

Towards a "Better Normal": Educational Experiences in Design in Latin America During the COVID-19 Pandemic

Rejane Spitz 📵 ª * | José R. González ʰ | Sebero Ugarte ʰ | Amparo Álvarez Meythaler 📵 º Xavier Barriga Abril º | Julio Membreño Idiáquez d

- ^a Pontifical Catholic University of Rio de Janeiro, Department of Arts & Design: Rio de Janeiro, Brazil.
- ^b Pontificia Universidad Javeriana de Cali, Department of Art, Architecture and Design: Cali, Colombia.
- ^c Pontifical Catholic University of Ecuador (PUCE), Faculty of Architecture, Design and Arts: Quito, Ecuador.
- ^d Central American University, Graphic Design: Managua, Nicaragua.
- * Corresponding author: rejane@puc-rio.br

ABSTRACT

The emergence of the COVID-19 pandemic has demanded the adoption of extraordinary measures of quarantine and social distancing, impacting educational institutions worldwide. Schools and campuses - which used to be spaces for social exchange - had to cease face-toface instruction and shift to remote learning with no prior planning or training, which posed several challenges to education systems around the globe. In Latin America - responsible, today, for over half of the planet's daily COVID-19-related deaths - this scenario is even more dramatic. The diverse socioeconomic levels of the student population is a major challenge for online teaching, as institutions cannot provide computer training, equipment and connectivity to all those in need. In spite of all challenges, universities which are part of AUSJAL (Association of Universities Entrusted to the Society of Jesus in Latin America) are making every effort to offer online classes during this pandemic, since education plays a pivotal role in these countries. This paper presents a selection of Design educational experiences conducted in AUSJAL universities during this pandemic. Design educators from Brazil, Colombia, Ecuador and Nicaragua present educational methods and strategies for dealing with this critical situation. In conclusion, we discuss how their innovative and engaging teaching ideas are paving the way towards not simply a new, but a "better normal" in Latin America.

Keywords: AUSJAL, Design, Education, Latin America, Online classes, Pandemic.

1. INTRODUCTION

Since it was first detected in China, in December 2019, this novel coronavirus SARS-CoV-2 pandemic has disrupted people's lives, causing much suffering and huge losses around the globe. Over 58 million people have been infected and over 1,385.000 people have died as a result of COVID-19 worldwide (John Hopkins CDC, 2020). Although the emergence of this pandemic has undoubtedly affected every nation on the planet, each one of them – however has been impacted in a different moment, depth and way.

As countries have been at different points in their COVID-19 infection rates, over the past months, local and national governments worldwide have established different policies and rules to deal with this pandemic. Almost all of them have decided to decree lockdowns to

avoid or reduce contagion. This sudden – and quite unusual – demand for social distancing has dramatically changed life in cities and communities around the globe.

Education has been one of the sectors most seriously impacted by nationwide lockdowns. With no prior planning, schools and universities worldwide had to either suspend all their educational activities for an unpredictable length of time, or shift them to a remote, virtual, online mode. Although many institutions opted for stopping their activities, most of them requested their educators to adequate their classes and activities to this new condition. All of a sudden, both teachers and students had to completely alter their normal daily routine, in order to adapt to a new teaching-learning system. Educational spaces – which have traditionally been *loci* for warm social exchange, vivid community building and noisy personal interaction – were abruptly replaced by virtual online platforms. Having their kids or teens at home has also become an issue for parents, who were either struggling to work from home, with less privacy, or needed to leave their houses, when they worked in emergency sectors. From K-12 to postgraduate levels, every student and every teacher – and their families and institutions – had to quickly adapt to this "new normal" education system.

The negative effects of this pandemic have been felt by every nation on the planet, but in some countries or regions they have been far more severe. In recent weeks, Latin America has become a hotspot of the COVID-19 pandemic, being responsible for an overwhelming death rate, equivalent to half of the global total number (John Hopkins CDC, 2020). In spite of its effort to revert this dramatic situation, several factors - such as high rates of poverty, substantial segments of the population living in crowded cities and slums, and great percentages of people depending on informal work for their survival – have made lockdowns quite ineffective in Latin America. The pandemic continues to grow in this part of the world, exacerbating its profound social inequalities, and causing a colossal economic loss.

