Embodiment and embodied learning in online learning environments

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Abstract

Recent findings in cognitive science and phenomenology indicate that embodiment and engagement in embodied practices facilitate learning. Are embodiment and the embodied interaction possible in online learning environments, where bodies are invisible and the direct perceptual grasp of the communication partner is impossible? This paper analyzes how the lived body can be articulated and experienced in a text-based medium. It presents narrative and the use of the language of literature as promising techniques that can engage learners in the embodied experience of others and foster embodied learning online.

Introduction

Many researchers, philosophers and theorists (Dall’Alba & Barnacle, 2007; Dall’Alba & Barnacle, 2005; Barnacle, 2009) in the field of education and curriculum criticize the conventional, rationalistic epistemology that currently dominates higher education. Dall’Alba & Barnacle (2007) indicate that such epistemology is fundamentally flawed, because it puts too much emphasis on the development of intellect, knowledge, and skills “decontextualized from the practice to which they relate” (Dall’Alba & Barnacle, 2005, p.680). However, the empirical research demonstrates that students have difficulty integrating decontextualized knowledge and skills into real practice (Dall’Alba & Barnacle, 2005). Dall’Alba & Barnacle (2005) point out, that this focus on a narrow concept of the intellect is the tradition of Western epistemology that comes from the Descartes mind-body division. According to Barnacle (2009), it renders body and embodiment epistemologically unimportant to learning and knowing. Nevertheless, recent findings in cognitive science and phenomenological inquiries reveal a less hierarchical view of the body and mind’s relationships. In addition, these findings point out that our embodiment and embodied practices facilitate our learning and knowing (Gallagher, 2008; Gallagher & Hutter, 2008; Dreyfus, as cited in Barnacle, 2009). Gallagher (2008) indicates that infants through such embodied practices as attuning to and the imitation of the caregiver’s voice, gaze, and bodily movements develop “primary subjectivity” – the ability to have an instant, pre-conceptual, pre-reflective understanding of others (p.539). Phenomenologist Hubert Dreyfus (as cited in Barnacle, 2009) in his account demonstrate that the development of informal forms of knowing through embodied practices forms the basis for formal, propositional, and conceptual knowledge to develop. If the body and embodiment have such a critical role in learning, what about text-based computer mediated communication (CMC) and online learning? Is embodiment and embodied learning possible in text-based CMC, where physical bodies are invisible and learners’ identities are articulated only via text?
Embodiment Turn

There are two trends of embodiment that, in fact, complement each other. The first one is the embodiment of mind in body. This aspect of embodiment indicates that there is no clear division between mind and body, i.e. the body embodies the mind, and in the act of perception they both function together as one lived body. Merleau-Pointy (2008) was the philosopher who returned the significance to the body. Through his assertion that “it is the body that perceives” (p.57), he overcame Cartesian Mind-Body dualism. In fact, he heralded a new concept of the body - a phenomenal body that is comprised neither from body nor mind but is constitutive of both. According to him, the body is the ground for consciousness to develop. Thus, to be able to project itself into the environment, consciousness always needs the body: “Consciousness is being-towards-the-thing through the intermediary of the body” (Merleau-Ponty, 2008, p.159). Another aspect of our embodiment indicates that our bodies are embedded in the world. In Merleau-Ponty’s account (1968), this aspect of embodiment is explained through the metaphor of “flesh.” According to him, our bodies are made of the same flesh as the world and this is the primary reason why it is possible for humans to have this “brute or wild perception of the world” (Burkit, 2003, p. 327). Also, our ability to perceive the world lies in the reversibility phenomenon of the flesh. This reversibility is enacted through two aspects of our embodiment in the world: one, as a subject, a sentient being who can touch, see, feel, and perceive others, and another, as an object, a sensible being that can be touched, seen, and perceived by others. As we engage in interaction with the world, there is constant reversibility between these two aspects of our embodiment. Thus, this “double belongingness” to the order of the object and subject and this constant reversibility between them, according Merleau-Ponty (1968) provides us with a direct, pre-reflective, pre-conceptional perception of the world, others, and ourselves.

