# THE ETHICAL COMMITMENT OF VIRTUAL EDUCATION

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# **ABSTRACT**

This study focuses on the ethical foundations of learning in virtual environments and identifies the ethical values perceived by university students and faculty in the learning process. We analyzed 235 participants, including students from different Spanish-speaking countries and virtual education teachers, and employed a design-based research methodology using quantitative tools for empirical data collection. The analysis showed that: (a) the learning experience in virtual environments is ethical; (b) responsibility, commitment, respect, solidarity, and tolerance can be considered typical of learning in virtual learning environments; and (c) students and teachers have shared ethical experiences regarding the values considered most relevant in virtual education.

Keywords: ethics, virtual education, values, behavior, character

#### INTRODUCTION

It is important to consider the ethical commitment created by virtual education for students and teachers, as any educational activity is influenced by values (Vicentela et al., 2015). This study investigated the ethical foundations of learning in virtual environments and suggests that it is necessary to question or reconsider the pedagogical paradigms guiding virtual education. This study sought to understand the values perceived as relevant in virtual learning environments and analyzed virtual education students and teachers from four different Spanish-speaking countries (Colombia, Mexico, Ecuador, and Spain). We aimed to contribute toward improving relationships among teachers and students in virtual learning environments, in line with Dzansi and Hoeyi's (2013) recommendations, who suggested pursuing an optimal combination of rules and values to promote ethics.

Ethical discussions in virtual education are usually limited to plagiarism issues (Introna, 2009; Kroes and Verbeek, 2014; Pecorari, 2003; Roig, 2001; Saltmarsh, 2005). Other authors, for example, Yazici et al. (2011, p. 229), insist that teachers reflect on cheating behaviors. Therefore, discussions should be expanded to include an analysis of ethical values as an educational factor.

The following questions guided this study: (1) Which ethical values are perceived as fundamental in virtual education? (2) How are ethics relevant to the virtual education experience of students and teachers? (3) Does virtual education have inherent elements that transmit or instill ethical values?

The reality of the effects of the COVID-19 pandemic on education cannot be ignored. In the face of mandatory quarantine, weaknesses in the educational system came to light that required immediate attention and exposed the true meaning and function of education. This created a new opportunity to change various education activities in the near future. As Zimmett (2020) points out, "There will be no return to normal at the end of COVID-19, but we can try to move forward by considering how the broken pieces of our current educational practices can be reassembled to create a new image of learning" (p. 3). This return will necessarily broaden the ethical view of virtual education by thinking beyond plagiarism issues (Rivera-Piragauta & de Oliveira, 2020).

This reality has allowed us to uncover and strengthen new opportunities based on the support that technology has provided to different aspects of human life (Schmid et al., 2018). Remote education and virtual education have increased rapidly and have expanded and developed to their full potential.

However, in some Latin American countries, there are difficulties related to technology access and coverage (Rama, 2016). The digital divide, defined as an inequality between those who have easy access to the internet and those who do not, is an ethical dystopia during a pandemic (Compaine, 2001). In some parts of Latin America, the digital divide became more evident, which was understood as unfair access to education between those who have easy access and those who, for example, in Colombia, had to look for a suitable place to find online access. Infrastructure and the provision of equipment and connectivity to educational centers is an essential condition - although not sufficient – for the integration of ICTs in education. According to the SITEAL (Sistema de Información de Tendencias Educativas en América Latina, the abbreviation in Spanish) report (2019), although there have been important advances in the Latin American region, there are also gaps in access according to the different social groups.

Moreover, according to Rodríguez Gallardo (2006), it is not easy to define the digital divide. Some of the authors mentioned in his report point out that the term can be described as having different characteristics or even different internal subdivisions. The educational digital divide has, first and foremost, been understood as difficulty in accessing internet-supported resources and devices, which results in an immediate cognitive gap between those who can access the resources and those who cannot (Burbules & Callister, 2006). Tarman (2003) has outlined the particularities of the digital divide in education, while Duart (2011) believed that the digital divide refers not to technology access but to not being competent with social media.

Technology has been a source of support for various processes through which people have found relief or solutions to problems, including educational technology from various educational platforms and countless other digital resources that have made staying at home a bearable situation (Navarro, 2020). Katz et al. (2020) put forth proposals for mitigating the effects of the pandemic on Latin America and the Caribbean and described how, in some countries, there have been various ways of responding to work obligations, by, for example, working remotely and making households places of high demand for Wi-Fi connection.

Additionally, the use of educational platforms and apps has increased exponentially, but a major crisis in different areas of people's economic, social, and political lives has been exposed, revealing difficulties in health and education.