For being the most fundamental pillar for a nation's development and growth, education is an area of utmost importance for Latin America. Therefore, in spite of all challenges, institutions which are part of AUSJAL - Association of Universities Entrusted to the Society of Jesus in Latin America - have made every effort to avoid interrupting their students' education during the pandemic. By promoting emergency training on online teaching methods for educators and talks on how to adapt classes to a variety of virtual platforms, by lending computer equipment and providing internet connectivity and materials to those students in need, by offering counselling to students who were facing personal or family health problems – among other various emergency actions - AUSJAL institutions have managed to continue offering high-quality academic activities to their students.

In the area of Design education, however – which requires a combination of theoretical knowledge and practical skills for the creation, development, production and implementation of objects, services and systems – going online was quite a challenging task: how to quickly replace all regular, in-person classes by virtual ones? In the case of theoretical classes this was slightly more easily achievable. However, for all those practical disciplines and laboratory activities, this sudden shift to virtual posed technical and pedagogical problems, requiring the development of new teaching strategies and techniques.

This paper discusses academic challenges posed by the COVID-19 pandemic, and presents a selection of diverse and original accounts of Design teaching during this pandemic, in AUSJAL Universities. In the next sections, Design educators from Pontificia Universidade Católica do Rio de Janeiro/ PUC-Rio (Brazil), Pontificia Universidad Javeriana Cali (Colombia), Pontificia

Universidad Católica del Ecuador / PUCE (Ecuador) and Universidad Centroamericana UCA (Nicaragua) discuss major challenges they faced during the pandemic, and present innovative educational experiences and strategies they have employed for dealing with this new social distancing situation.

2. PONTIFICAL CATHOLIC UNIVERSITY OF RIO DE JANEIRO (BRAZIL)

2.1. The invisible challenges of online teaching

For over 10 years, I have been responsible for teaching "Design Issues in Digital Media" to an average of 30 freshmen students per semester, at the undergraduate Design course at the Department of Art and Design, PUC-Rio, in Brazil. This semester, my students initial assignment was a *soundwalk*. Divided in teams, they should walk in silence around the Campus for 60 minutes, following a pre-determined route, fully focusing their attention on hearing all sounds around them. They should try not to "see", or "smell" or "feel", but just listen. They were asked to record small snippets of interesting "sounds" and transcribe fragments of conversations they heard during the walk, elements which were presented in class, at the end of the tours. As lively and talkative students, they very much enjoyed this initial "outdoors" immersive exercise, whose aim was to awaken their other senses beyond vision – which is already deeply explored in Digital Media.

That afternoon – in March 2020 - was the only time I saw my students in real life, during the academic semester. On the following days, PUC-Rio announced they had suspended all inperson activities, because of the COVID-19 outbreak. Our second class was already online, but when I started the virtual class – to my surprise – all I could see was their names: their cameras and microphones were all off. I asked them to turn them on, but they responded they didn't feel at ease with that, and they all refused to do it.

At first, it made no sense to me: why would all my 30 Digital Media Design students not turn their cameras and microphones on, remaining "invisible" and "mute" during classes, except for a few of them who - occasionally and briefly - would turn on their microphones to ask something specific? By virtue of being Digital Media Design students, weren't they what we call *half-digital beings*, used to all kinds of virtual adaptations, all types of interactive platforms, addicted to game interfaces, heavy users of cell phone applications and immersive media?

Since I regularly invite different speakers to talk about their experience in Digital Media, as part of my classes, the students not only had myself as a speaker, but another guest, at every class. Although this semester they very much enjoyed all talks – on topics such as Animation, Game Design, Sound Interfaces, Virtual Reality, Robotics and Artificial Intelligence, among others - and class attendance was very high, nevertheless I observed that my students found it very difficult to stare at a person talking to them, on a bright screen, for 3 hours per class, even if that person would be a different one every week. Why it seemed more difficult for them to attend 3-hour long online classes than in-person classes of that same length? It seemed they also lacked having more interaction among themselves, during our online classes.

