ORIGINAL PAPER

On the digitalisation of higher education in times of the pandemic crisis: techno-philic and techno-sceptic attitudes of social science students in Crete (Greece)

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Abstract

Drawing upon empirical evidence from a research carried out at the University of Crete, this paper investigates the social sciences students' perception towards their experiences regarding the emergency online learning amidst the COVID-19 pandemic. The study reveals aspects of digital divides, as well as divergent perceptions of students, ranging from techno-philic attitudes that enthusiastically welcome the pivot to online learning, to ambivalent opinions expressing moderate satisfaction and techno-sceptic views, criticising pandemic pedagogies through digitalised forms of learning. The analysis sheds light on the contextual factors associated with the dystopic condition of the protracted economic crisis and the pandemic, that lie behind the claims of many students, revealing a main tension between contrasting perceptions of digital education. Students with positive attitudes towards online learning tend to highlight the advantages in regard to time and space flexible modalities of digital education, embracing it as an inclusive practice that responds to the social and educational needs of students, especially at times of crisis. Techno-sceptic attitudes criticise online learning models for lowering the academic standards, separating students from the real-life world on campus and repositioning them in digital settings where common physical experience, affective body language and classroom socialisation are missing. The article offers insight in the ongoing discussion of the emergency remote learning and underlines the political and pedagogical significance of the accelerating digitalisation of the universities in the post-COVID era.

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Introduction

Modern societies have been facing an ongoing digitalisation of the human activity in all sectors, including the field of higher education. In spring 2020, academic communities worldwide were forced to make a sudden pivot from face-to-face to emergency online learning and teaching, in tightly compressed timelines. The extensive use of the distance education in the tertiary level in the wake of COVID-19 crisis, sparked a productive discussion on the ongoing digitalisation of the universities, offering a wide range of opportunities, but also challenges for the higher education institutions, including the normalisation of the e-learning practices in education in the post-COVID era. Within this framework, empirical investigation has focussed on the effects of digitalisation in the academic communities through the students' experiences of this sudden transition to the distance education.

Drawing upon empirical evidence from a research carried out at the University of Crete, the aim of the present study is twofold: (a) to investigate social sciences students' readiness, perception and understanding of the emergency remote learning experience; and (b) to offer insight in the ongoing discussion on the reconstruction of education during the COVID-19 era, by raising questions concerning digital divide and the social and pedagogical aspects of the ongoing digitalisation of higher education.

The article enters the recent debate about the online learning in higher education in the coronavirus era, examining the context of its emergency implementation in the Greek universities. After outlining the methodology of the research, it focuses on the research findings, from both quantitative and qualitative data, shedding light on issues related to students' readiness towards online learning, such as appropriate equipment and digital skills, as well as on the attitudes of a variety of students concerning the emergency remote learning experience. The article concludes with a number of critical remarks on the pedagogical and political dimension of the higher education ongoing digitalisation.

On the digitalisation of higher education

The advent of unexpected coronavirus crisis sparked the ongoing discussion on the significance of the digitalisation of the universities worldwide and the risks or opportunities of the normalisation of online teaching. Many scholars tend to examine the emergency remote learning as an opportunity towards the digital transformation of the universities that will have a positive effect in the teaching methods (Zawacki-Richter 2021), improving the quality of education (Rodríguez-Abitia et al. 2000) and the need to move between embodied and digital(ised) forms of learning towards an integral pedagogy (Aroles and Küpers 2021). Others stress the perspective of inclusive considerations for optimal online learning in times of crisis, providing benefits for inclusion of divergent student voices, including students with disabilities (Thompson and Copeland 2020) or those who live in remote rural areas.

From the angle of the entrepreneurship education, it is argued that the urgent digitalisation of the universities allows them to incorporate digital technology, creativity and innovation into the educational experience, cultivating the desirable entrepreneurial spirit within the academic communities (Ratten 2020). To this end, they invite students and educators to think in a proactive and futuristic manner about online learning (Bacq et al. 2020). The transition to the online learning method in universities is interpreted as a step towards improving the quality of the study environment, enhancing student satisfaction and ameliorating the universities' performance in the light of both the increasing competitiveness among higher education institutions worldwide and the increasing need to adapt to the labour market's requirements (Grinberga-Zalite and Zvirbule 2020). Since digital technology provides students with new options for learning and different forms of socialising, techno-philic approaches call academics to integrate innovative technology practices into their courses in post-COVID era (Bao 2020; Papouli et al. 2020; Kedraka and Kaltsidis 2020).