# ETHICAL VALUES AND VIRTUAL EDUCATION

To ask about ethical values in virtual education is to analyze whether, in an educational process, virtual education allows for the participants to experience ethical values and encourages and requires ethical actions to obtain academic knowledge. As Franks and Spalding (2013) emphasized that in the education accreditation processes, there are no clear guidelines on ethics applied to education. Thus, it is important to determine whether there is a pathway to being ethical that is created by the student who interacts with the virtual environment and establishes a character with future responsibilities as a practicing professional or citizen who participates in political decisions for the benefit of society and the community.

Technology to support various human activities is here to stay. With this growth in technology, several questions arise around the ethical repercussions for public and private matters and the duties and rights of users in the virtual world of cyberspace. According to Farrow (2016), virtual education poses new ethical challenges. The added value that technology brings to education requires new forms of human interaction. However, both technology and education are not passive subjects; that is, they have an effect on human action and, as such, there is an ethical responsibility. Floridi (2011) considered that today's knowledge society has benefited from the advancement of technological power over reality "with the corresponding social changes and ethical responsibilities" (p. 4).

However, Apple (2013) highlighted that virtual education could be part of a "socializing sensibility," something akin to selling a product to everyone regardless of its quality from a neoliberal point of view. This is a different perspective on education, one in which it is manipulated by economic and political power that can dehumanize the individual and leave them alone in the face of technology. Selwyn (2016,) presented a warning, so that education is not viewed in terms of its economic value (following a market policy) but in

terms of its moral value regarding the "why" and "for what purpose" of education (p. 137). However, education does not end in an individual's egocentric well-being; its purpose is social and community well-being, which is an assertion that implies that technology is both of all and for all. Selwyn (2016) questioned the design of virtual education for a "universal student" or an "amorphous" recipient.

In light of this, it is necessary to identify the values circulating in a virtual learning environment. According to López Aranguren (1994), the values will be understood as " ... the desirability of things, reality's convenience that an individual craves. [ ... ] As such, there are no values without appropriateness and appropriation" (p. 377). The course of study and higher education curriculum in various academic programs should hold values as "contained, explicitly or implicitly, unavoidable in education, that is, any educational activity would be influenced by values" (Vicentela et al., 2015, p. 54). An active life online can positively impact the offline world. (Giones-Valls & Serrat-Brustenga, 2010). This study makes progress in identifying the values of virtual education based on the experiences shared by students and teachers who participate in it. It is important to understand the natural context in which the learning process takes place and transform existing teaching practices (Barab & Squire, 2004). According to Brown et al. (2021), teaching practices become more effective by communicating knowledge and feelings so that students are challenged.

It is urgent to reconsider quality virtual education as a space capable of generating authentic, ethical commitments and of promoting the development of people as citizens. Wong (2021) offered relevant data for understanding the term "good citizens" for the development of democracy. She explored the concepts of "minimum and maximum citizenship" from the educational field in polarized and pluralized societies such as those seen today. Being a "good citizen," according to Wong (2021), depends on various factors and causes, and education always has a capital task to perform in becoming one.

To this end, the relationship between ethics and education is assumed (Mèlich & Boixader, 2010). Authenticity in the development of human behavior is synonymous with ethical maintenance that reveals a way of being over time. From

the etymology, this became known as "ethos," and López Aranguren (1994,) defined it thus: "Character, from an ethical standpoint, is the moral personality; what an individual has left 'of himself,' that is, what he acquires over time: habits, customs, virtues, vices, nature; in short, ethos" (p. 469). For this study, ethos is defined as "that which we have appropriated." Such an appropriation is experienced through education as an action that results in character development, a way of being, or personality.

Given that the definition of ethos is framed outside of virtual education, appropriateness, and appropriation (López Aranguren, 1994, p. 377), it is important to establish whether an ethos, having the said characteristics, is created in the student who interacts in the virtual learning environment and who shapes their personalities with their future responsibilities. Therefore, ethos is understood as a way of being that results from the "pottery" of virtual education. Simply put, it is imperative to affirm the humanizing sense of educational activities in this regard. Richards and Dignum (2019) raised ethical questions on value design and posited a challenge regarding the alternatives of virtual pedagogical agents. Johnson and Lester (2018) considered that "emerging interoperability standards enable the integration of agent-enhanced learning environments into digital ecosystems. This trend is likely to accelerate the adoption and innovation of pedagogical agent technologies" (p. 41). This type of educational resource challenges the spaces that fall within ethical humanism. Although devices facilitate role-playing to enter and guide dilemmas in the moral field, they pose a big challenge regarding behavior learned from previous situations that are automated by design (Schmid et al., 2018). Ethical values cannot be made from prefabricated actions or the outcomes of algorithmic configurations. On the contrary, ethical values should aim to achieve the wellbeing of students (Thorburn, 2020; Tiberius, 2013). Ideally, a virtual learning environment should contribute to you feeling good about what you do and how you live.