In discussing this issue with my colleagues at PUC-Rio – as well as with my Latin American Design colleagues from AUSJAL, and also with my ACM SIGGRAPH colleagues from the VR

Educational Group – I found out that these issues were not unique to my classes, but a very generalized trend around the globe, although not yet well documented.

To better understand their reasons, I informally interviewed them, both in group, during our classes, and privately, in conversations after class. Almost all of them reported they had to share their equipment and their room space with other family members, while staying home. Because of their lack of privacy – and unwillingness to share the intimacy of their homes and family life with their classmates – they preferred to turn off their cameras and microphones during classes. Most of them attended the classes from their bedrooms – which they shared with their siblings. As for lower income class students, however, the situation was even more delicate: they mentioned having to share the computer with all family members, and they were ashamed of showing their homes. At some point, I suggested students could use virtual backgrounds, but most of them said they "did not want to show their houses, nor their faces". One of them said "he considered himself ugly, and didn't want to see his own face on the screen".

Social contagion was another strong reason for this collective behavior: even the few students who had no problem being "visible" or "audible", reported they could not go against the majority of the group. Some other facts deserve mention: a student reported her father used to attend a few of my classes, and enjoyed them very much, and another student said her boyfriend was attending a few classes too.

I came up, then, with the idea of asking them to create face masks during one of our classes, as a game-like experience. At that very initial stage of the pandemic, masks were not yet being used as a protection against contamination, in Brazil. Therefore, creating a mask had the sole purpose of covering their faces. I gave them a few minutes to create their masks, and on that class, most of them finally turned on their cameras, while wearing their paper masks, as shown in Figure 1.

That experience totally broke the ice. During the rest of the course, we coexisted very well on those new terms: I would not ask them to turn on their cameras or microphones again, and whenever they felt they needed to, or wanted to participate more lively, they would do it. All other assignments, during the semester, were adapted to fit their request for not turning on cameras or microphones, and, in spite of their "invisibility" during classes, results were outstandingly positive. Almost all students attended all classes, produced excellent work, and their grades were higher than they have ever been in previous semesters of this course, over more than 10 years.

After 35 years of educational practice in Design, during this unique semester I realized I still have much to learn. After all, as João Guimaraes Rosa wisely wrote, "an educator is not the one who always teaches, but the one who, unexpectedly, learns." (Rosa, 1970, p. 235).

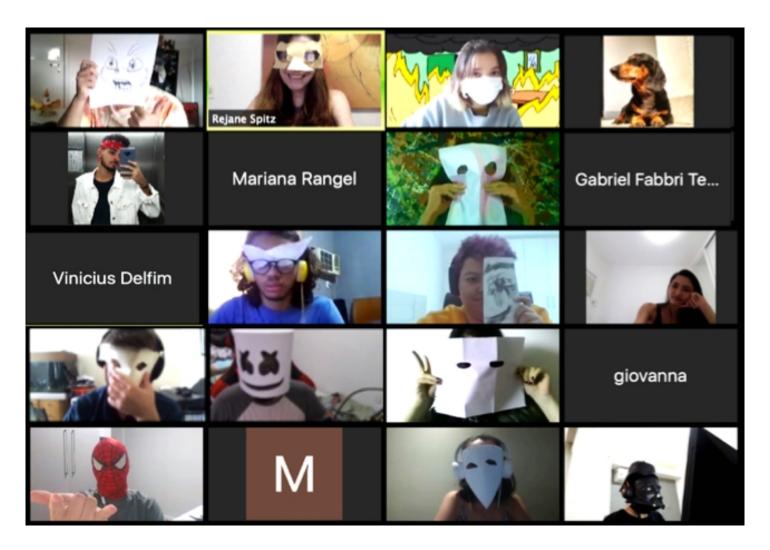


Figure 1. Face masks as a game-like experience during online classes.