Techno-enthusiastic perspectives in education tend to treat information technology as a neutral tool for expediting teaching objectives and goals and a perfect catalyst for neoliberal reforms in education, often hiding social processes, power plays and beliefs that are put into play around it (Lee 2011, p. 514; Bakhtiar 2020). Scholars express skepticism and, in Foucauldian terms, problematise the digitalisation of higher education by raising questions about what we have taken for granted in the intersection of technology with education (Foucault 1984). This discourse often unveils social inequality and digital divide issues and demonstrates the significance of examining the digitalisation processes within the framework of humanising pedagogies, along with issues of power, privilege, social justice and equity (Mehta and Aguilera 2020). Scholars have brought to our attention the deep structures of power and conflicts immanent in late capitalism that drive contemporary technological change, the (hyper) individualisation of technology-based education towards flexible personalised learning and the use of digital technologies to promote the reconfiguration of education into a commodity state (Castanẽta and Selwyn 2018; Means 2019).

Critics emphasise the risk of expansion of managerial perspectives within the neoliberal university and the transition of the for-profit sharing economy and platform capitalism into the area of higher education (Le Grange 2020). In this vein, the discussion addresses the pressures from both for-profit-educational technologies corporations and from governments seeking to implement e-learning systems as a means of slashing education budgets, while constructing a sense of inevitability to normalise emergency e-learning. This leads to the normalisation of a form of education which perpetuates structural inequalities of class and race (Murphy 2020, p. 521).

Adam Matthews shows the complex sociotechnical imaginaries that surround the dominant discourse of technology-enhanced learning, raising questions about the mass-scale datafication of education that might further advance the interests of data-driven edtech companies and facilitate new techniques of surveillance (Matthews 2021). Other critics express fear regarding the intensification of gender and racial inequities in teaching and service (Malisch et al. 2020) and underline the digital divides between developed and underdeveloped countries or between wealthy

and impoverished populations, with the latter suffering from unavailable educational opportunities (Bozkurt and Sharma 2020).

Questioning the undiscerning acceptance of the rapid digitalisation of higher education along with the normalisation of the dematerialised teaching methods in the post-COVID era, techno-sceptic approaches offer fruitful ideas for further discussion. What is important here is to avoid resorting to a traditional technophobia "that, apprehends the mediation of technology essentially as a critical regression and a modern form of **r**ationalisation that engenders an immense social and psychic alienation" (Bakhtiar 2020, p. 1). Often techno-sceptic views underestimate the challenge of integral pedagogy in the digital era. This perspective presupposes pedagogic approaches that create awareness of existing inequalities in higher education, employing technologies as means to enhance access to education, to improve learning achievement and to make space for collaborating experiences and interactions, reintegrating the body and embodiment into digitalised learning (Aroles and Küpers 2021; Cocquyt et al. 2019; Laufer et al. 2021).

From a policy perspective, special attention should be paid to important factors influencing students learning experience and readiness towards online learning, particularly in terms of available technological equipment, sufficient digital skills and appropriate home-learning environment. The academic community should better understand the impact of such factors on the students' learning experience (Aristovnik et al. 2020) and to better redesign integral pedagogies and more inclusive teaching and learning practices in digitalised education. In the following section, we briefly present how Greek universities responded to the shift to the online and digital learning in the context of the coronavirus pandemic crisis.

Emergency remote learning in higher education during the coronavirus pandemic in Greece

On March 10, 2020 with officially 89 confirmed COVID-19 cases, the Greek Ministry of Education announced the temporary closure of all schools and universities (Giannopoulou and Tsobanoglou 2020). The rapid expansion of the confirmed cases infected by COVID-19 led the Greek government to impose a nationwide lockdown to further prevent the spread of the virus. Universities had to respond to the enforced emergency e-learning protocols and switch their programs to online learning systems. As there was no systematic central government planning for the implementation of the distance education, universities were asked to choose their own particular way of developing e-learning environments by creating online versions of the existing courses and the learning material, and by assisting students in using digital platforms.

Following the instructions of the University of Crete authorities, each faculty organised its own transition to online learning, employing teleworking and distance education in all their curricula. The Center for Information and Communication Technologies prepared an action plan offering guidelines for teachers and students, including tools and ways to support e-learning. The Faculty of Social Sciences offered online web seminars and technical support for the academic staff in order

to improve technology-based pedagogies and their learning capabilities. Thus, educators invested time and energy to adapt appropriately to new digitalised forms of teaching.

