

Creative Economy

Carnivals and Festivals



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Introduction

How is the experience of carnivals and festivals being renewed in the digital sphere? Can their role still be fulfilled using technology? How can new technological tools aid the development of these industries in the virtual world? What is the current situation of the sector in Latin America and the Caribbean and how can the digital economy in the region be fostered?

In its report *Vision 2025. Reinvest in the Americas: A Decade of opportunities*, the Inter-American Development Bank (IDB) states that the economic recovery of the region requires the reactivation of productive sectors in a way that fosters (i) a higher volume of investment with better quality in infrastructure and digital connectivity, (ii) digitization and rapid adoption of new technologies, (iii) innovation and entrepreneurship in creative industries, (iv) support for SMEs, (v) deeper regional economic integration and (vi) synergies between the public and private sectors.¹

Promoting the creative economy in Latin America and the Caribbean (LAC)—and the industry of carnivals and festivals included as part of the sector—has been one of the IDB’s strategic plans, considering it grew at one of the highest rates during the last decade, when compared to other productive areas. It not only contributes to 3% of the world’s GDP, but employs more than 30 million people globally, reaching an estimated added value of 2.25 billion US dollars,² which reassures its role as a key factor to reactivate economic growth in our region.

A first step in understanding how carnivals and festivals contribute to development is to create information on its economic and social role among populations. Since there are few systematic studies on this matter in LAC, one of the main challenges for economic recovery is the collection of data that reflects operational conditions in the sector, to identify the most important needs that will help it cope with other future crises.

In this publication we identify the main technological transformations undertaken in massive celebrations by different stakeholders in LAC, in order to make visible the major innovative adaptations that have helped them deal with new challenges since the onset of COVID-19. Our main contribution lies in collecting data on carnivals and festivals through a

¹ Inter-American Development Bank, *Vision 2025, Reinvest in the Americas: A decade of opportunity*, (Washington DC: BID, 2021).

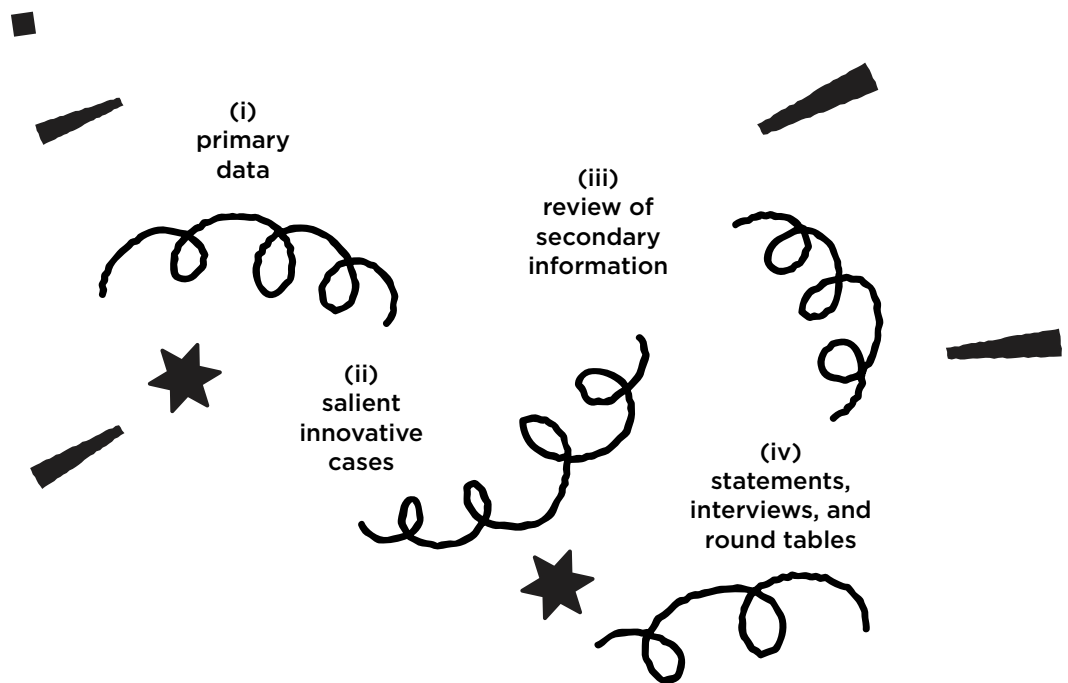
² UNESCO, “¿Por qué la economía creativa en 2021?”, UNESCO, accessed May 11, 2021, <https://es.unesco.org/commemorations/international-years/creativeeconomy2021>.

