understand the new dynamics we are going through, to avoid the risk of running the risk of a dialectic without mediation. It is necessary for the school to take upon itself the most complex task to which it is naturally dedicated: to humanise life (Recalcati, 2014). To conclude in the words of Wolf (2009): teachers and students should not be put in the position of having to choose between books or monitors, between real and virtual.

5. A school experience: adolescent perception of social media

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Starting from the assumption of the role of the body and bodily skills as fundamental prerequisites and abilities in development and learning, and considering the substantial difference between learning in a digital environment and in a physical environment (Gratani, 2023), it was deemed appropriate to design, organise and implement school activities that could be valid tools to assist learning also in informal environments. In particular, we refer to an experience that involved the students of a third grade class of the Secondary School and a first grade class of the Secondary School in the Marche region. The experience was divided into three phases: the first phase envisaged the activation of experiential workshops in the two classroom contexts, according to the design lines described in the practice of the habilitative drama workshop (Cuccaro et al., 2024), involving the teachers, together with whom the design was developed, in the reflection. In a second phase, the students were asked to develop simple digital artefacts accompanied by a short cognitive autobiography, in order to be able to appreciate the effects of the action in a processual and narrative manner, bringing the experience directly back to the student's experience. The third phase involved comparing and searching for points of convergence and critical points deduced from the reading of the feedback, observations and cognitive autobiographies produced during the course. During the meetings with the two class groups, the students were able to reflect on the characteristics of social media, in particular by referring to three types used by the students. These reflections, which were extremely interesting, were summarised as follows (Table 1).At the end of the course, the students were asked to compile cognitive autobiographies (Capobianco, 2021) in order to process the learning produced in a personal and narrative manner. The students expressed certain ideas, recurring in almost all the autobiographies, which we can summarise as follows: a) The path was interesting because it allowed them to shed light on a topic that is often treated tangentially or very briefly at school; b) they appreciated the way the path was conducted, considering it engaging and fun; c) they expressed the pleasure of being able to work in a group, leaving full freedom of expression, using the tools studied and explored during the path; d) they understood, according to what was elaborated during the course, that social media are tools that require prudence and caution, which have positive and negative sides; e) adolescents already feel fully 'immersed' in this reality; f) prudence, caution, awareness appear to be particularly significant elements when dealing with social media g) the path taken has allowed them to access new knowledge compared to their previous knowledge of social media; h) they have grasped different nuances of the human relationship experienced on social media, with particular reference to time, understood as a commodity/product through which social media make the functionalities of their platforms free of charge i) they grasped the relationship between benefits and risks in the use of social media, consequently drawing cues for greater awareness in its use; j) they appreciated the possibility of producing digital artefacts in order to be able to appreciate in corpore vili, the risks and benefits related to the use of social; k) they were particularly interested in human functioning on the web: in fact, one of the topics most heartfelt by the students referred to the internal dynamics of the ego and personality in the construction of identity mediated by digital media; l) they seized the opportunity that had arisen of an effective com-

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parison between their own opinion and that expressed by their classmates and curricular teachers, as well as the course leader. The topic of pathological addiction is also particularly felt (Tonioni & Tonioni, 2013; Mauceri & Di Censi, 2020). The perception of the danger of pathological addictions, which has emerged little in Secondary School, emerges with particular force in this more advanced phase of adolescence, a phase that also sees possible exposure to other and different substances that can cause pathological addictions such as smoking, alcohol and narcotics.

Table 1: Characteristics of social media according to the students involved in the project

CHANNEL	COMMUNICATION TYPE	SOCIAL REQUEST	CRITICALITY
INSTAGRAM	Iconic/Photografic	Social image Sharing moments of life Gratification and approval	Narcissistic drift Social desiderability bias Excessive worship of image and perfection
FACEBOOK	Textual/Visual Use of text accompanied by video or images to validate one's doing and thinking	Social Image Sharing one's thoughts Endorsement	Social desiderability bias Self Affirmation bias Group thinking Radicalisation of ideological position
YOUTUBE	Visual Use of videos to show one's specificity/ individuality Showing one's capability to the others	Social Image Sharing One's Know how Constructing engaging and entertaining content	Narcissistic drift Self confirmation bias Extremisation of risky or provovative attitudes Spreading fake news "Follower mith"

6. Conclusions

From the reflections and the description of the workshop experience reported here it is clear that the school cannot abdicate its educational responsibility with regard to the new digital technologies, reducing its intervention of in-depth study and understanding to only those tools institutionally considered valid for the implementation of educational processes.

Students, if proactively involved, show a high capacity for reflection and problematisation with regard to the advent of new technologies Schools must try to manage and enhance these dynamics by transforming them from a necessity to an opportunity for all, (Gomez, Damiani, 2020) especially in these 'borderlands' that hybridise the online and offline In order to understand social media as places of informal learning that can also be used in the school context, it will be necessary to re-

found, renew, reconstruct a new operational mode that goes in the direction of a careful, targeted, competent design of physical and virtual learning spaces.

Lastly, we cannot disregard the fundamental bodily dimension that learning also requires in these digital environments: in fact, as highlighted in the course of the research, despite the fact that the learning environment is dematerialised, the actions that take place in it are characterised by a high level of corporeity:

The body acts through its senses, activates previous experiences through its mirror neurons, builds a self-image that tends to follow the rules of the physical environment The body is always possible, even beyond its digital dematerialisation.

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