#### **OBJECTIVE**

This study examines the ethical foundations of learning in virtual environments. It identifies the ethical values perceived by university students and their teachers as part of the learning process. Pursuing this goal is relevant for bringing forward the humanity of the relationships established in learning environments. Examining the ethical foundations of learning in virtual environments impacts the explicit and inescapable acknowledgment that on both sides of the screen, there are human beings.

#### **METHODOLOGY**

This study is based on a design-based research (DBR) methodology (Brown, 1992; Collins, 1992; Rinaudo & Donolo, 2010). It focuses on the inherent ethical factors of virtual education (Canavos, 1988; Hernández Sampieri, 2014; Lichtman, 2014; Punch, 2013).

The quantitative tools used in this study were developed based on a previous quantitative study, because "quantitative research offers viable and reliable tools to make research a source of information for decision making ..." (Balcázar Nava et al., 2015, p. 27). We digitally conducted an in-depth interview with participants in this study (citation not provided in order to maintain authors' anonymity). The instrument for the students included a Likert scale ranging from strongly

disagree to strongly agree and consisted of the following four categories:

- 1. Fundamental values in virtual education
- 2. Real scenarios experienced in virtual learning environments and related values (see Table 1)
- 3. Actions in the virtual campus
- 4. The ethical experience in the virtual campus.

Owing to space constraints, only the data relevant to Sections 1 and 2 are presented and analyzed in this study.

Seven case studies were proposed. These scenarios were identified in an earlier qualitative study as the real experiences of students and teachers during virtual education ((Rivera-Piragauta & de Oliveira, 2020). These scenarios or situations are part of the experience of being in a virtual learning community, which comes together based on reciprocal interests (Rheingold, 1994).

The structure of the instrument for the teachers was similar to that of the students. The drafting of each topic was taken from the teachers' virtual campus management and experience. The judgment of 10 experts (professors) with doctoral

TABLE 1. LIST OF SCENARIOS IDENTIFIED (RIVERA-PIRAGAUTA & DE OLIVEIRA, 2020)

Scenario 1	"I once had a confrontation with a classmate. He thought he knew it all and we argued in the forum. Thanks to a suitable intervention from the rest of the class, we were able to maintain a collaborative work dynamic."
Scenario 2	"One time, one of the group participants didn't know how to use the technological resources within the virtual course, and upon submitting a contribution, the participant erased part of the work that we had completed. The rest of the participants restored the document because we understood that our classmate had accidentally made a mistake due to his lack of IT skills."
Scenario 3	"One time, we left the submission of activities until the last minute and we submitted an incomplete document. This resulted in problems with the teacher, who asked not to include certain students in the final product. The group decided to include them, and the teacher's assessment lowered the grade. This helped us understand, as a team, that participation should be done responsibly and on time."
Scenario 4	"There are a lot of differences that come up in the collaborative work dynamic. One time, there were three classmates who were offended for having different opinions. It was tough to come to an agreement and the school-related interaction soured, which is why some of us decided to work individually."
Scenario 5	"My contribution and work toward the development and completion of one of my courses were very infrequent. As a result, my classmates did not include me in the final submission. I think my classmates were right. What I contributed was lacking. Based on my principles, I decided to take the course again, because it is more rewarding to learn without anything being given to me."
Scenario 6	"At the university where I study virtually, there are several specific assignments or roles within the collaborative group for each participant. One of which is the 'submission role,' in which one student is responsible for submitting the requested final product or assignment. Sometimes it can happen that whoever has that role does not submit on time, does not deliver it, or does not include one of the classmates who worked on the assignment."
Scenario 7	"Sometimes we would not only interact on the collaborative platform of the course, but we would also do so through WhatsApp. A classmate, based on the comment he wrote, once implied that there was another person whom he would ask to do the work and submit it through the platform because he didn't have time. Evidently, he would do this often."

training in education and more than five years of experience as virtual education teachers was used to validate the instrument. The experts evaluated three factors: validity, adequacy, and objectivity. The expert evaluation facilitated the adaptation and contextualization of some concepts. After the adaptation of the questionnaire according to the expert panel's guidance, it was administered online during the first semester of the 2020 academic year. Participants were informed of our research objectives, the voluntary nature of the study, its confidentiality, and the anonymity of their responses. The reliability of the questionnaire was 0.861 (Cronbach's alpha).

