



Open and Interdisciplinary
Journal of Technology,
Culture and Education

Special issue
The “new normality”:
Digital technologies
and learning environments
beyond the emergency

Edited by
Carl Bereiter,
Nadia Sansone

Editor

M. Beatrice Ligorio (University of Bari "Aldo Moro")

Cooditors

Stefano Cacciamani (University of Valle d'Aosta)

Donatella Cesareni (University of Rome "Sapienza")

Valentina Giron (University of Padua)

Associate Editors

Carl Bereiter (University of Toronto)

Michael Cole (University of San Diego)

Kristine Lund (CNRS)

Roger Salijo (University of Gothenburg)

Marlene Scardamalia (University of Toronto)

Scientific Committee

Sanne Akkerman (University of Utrecht)

Ottavia Albanese (University of Milan – Bicocca)

Susanna Annese (University of Bari "Aldo Moro")

Alessandro Antonietti (University of Milan – Cattolica)

Pietro Boscolo (University of Padua)

Lorenzo Cantoni (University of Lugano)

Felice Carugati (University of Bologna – Alma Mater)

Cristiano Castelfranchi (ISTC-CNR)

Alberto Cattaneo (SFIVET, Lugano)

Graziano Cecchinato (University of Padua)

Carol Chan (University of Hong Kong)

Cesare Cornoldi (University of Padua)

Crina Damsa (University of Oslo)

Frank De Jong (Aeres Wageningen Applied University)

Ola Erstad (University of Oslo)

Paolo Ferri (University of Milan – Bicocca)

Alberto Fornasari (University of Bari "Aldo Moro")

Carlo Galimberti (University of Milan – Cattolica)

Begona Gros (University of Barcelona)

Kai Hakkarainen (University of Helsinki)

Vincent Hevern (Le Moyne College)

Jim Hewitt (University of Toronto)

Antonio Iannaccone (University of Neuchâtel)

Liisa Ilomaki (University of Helsinki)

Sanna Jarvela (University of Oulu)

Richard Joiner (University of Bath)

Kristina Kumpulainen (University of Helsinki)

Minna Lakkala (University of Helsinki)

Mary Lamon (University of Toronto)

Leila Lax (University of Toronto)

Marcia Linn (University of Berkeley)

Kristine Lund (CNRS)

Anne-Nelly Perret-Clermont (University of Neuchâtel)

Donatella Persico (ITD-CNR, Genoa)

Peter Renshaw (University of Queensland)

Giuseppe Ritella (University of Helsinki)

Nadia Sansone (Unitelma Sapienza)

Vittorio Scarano (University of Salerno)

Roger Schank (Socratic Art)

Neil Schwartz (California State University of Chico)

Pirita Seitamaa-Hakkarainen (University of Joensuu)

Patrizia Selleri (University of Bologna)

Robert-Jan Simons (IVLOS)

Andrea Smorti (University of Florence)

Luca Tateo (University of Oslo)

Jean Underwood (Nottingham Trent University)

Jaan Valsiner (University of Aalborg)

Jan van Aalst (University of Hong Kong)

Rupert Wegerif (University of Exeter)

Allan Yuen (University of Hong Kong)

Cristina Zuccheraglio (University of Rome "Sapienza")

Editorial Staff

Nadia Sansone – head of staff

Ilaria Bortolotti – deputy head of staff

Sarah Buglass, Lorella Giannandrea,

Hanna Järvenoja, Mariella Luciani,

F. Feldia Loperfido, Louis Maritaud,

Katherine Frances McLay, Giuseppe Ritella

Web Responsible

Nadia Sansone



Publisher

Progedit, via De Cesare, 15

70122, Bari (Italy)

tel. 080.5230627

fax 080.5237648

info@progedit.com

www.progedit.com

qwerty.ckbg@gmail.com

www.ckbg.org/qwerty

Registrazione del Tribunale di Bari

n. 29 del 18/7/2005

© 2020 by Progedit

ISSN 2240-2950

Indice

Editorial

- The “new normality”: Digital technologies
and learning environments beyond the emergency* 5
Carl Bereiter, Nadia Sansone