series of in-depth interviews, as well as a quantitative study that provides first-hand information on the sector, on how participants have dealt with the health crisis. These results serve as a framework to understand the situation of the sector, to analyze their social and economic function, as well as to identify their needs and shortcomings, bearing in mind possible solutions tailored for our region and sketching a map of possible futures.

Carnivals and Festivals: Digital Trends and Strategies is part of the IDB's editorial series, *Art, Culture and New Technologies in Latin America and the Caribbean*, intended to point out the impact of digitization and the adoption of new technologies by cultural and creative industries from the region, and how this can catalyze innovation, social cohesion, and change. The publication is divided into four chapters, beginning with an explanation of the social, political, and economic implications of festivals and carnivals, pointing towards the outcome of the pandemic on this type of events and the effects on other productive sectors related to them. In the second chapter, the main changes, challenges and innovations arising from the adoption of new technologies at carnivals and festivals are discussed, with an emphasis on new business models, prototypical of the digital sphere. The third section highlights emblematic cases of technological innovation, tracing actual trends and possible futures for carnivals and festivals from a digital perspective. Finally, several recovery strategies to foster development in the virtual sphere are enlisted, aiming at helping consolidate the path of economic reactivation and sustainable development in LAC.

Methodology

This publication was created on the basis of **(i) primary data**, from *qualitative research* conducted through in-depth interviews with twenty-seven stakeholders in the region and *quantitative research* surveying three hundred managers or senior managers of carnivals and festivals; **(ii) salient innovative cases** in the field in LAC; **(iii) the review of secondary information** such as global, regional, national, and sectorial surveys; and **(iv) statements, interviews, and round tables** with Carnivals and Festivals professionals, officials from the culture field, and creative economy experts. Throughout this volume, data from other studies is referenced in the critical apparatus. In the interest of not being repetitive, whenever no reference is assigned to support the information, it should be assumed that we are quoting our primary research. The events reviewed in this book can be classified as celebrations (either religious or secular, traditional festivities, carnivals or national holidays), festivals (devoted to the arts or to folklore), events (i.e. exhibition spaces) and trade fairs (showcasing cultural goods or services).³

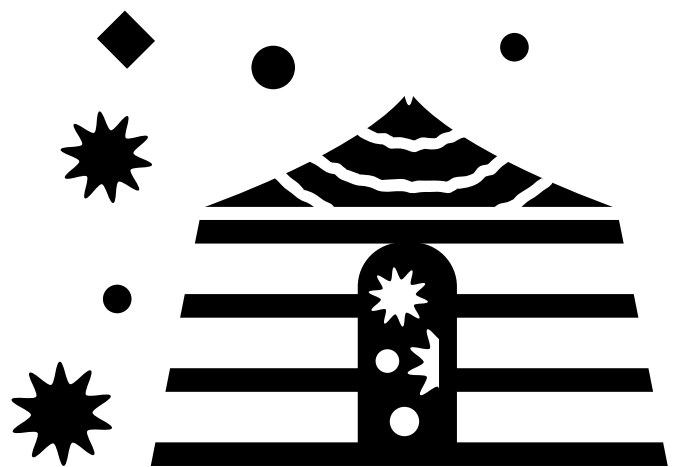


3 Estefanía González Vélez et al., *Medición y Caracterización del Impacto Económico y del Valor Social y Cultural de Festivales en Colombia* (Bogotá: Universidad EAN, 2013), <https://repository.ean.edu.co/bitstream/handle/10882/3978/Medicion%20y%20caracterizaci%C3%B3n%20final%20filbo.pdf>.