There were 205 students (172 women, 33 men) from universities in Colombia, Mexico, and Spain, 37 of whom had hybrid academic activities; that is, they were not totally virtual, but the technological resource supported face-to-face education, which is also called blended learning (Contreras Bravo et al., 2011). Additionally, 30 teachers (15 women and 15 men) participated in the study. Table 2 shows the overall characteristics of the students, and Table 3 shows the overall characteristics of the teachers.

TABLE 2. GENERAL CHARACTERISTICS OF THE PARTICIPATING STUDENTS

Age	n	%	Men	Women
23 years or below	89	43.4	3	86
23-30 years	68	33.3	10	58
30-40 years	28	13.6	9	19
40 years or older	20	9.7	11	9
Time in Virtual Education				
Less than 1 year	138	67.3	9	129
Between 1 and 2 years	24	11.7	5	19
More than 2 years	43	21	19	24
Field of Knowledge				
Early Childhood and Primary Education degree	132	64.7	0	132
English degree	26	12.6	9	17
Mathematics degree	26	12.6	14	12
Postgraduate	13	6.3	6	7
Psychology and Communication	4	1.9	0	4
Engineering	4	1.9	4	0

TABLE 3. GENERAL CHARACTERISTICS OF THE PARTICIPATING TEACHERS

Teache	ers' Chara	cteristics		
	n	%	Men	Women
Virtual Education Experience	)			
Between 1 and 4 years	3	10	2	1
Between 4 and 7 years	6	20	4	2
Between 7 and 10 years	11	36.6	4	7
Over 10 years	10	33.4	5	5
Education Level				
Specialist	3	10	1	2
Master's degree	18	60	9	9
PhD	9	30	5	4

#### **RESULTS**

In the first section of the questionnaire, the two sample groups (students and teachers) were presented with a list of 10 ethical values. The participants had to mark the ethical values that they considered fundamental to virtual education in order from the least to the most relevant. Considering that the groups of students and teachers shared virtual learning environments as a space for educational interaction, we used the Kruskal Wallis nonparametric test to measure this variable from different academic programs and universities. The results are shown in Figure 1.

#### Kruskal-Wallis test

#### Ranges

Students (1) and Tutors (2)	N	Average range
Ethical values 1	10	11.9
2	10	9.1
Total	20	

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a. Kruskall-Wallis test

b. Group variable: Students (1) and Tutors (2)

Figure 1. Kruskal Wallis Nonparametric Test

The asymptotic significance value is greater than 0.05; therefore, it can be concluded that the 10 ethical values asked were important for the two sample groups (students and teachers). The results are shown in Figure 2.

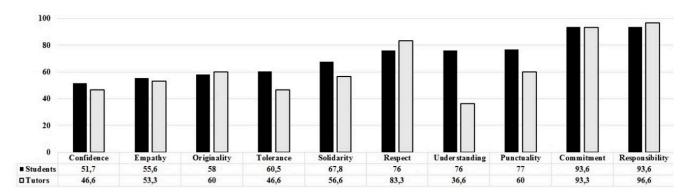


Figure 2. Hierarchy Assigned to the Values Surveyed.

Figure 2 shows significant percentage differences in some values. For example, the value of Understanding was chosen by only 36.6% of the teachers, while it was considered important by 76% of the students. It is important to note that Responsibility and Commitment were perceived as fundamental values in virtual education by both students and teachers. Tolerance is one of the more important values to students than to teachers, while Respect was more important to the teachers.

In the second section of the questionnaire, participants were presented with a series of real virtual education scenarios (see Table 1). They were asked whether the scenario had to do with an ethical problem, whether the scenario would have implications for professional development, and how often such a scenario occurred in virtual education. Figures 3, 4, and 5 show the responses obtained using a weighting factor for each scenario.

Figure 3 presents the answers to whether the scenario under consideration had to do with an ethical problem. This could explain the low value in Scenario 2, which could be associated with digital competence, depending on the students'

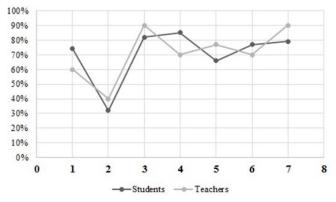


Figure 3. Ethical Problems for Students Involved in the Scenario Described, Presented as Percentages.

perceptions. All other scenarios are deemed situations in which ethical problems may arise for students and teachers in a virtual learning environment. Teachers most often highlighted Scenarios 3 and 7 for virtual education; Scenario 3 directly mentions the role of the teacher in the role of the evaluator, and Scenario 7 refers to a lack of Originality and Commitment to the work done.