Embodiment Online

Are embodiment and embodied knowing possible online? The literature of the 80s and 90s points out the inevitable division of mind and body online. The “body [online] vanishes in fluid simulation” (Tripathi, 2005) and consciousness can be “downloaded” (Bayne, 2004, p.106). From a phenomenological point of view, the idea of disembodiment online is a misleading one. Merleau-Ponty’s (2005) account indicates that without the body we have no place from which to perceive the world. Therefore, the loss of embodiment online would mean the loss of our ability to recognize and make sense. Land (2004) indicates that the theme of disembodiment has arisen online because of the lack of clear distinction between the physical body and the concept of embodiment. Usually, in cyber-research literature, embodiment is associated with the physical body and visibility; whereas, from the phenomenological point of view, embodiment is about engagement with the phenomenal body that, according to Feenberg (2003) “has amazing plasticity” (p.107) and can be extended linguistically in textual CMC. Thus, the embodiment and the body’s existence online can be explained through the extension of our bodies via instruments or artifacts. According to Idhe (2002) and Merleau-Ponty (2008), our perception, embodied through the instruments and artifacts, extends our bodies into the world and allows them to experience new, previously unavailable meanings. However online learning environments are predominantly textual. While extending some bodily perceptions as vision, they reduce, exclude, or distort others. As result, online learning environments do not allow “full bodily sensory awareness” to take place and, therefore, bring perceptually-reduced forms of embodiment (Bauer 2004, p.86). How does this perceptually-reduced form of embodiment impact our communication and learning online?

Non-neutrality of Technology

The perceptually-reduced embodiment in textual CMC brings in the issue of the non-neutrality of technology. Because online technology does not allow full bodily experience, it, according to Dall’Alba & Barnacle (2005), offers affordance for certain kinds of activities and presences, while closing possibilities for others. As a result, it promulgates “particular ways of knowing and acting” (p.737) and particular ways of being that for some learners can be an enabling and for others a disabling learning experience. In addition, not only do we use technologies, but technologies also use us (Dall’Alba & Barnacle, 2005). This is best described by Feenberg (2003), who indicates that technology extends to our bodies not only in an active, but also in a passive dimension, i.e. it signifies us and our bodies as having particular qualities. For example the blind man’s cane not only allows to the blind man to “see” but also it signifies his blindness for others. Online learning environments can also “signify” learners and teachers in new and unsuspected ways. The non-neutrality of textual CMC and its impact on teaching
and learning experience is nicely demonstrated in students and teachers accounts in Bayne’s (2004) study. Some learners indicated having difficulty learning without using their own bodies to communicate a message. Learners also voiced the need to see their communication partners’ emotional reactions. Not being able to see them, they had to reconstruct emotional responses from the textual messages of their communication partners. This, according to Bayne (2004), made their communication into an “interpretative” act instead of an “intercorporeal” one. However, for other learners, the invisibility of bodies gave them the possibility to re-articulate their bodies differently and to explore and enact their alternative identities. As one student pointed out, the communication via textual CMC reduced the possibility of physical judgment. Online, “looking” was subordinated to “writing”. Thus, communicators were judged not by physical appearance, but by their writings. As a result, good-looking girls, instead of playing the role of attractive females, could explore their alternative identities; whereas shy students, who felt insecure speaking up in face-to-face class, in textual CMC were able to create new identities capable of speaking out (Bayne, 2004).

These findings indicate that the textual medium can be liberating for some and limiting for others. Therefore, the effects of invisible online embodiment are not a matter of right or wrong (Enriquez, 2009), but for whom and in which context (Dall’Alba & Barnacle (2005). Hence, rather than treating technologies as neutral tools, Dall’Alba & Barnacle (2005) call for the awareness of their differential impact.

Problems with Online Learning Environments

Gallagher (2008) argues that to understand other people in face-to-face interactions we always employ direct perception that allows us to have an instant pre-reflective grasp of other people’s intentions and emotions from their actions, behaviors, and expressive movements. According him, there is much available in the person’s movements, gestures, facial expressions. However, in textual CMC, where bodies are screened, learners are deprived of this direct perceptual grasp. In line with Gallagher’s (2008) thought, Quaeghebeur and Reynaert (2010) posit that intersubjective understanding takes place more easily in face-to-face than in textual communication. According them, in face-to-face interaction we use language in an embodied way - we engage in an “embodied linguistic spectacle” that is simultaneously constituted of “thought”, “verbal utterance”, and “bodily expressivity” (p.25). The verbal mode of communication there is not “the central conveyer of meaning” (p.25). It is greatly supported by bodily expressivity – gestures, facial expressions, gaze, intonation, etc. As result, in face-to-face interaction meaning is “overdetermined” (p.31), whereas in pure verbal (text-based) communication, there is possibility of a gap between the semantic and pragmatic meaning. This gap that, according to Quaeghebeur &Reynaert, can only be closed by “bodily expressivity” leaves textual communication prone to misinterpretations and misunderstandings.