Taking into account the scientific particularities of each Department and their courses, the teachers could choose either the synchronous or the asynchronous online teaching or even a blend of both modalities. The majority of the courses were conducted through synchronous teaching, which required from teachers and students to communicate with immediacy and in real time, during specific hours according to the weekly schedule for the whole semester. Teaching and learning activities were conducted virtually on teleconference platforms, such as Zoom, Webex, BigBlue-Button, and Microsoft Team. Asynchronous learning did not occur in real time, allowing students to follow their own flexible schedule, using available teaching material prepared by the teachers, such as e-texts, power points, lessons' summaries and, optionally, podcast or recorded (video) lectures available in courses websites. In some important courses, online discussion boards provided students with the opportunity to digitally communicate with educators over academic affairs and, often, teachers posted feedback on the comment box in the Moodle e-learning platform. Moreover, asynchronous online discussions between the educator and students have been possible at a time decided by the teachers.

The unprecedented shift from 'Blackboard to Keyboard' caused an initial distress in the academic community, especially for the students who had to become familiar with the online learning systems and the digital platforms, in a relatively short period of time. The online courses were conducted until the end of the semester and sparked intense debates in the academic community. The following sessions outline the methodology of the research conducted at the University of Crete and the findings that reveal the students' readiness, attitudes and wide-ranging views about their experience of the online learning during the Coronavirus era.

Methodology and research sample

The study has been conducted during the first lockdown period of COVID-19 in the spring semester of the 2019–2020 academic year, examining the social science students' attitudes and perceptions towards the experience of online learning due to COVID-19. The research draws upon an online (web-based) survey targeting undergraduate students of the Social Sciences Faculty of the University of Crete in Greece. The case of social science's students deserves our attention, since many of them strive to enter a limited labour market, often in low-payed precarious employment positions in times of protracted austerity policies (Samatas and Drakos 2014). These conditions have negative effects on their academic achievements, engendering feelings of frustration and insecurity concerning their carrier expectations and educational aspirations.

For the purpose of the study, a self-administered questionnaire was constructed and posted on the website of each of the School's Department, namely the Department of Psychology, of Sociology, of Economics and of Political Science. At the beginning of the questionnaire, a short introductory note was inviting students to

participate in the research, informing them about its purpose, and ensuring confidentiality during and after the data collection. The questionnaire was open for completion during the last three weeks of May 2020, i.e. at the end of spring semester.

The online questionnaire included close-ended items regarding the students' profile (department and year of study, gender and age, educational level and occupation of their parents), their technological equipment and digital skills, their space and time availability for attending online lessons and their assessment on remote learning process issues. Such questions aimed at capturing the students' readiness for online learning in terms of the available technological equipment, the digital skills and the appropriate conditions at home. Moreover, in order to get a deeper understanding of the students' perceptions and opinions towards remote learning, participants were encouraged to freely report their comments regarding their personal experience of emergency online learning/teaching in an open-ended question at the end of the questionnaire (qualitative data).

The study sample consisted of 328 students from the four Departments of the School of Social Sciences, out of which 75.3% were females and 24.7% males, with an average age of 22.48 years old. With respect to their parents education, 35.4% of the fathers and 44.8% of the mothers hold a bachelor and/or master/doctorate degree. The rate of unemployment for the fathers is identified at 6.1% and for the mothers at 7.9%. Although online surveys do not ensure representativeness, the sample of the present study reflects in many aspects the population of social science students of the University of Crete. Responders stem from all four Departments and are distributed in all years of study. Moreover, registered data indicate that the majority of students in the School are females (for instance in the Department of Sociology 76.4% are women), a pattern that is reflected in the research sample.

It should be noted that a surprisingly large number of participants in the study had positively responded to freely express their comments in the open-ended question of the questionnaire. More specifically, 86 students have extensively stated their opinions and experiences in regard to remote learning, providing fruitful qualitative data for analysis.

Therefore, the study used complementary approaches of quantitative and qualitative collection and analysis under the same framework. Quantitative data analysis techniques, employing descriptive as well as exploratory analysis, were used to study the students' perceptions, attitudes and assessments about the pivoting to the online education amid the COVID-19 pandemic. While the quantitative approach offered an overview of the current trends among students about digital technologies and distance education, explanatory qualitative strategies, employing thematic content analysis, provided us with the opportunity to analyse written items approaching the diversity of students' conceptualisation and understandings of emergency online learning in a campus-based university. Thematic analysis was used within the constraints posed by a limited body of data focussing on the specific issue of the emergency online learning experience. It reveals modes of meaning articulating around various themes, including techno-philia, modernisation of higher education, inclusive education, online learning for students with socio-economic disadvantages, techno-scepticism, technostress, feelings of social isolation and alienation. Synthesising qualitative and qualitative findings, the analysis offers a deep insight into

particular considerations within social sciences student's communities, concerning the shifting from traditional embodied learning and interactions on campus to digitalised forms of education through telepresence.