Figure 4 shows the percentage values of the questions posed on whether the scenario presents experiences relevant to the student's professional development. The percentage range remains at an average of 75% for all seven scenarios, and from this question, we will highlight Scenario 3, which is interesting because students underlined the importance of the values of Responsibility and Commitment as necessary in education for a future professional endeavor. Teachers believed that in Scenario 5, the delivery of quality work. Responsibility, and academic Commitment was fundamental and more so when the student recognized such shortcomings.

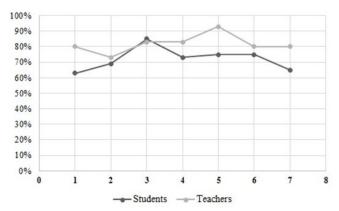


Figure 4. Percentage Representation per Scenario Including Experiences Relevant to Students' Professional Development

Figure 5 shows the frequency of situations described in the different virtual education

scenarios. It can be said that both students and teachers consider the scenarios as frequent. The dilemmas exposed can, therefore, be understood as relevant situations in virtual learning environments. It is interesting to see that Scenario 5, as described by participants, occurs less frequently in virtual education; therefore, there is a sense of honesty valued more in the desire to have quality learning. Teachers believe that Scenarios 3 and 4 happen more regularly, and they understand the relevance of the learner's sense of responsibility and subsequent student autonomy in this situation.

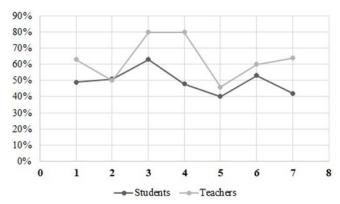


Figure 5. Percentage Representation of How Often the Situation Described in Each Virtual Education Scenario Takes Place.

In the second section, students had to reconsider the values mentioned in Figure 2 and determine which of them appeared in each scenario. The teachers were asked to do the same. The three values that students and teachers considered the most important in each scenario are shown in Table 4.

The triad of values in each scenario determines the importance of the values students and teachers assigned to the situation described. There were matches in Scenarios 5 to 7. In the first scenario, both students and teachers considered Respect and Tolerance as inherent values in the situation described, while students highlighted Understanding as the third related value and teachers underscored Empathy. Deeper research into each other's perception of each of the values set forth herein may reveal that Empathy is significantly close to Understanding. In Scenario 2. Understanding is once again one of the values underscored by students. Both the students and the teachers identified Solidarity as a relevant value in this situation, but students preferred Understanding and Tolerance, while teachers underscored Respect

TABLE 4. RELATIONSHIP BETWEEN EACH SCENARIO AND THE THREE MOST IMPORTANT VALUES, AS INDICATED BY THE STUDENTS AND TEACHERS SURVEYED.

	Students	Teachers
Scenario 1	1. Respect 2. Tolerance 3. Understanding	1. Tolerance 2. Respect 3.Empathy
Scenario 2	1. Understanding 2. Solidarity 3. Tolerance	1. Solidarity 2. Respect 3. Responsibility
Scenario 3	1. Responsibility 2. Punctuality 3. Understanding	1. Responsibility 2. Commitment 3. Respect
Scenario 4	1. Respect 2. Tolerance 3. Understanding	1. Tolerance 2.Respect 3. Understanding
Scenario 5	1. Responsibility 2. Commitment 3. Respect	1. Responsibility 2. Commitment 3. Respect
Scenario 6	1. Responsibility 2. Commitment 3. Respect	1. Responsibility 2. Commitment 3. Respect
Scenario 7	1. Responsibility 2. Commitment 3. Respect	1. Responsibility 2. Commitment 3. Respect

and Responsibility. In Scenario 3, the students and teachers agreed and identified Responsibility as a value related to the situation. Students, however, added Punctuality and, once again, emphasized Understanding. For teachers, Commitment and Respect were the values most directly associated with the situation. In Scenario 4, the values chosen by the teachers and students were identical, with variations only in their priorities.

## **DISCUSSION**

The necessary relationship between ethics and education is of interest and a concern to make ethical education a fundamental cornerstone in virtual education (Briones & Lara, 2016). Indeed, the theoretical review has insisted that it is possible to instill moral values in students who interact in a virtual learning environment, with the future responsibilities that this entails. In this regard, Farrow (2016) believed that the classic deontological theory on ethics and virtue will continue to be relevant, even in the case of virtual education. On the other hand, interaction with the virtual world

involves personal successes or mistakes that are directly influenced by values (Childs et al., 2012). This study provides empirical evidence showing that the experience of students and teachers in virtual learning environments is ethical and this stems from their expectation of desired ideal behaviors. The high pedagogical and didactic factor that Silva Quiroz (2011) underscored as an important part of the interaction with the student that cannot be ignored.