3. PONTIFICIA UNIVERSIDAD JAVERIANA DE CALI (COLOMBIA)

3.1. Teaching-learning processes: the value of trust in Covid-19 times

The reflection around teaching-learning processes in design in Covid-19's times, and some paradigm shifts that could possibly be evident are key aspects of the analysis proposed in this section. Changes in terms of the ways in which these processes had been traditionally approached, as well as the emergence of new ways of conceiving relational premises among involved agents have been noticed. Since students do not have to carry out their activities physically in front of their teachers, new dynamics emerge that lean towards a greater empowerment of students in their learning processes, as well as in the management of their time and resources, which puts in a new dimension the tension between paradigms such as control vs. trust. New spaces for interaction are opened up, mediated by channels and technologies different than those that were usually used to support and monitor pedagogical processes.

In this scenario, the concept of trust becomes a fundamental factor of attention. As pointed out by Tierney (2008), trust is a fundamental cultural construct in the agent equation in higher education institutions, which is often overlooked. Still, this construct is essential to dimension the hasty response on which design teaching-learning processes have had to be restructured, especially during the first half of 2020, and which will foreseeably determine the dynamics of the coming academic periods, at least of the closest. The question is, then, if a

whole process of a student on his way to achieving a result can be totally "controlled" or it can be promoted a construction exercise where mechanisms that allow the latter to become more empowered and use different resources and narratives to successfully walk the path are put through his paces, both in individual and group settings, within a framework of "solidary personalism" in the terms proposed by Žalec (2013). This alludes to "a kind of virtue ethics which stresses the importance of virtuous people for functioning of social systems and structures" (p. 66). Therefore, in addition to the fine training in the management of technological platforms, these ethical and aesthetic reflections become a fundamental context for promoting trust in situations of limited synchronous convergence. This implies at the same time for the student, the strengthening of interpretative, argumentative and purposeful competences, as well as essential soft skills, such as empathy, negotiation skills, good communication, punctuality, organization and ease of adaptation.

For this to be viable, the creation of ideal conditions for building trust, especially around the perspective of the processes that affect students, is essential. And it may not be feasible, not viable, much less desirable, to apply unnecessary controls that have been operating under conditions of transactional presentiality. As expressed by Žalec (2013, p. 66), "the idea that it is possible – by some perfect and complete control – to replace or assure such faith or trust is a dangerous illusion". Trust becomes then a fundamental value on which to support the teaching-learning processes, above even the control systems - or at least in dynamic balance with them - and the latter are put at the service of the trust to define relational frameworks of action between agents. This makes it possible to build trust in the three dimensions proposed by Martins & Baptista (2016) in the dialectics of organizational learning that allow changes, integration and finally institutionalization.

The innovation and autonomy filtered into the new normality displace the patterns of intense and persistent contexts to which our students were accustomed. Living environments, capable of developing trust as a system of exchange, both in synchronous and asynchronous spaces, are interrelation scenarios that were otherwise difficult to perceive in the in-person course. In fact, the control of the general educational system has undergone a change towards a new relationship between teachers, institution and students. The plural spirit experienced on face-to-face should be recovered and migrated to the online space. If a learning session is still a plural forum, it is not understandable why this should change. All dialogue is based on a process of trust and must leave out prejudices and stigmas of irrational control.

Open to all new formats, ideas and thoughts born of divergence and innovation, the pandemic allows us to observe the shortcomings of resources, experiencing in this work in process that future place(s) that cannot be conclusive but inclusive. In the change, we lose in securities but win in explorations. Spaces, as Manzini (2018, p. 74) points out, in which we all design and that make contemporaneity an unprecedented fluctuating ethical-aesthetic luck.

The tension between trust vs. control management, is also in this present-future an amplification of our movements, words and relationships, that can be traced, recorded, reproduced and even become conclusive proof of daily activities, expanding a host of new experiences for both teacher and student.

The new space for interrelation within the university setting reveals psychosocial and emotional situations, that in the face-to-face sphere perhaps went unnoticed. Covid-19 is not going to erase the university; 'to innovate is to dialogue with tradition', and when this is well

done, essential features of the educational tradition that are valid are rediscovered. Instead of suppressing them, they should be improved and consolidated.