Finally, it should be noted that the findings need to be viewed with some caution, as the participants volunteered to take part in the survey and the sample of the research does not include the students who were left out of the remote online learning during the early period of the COVID-19 pandemic, possibly due to inadequate digital equipment, skills and family or state support. In a country stricken by a protracted economic crisis, the voices of the excluded population is a significant matter of concern that requires different methods of approaching. Unfortunately, the lockdown measures did not allow us to further explore the dimension of the wider social and economic inequalities surrounding our educational system and society, which have been exacerbated due to the pandemic crisis.

Students' readiness and perceptions towards emergency transition to the online teaching. Quantitative findings

The ongoing discussion on the implementation of remote learning amidst COVID-19 crisis includes issues on students' readiness in terms of the available technological equipment, the sufficiency of their digital skills and the appropriate conditions to attend online courses at home. According to Reimes and Schleicher (2020), the lack of students' access to proper technological equipment (devices and internet connection) should be considered as a major challenge to be faced. In addition, international research highlights the digital divides among countries but also within the same country, indicating that students from developed countries and high-income families have an obvious advantage. (Marinoni et al. 2020; Aristovnik et al. 2020). In Greece, recent data reveal the increasing trend both in computer ownership and internet access for the whole population.[1] University students enjoy full access to electronic devices and the internet, due to the campus infrastructures; however, we know little about their available equipment at home.

The present study records the available infrastructure that students mostly use in the remote learning process. Results indicate that the majority utilises a personal computer (75.6% a laptop and 6.1% a desktop). However, 18.2% of the students do not seem to make use of the appropriate digital infrastructure needed to attend their lessons, since they either share the same computer with other family members (8.8%), or use a computer borrowed from a friend or acquaintance (2.4%) or even attend the online courses through a mobile phone (7%). Moreover, although the higher percentage of students assesses their technological equipment as good (42.7%) and very good (29.6%), 18% characterise it as average and 9.8% as bad or very bad, which reveals the existence of digital divisions and inequalities.

[1] For instance, the percentage of households having access to the Internet has risen up to 79% in 2019 from 68% in 2015, yet still the lowest in the Eurozone (ELSTAT 2020).

Along with the access to certain devices, adequate digital skills play a significant role in online learning, especially during the pandemic era (Manco-Chavez et al. 2020). Digital skills refer to the individuals' ability to use computers and navigate the web as well as to their capacity to select and critically evaluate digital information (Pagani et al. 2016). Key factors acting as barriers to the acquisition of digital skills include, among others, social stratification and gender (Kamberidou 2019). For instance, previous research indicates that Greek students with a low socio-economic status are disadvantaged as they often do not have the necessary skills to use the internet for the benefit of their studies (Kyrgios et al. 2019).

One of the most commonly used methods to measure digital skills, includes survey questions requesting self-assessment (van Deursen et al. 2014). Our analysis reveals that eight out of ten students consider their digital skills as adequate (44.5%) or rather adequate (33.8%), a result that seems to suggest that students are prepared to face the challenges of remote learning. However, a small percentage (4.5%) rates them as insufficient or rather insufficient, while self-reported digital skills were stated as moderate by the 17.1% of the participants. No significant impact of socio-demographic factors on self-reported digital skills was found, except in the case of gender, where male students report higher self-assessment than females (x^2 (1) = 5486 p-value = 0.019). Such a result is in line with several studies indicating women's lower self-assessment regarding digital skills (Aristovnik et al. 2020; Hargittai and Shafer 2006).

A less explored issue regarding online education amidst COVID-19 concerns the availability of time and of a proper space for the students to attend online courses. For instance, international research indicates that almost half of the students do not have a quiet place to study (Aristovnik et al. 2020), while important distractors to concentration at home include noise and housework (Aguilera-Hermida 2020). In the Greek context, the availability of time and space may have been a significant obstacle for the students since a high percentage of the workforce, among them many parents, had to work from home during the spring of 2020.

Our analysis indicates that the highest percentage of students (73.8%) has the opportunity to attend online courses in their own private space, which is considered a basic condition for ensuring a quality learning process (Kahu and Nelson 2018). However, a significant percentage either attends online courses in a common area for the whole family (13.1%) or in a room shared with another member of the family (11.3%). Interestingly, no impact of the socio-demographic factors was identified on the space availability, except the mother's educational level. Students whose mothers hold a bachelor and/or master/doctorate degree are more likely to attend classes in their own private room (x^2 (1) = 7.712, p-value = 0.006).