The data presented above suggest that students and teachers may have a different understanding of the values they experience in virtual learning environments. The actions that occur on a virtual campus are motivated by students' interests in learning, which result in the ranking of values according to an understanding that is different from the teachers' intentions. On the other hand, the virtual education exercise of asynchronous and synchronous learning can impact the importance of what happens over time in the face of potential conflicts or in real situations involving an immediate ethical response in the virtual learning environment. More research is needed to understand, for instance, why a student's ethical action or omission can be interpreted as surmountable (for example, lack of Respect) as long as the teachers assigns greater importance to the given event. Despite the differences between virtual education participants, it is possible to say that ethical values exist on the virtual campus.

#### RECOMMENDATIONS FOR PRACTICE

Given the findings discussed above, it is worth sharing some advice for faculty who are teaching online and would like to give due attention to the ethical dimension of their teaching. These practical recommendations are based on the conviction that the experience lived in virtual learning environments is ethical. Becoming aware of this is essential, since it means ceasing to perceive the virtual environment as a repository of learning objects or as a space for neutral interactions.

#### Recommendation #1

During the process of designing a course that is developed entirely or partially online, it would be relevant to create documents or design learning opportunities to debate the values of education in virtual spaces: Trust, Empathy, Originality, Respect, Responsibility, and Tolerance. It is

important to state these values explicitly and explain to the students how the teacher intends to act during the course guided by these values and how they expect the students to do so as well. The students themselves could suggest a series of actions related to each value that they will carry out in in the learning environment.

#### Recommendation #2

Design debate activities that integrate the analysis of real issues that involve actions or reflections of an ethical nature relevant to the learning objective.

## Recommendation #3

Teaching administrators and staff who are in charge of leading teachers that they should convey to their teams the need to contemplate, beyond plagiarism, the ethical dimension of their practice in its full conception so that the educational objectives of the institution are achieved.

#### CONCLUSION

We concluded that the ethical commitment of virtual education is not about exclusively providing guidelines to create antiplagiarism policies or filter a text through the use of antiplagiarism software. Beyond plagiarism are values, not exclusive or inclusive of virtual education, but fundamental to it as concluded in this paper, and this is how values such as Responsibility, Commitment, Respect, Solidarity, and Tolerance could be considered part of learning that is supported or carried out in virtual learning environments.

The quality of virtual education is related to true and explicit ethical education arising from the values experienced in a virtual learning environment. Education, whether face-to-face or virtual, will always be affected by ethical experiences. Human actions are shown every day in reality and can be expressed in different fields. In this case, the virtual learning environment is one of these environments for human interaction, and at the same time, it is a technological device that facilitates virtual education. Therefore, the virtual learning environment is a device or artifact of moral interaction; in other words, it is necessary to explicitly acknowledge the morality of a virtual environment. According to Brey (2014), the virtual learning environment could be a moral factor within the framework of structural ethics, since artifacts can stimulate certain moral behavior.

In conclusion, the following can be inferred from the data analyzed. First, the learning experience in virtual environments is ethical. Second, Responsibility, Commitment, Respect, Solidarity, and Tolerance can be considered part of the learning supported or carried out in virtual learning environments. Third, students and teachers may share ethical experiences in terms of the values they consider relevant in virtual education. Essential foundations need to be laid, making it possible to create authentic, ethical commitments for students who interact in virtual environments.

Pedagogical designs that rely on or are fully implemented in virtual learning environments should promote a humanizing and authentic interaction among students. As long as an experience is human, it will necessarily be an ethical experience. This presents a challenge to virtual course designers when creating content and a pedagogic approach conducive to learning from and with human beings. It is imperative that an individual's humanity is brought to the forefront of the virtual educational process by establishing a common ground to derive a learning experience from ethical experience.

Future studies should consider the perception that both students and teachers have regarding each value in virtual education. This study contributes to the improved relationships among humans in virtual learning environments. We argue that it is necessary to question or rethink the pedagogical paradigms guiding virtual education to lend them humanity and embrace their ethical dimensions as fundamental.

# **REFERENCES**

- Apple, M. (2013). Can education change society? Routledge. Balcázar Nava, P., González-Arratia, N., Gurrola, G., & Moysén, A. (2015). Investigación cualitativa. Universidad Autónoma del Estado de México. http://hdl.handle. net/20.500.11799/21589
- Barab, S., & Squire, K. (2004). Design-based research: Putting a stake in the ground. Journal of the Learning Sciences, 13(1), 1–14. http://dx.doi.org/10.1207/s15327809jls1301 1
- Brey, P. (2014). From moral agents to moral factors: The structural ethics approach. In P. Kroes & P. Verbeek (Eds.), The moral status of technical artefacts: Philosophy of engineering and technology (pp. 125–142). Springer. https://doi.org/10.1007/978-994-007-7914-3\_8
- Briones, E., & Lara, L. (2016). Educación ética en la Universidad a través del diálogo multicultural online [Teaching ethics in the university through multicultural online dialogue].