4. PONTIFICAL CATHOLIC UNIVERSITY OF ECUADOR (PUCE) - (ECUADOR)

4.1. Collaborative digital platforms for academic leisure

During the last months, several governments decided to decree a lockdown to avoid people's physical contact as part of the efforts to fight against SARS-CoV-2 (Dunford et al., 2020). Consequently, most of the educational institutions developed digital strategies to adequate their academic programs to this new condition. In addition to teaching and learning problems, social distancing introduced some new difficulties to our everyday lives. For instance, some authors (Hackeo Cultural, n.d.) mention the dangers of exacerbating individualism; similarly, Byung-Chul (in Renduele, 2020) explains the disappearance of rituals as an isolation problem. Some authors have highlighted collaboration as one of the main characteristics in digital communities (Jenkins et al., 2009; Mao, n.d.). Howe (2006) defined these practices as crowdsourced manifestations revealed in different formats (e.g. crowdbuying, crowdthinking, crowdcreating, among others). Nevertheless, Lara (2014) mentions the importance of a trigger to initiate the collaborative process. Hence, this project aimed to set a virtual multiplayer space for the community of the FADA-PUCE (Faculty of Architecture, Design, and Arts - Pontifical Catholic University of Ecuador) to encourage the participants to spend time together out of the academic program, with the excuse of reconstructing the FADA's building virtually.

FADA's block (bloque FADA, original name) was set in Minecraft: Education Edition. Minecraft is a 3D multiplayer sandbox game that allows users to navigate the virtual space. The game invites players to modify the environment through the arrangement of cubes in the space, users have access to a huge variety of materials, that allow the players to create amazing structures. Minecraft has also been used in a variety of ways besides the game, for instance: urban planning (Rosenberg, 2019), virtual concerts (Alexander, 2020), or school graduation ceremonies (Peters, 2020).

A set of elements were designed before inviting the community to the meetings: (i) a brief manifesto to explain the project, (ii) instructions for downloading the application and learning how to play, (iii) and a privacy policy to inform about collecting data mechanisms. The document was hosted in a public place on the internet and shared through publications through social media and mailing. A Facebook event was created and nine dates were appointed within April 2020. About 100 people participated in the project among students from architecture, design, and arts; several professors and program's directors joined as well, and even the dean played with the community in FADA block (Fig. 2).



Figure 2. FADA block (https://bloquefada.github.io)

Everyone cooperated to rebuild the place from their memories, since the usage of architectural blueprints were not allowed. Nonetheless, some reported the use of photographs, google maps, and street views to refresh memories, others said that they played with someone seated next to them to remember the place together. Participants were always encouraged to talk with each other in Minecraft's chat, however, the logics of communication varied from session to session. For instance, some groups organized their building process through the chat, while others talked about casual topics. A few of users used the chat to enable other new communication channels like telephone calls, discord, or zoom. Finally, a website was designed to share the world template with the community and explain the experience. Later, the template was edited in Blender and uploaded in Hubs, a virtual web platform by Mozilla, to add new layers of multimedia information and to create the final exposition of Graphic Design and Products Design programs.

4.2. More creativity, less scarcity

The mandatory use of virtual tools during the pandemic's confinement led to the appearance of new applications. Those previously misused applications in the classroom, in one way or another became novel co-participatory borders. The Design Career at Pontificia Universidad Católica del Ecuador in response to the pandemic, revitalized the Design teaching processes from all the possibilities that virtualization offers to higher education. These new learnings accompanied by the need to act against the global emergency led to rethinking the design projects that were established at the beginning of the semester, to use emerging products for a society that respond to various scenarios affected by COVID-19.

The intention in the Careers of Graphic Design and Product Design classes focused on sensitizing students about the contributions of Design that can be built from home and with the material resources available. The Projective Design methodology incorporated new digital instruments in the classroom, and favored the development of proposals with a global scope. As a result, it led to creative contributions, sustainable and linked to the new way of living and coexisting of people. As relevant examples, a lamp that helps to emotional well-being, an ergonomic table for telework, a solar dehydrator, personal protective equipment, and interactive micro-stories that show the new reality through games (Fig. 3).