ARTICLES

- The “Triological Learning & Assessment Approach”:
Design principles for higher education* 10
Nadia Sansone, Valentina Grion
- Multinational perspectives on Covid-19 challenges: Faculty
responses to distance education in Italy and the USA* 29
Ottavia Trevisan, Marina De Rossi, Rhonda Christensen,
Gerald Knezek
- Challenges and opportunities perceived by Swiss vocational
education and training (VET) teachers during emergency
remote teaching: The role of teachers’ digital competence* 47
Francesca Amenduni, Martina Rauseo, Chiara Antonietti,
Alberto Cattaneo
- University teachers and students in the pandemic:
Connection, disconnection, and identity challenges* 67
Laura Galuppo, Silvio Ripamonti, Angelo Benozzo
- Activating teachers’ epistemic agency to implement
knowledge building in classroom: A case analysis
of the “Classi in rete” project* 84
Stefano Cacciamani, Giuseppina R. J. Mangione,
Michelle Pieri



*Contributo alla validazione del Digital Mindset Questionnaire
in un campione di studenti universitari italiani*

Cataldo Giuliano Gemmano, Maria Beatrice Ligorio,
Amelia Manuti

103



University teachers and students in the pandemic: Connection, disconnection, and identity challenges

Laura Galuppo*, Silvio Ripamonti*, Angelo Benozzo**

DOI: 10.30557/QW000058

Abstract

Drawing upon a new-materialist approach, the paper presents an explorative study on teachers' and students' identity re-configurations in the *remote* university. Online focus groups were conducted involving 60 students and 25 teachers from the Department of Psychology of the same University. The results showed that being *connected* appears to be a legitimating condition for students' and teachers' identities. Three main ways of being connected are described: connection as accessibility, connection as engageability, and connection as productivity. The paper offers reflections on this new *intra-action between people and technology* and discusses some challenges and implications for the future.

Keywords: Identity, Intra-action, Distance Learning, New Materialism, Higher Education.

* Università Cattolica del S. Cuore. Laura Galuppo, orcid: 0000-0003-2338-5129; Silvio Ripamonti, orcid: 0000-0001-6228-4641.

** University of Valle d'Aosta. Orcid: 0000-0002-4568-8246.

Corresponding author: laura.galuppo@unicatt.it

Introduction

The Covid-19 pandemic has profoundly disrupted the university experience of teachers and students. Many studies have explored the effect of this crisis on the psychological well-being of the most exposed groups, while many others have discussed the effectiveness of distance learning and the effects of specific technological devices and new digital learning environments (Quattrone et al., 2020; Quintiliani et al., 2022; Rossi et al., 2022; Gorli et al., 2022; Zuccheromaglio et al., 2021). An emergent area of interest involves remote schooling and its effect on learning and identity-building processes (Amenduni & Ligorio, 2022).

The present paper aims to contribute to this area by exploring the implications of the new pandemic-imposed distance-learning university experience for teachers' and students' identities. Like Orlikowski and Scott (2021), we believe that in the current crisis, "the suspension of routine socio-material enactments produces openings for liminal innovation, a process entailing iterative experimentation and implementation that explores novel or alternative materializations of established work practices" (ivi, p. 1). The study, therefore, aimed to explore teachers' and students' identity re-configurations in the 'remote university' and the implications for the academic world of today and tomorrow.

Theoretical framework

The theoretical framework of this study drew upon research on socio-cultural constructivism (Ligorio, 2010) and posthuman and new materialism (Barad, 2007; Braidotti, 2013). Socio-cultural constructivism recognizes that students' and teachers' identities are context-dependent and result from a building process related to the social and cultural dimensions of learning (Ligorio, 2010). When students and teachers participate in learning situations through interaction and dialogue, they are constantly challenged to redefine who they are, what they are capable of doing, and what they will be (*ibid.*; Ligorio et al.,

2013). This line of thinking is consistent with Vianna and Stetsenko's theory (Vianna & Stetsenko, 2011), which states that people actively influence each other and are being shaped by the context in which they are embedded. Learning is the privileged venue for creating and constructing one's identity because it provides individuals with knowledge of social practices as they evolve through history and thus creates the basis from which a meaningful contribution to these practices can be made.