How do the limitations of the written language and the lack of direct perceptual grasp affect our communication and learning online? Becker (2008) points out that the inability of the textual medium to express deep emotions and feelings brings faulty feelings of successful communication and the illusion of consensus that frequently occurs online, where simple and rapid textual interchanges are used. Erdinast-Vulcan (2007) is concerned with the fact that textual communication is not ethical enough. According him, ethical communication does not allow the “assimilation of the other into the Same,” but “leave[s] the alterity of the other untouched, irreducible” (p. 398). Referring to Merleau-Ponty’s philosophy, he indicates that communicators can experience the alterity of the other only in concrete, temporal, and spatial situations, i.e. in face-to-face encounter where direct perception can take place. Communication via textual CMC is not an “incorporeal”, but “interpretative” account (Bayne, 2004, p. 110), therefore, there is a potential danger to undermine the ethics of communication, i.e to miss the alterity of others by reducing it to sameness.

Becker (2008) talks about a similar problem, but he conceptualizes it as the lack of communication responsibility. According to him, in textual CMC communication, there can be the lack of communication responsibility because of the absence of physical touch and eye contact. By responsibility he means recognizing and accepting the strangeness and particularity of the other “without trying to integrate the other in their personal horizon of images and expectations” (p.174) and accepting associated boundaries to their own understanding of the other. As Becker (2008) argues, touch and eye contact allow us to recognize the “unavailable otherness” of our communication partner because “glances demand recognition and respect” as well as “place limits on occupative desire” (p.172). However, in text-based CMC, individuals are deprived of this direct perceptual grasp (Gallgher, 2008). As a result, in online settings, they are inclined to understand the other only from their point of view. This prevents seeing the “unavailable otherness” of the other and, literally, reduces the other to the object (Becker, 2008, p. 174).
These statements are nicely exemplified by Henriksson’s (2003) account, where she analyzed her experience as a student in an online classroom. She found that in the online learning environment, she could easily disregard the need to see the teacher’s body until she met her teacher face-to-face. Then she realized that, in fact, she did not know him, that “out of a person-as-text” she had had created “a person-as-idea” and took it to be a real person. Analyzing her experience, she recognized that online she was not “thirsty” for the teacher’s body, because she was “content with the body of knowledge presented by” him (p.20). Henriksson (2003) warns that, in online learning environments, our created illusory images of others might close off the possibility to interact with “the whole person” and feel thirsty for other I-Thou (mutual) relations. Thus, she points out the need to teach online learners to doubt the images of communication partners they have created online (p.21).

Lived Body Online

If the concrete embodied experience of others is so vital for genuine intersubjectivity to take place, is there any possibility in textual CMC to compensate for the lack of physical touch and look as well as of other bodily experiences? Can lived body experiences be sustained online? Feenberg (2003) indicates that because of its complexity, language contains huge compensatory efforts that allow compensating for the lack of full bodily co-presence: “Our language shows us as neat or sloppy, formal or informal; we reveal our mood by our linguistic gestures as happy or sad, confident or timid” (p.107).

Some research studies indicate that, in textual CMC, online learners extensively use linguistic bodily expressions. This is in line with Albano’s (1998) remark about inevitable “corporeal metaphoricity in all utterance” (p.387) due to the tremendous role of body in communication and understanding. Lander (2005), analyzing learners’ textual interchanges, found plenty of expressions of feeling, eating, speaking, and consuming body. For instance, students “go over to chat room”, “they grasp ideas” (p.163), they share their momentary experiences of drinking coffee and taking care of babies while typing, they send each other cyber hugs and kisses, etc.

Other research studies indicate that learners experience CMC bodily. As in the case of the online student who “blushed in front of the computer” when she realized that her lurking was visible to everyone because of the design features of Web Board. She “felt like [she]…had sneaked around in a room full of people trying to hide behind furniture, thinking [she]…was invisible, when, in fact, everybody saw [her]” (Henriksson, 2003, p.16). Robinson (2000) in her phenomenological study found that in the salient textual medium students were able to “hear,” “see” and “touch” each other. In fact, they did not read messages but listened to them. Through creative spelling and the tone of the writer, they could hear the voice of the text’s writer. The possibility to hear voices promoted a better connection with others and clarified “the meaning behind the writing.” In fact, it was through the informal tone that they could “hear” the voice of students, whereas, a formal tone did not contain the voice of writer and, therefore, let them “bypass” each other (p.252-255). Online students also scrutinized textual messages searching “for images or mental pictures” (p.255). Additionally, students indicated that they were able to extend the physical feeling of touch to a virtual one. They touched each other through the stories shared. This touching was critical, because it allowed them to reach something deeper in each other and the course content Thus, Robinson’s study indicates that the lived body can be articulated in text-based CMC. And the more learners are able to create lived bodies in a text-based medium, the easier it is for them to connect with each other and the course content. Not all writings, however, lend themselves to this purpose. As Robinson points out, only sensuous personal narratives that contain a rich, vibrant, individual tone and a personal, touching storyline allow learners to bring lived body experiences online.