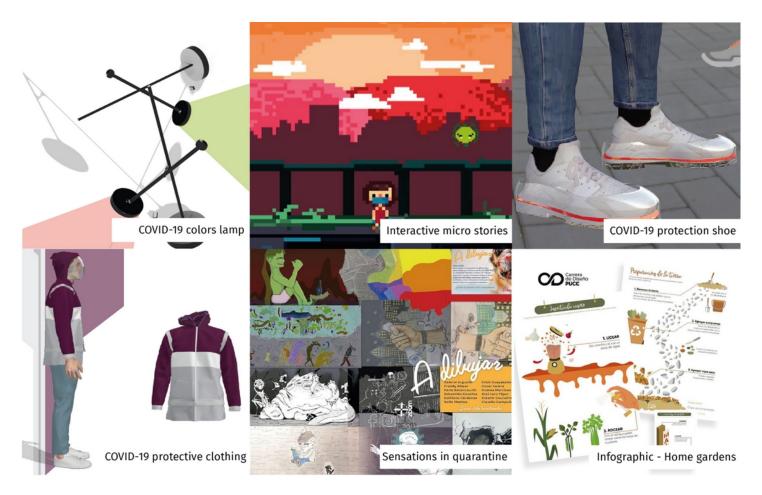


Figure 3. Examples of projects devised by Design students during the pandemic

Thinking of a "new better" in Design teaching processes leads to an adaptive practical maturation of all the possibilities that digital tools harbor, such as e-learning platforms, inverted classrooms and Open Source software.

During the pandemic, the Design teaching practice has been dealing with highly emotional challenges in and outside the classroom; therefore, creative, accelerated, exploratory, and practical learning with scarcity-based thinking was adopted to overcome the issues of new normality. This vision revitalized the relationship between emerging technologies and manual techniques as a complementary practice in Design teaching. Hence, a considerable variety of open-source technologies were used in the concept phase, exploration activities, and verification processes, giving greater emphasis on the meanings and narratives. These strategies prompted a quick response from teaching and an immediate adaptation to various tactics such as microlearning, co-participation, resourcefulness, and flipped learning.

In this way, Design acquired a new look at the world as a resilient and edifying discipline that transgresses traditional educational models in academic institutions. Any Design action

transforms the world, and the creation through scarcity will enable students to present empathetic, socially inclusive and globally impactful solutions.

5. CENTRAL AMERICAN UNIVERSITY (NICARAGUA)

5.1. Rara avis: the experience of migrating to full online education

Universidad Centroamericana (UCA) is *rara avis* among the rest of universities migrating to fully online courses, as it was forced to do so when, all of a sudden, its San Ignacio de Loyola Campus, in Managua, had become unsafe during the unparalleled social crisis that exploded in April 2018. This took place two years before the COVID 19 pandemic – which, for the second time, required UCA courses to go online.

In 2018, for the initiative of a full online university – which was called Academic Virtual Cycle, or CAV 2018 - we applied Design Thinking to design our migration to full online learning. We redesigned our value proposition, used Business Model Canvas to analyze our Career Business Model. We also created *personas* - the so called Z generation – to learn how they would interact with ICT and used that information to redesign the learning experience. The main handicap was the fact that very few of our teachers were certified as Virtual Tutors in an online training program. Borges (2005) states that for a virtual tutor to be successful, he or she must have been a virtual student before. Teachers must experience the anguish, confusion and desperation of their students during an online course due to the lack of empathy from teachers. Furthermore, an AUSJAL publication -which reported the findings of research conducted in 13 of its 30 universities in Latin America - recommended that, in order to be effective, the training of Virtual Tutors has to be done online (AUSJAL, 2012)

In the pursuing of international support for UCA sustainability, AUSJAL launched an innovative initiative for the CAV2018 through which Volunteer Teachers donated their time to work as Virtual Tutors in courses offered in the CAV 2018 to UCA students. In response to the call, 6 teachers from 3 Jesuit universities worked successfully together with Nicaraguan teachers. They came from University of Córdoba, Argentina; IBERO of México City and UCA of El Salvador. This was an outstanding act of solidarity, and UCA achieved an extraordinary expertise in e-learning methodology, with more than 400 courses served during the CV 2018.