In this paper, we considered the relevance of the socio-cultural dimension of learning and identity building; however, we emphasized the role of materiality in constructing identity within learning situations (de Freitas & Curinga, 2015). In this respect, our study drew on posthuman and new materialism (Harding, 2020; Symon & Pritchard, 2015) that reconfigure the role of materiality in identity formation.

This approach leads us to consider identity as a product that emerges from the inseparable intertwining of social and material elements – there is no social that is not also material and no material that is not also social. In this regard, Barad (2007) coined the concept of intra-action to highlight “the mutual constitution of entangled agencies. In contrast to the usual interaction, which assumes that separate individual agencies precede their interaction, the notion of intra-action recognizes that distinct agencies do not precede, but rather emerge through, their intra-action” (ivi, p. 33). While inter-action concerns two separate pre-existing subjects, intra-action emphasizes that ‘subjects’ can only emerge through *entangling* themselves with and through the numerous discourses/materialities/bodies/acts that allow them to emerge (Harding, 2020). In this sense, the agency is not an essence in humans but a capacity realized through actors' connections (whether human or nonhuman), and thus relational, emergent, and distributed. In a posthuman ontology, *things* have agency and take shape exclusively within a relational context: the identity of *things* is not a discrete and independent entity but emerges through something else. Identities, as socio-material assemblages, emerge and are brought into being, positioned, and routinized through repeated performances, and they are also capable of enacting new subjectivities or agencies (Symon & Pritchard, 2015).

In the ‘remote university’ of the Covid-19 pandemic, new materialism can help us understand how students’ and teachers’ identities have emerged and how they have been reconfigured through new intra-actions with commodities, machines, technologies, bodies, and forces of production (Harding, 2020).

In the present paper, we intended to explore this reconfiguration through the framework elaborated by Symon and Pritchard (2015) and Orlikowski and Scott (2008), who have studied how in digital environments, identities can be repositioned and challenged in inherent ways. More specifically, Symon and Pritchard (2015) developed the concept of the *connected self*, considered an intra-action (Barad, 2003) of human and technological agencies from which identities emerge and are performed in digital environments. Through this framework, we intend to explore how teachers and students in the remote university are produced by the new digital technologies as *connected identities*, simultaneously producing the technologies as *tools of connection* and thus reconfiguring the whole learning/teaching environment. Viewing identity as performed rather than an individual difference offers a dynamic view of an agency in relation to connectivity, according to which individuals do not wholly determine their technology use, but the agency is distributed among human and material “matters”. Connectivity is, therefore, not just about communication but also about being *known* and *knowable* – having presence in a given context and enacting that presence and one’s identity as a teacher and student. These enactments contribute to change not only the teaching/learning socio-material conditions but also the materializations of established work practices within the university context, thus challenging its status quo and (possibly) opening up new streams of innovation (Orlikowski & Scott, 2021).

The research: objectives and methodology

The study aimed to explore how university teachers’ and students’ identities were performed and possibly reconfigured during the early stages of the pandemic.

Our guiding questions were:

- what kind of identity reconfigurations of students and teachers emerged in the online university imposed by the pandemic?
- what made these manifestations possible, and what are the implications?

Data collection

Six online focus groups were held in July 2020 – 2 for bachelor’s students, 2 for master’s students, and 2 for academic staff from the Faculty of Psychology of the same university. In the spring of 2021, these were joined by 2 more student focus groups (1 bachelor and 1 master) and 1 for academic staff of the same Faculty. The purposive sampling method was adopted using a snowball approach.

In the first wave, 16 undergraduate students (10 F and 6 M) and 17 master students (12 F and 5 M) were involved. In the second wave, 9 other undergraduate students (7 F and 3 M) and 10 master students (6 F and 4 M) were involved. No students reported being employed, although, during the focus groups, some mentioned part-time jobs or volunteering experiences, and 1 student had a physical disability.

Fifteen teachers were involved in the first phase (10 F and 5 M) and 10 in the second phase (7F and 3M). Teachers were purposively selected based on their expertise – they were all expert lecturers in the Department for more than 5 years and had a wide-ranging experience with bachelor’s and master’s students.

The focus groups lasted about 2.5 hours and were conducted online by one expert facilitator. The focus group guide was focused on (a) participants’ views of and experiences with the pandemic, (b) perceived changes in teaching and learning, (c) experience with the new technologies, and (d) needs and hopes for the future. Participants in each focus group were encouraged to share their stories and others’ experiences. The entire content of the focus groups was audio-recorded and then transcribed.