  Comunicar: Revista Científica Iberoamericana de Comunicación y Educación. Comunicar, 47, 99–107. https://doi.org/10.3916/C47-2016-10
- Brown, A. L. (1992). Design experiments: Theoretical and methodological challenges in creating complex interventions in classroom settings. Journal of the Learning Sciences, 2(2), 141–178. https://doi.org/10.1207/s15327809jls0202\_2
- Brown, A. L., Myers, J., & Collins, D. (2021). How pre-service teachers' sense of teaching efficacy and preparedness to teach impact performance during student teaching. Educational Studies, 47(1), 38–58. https://doi.org/10.1080/03055698.2019.1651696
- Burbules, N., & Callister, T. (2006). Educación: Riesgos y promesas de las nuevas tecnologías de la información. Granica.
- Canavos, G. (1988). Probabilidad y estadística. Aplicaciones y métodos. Mc Graw-Hill.
- Childs, M., Schnieders, H. L., & Williams, G. (2012). "This above all: To thine own self be true": Ethical considerations and risks in conducting higher education learning activities in the virtual world Second Life™. Interactive Learning Environments, 20(3), 253–269. https://doi.org/10.1080/10494 820.2011.641679
- Collins, A. (1992). Toward a design science of education. In E. Scanlon and T. O'Shea (Eds.), New directions in educational technology (pp. 15–22). NATO ASI Series (Series F: Computer and Systems Sciences) (Vol 96). Springer. https://doi.org/10.1007/978-3-642-77750-9 2
- Compaine, B. M. (Ed.). (2001). The digital divide: Facing a crisis or creating a myth? MIT Press. https://doi.org/10.7551/mitpress/2419.001.0001

- Contreras Bravo, L. E., González Guerrero, K., & Fuentes López, H. J. (2011). Uso de las TIC y especialmente del Blended Learning en la enseñanza universitaria. Revista Educación y Desarrollo Social, 5(1), 151–160. https://revistas.unimilitar.edu.co/index.php/reds/article/view/898
- Duart, J. (2011). La Red en los procesos de enseñanza de la Universidad [The net on teaching processes at the university]. Comunicar 37(XIX), 10–13. https://doi.org/10.3916/C37-2011-02-00
- Dzansi, D., & Hoeyi, P. (2013). Finding an equilibrium ethical framework in a heterogeneous society: The role of rules and values. Journal of Sociology and Social Anthropology, 4(3), 239–249. https://doi.org/10.1080/09766634.2013.11885601
- Farrow, R. (2016). A framework for the ethics of open education. Open Praxis 8(2), 93–109. http://dx.doi.org/10.5944/openpraxis.8.2.291
- Floridi, L. (2011). The philosophy of information. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199232383.001.0001
- Franks, R., & Spalding, A. (2013). Business ethics as an accreditation requirement: Knowledge mapping approach. Business Education and Accreditation 5(1), 17–29.
- Giones-Valls, A., & Serrat-Brustenga, M. (2010). La gestión de la identidad digital: una nueva habilidad informacional y digital. BiD: textos de información y documentación, Número 24 (junio). https://doi.org/10.1344/105.000001545
- Hernández Sampieri, R. (2014). Metodología de la investigación (6a ed.). McGraw-Hill.
- Introna, L. D. 2009. Ethics and the speaking of things.
  Theory, Culture and Society, 26(4), 398–419. https://doi.org/10.1177/0263276409104967
- Johnson, W. L., & Lester, J. C. (2018). Pedagogical agents: Back to the future. Al Magazine 39(2), 33–44. https://doi. org/10.1609/aimag.v39i2.2793
- Katz, R., Jung, J., & Callorda, F. (2020). El estado de la digitalización de América Latina frente a la pandemia del COVID-19. Corporación Andina de Fomento.
- Kroes, P., & Verbeek, P. (Eds.). (2014). The moral status of technical artefacts: Philosophy of engineering and technology (Vol. 17). Springer. https://doi.org/10.1007/978-994-007-7914-3 1
- Lichtman, M. (2014). Qualitative research for the social sciences. Sage. https://doi.org/10.4135/9781544307756
- López Aranguren, J. L. (1994). Ética. Trotta.
- Mèlich, J., & Boixader, A. (Eds.). (2010). Los márgenes de la moral: Una mirada ética a la educación. Grao.
- Navarro, J. (Ed.). (2020). Los tiempos educativos en el Covid-19. Historias, vivencias y testimonios desde la escuela distante. Revista Educ@rnos.