Our experience with the Volunteer Teachers of AUSJAL universities during the CAV 2018 was our fire baptism, so we were in a better position to confront the COVID-19 pandemic. During the first semester of 2020, due to our previous experience, we obtained satisfactory evaluations in most courses. We were able to design and successfully execute learning projects involving more than one subject or specialty, as was the case of Marketing Fundamentals, Branding, Web Design and Graphic Communications Theory (Fig. 4). Interdisciplinary projects are part of the concept model of our Graphic Design program. The "new normal" for our Graphic Design Career will be a value proposition of a learning environment that seamlessly integrate online and physical interaction activities.



Figure 4. Covers of Learning Objects (LO) developed by students and teachers at the Universidad Centroamericana.

COVID 19 added a new layer of complexity to the academic life. We implemented permanent coaching and empathy to better address the anxiety and stress among students and teachers, which commonly arise during online courses. This guaranteed a rewarding online learning experience with few desertions. We also applied innovation using User Experience Research to get insight on our student's online learning experience and, therefore, improve our efficiency. Certifying all of our teachers as Virtual Tutors was an important asset during the pandemic. Finally, we used a Business Model Canvas tool to turn our business model into an Online and Blended Learning based one. This strategy has helped us face consequences of the political crisis and the "new normal" that we are living in pandemic times.

We feel that the pandemic opens a tremendous opportunity to accomplish AUSJAL's Strategic Plan 2019-2025, and consolidate a powerful network of 30 universities alongside Latin American region, now that all of those universities went online simultaneously. AUSJAL will become a powerful Latin American university, offering high quality online programs in graduate, postgraduate and doctoral programs, all triggered by the pandemic. Crisis are opportunities.

6. CONCLUSIONS

Considering that the COVID-19 pandemic is far from being over, it urges to ask: in case lockdown policies are necessary to be maintained for a longer period of time, what preparations should educational institutions make? Unfortunately, this possibility is not a mere conjecture. Although recently some countries around the globe have gradually started to release some of their lockdown measures and social distancing policies, according to research conducted by the Massachusetts Institute of Technology in 84 countries, the worst is yet to come: without a medical breakthrough, the total number of COVID-19-related

deaths keep growing at scary rates, and by mid 2021 "well over 90% of the world's population will still be vulnerable to infection—more if immunity turns out to be transient." (The Economist, Jul 4, 2020).

As Latin America continues to report an increasing number of new coronavirus cases and related deaths, most institutions have already notified their students they will not reopen their *campi*: some will remain completely closed, while others – as in the case of AUSJAL universities - have already decided to continue offering online classes to their students, over the next academic semester.

We don't know how long this pandemic will last, or how devastating their effects will be for Latin America. Still, we must prepare for such an uncertain, unpredictable future, in which we might either need to suddenly lock ourselves down at home once again, to prevent a new contagion outbreak, or – as a result of the emergence of new effective drugs, tests and vaccines – may soon reestablish our social proximity and reopen our schools and universities. In any case, it is important to consider the lessons we have learned during this odd pandemic semester, and better adapt our academic content to a more virtual lifestyle – as this seems to be the new trend of education, in most societies.

As highlighted in the United Nations' Policy Brief *The Impact of COVID-19 on Latin America* and the Caribbean (United Nations, July 2020), recovery from the pandemic in these extremely affected regions should go beyond short-term emergency actions, aiming at "building back better" - with more social equality, greater respect for human rights, as well as great concern for environmental and sustainability issues.

In conclusion, as discussed along this paper, educators are devising innovative strategies for teaching online, and getting ready for a whole new set of pandemic challenges. In this critical scenario, Design education in Latin America has a pivotal role, since it can help building back a post-pandemic society that is not just better - but far much better.