The rationale for using focus groups was to generate data and insights that would have otherwise been less accessible without the social interaction of a group. Online focus group settings resemble

the socio-material environments where teaching and learning occur in the remote university in that interviewees could intra-act with each other and with the material environment, thus co-producing stories and performing their identities within a complex web of relations (Bloor et al., 2001). As such, this method was judged appropriate for the research as it provided insights into how students and teachers experienced new intra-actions with each other, technology, and other matters, and how they eventually reconfigured their identities.

Data analysis

Data analysis involved two phases. In the first phase, the researchers read and re-read the transcripts to produce draft thematic categories and subsequently revised these categories during team meetings to develop a list of first-order and second-order codes. In particular, the first-order codes were developed in proximity to the data (Charmaz, 2006). These codes were then grouped into second-order categories, describing different ways students and teachers referred to themselves with respect to others, the technological tools, and the teaching/learning experiences.

In the second phase, data were re-coded through the lens of *connection/connectivity*, which was used as a sensitizing concept (Bowen, 2006), drawn from the literature on socio-material identity (Symon & Pritchard, 2015). Researchers decided to focus on connection/connectivity since it seemed to emerge as a key enabling condition for *being* students and teachers in the distance-learning experience. In this further stage, through an abductive process, researchers went back and forth from data to literature, and the categories were synthesized and reorganized into three main themes, describing three ways through which connection allowed answering questions like: “Who am I as a teacher/student? How do I perform and make me knowledgeable here?” (Harding, 2020).

Three different modes of being students/teachers thanks to the connection emerged (see Table 1):

- *being accessible (but ubiquitous)*;
- *being engageable (but alone)*;
- *being efficient (but under control)*.

Table 1. Themes, second and first-order codes

Themes – Being connected as...	Second-order codes	First-order codes	Exemplary quotes
Being accessible	Forced to be available	“Just a click”	<i>“Everything seemed easy: just a click to be there” (Student_a3)</i>
		Fear of losing the connection	<i>“I was in a flat where the connection was not very good, so I couldn’t participate in the group work because it was impossible. Even the chats were slow... I would be writing, and in the meantime, the discussion continued without me. I felt guilty” (Student_a5)</i>
		Sense of inadequacy when disconnected	<i>“During the exam, I was terrified of losing my connection during a test and having to start all over again!” (Teacher_a13)</i>
	Body reconfigured	Disability disappeared	<i>“For the first time, my wheelchair disappeared! I finally felt the same as other students for the first time. All that mattered was what you said, whether it was bullshit or an intelligent thought!” (Student_a5)</i>
		Blurred boundaries	<i>“I was at the same time a guy in his bedroom, wearing my pajama, a student, a son... this was quite weird” (Student_a2)</i>
	Permeable settings	Getting into the domestic sphere	<i>“We could see backgrounds showing sections of the home, parts of the room, cats, children, parents... visions of domestic, or professional, contexts that were wholly new and unusual but also very intimate.” (Teacher_b2)</i>
		Disturbing presences	<i>“I have three children, and it was crazy since they often appeared behind me...during the exams, the lessons. Students now know me under a new perspective” (Teacher_a1)</i>
	Burdens	Binge-watching	<i>“This idea that in any case, you can play things back...in the end, it has meant that we’ve ended up spending 12 hours a day on the computer” (Student_b1)</i>
		Straining ubiquitous presence	<i>“All of us have seen the phenomenon of being connected to several things at the same time” (Teacher_b1)</i>