- Pecorari, D. (2003). Good and original: Plagiarism and patchwriting in academic second-language writing. Journal of Second Language Writing 12(4), 317–345. https://doi.org/10.1016/j.jslw.2003.08.004
- Punch, K. F. (2013). Introduction to social research: Quantitative and qualitative approaches (3rd ed.). SAGE Publications Ltd.
- Rama, C. (2016). La fase actual de expansión de la educación en línea o virtual en América Latina. Universidades 70, 27–39. https://www.redalyc.org/pdf/373/37348529004.pdf
- Rivera-Piragauta, J. A & de Oliveira, J. M. (2020). Beyond plagiarism: relevance of ethics in virtual learning environments. Revista científica electrónica de Educación y Comunicación en la Sociedad del Conocimiento. 20(I), 156-185. DOI: https://doi.org/10.30827/eticanet.v20i1.15140
- Rheingold, H. (1994). The virtual community: Finding connection in a computerized world. Addison-Wesley Longman.
- Richards, D., & Dignum, V. (2019). Supporting and challenging learners through pedagogical agents: Addressing ethical issues through designing for values. British Journal of Educational Technology, 50(6), 2885–2901. https://doi.org/10.1111/bjet.12863
- Rinaudo, M. & Donolo, D. (2010). Estudios de diseño. Una perspectiva promisoria en la investigación educativa. Revista de Educación a Distancia 22. http://www.um.es/ead/red/22
- Rodríguez Gallardo, A. (2006). La brecha digital y sus determinantes. UNAM. https://doi.org/10.22201/cuib.970323853Xp.2006
- Roig, M. (2001). Plagiarism and paraphrasing criteria of college and university professors. Ethics and Behavior 11(3), 307–323. https://doi.org/10.1207/S15327019EB1103\_8
- Saltmarsh, S. (2005). 'White pages' in the academy: Plagiarism, consumption and racist rationalities. International Journal of Educational Integrity 1(1). https://doi.org/10.21913/IJEI.v1i1.17
- SITEAL (2019). Infraestructura y conectividad: TIC y educación. Organización de las Naciones Unidas para la Ciencia y la Cultura/Instituto Internacional de Planeamiento de la Educación. https://siteal.iiep.unesco.org/sites/default/files/sit\_informe\_pdfs/siteal\_infraestructura\_y\_conectividad\_20190607.pdf
- Schmid, M., Kleinlogel, E., Tur, B., & Bachmann, M. (2018). The future of interpersonal skills development: Immersive virtual reality training with virtual humans. Human Resource Development Quarterly 29(2), 125–141. https://doi. org/10.1002/hrdq.21307
- Selwyn, N. (2016). Is technology good for education? Polity Press.
- Silva Quiroz, J. (2011). Diseño y moderación de entornos virtuales de aprendizaje (EVA). Editorial UOC.

- Tarman, B. (2003). The digital divide in education [Paper presentation]. International Standing Conference for the History of Education (ISCHE XXV), (Sao Palo, Brazil.
- Thorburn, M. (2020). Personal well-being and curriculum planning: A critical comparative review of theory, policy and practice coherence. Educational Review, 72(6), 785–799. https://doi.org/10.1080/00131911.2018.1552660
- Tiberius, V. (2013). Recipes for a good life: Eudaimonism and the contribution of philosophy. In A. S. Waterman (Ed.), The best within us: Positive psychology perspectives on eudaimonic functioning (pp. 19–38). American Psychological Association. https://doi.org/10.1037/14092-002
- Vicentela, L., Narváez, C., & Velásquez, M. (2015). Valores éticos y formación curricular en odontología. Acta Bioethica 21(1), 53–59. https://doi.org/10.4067/S1726-569X2015000100007
- Wong, K. L. (2021): Teachers' perceptions of preparing "good citizens" for the democratic development: Hong Kong case. Educational Studies, 47(2), 238–255. https://doi.org/10.1080/03055698.2019.1666252
- Yazici, A., Yazici, S., & Sema, M. (2011). Faculty and student perceptions on college cheating: Evidence from Turkey. Educational Studies, 37(2), 221–231. https://doi.org/10.1080/ 03055698.2010.506321
- Zimmett, J. (2020). Redesigning (virtual) learning with a "love ethic" in the wake of COVID-19. Education for Information, 36(2), 207–209. https://doi.org/10.3233/EFI-200004