REFERENCES

- Alexander, J. (2020, April 6). American Football and Anamanaguchi are throwing a coronavirus relief concert in Minecraft. *The Verge*. Retrieved from https://www.theverge.com/2020/4/6/21210026/american-football-anamanaguchi-minecraft-concert-coronavirus-digital-festival
- AUSJAL (2012). *Uso apropiado de las TICs en AUSJAL, un informe descriptivo* (Appropriate use of ICTs in AUSJAL, a descriptive report). Retrieved from https://www.ausjal.org/wp-content/uploads/Libro-Uso-Apropiado-de-las-Tics-en-AUSJAL.pdf
- Dunford, D., Dale, B., Stylianou, N., Lowther, E., Ahmed, M. & de-la-Torre, I. (2020, April 7). *Coronavirus: The world in lockdown in maps and charts.* BBC. Retrieved from https://www.bbc.com/news/world-52103747
- Hackeo Cultural. (n.d.). Hackear la pandemia v1.1. (Hack pandemic v1.1) Retrieved July 9, 2020 from https://hackeocultural.org/wp-content/uploads/2020/04/HackearLaPandemia-1.1-HackeoCultural.pdf
- Howe, J. (2006, June 6). The Rise of Crowdsourcing. Wired. Retrieved from https://www.wired.com/2006/06/crowds/
- Jenkins, H. (2006). Confronting the challenges of participatory culture: Media education for the 21st century. An occasional paper on digital media and learning. John D. and Catherine T. MacArthur Foundation. Retrieved from

https://www.macfound.org/media/article_pdfs/JENKINS_WHITE_PAPER.PDF

- John Hopkins Coronavirus Resource Center (CDC). Retrieved November 22, 2020, from https://coronavirus.jhu.edu
- Lara, T. (2014). Crowdsourcing: cultura compartida. *Anuario de Acción Cultural Española de Cultura Digital. Focus 2014: uso de las nuevas tecnologías*. 20-29. Retrieved from http://ecas.issuelab.org/resources/29725/29725.pdf

- Manzini, E. (2018). Design, When Everybody Designs. An Introduction to Design for Social Innovation. Cambridge: The MIT Press.
- Mao, I. (n.d.). Sharism: A Mind Revolution. Retrieved from https://freesouls.cc/essays/07-isaac-mao-sharism.html
- Martins, J. T. & Baptista, M. (2016). Academics' e-learning adoption in higher education institutions: a matter of trust. *The Learning Organization*, 23(5), 299-331. DOI: <u>10.1108/TLO-05-2015-0034</u>
- Peters, T. (2020, March 20). Kids create their own Minecraft graduation during school closure. *Today*. Retrieved from.
 - https://www.today.com/parents/kid-creates-graduation-minecraft-after-school-closure-t176475
- Renduele, C. (2020, May 15). Byung-Chul Han: "El dataísmo es una forma pornográfica de conocimiento que anula el pensamiento" (Dataism is a pornographic form of knowledge that nullifies thought). *El País.* Retrieved from https://elpais.com/cultura/2020/05/15/babelia/1589532672 574169.html
- Rosa, J. G. Grande Sertão: Veredas. (Grande Sertão: Veredas) 7a. Ed. Rio de Janeiro: J. Olympio, 1970.
- Rosenberg, R. (2019, October 15). Building for Real With Digital Blocks. *New York Times.* Retrieved from
 - https://www.nytimes.com/2019/10/15/opinion/building-digital-blocks-Lego.html
- Sáiz, F. B. (2005). La frustración del estudiante en línea. Digithum: A relational perspective on culture and society, (7), 5. Retrieved from https://dialnet.unirioja.es/servlet/articulo;jsessionid=4DCCD5BB2CC9534CFEEC8A8AE821903F.dialnet01?codigo=1220520
- The Economist. (2020, July 02). The way we live now Covid-19 is here to stay. People will have to adapt. Retrieved July 4, 2020, from https://www.economist.com/leaders/2020/07/04/covid-19-is-here-to-stay-people-will-have-to-adapt
- Tierney, W. G. (2008). Trust and organizational culture in higher education. In *Cultural perspectives on higher education* (pp. 27-41). Springer, Dordrecht.
- United Nations. (July 2020). The Impact of COVID-19 on Latin America and the Caribbean. The United Nations Sustainable Development Group. Retrieved July 24, 2020 from https://unsdg.un.org/resources/policy-brief-impact-covid-19-latin-america-and-caribbean
- Žalec, B. (2013). Trust, Accountability, and Higher Education. Synthesis philosophica, 28(1-2), 65-81.