Being engaged	Individualized settings	One-to-one interaction	"Participation has increased, but at the individual level...in my opinion, less attention has been paid to fostering exchange among peers, among students" (Teacher_b5)
		Lack of sense of community	<i>"I felt less a part of the university"</i> (Student_a5)
	Participation reconfigured	The importance of verbal communication	"If you don't talk or write, you're invisible" (Teacher_b6)
		The silence	"A black screen, this is what I remember. Silent and black" (Teacher_b3)
		Multiple participation options	<i>"You have many different ways for participating: talking, writing in the chat, talking to the others via WhatsApp..."</i> (Student_a9)
	Loss of cues	Absent presences	"If they don't talk and don't turn on the camera, how do I know where they are? I might be talking to people in bed, lying down, having breakfast...I have no idea how they listen and engage in the activities. I don't feel as if I'm together with them." (Teacher_a4)
		Loss of symbolic/contextual cues	<i>"I don't have the non-verbal feedback, I don't have the buzz ... I lose all the classroom atmosphere"</i> (Teacher_a4)
Being productive	Focus on contents	Manageable knowledge	<i>"It was easy to listen to the recordings any time, when you needed"</i> (Student_b13)
		Structured contents/processes	"As teachers, we were forced to think and rethink the teaching, the setting.... We had to structure more, plan everything. How to keep their attention, how to encourage participation?" (Teacher_b10)
		Emotions in the background	"Without seeing the prof and my classmates... the explanations were all the same. I didn't understand which things were more important, what the teacher was more or less enthusiastic about ... I missed a lot of information that would have helped me remember" (Student_b4)
	Efficiency	More study	"Studying has been more effective; the contents were clear, you could go into many aspects more deeply because you could listen to everything again, there was lots of extra content." (Student_b7)
		More teaching	<i>"For the first year, I completed the program!"</i> (Teacher_a9)
	Power and control	Feeling observed	"I knew I was being recorded. I was less biting, less provocative. I used more self-restraint. You never know what may happen to the things you say; you have to be careful" (Teacher_a8)
		Lack of improvisation	On the one hand, this was interesting, but at the same time, I wonder: what happens to the 'soft' aspect of my work, the improvisation?" (Teacher_b10)

Results

This section summarizes the three different ways of being *connected students/teachers* introduced in the previous section. The socio-material intra-actions that “produced” them and their implications are also described with their specific characteristics and challenges (for a more detailed description of first and second-order codes and exemplary quotes, see Table 1).

Being accessible (but ubiquitous)

The first theme links connection to being available anytime and anyplace.

Body reconfigured. Unlike before, *being* in the university and being recognized and recognizable was now just a click away. The boundaries of the body and life contexts became more porous, and one perceived oneself as more permeable, mobile, and able to access any situation.

By connecting online, students and teachers lost their corporeal consistency. The symbolic order associated with bodies changed: clothing, location in space, and several physical features became irrelevant. Some inequalities were eliminated. This was even more evident in the case of students with disabilities for whom distance learning meant their first-ever experience of actually being part of the university context and achieving a *normal* corporeity.

Permeable settings. At the same time, some new material elements that are usually hidden from the public moved to the foreground. The backgrounds on live screens showed parts of homes and rooms, animals, and other people. They offered entirely new and unusual views of domestic or professional contexts. The invisibility of conventional materialities (body, clothing etc.) and the permeability of other settings seemed to create novel intermingling between spaces and matters associated with the study, work, and home life.

Showing oneself and seeing oneself in new forms led to unprecedented consequences when students and teachers realized they were closer, more similar to each other and able to empathize. For many, the lack of physical presence in the learning setting was perceived as “liberating” and a source of discoveries about new ways of knowing and being known.

Burdens. Managing more blurred boundaries brought new burdens. Students and teachers were often alone in their rooms, interacting with many devices, having several windows open on the same PC simultaneously without any social control, and being active on several fronts. Some students and teachers used the metaphor of the “great big binge” to refer to multiple connections with multiple digital rooms to which they were exposed for a prolonged time at the expense of being able to get something out of what they were doing.

Forced to be available. Furthermore, while everything seemed so easily accessible, many associated not being connected with being unavailable and irresponsible. The lost online connection was experienced with a sense of guilt and inadequacy. New barriers – such as poor connectivity in certain spots or at home – have appeared, making access easier or more difficult for some teachers and students.

Being engageable (but alone?)

The second theme is mostly related to participation and engagement dynamics.

Individualized settings. Participation in digital platforms was described as more nuanced and more frequent. However, it seemed to involve one-to-one interaction, usually triggered by teachers, while circular interactions between students were less frequent. Therefore, forming a group and community as an integral part of being a student or a teacher became more difficult.