Lander (2005) agrees with Robinson’s findings that lived body experience can and needs to be sustained online. According to him online technology calls for new “focal practices” - for re-embodiment online through the deliberate work of “re-membering of the body”(p.159). Referring to Weneger’s (2008) seminal work “Communities of Practice,” he posits that re-membering of the body online requires “the work of engagement and the work of imagination” (p.166). Learners have to engage in the work of articulating their lived bodies online as well as engage in the active work of imagination – of “reading”, “seeing”, and “touching” lived bodies of others in a textual medium. According to Lander (2005), the act of re-membering of bodies online can be achieved through several processes. One of them is the act of virtual hospitality such as “welcoming strangers” into the community, “modeling greetings,” and “drawing in a partaker after some time [has] elapsed without a written response” (p.169). He also points out that “bracketing the feelings dimensions” (p.169), particularly emotional information will allow keeping the body present online. The third process that sustains lived body experiences, according to Lander, is a narrative technique. Along the same lines as Robinson, he also highlights the role of “the bodily depended, imaginal practice of telling a personal story” (p.169).
Why Narrative is the Best

Why is narrative technique suitable for articulating lived body experiences in a text-based medium? According to Gallagher and Hutto (2008), narrative gives a more complex and nuanced understanding of others. It allows us to understand the reasons why people act, think, and feel in particular ways as they do. Some scholars in cognitive science point out that simulation of minds – the access to “landscape of consciousness” (p.14) - is the way we understand others’ reasons. However, according to Gallagher and Hutto (2008), what we seek to understand is “much richer” (p.13) than mental states. It is the reasons for the actions of a whole situated person. Therefore, those reasons for action need to be contextualized in terms of cultural norms and a particular person’s history, values, attitudes, etc. For this purpose, narrative is the best technique because the story line gives us access to a person’s “landscape of action” that entails person’s embodied actions in “rich worldly context” (p.14). In addition, according Gallagher and Hutto (2008), listening to the story is an embodied experience. It “presupposes a wide range of emotive and interactive abilities” (p.12) that we have developed in infancy as embodied practice. Thus, to have a complex and nuanced understanding of others, learners need to develop narrative competence – the ability to express their lived body experiences in a narrative as well as the ability to decipher the narratives of others.

Language

The accounts of Feenberg (2003), Robinson (2000), Lander (2005), and Gallagher & Hutto (2008) point out that language might be capable of bringing that virtual look and touch through which lived body experiences and the uniqueness of the person can be communicated in textual CMC. However, not all kinds of language might be able to serve this function. According to Merleau-Pointy’s account, to serve such a role, language needs to be as expressive as our bodies are.

Merleau-Pointy (Baldwin, 2007) distinguished between two kinds of language use: “spoken speech” and “speaking speech.” The “spoken speech” is ordinary, everyday language as well as formal, scientific language. It uses established modes of expressions that do “not attract our attention” and, therefore, “permit us to pass effortlessly” to communicated truths (Baldwin, 2007, p.92). The “speaking speech” is the use of the language in a creative and novel way, when new expressions are introduced. It is the language of the child, the lover, the poet, or the philosopher – in general the language of literature. As Merleau-Pointy indicates, the power of the speaking speech is not only in what is said, but also in how it is said. Merleau-Pointy sees a parallel between the expressivity of “speaking” speech and bodily expressivity. According to him, novel expressions are linguistic gestures that reveal “the whole truth about a man” in the same way as bodily gestures do (Merleau-Pointy, 1969/1974, as cited in Erdinast-Vulcan, 2007, p.89). Also, novel and unique expressions don’t let us pass effortlessly to the truth communicated. It brings a “coherent deformation” (Merleau-Ponty, as cited in Erdinast-Vulcan, 2007, p. 403) or “defamiliarization” phenomenon (Shklovsky, as cited in Erdinast-Vulcan, 2007, p. 403) that breaks down our “habitual modes of perception.” And this very impediment of our perception, inhibits “the smooth assimilation and reduction of otherness… it demands that we recognize an otherness” in others and ourselves (Erdinast-Vulcan, 2007, p.403-404). Therefore, the use of literary language or, more specifically, the use of novel and unique expressions might allow learners to bring their lived bodies online. It might allow for virtual look and touch to take place in a text-based online medium, so a learner’s uniqueness, alterity, and unavailable otherness can be articulated and experienced by others.