Furthermore, although the majority of students (84.5%) report that they have as much time as they need to attend classes, 8.5% state that they lack the time required because they are working and 7% because their computer is also used by other family members. Such a result is in agreement with Aguilera-Hermida (2020), supporting that accessibility to online education is not only related to access to the internet or certain devices, but also to the number of people living in the same house. Furthermore, it is worth mentioning that students whose father is unemployed are less likely to report that they have the available time to attend

Table 1 The obstacles to the implementation of online learning according to the students' opinion ($N = 328$)

	Not an obstacle (%)	Small obstacle (%)	Moderate obstacle (%)	Significant obstacle (%)	Major obstacle (%)
Lack of properly adapted educational material	8.2	15.9	20.4	32.9	22.6
Inability to interact person to person with teachers	8.8	18.9	17.7	29.9	24.7
Sense of isolation from the learning process	17.4	19.8	20.7	20.7	21.3
Inability to interact with fellow students	15.2	16..8	21.6	20.7	25.6

remote classes than students whose father is employed or retired, with the above result being statistically significant ($x^2(1) = 6.137$ p-value $= 0.013$).

Another important issue explored was how students evaluate the online learning implementation. Findings from recent studies have been diverse. For instance, some scholars point out that students perceive online learning as useful but not as effective as face-to-face learning (Aguilera-Hermida 2020), whereas others identify high levels of satisfaction among students towards e-learning, although only as an alternative due to the emergency situation (Mishra et al. 2020). Our analysis indicates that overall, 55.2% of the sample perceives the online learning experience as good or very good in comparison to 11.3% assessing the e-learning experience as bad or very bad. In between, a high percentage of participants (33.5%) rates the experience of remote learning as average. It is worth mentioning that students with an unemployed father are less likely to characterise the remote learning experience as good/very good, than students whose father is working or retired, with the above result being statistically significant (x^2 (1) $= 7.746$ p-value $= 0.005$).

Additionally, students' opinions on specific issues as potential barriers in online learning have been recorded and presented in Table 1.

The results indicate the diversity of the students' opinions. More than half of the responders regard the lack of properly adapted educational material and the inability to interact person to person with their teachers, a significant or major obstacle (55.5 and 54.6%, respectively). The 42% considers as a significant or major obstacle the sense of isolation from the learning process, and for the 46.3% the inability to interact with fellow students. However, it is interesting to note that a high percentage of students (not the majority) assess the last two issues as small obstacles or not problems at all (37.2 and 32%, respectively).

Our findings reveal inequalities among students in terms of digital skills and competencies, as well as access to technical equipment and familiarity with new technologies. Infrastructure facilities, available space and adequate time are not ensured for a small but not insignificant percentage of the student population. In the next section, the results of the qualitative data shed more light on the student's

views and assessments towards the emergency online education amidst the pandemic era.

Techno-enthusiastic vs. techno-sceptic perceptions of the emergency remote learning

Qualitative findings show a wide range of students' arguments about the emergency remote learning experience. Thematic content analysis of the qualitative data reveals three main trends: the techno-enthusiastic beliefs which welcome the transition to the emergency remote learning, giving emphasis to the advantages in regard to space and time flexible modalities of digital education; the ambivalent opinions expressing moderate satisfaction, along with reflection on some negative aspects of digital experience; and the techno-sceptic voices that challenge the quality of digital learning, underlining the risk of disregarding the power of embodied learning and teaching and the aspect of social alienation and isolation.

The themes highlighted in the comments of students who support digital education are various. Some participants welcome the shift to distance education, prompting university authorities to engage fully in the online teaching experimentation, normalising the standardisation of the online learning after the crisis. In this vein, tech-savvy students immersed in digital technologies, tend to understand the replacement of on-site classes by virtual teaching in the pandemic era, as a step to the inevitable sociotechnical trajectory of the academic learning towards a technology-enhanced education in the post-COVID era. Here, are some striking excerpts of techno-euphoric arguments:

> Familiarity with technology is a positive result, as we are on the verge of a new order of things full of technology and automation. It is very positive and functional that the education is modernized.
> I consider it very negative that there had to be a pandemic crisis had to force the University of Crete to provide distance education. In 2020 you should take for granted the digitalisation of the education. However, once the start is made, it should be continued.