Participation reconfigured. The most legitimate forms of participation were written or oral interventions, and verbal language became key. Anything that referred to physical interaction, such as non-verbal signals, seemed to have a new meaning. For example, the silence after a question posed by the teacher could be interpreted as a reflective pause or, more often, the absence of other non-verbal signals, which then took on a negative connotation, ranging from disinterest to outright hostility.

Loss of clues. The new material and virtual space became a cross-road of energies, connections, vibrations, information, and processes in which new becomings and alliances were created in a lively flow that was difficult to interpret through conventional/ordinary ways of knowing. The teachers and students who took the initiative of turning on their cameras and speaking out were the (only) ones visible and recognizable, mainly as single individuals rather than as part of a group. The group of silent and invisible *others* seemed to find a new collective alliance and ‘presence’ in this condition of *absence* (of words and images of selves). In these situations, silence and invisibility became threatening but productive since they triggered a continuous effort to analyze them and figure out new paths of interaction and engagement.

Being productive (but under control)

Distance learning and teaching were mostly recognized as efficient processes.

Efficiency. Pre-recorded lectures, supplementary materials, and more structured courses made studying and teaching more rewarding, transparent, and “manageable”. Students and teachers claimed to have “*studied more*” and “*taught more*”.

Focus on contents. However, the “product” of teaching and learning, which qualified and legitimized being a teacher and student at univer-

sity, was mostly content knowledge. The emotional dynamics linked to learning, which also involved the emotional relationship between teachers and students, remained in the background.

Power and control. This emphasis on content knowledge seemed connected to having control over it and consequently to the perceived mutual control between all the actors involved in the learning process. For example, many teachers said that they felt “under observation” and were uneasy about “packaging products”, which could be watched by “spectators” at any moment and for a long time in the future.

Discussion

The results of this study seem to indicate that in the Covid health crisis, new possibilities emerged to allow students and teachers to reconstruct themselves in relation to others, university learning, and the academic world. The global pandemic combined with distance learning has facilitated a new assemblage of technology, materiality, discourses, and practices, producing fresh configurations of “digital” studentship/teachership with unique differences, potentials, and risks (Harding, 2020).

In the new situation, being connected/disconnected seems to be an enabling and legitimizing condition for students and teachers to be seen as more or less accessible, engageable, and productive. This re-configuration makes it possible for universities, teachers, and students to continue to “exist”. These new entanglements, however, do not only generate certain opportunities but also exacerbate contradictions.

First, *connected* students and teachers seem more *accessible*; permeable borders allow for the mutual contamination of different living spaces and new ways of meeting each other and presenting oneself. The students’ and teachers’ rooms are assemblages (Deleuze & Guattari, 1987) of vital materials of all sorts. The desk, the discourses concerning teaching, the sofa or a chair, the animals around, the elements scattered in the room, and the technology all constitute the

students' and teachers' space and produce their identity as something that emerges in a space-time mattering (Barad, 2007), that is, in a specific moment (time), in a specific space, and with an equally specific body (matter). On the one hand, being able to do more and be everywhere, thanks to the absence of physical limitations, offers students and teachers unprecedented opportunities for "expansion" (Amenduni & Ligorio, 2022). This resonates with the posthuman perspective: the spaces created through technology are places in which the "posthuman multiverse" (Ferrando, 2019) produces "generative nets of material possibilities simultaneously happening" (ivi, p. 178). Here, the conventional distinctions between 'us' and 'others' seem to be overcome, and identities emerge as intra-connected 'plural beings'. At the same time, however, new risks appear: the space-time-mattering assemblages do not always connect people properly and make students and teachers recognizable; their 'unstable' presence sometimes prevents them from feeling safe or capable of building a trusting relationship. The conventional distinctions between able and disabled, or public and private selves, disappear, while at the same time, however, new diversities and even disabilities emerge, for instance, connected to students and teachers' more or less sophisticated use of the digital tools or the "digital divide" between the different places. Being connected and thus responsive becomes imperative and opens up new possibilities of being and performing; at the same time, however, it is seen as a sort of obligation, triggering fantasies of ubiquity and the fear of being left apart when disconnected.