Conclusion

Accounts in philosophical and cognitive science indicate the crucial role of the body, embodiment and embodied practices for embodied learning and knowing to take place. This paper analyzed if embodiment and embodied learning is possible in textual CMC. As different authors indicate, learners do not lose their bodies online. Through perception their bodies are extended there. Thus, learners remain embodied in textual CMC. In addition, they use many linguistic expressions of the body and can even experience their communication online bodily.

According to Dall’Alba & Barnacle (2007) for embodied learning to take place, learners need to be engaged in “intercorporeal subjectivity”, i.e. to meet bodies. However, in textual CMC bodies are invisible. As result, the direct perceptual grasp that would bring concrete and embodied experience (Gallagher, 2008) of communication partners is unavailable. In textual CMC learners experience each other only through writings. As result, their communication is an interpretive act, instead of being an intercorporeal one (Bayne, 2004). These facts point out that the invisible embodiment online might not be enough for embodied learning and knowing to take place in text-based CMC. Nevertheless, other authors (Merleau-Ponty, 2005; Robertson, 2000; Lander, 2005;
Erdinast-Vulcan, 2007) point out that language has the potential to articulate lived body experiences online. The use of literary language, more specifically, the use of creative and novel expressions, turns language into linguistic gestures, which in the same way as bodily gestures, can engage learners in the concrete and embodied experience of the other. The coherent deformation phenomenon might bring this virtual look and touch through which true uniqueness, alterity, and the unavailable difference of the other can be articulated and experienced. Thus, the language of literature, in textual CMC, might engage learners in a virtual intercorporeal subjectivity. The use of personal and engaging narrative is another way to experience embodied interaction online. According to Gallagher and Hutto (2008), narratives give access to embodied actions and the embodied experiences of others. The reading of a story is also an embodied experience. It necessitates readers emotional and sensory-motor responses. Burbules (2004) points out that reading or listening to the story can be a very immersive activity, and, therefore, is experienced bodily. Thus, through the sharing stories learners can engage with the body in textual CMC.

However, online learners might have different perceptions about the purpose of online discussions. They might engage in rapid and simple internet exchanges or in formal writings – the monologues - through which lived body experiences cannot be communicated. Also, they might not be cognizant of the necessity of “reading” the lived bodies of others online. Therefore, online learners need to be informed, scaffolded, and modeled to engage in the process of re-membering the body online: (1) to bracket their feelings and emotions, (2) to share personal stories, (3) to use novel, unique, and artistic expressions, as well as (4) to “read”, “see”, and “touch” the lived bodies of others. On the other hand, not all learners might be skilled in articulating their lived bodies as well as “reading” lived bodies of others online. As a result, there is still the possibility that online learners will undermine communication ethics and communication responsibility to see the alterity and unavailable otherness of the other. This problem, according to Becker (2008), might be offset by learning appropriate “media competence” – teaching learners to be aware of the “projective-illusory dimension of communication,” (p. 178) instructing them to doubt their images created, as well as helping them to recognize the boundaries of their own understanding of the other. Blended learning environments, where in face-to-face meetings learners can obtain concrete and embodied experience of each other, can also offset this problem.

However, embodied learning and knowing is not only about engagement with the body. According to Dall’Alba & Barnacle (2007), it is more about pedagogy: about engaging learners in a rich worldly context, into practice with questions, where they can develop “responsive spontaneity” and “appropriate ways of being in the world” (p.685). From this point of view, to promote embodied learning online we do not need “to emulate ordinary multi-sensory experience” online, but to promote it via action: through the engagement into inquiry with questions as well as into collaborative activities with learners, experts and stakeholders (Dall’Alba & Barnacle, 2005, p.740). According to researchers and practitioners in the field of online learning (Hung, Lim, Chen & Koh, 2008; Norton & Hathaway, 2008), the online learning environment lends itself well to implementing collaborative learning between remote learners and to giving access to resources and distant communities, experts and stakeholders. Thus, it is up to the teacher how they will design the learning experience. Embodied learning and knowing can successfully take place in online learning environments; however, online technologies can also be “successfully” used to to “extend the decontextualized nature of conventional programs into the realm of online environments” (Dall’Alba & Barnacle, 2005, p.728).

References


Burbules, N.C. (2004), "Rethinking the virtual", E-Learning, 1(2) 162-183.


Quaeghebeur, L. & Reynaert, P. (2010). Does the need for linguistic expressions constitute a problem to be solved? *Phenomenology and the cognitive science, 9*(1) 15-36.