Often techno-optimist argumentation comes from students who enthusiastically endorse the digitalisation of learning in higher education through telepresence because it offers spatio-temporal flexibility, facilitates independence of mind and self-directed attitudes and, thus, can be easily adapted to the needs of the learners (Lewin 2016, p. 255). They praise the efforts of the academic staff and the facilities of the online education with brief comments such as "It was all fine!",

"Attending the courses was much easier and more effective".

The theme of the use of digital technology to foster inclusive education is also addressed. For some students digital education allows them a better concentration and dedication to the learning process and is a means of overcoming the psychological barriers they face into the real classrooms. For example, a woman claimed that it was difficult for her to attend lessons in the living classroom due to her agoraphobia and that "this semester was the only one to participate so much". Similarly, another

student praised the experimentation of digital learning since it "gave the opportunity to those who were ashamed to speak in the context of an auditorium, to start a more active participation" in the digital classes.

The issue of class-based inequality is also emphasised. Some students regard that digitalised ways of learning offer more opportunities for the students of lower socio-economic status who delay to complete their studies due to economic hardship or academic difficulties. They valorise online learning as a more equitable and democratic way of education, an effective response to various, mainly financial, difficulties they face in the context of a country hit by an unprecedented financial crisis. This dystopic condition forces them to work during their studies or/and to live away from the city where the university is located, especially after completing the first 4 years of their studies. Moreover, students stress that online learning "saves time" in terms of the hours wasted for travelling to and from the University campus. The following passages make clear how students associate the online learning with their everyday routines, with working issues, with the economic difficulties they face and with the fear of the insecure future in Greece, which has experienced a long-lasting socio-economic crisis:

> I feel that distance learning 'has arrived' in the Greek universities and that it should stay. Since we expect more difficult days for the Greek society to come; the university should take into account the possible difficulties and not exclude people who may not be able to be present [in the classroom].
>
> Distance education is a pleasant experience, to a great extent. I have the opportunity to attend more classes than before and not to worry about the distance to travel. The most important factor, however, is the significant reduction of my family expenses, since I do not need to rent an extra house. However, the next academic year I will not be able to live in Crete, so it would be excellent if I could attend classes from the town of my residence.

A second category of answers comes from students who usually report low or moderate level of satisfaction regarding their online learning experience. On the one hand, they hold positive views towards the implementation of the emergency online learning model, evaluating it as an effective response to the crisis-hit academic community. On the other hand, they tend to bring up the most recurrent negative aspects of online learning, such as the lack of appropriate digital-based learning material and of the adequate devices, the poor internet connectivity and the absence of a corporal presence and of face-to-face communication in the digital education. They often discursively construct comparisons between traditional campus-based education and online learning, strongly expressing, their preference to the former. Their attitude seems to be in line with the argument that online teaching is totally acceptable in dystopic times of social distancing, but it can be potentially destructive in the post-COVID era (Bakhtiar 2020).

> It is certainly a solution of necessity, but I do not think that can replace, in any case, the lively contact and interaction both with the teacher and with the whole process of attending a class in the amphitheater, the interaction with our classmates, the exchanging of views and the feeling that one is actively

involved in the learning process. It may have positive elements […] but […] the experience of studying at a university is unique and definitely irreplaceable.

It was satisfactory, but at the same time, tiring as an experience, with many hours daily in front of a screen. I would definitely rather go to the amphitheater to attend a lecture, raise my hand to speak and receive an answer for my questions, than open the laptop and look at the screen. But distance education is fully effective for special, exceptional cases, such as those we all experience.

The third category concerns students who are cautious about the pivot towards online learning, expressing feelings of dissatisfaction and frustration, often through brief comments such as, "it was an impersonal and tedious experience", it is a "sterile learning process". The analysis reveals patterns of technostress caused by the multi-tasking online learning process, especially evident in students with low digital skills and equipment. The argumentation about the virtual class without human presence deserves our special attention. According to some students, the lack of engaging in physical activity and interaction that the digital learning entails engenders feelings of isolation, detachment, boredom and social alienation. The commentaries show conditions of technostress, including fatigue, mental and cognitive exhaustion, accompanied by negative evaluations of digital education characterised as an impersonal practice that dilutes academic standards and degrades the quality of academic life and learning. The digitalisation of the higher education is perceived as a disrupting, alienating force that undermines the social mission and values of the academic community:

I believe that the quality of the educational process has been degraded and [distance learning] is not in line with the ideals of the university, which is a place of substantial interaction between professors and students, but also between students, a place of reflection and scientific quest.

Attending (virtual) classes is not that difficult and the teachers contribute as much as possible to it, but I feel that the role of the university has been lost. It is not just a building but a place where students interact and ideas and values circulate.