Second, through *connectivity*, new ways of engaging students/teachers emerge due to several opportunities for taking the floor and participating. At the same time, however, there is a risk of overlooking non-verbal forms of participation. Further, the engagement through connection seems to be one-way (from teachers to students). Typically, teachers connect and stimulate verbal participation, while the students are hardly ever *connectors* or promoters of peer-to-peer interaction. However, the presence of the group classroom, a supra-individual collective that transcends the student-teacher relationship and generates learning circles, does not often appear (Amenduni & Ligorio, 2022). In distance learning, new silent and invisible groups of students appear

instead of a visible and audible group. These become *absent presences*, which in a posthuman perspective seem both threatening and productive. They are threatening because they offer weaker identity anchors, contributing less to students' and teachers' *positioning* and containment (Symon & Pritchard, 2015). However, because of the impossibility of giving meaning to them, they are also productive: "What is illegible resists analysis and produces at the same time a never-ending analysis" (Benozzo & Gherardi, 2020, p. 150). Students and teachers continuously question how to give meaning and position in the new situation: "*If I teach in front of 'silent extras,' am I still a teacher? If I escape the teacher's gaze/control if I don't speak up... am I still a student?*"

Third, being a *connected* teacher/student coincides with experiencing enhanced teaching and studying performance. While the common notion of technology is utility-oriented, within posthumanism, technological tools are not conceived as simple devices but as a form of superposition where body and technology augment each other in a never-ending expanding process (Frigerio et al., 2018). In this process, however, control emerges as a contested issue: "if bodies and objects are implicated in each other...it is not clear who is used by whom" (Massumi, 2002, pp. 95-96). Therefore, teachers and students appear more effective, accountable, and enhanced in their capabilities, but at the same time, they feel they are losing control/are under *external* control. The feeling of losing control can, as a consequence, lead to emphasizing a logic of standardization of the teaching/learning *contents* and the *teachers/students* emerging as producers/consumers of 'pills' of knowledge rather than as *educators/learners*. In this situation, softer, improvised, and messy elements of teaching/learning which sustain creativity and imagination, run the risk of being lost or relinquished (Chemi, 2021).

Conclusions

In conclusion, the emergence of new identities of digital students and teachers seems to have guaranteed the resilience and survival of the university system and even the enhancement of some learning and teaching

practices. At the same time, some contradictions and challenges have emerged: new minorities and 'digital inequalities', experiences of work-aholism, the fragility of the group dimension, and an overemphasis on the delivery and accountability of teaching/learning. However, these contradictions are made more available today and offer opportunities for reflection. For example, the role of life, study, and work contexts in crafting students' and teachers' identities can no longer be separated, and the question of how to detect and include minorities is being revisited. We can reflect critically on the difference between presence and participation, and between participation and speaking up. The importance of not losing a sense of community and belonging has now taken center stage, as they can hold and offer containment to the condition of being boundary-less teachers and students. Finally, there is a fresh focus on how digital teachers and students can enhance their teaching/learning performance by profiting most from the renewed situation.

The present study has some limitations that can be overcome in future research.

First, all the students and teachers involved belonged to the same university and Department, which might have contributed to a context-related bias. Therefore, it would be appropriate to investigate the student-teacher experience at other universities and in other courses to see if our results apply to other contexts.

Second, using focus groups to investigate the socio-material dimensions of identity could be questioned, as the findings were based on the analysis of language and narratives. Further research should therefore integrate this approach with observational techniques.

Finally, the number of participants involved was limited. Increasing the sample of students and teachers may confirm or disprove the results.

References

- Amenduni, F., & Ligorio, M. B. (2022). Blended learning and teaching in higher education: An international perspective. *Education Sciences*, 12(2), 129. doi.org/10.3390/educsci12020129