The theme of the digital divide (Rodríguez-Abitia et al. 2020; Saifuddin and Mette Jun Lykkegaard 2016) is also addressed. Some students evaluate the pivot to the online learning as a hasty top-down approach not taking into account those who did not have digital skills and proper digital equipment. For them the e-learning practice is alienative, cutting them away from the everyday realm of the student life and its qualities: critical thinking, reflexive discussion, affective interaction and intimacy, the sense of community within real classrooms, and everyday life experiences in the playful academic worlds. In this vein, they focus on the structural weakness of the virtual communication in the digital classrooms where common physical experience, affective body language, facial expression and the unique experience of interaction within the specific socio-intellectual environment of the academic classroom are missing. Yet, while other students recognise the educator's effort to adapt to the e-learning processes, they raise questions about some teachers' familiarisation with

digital education, criticising their inability to meet the demands of distance learning and to provide the appropriate online learning material.

Discussion

The purpose of this paper was to investigate how students in the social sciences experienced online education during the coronavirus emergency. Overall, the quantitative analysis indicates an important level of satisfaction about the accelerating digitalisation of the university in the context of the pandemic crisis but, at the same time, a significant portion of students seems to lack the appropriate digital infrastructure and/or the suitable conditions to attend distance learning in terms of a proper space and of adequate time. Female students' lower self-assessment regarding digital skills is highlighted, as well as the impact of the mothers' educational level and the fathers' unemployment status on the students' experience and assessment. Results are in the same vein with a growing number of recent studies from all over the world, identifying inequalities among students due to the lack of access to digital devices, internet connection and home-learning environment attributed to the socio-educational level of their families (Sosa Diaz 2021; Cranfield et al. 2021). The students recognise the efforts of the university principals and of the teachers to adapt effectively to the situation of the emergency online learning, however, they point out weaknesses in the creation and delivery of the appropriate e-learning materials along with the difficulties faced by some teachers in adapting to the online teaching–learning process during COVID-19 pandemic.

Results show various levels of students' satisfaction (or dissatisfaction) with online learning experience. Combining quantitative and qualitative data offers a deeper understanding of students' experiences and attitudes towards online learning and their conceptualisations. The analysis identifies a tension between two main trends. The first concerns techno-euphoric voices expressing satisfaction and enthusiasm about the e-learning experience, with some even calling for the normalisation of e-learning in the University's future. Another mode of argumentation in the techno-enthusiastic camp is associated with the individualised learning towards a more inclusive education. Many students, especially those of a lower socio-economic status who face difficulties in completing their studies, praise the online learning, as a method that, regardless its academic standards, can be easily adapted to their individual learning needs in times of an economic and pandemic crisis marked by cuts in state funding for public universities. It is a rather instrumental rationale that employs the use of the e-learning mode in higher education as a means of addressing unmet needs associated with economic and academic difficulties reinforced during critical times.

On the contrary, the techno-sceptic approaches address the quality of digital teaching and learning and raise issues of alienation engendered by the technology-mediated learning. They are cautious about a virtual model of education that undermines the academic standards and the social values of higher education expressing fears of isolation along with social and emotional alienation. The pivot to the online learning is experienced as an unexpected rupture in the everyday realm of

the student's life-worlds. In this sense, they criticise the lack of physical and direct contact with fellow students and teachers and of the embodied informal interactions within the community of the university campus.

The findings offer us a chance for a critical reflection on the ongoing discussion about the emergency remote learning in academia. The effectiveness of the online education in emergency times depends on the ability of educational institutions to organise effective plans and programs, integrating technology into the core of the academic learning processes. The comments of some students remind us about the lack of the necessary strategies to the benefit of students who lack the adequate digital capital and the appropriate equipment to equally engage in online learning experiences. We need educational policies in the service of social justice that will ensure the equal access to information and communication technologies for all students in higher education and will provide counselling service and devices for students with learning difficulties. This is a step towards overcoming digital divides between those who do and do not have access or appropriate skills to use digital technology effectively.

The theme of exclusion/inclusion which emerged from the students' considerations can be better interpreted in the context of a country which was hit by successive (economic and pandemic) crises that worsened the living conditions of the people. Young people and students have to deal with the dystopic conditions of financial crisis with rising youth unemployment and precariousness (Spyridakis 2013). Under these circumstances, many social sciences graduates are forced to work in low-payed, insecure precarious employment positions, often seeking career opportunities in fields not related to their scientific interests (Samatas and Drakos 2014). The limited occupational choices have a negative impact on the academic performance of students, for example the low attendance in the classrooms, the stressful educational trajectory of many students who combine work and study, the delay in completing their studies, often living with their families away from the place where the university is located. For some students the emerging online learning with the tolerant atmosphere cultivated in online courses, the lenient attitudes of the educators and the flexible way of conducting the academic exams was an opportunity to complete and pass their courses.

The alter presence of 'tele-other' is another issue discussed in students reflections and needs our attention. Following Butler's assumption, Zbrzeźniak notes that "the body is the silent object for the inscription of the effects of power and, yet, as the main aim of power, it still remains a transgressive potential" and could play an important role in emancipatory education (Zbrzeźniak 2019, p. 246). Taking into account the dispensability of a physical presence and contact among acting subjects within the horizontal commune sphere (Butler 1997), we need to focus on the significance of the embodied learning experience within classrooms and auditoriums where, usually, traditional academic activity takes place. The experience of the embodied teaching/learning, fosters a sense of an academic community and the "capacity to feel the ambient physical sensations of unfettered energy and aliveness as they pulse" through the body language (Dorman 2019, p. 74), facial expression and embodied interactions in-between classes. Embodied learning in universities can enliven the prospect of a more participatory, liberating and emancipatory

education, helping students to increase their self-knowledge, providing them with critical thinking to better understand the origins of their embodied experiences and to explore more intentionally issues of social inequality and social division in academic learning.

Drawing on Citton's analysis of education, Bakhtiar stresses two fundamental features essential to in-classroom education: the imitation of gesture, which requires that students must be able to observe and possibly repeat the instructor's action and the need of a corporal presence that allows the affective/sensory/bodily dimension of the constitution of our individuation. Without underestimating the embodied learning dimension, the author points out the need to avoid a technophobic perspective by commenting that attention and communication is not a given natural skill that needs to be protected, but something that is composed et decomposed with interaction with other entities, human and non-humans (Bakhtiar 2020, pp. 7–8). The bodies "in digital settings are still interacting with other bodies, with external entities and relations through information and technology systems and this leads to a different mode of interaction and body assemblage" (Varea and González-Calvo 2021, p. 843). In this vein, the shift to emergency online learning makes room for a reflexive discussion on new pedagogical strategies examining the possibility to better prepare students to successfully use digital technologies for their own needs and to offer them suitable infrastructural facilities and empowerment counselling to face technostress and the feelings of social alienation.

Some decades ago, the eminent philosopher of education Ivan Ilitch had argued that learning webs and suitable technological devices as (convivial) tools (Ilitch 1971, 1973) could open up new possibilities for a revolutionary education based on autonomous modes of learning. Although Ilitch did not develop a systematic approach to the reconstruction of the education through technological tools in the service of social justice and democracy, recent technological capabilities could provide resources for new forms of interactivity and (virtual) community along with possibilities to build open, democratic and self-governed forms of higher education. This optimist techno-realism presupposes the democratic control of the digitalisation process in education and the existence of more radicalised pedagogies producing educated counter-subjectivities capable of constructing new ground for learning and technology towards democratic egalitarianism (Means 2019). However, the vision of an educational future towards more inclusive academic communities should take into account the importance of the embodied learning and the experience of the whole community in classrooms, where the sense of intimacy and the commitment to a joint action can be better fostered by passionate academics and students.

The question under discussion here is not to argue in favour or against the ongoing digitalisation of the higher education but to recognise the complexities and the deep structures of power that drive the technological changes. As eminent critics have pointed out, neither education (Freire 2000, pp. 62–63), nor technology are neutral but 'contrivances', products of historically determined human activities which manipulate objects to various ends (Heidegger 1977, pp. 4–6). There is not a single trajectory towards a natural and inevitable educational future based on adaptive learning technologies, personalised learning, edu-tech companies as speculative

narratives, reflective corporate technology culture and imperatives of techno-capitalism claim.

The new pedagogies towards a more technology-enhanced learning in higher education can be positive and constructive during the coronavirus emergency and networked platforms of communication and distributed media may offer chances for sharing and creating emancipatory forms of learning. At the same time, we may acknowledge the political economy of the digital environment and the challenges of decoupling students from the campus-based histories, traditions and locations, attending a form of homeschooling, mediated by technology tools, edu-business and other institutions (Williamson et al. 2020). Finally, it is our responsibility to use new technology in the contemporary university with a critical thinking, helping our students to become conscious of the ever changing political and economic landscape of the technology in education.

Declarations

Conflict of interest The authors declare that they have no competing interest.

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