- Barad, K. (2003). Posthumanist performativity: Toward an understanding of how matter comes to matter. *Signs: Journal of Women in Culture and Society*, 28(3), 801-831. doi.org/10.1086/345321
- Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.
- Benozzo, A., & Gherardi, S. (2020). Working within the shadow: What do we do with “not-yet” data? *Qualitative Research in Organizations and Management: An International Journal*, 15(2), 145-159. In <https://10.1108/QROM-09-2018-1684>
- Bloor, M., Frankland, J., Thomas, M., Robson, K., & Stewart, K. (2001). *Focus groups in social research*. SAGE.
- Bowen, G. A. (2006). Grounded theory and sensitizing concepts. *International Journal of Qualitative Methods*, 5(3), 12-23. doi.org/10.1177/160940690600500304
- Braidotti, R. (2013). *The posthuman*. Polity.
- Charmaz, K. (2006). *Constructing grounded theory*. SAGE.
- Chemi, T. (2021). It is impossible: The teacher’s creative response to the Covid-19 emergency and digitalized teaching strategies. *Qualitative Inquiry*, 27(7), 1-8. doi.org/10.1177/1077800420960141
- de Freitas, E., & Curinga, M. X. (2015). New materialist approaches to the study of language and identity: Assembling the posthuman subject. *Curriculum Inquiry*, 45(3), 249-265. doi.org/10.1080/03626784.2015.1031059
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia*. University Minnesota Press.
- Ferrando, F. (2019). *Philosophical posthumanism*. Bloomsbury Academic.
- Frigerio, A., Benozzo, A., Holmes, R., & Runswick-Kole, K. (2018). The doing and undoing of the autistic child: Cutting together and apart interview-based empirical material. *Qualitative Inquiry*, 24(6), 390-402. doi.org/10.1177/1077800417735132
- Gorli, M., D’Angelo, C., & Corvino, C. (2022). Innovation, Participation and Tutoring as Key-Leverages to Sustain Well-Being at School. *Sustainability*, 14(9), 5622, <https://doi.org/10.3390/su14095622>
- Harding, N. (2020). Materialities and identities. In N. Brown (Ed.), *The Oxford handbook of identities in organizations* (pp. 228-243). Oxford University Press.
- Ligorio, M. B. (2010). Dialogical relationship between identity and learning. *Culture & Psychology*, 16(1), 109-115. doi.org/10.1007/978-3-030-63157-4_4

- Ligorio, M. B., Loperfido, F. F., & Sansone, N. (2013). Dialogical position as a method of understanding identity trajectories in a collaborative blended university course. *Computer-Supported Collaborative-Learning*, 8(2), 351-367. doi.org/10.1007/s11412-013-9174-3
- Massumi, B. (2002). *Parables for the virtual*. Duke University Press.
- Orlikowski, W. J., & Scott, S. V. (2008). Sociomateriality: Challenging the separation of technology, work and organization. *The Academy of Management Annals*, 2(1), 433-474. http://dx.doi.org/10.1080/19416520802211644
- Orlikowski, W. J., & Scott, S. V. (2021). Liminal innovation in practice: Understanding the reconfiguration of digital work in crisis. *Information and Organization*, 31(1), 3-6. doi.org/10.1016/j.infoandorg.2021.100336
- Quattrone, F., Borghini, A., Emdin, M., & Nuti, S. (2020). Protecting higher education institutions from Covid-19: Insights from an Italian experience. *Journal of American College Health*, 70(5), 1354-1355. http://dx.doi.org/10.1080/07448481.2020.1791885
- Quintiliani, L., Sisto, A., Vicinanza, F., Curcio, C., & Tambone, V. (2022). Resilience and psychological impact on Italian university students during Covid-19 pandemic. Distance learning and health. *Psychology, Health & Medicine*, 27(1), 69-80. doi.org/10.1080/13548506.2021.1891266
- Rossi, C., De Salve, F., Agliati, M., & Oasi, O. (2022). Coping strategies and mental health: A web-based survey among the Italian population dealing with COVID-19. *Research in Psychotherapy: Psychopathology, Process and Outcome*, 25(2). https://doi.org/10.4081/ripppo.2022.609
- Symon, G., & Pritchard, K. (2015). Performing the responsive and committed employee through the sociomaterial mangle of connection. *Organization Studies*, 36(2), 241-263. doi.org/10.1177/0170840614556914
- Vianna, E., & Stetsenko, A. (2011). Connecting learning and identity development through a transformative activist stance: Application in adolescent development in a child welfare program. *Human Development*, 54(5), 313-338. doi.org/10.1159/000331484
- Zuccheromaglio, C., Alby, F., & Marino, F. (2021). Teaching and learning during the Covid-19 pandemic: University students' perspective on phase 3. *Qwerty. Open and Interdisciplinary Journal of Technology, Culture and Education*, 16(2), 10-29. doi.org/10.30557/QW000041