1. The Traces of COVID-19 in the Carnival and Festival Industry

The pandemic changed everything. It will be very strange to see a carnival of this magnitude on a screen because its natural space is the street; It belongs to the people, to the families that make a living from it and that represent a sector of society that was hit really hard.

—**Luisa Piñeros**, music journalist at Radio Nacional, Colombia



The Barranquilla Carnival has such an economic and social importance, that it is the most peaceful time of the year in the city.

—**Carla Celia**, director of the Barranquilla Carnival

Carnivals and Festivals and Their Role in Economy and Society

Human beings need to meet and celebrate, to feel part of a community sharing collective experiences. Carnivals and festivals fulfill their mission by providing people with significant spaces to encounter, making their existence meaningful, and encouraging them to feel like part of a community through artistic and cultural experiences that move them, surprise them, and entertain them.⁴ Mass events play a crucial role in the construction of social capital, since they have the ability to create unique moments of collective encounters and contribute to shaping identities and raising awareness of universal values, such as respect for diversity, protection of the environment or sustainable development.⁵

Each country celebrates its festivities, enlivening and cultivating their own traditions—some of them from thousands of years—, while highlighting the cultural values that have built the identity of their peoples. Besides creating spaces to gain visibility, and historical and artistic growth, they are poles of tourist attraction that stimulate economic flow in other productive sectors such as transportation, hospitality, gastronomy, tourism services or local production of manufactured goods. In 2020, the IDB estimated that carnivals and festivals in LAC produced annual revenues of more than 124 billion dollars.⁶ In Europe, the average loss from cancellation of these events due to the health crisis has been estimated at 180,000 dollars (around 48,000 dollars per festival in 2020).⁷ That same year, the cut

- 4 Ping-Ann Addo, “Tourism, The Visible, The Hidden, and the Ignored in Urban Heritage Festivals”, *What Future for Festivals?*, Salzburg Global Seminar, October 24-November 19, 2020, https://www.salzburgglobal.org/fileadmin/user_upload/Documents/2020-2029/2020/Session_646/SalzburgGlobal_Report_646__online_.pdf.
- 5 Beatriz García, “The Future of Mega-events... And Festivals’ Crucial Role in Such Future”, *What Future for Festivals?*, Salzburg Global Seminar, October 24-November 19, 2020, https://www.salzburgglobal.org/fileadmin/user_upload/Documents/2020-2029/2020/Session_646/SalzburgGlobal_Report_646__online_.pdf.
- 6 Daniela Peña Lazaro, “Más allá de la celebración, el carnaval genera riqueza”, Banco Interamericano de Desarrollo, Accessed on 15 of 2021, <https://www.iadb.org/es/mejorandovidias/mas-alla-de-la-celebracion-el-carnaval-genera-riqueza>.
- 7 European Festivals Association, “Survey: Festivals’ needs and commitments. Report on the occasion of the COVID-19 survey”, April - May 2020. European Festivals Association, accessed March 2021, https://www.efa-aef.eu/media/10870-report_covid19_survey_festivals_needs_and_commitments.pdf.

in sponsorships for massive celebrations amounted to 10,000 million dollars, worldwide.⁸

In addition to their profitability, festivals and carnivals have the potential to enhance the public image of a city and even foster human development.⁹ Collaborations between governments and other productive sectors of the private sphere are encouraged throughout the process, resulting in creative activities, projects dealing with infrastructure, transportation, food, security, and logistics, eventually addressing issues of urban and land-use planning.

In the past, festivals have been used to revitalize urban areas affected by industrial crises. Such is the case of Manaus, in Brazil, one of the richest cities in the country thanks to the exploitation of rubber by the end of the 19th century. There was so much wealth in the city that it became the home of one of the first opera houses built in the continent. But as the potential for rubber exploitation ended around the 1950's, Manaus plunged into crisis. It was not until 1996 that its historic theater reopened, resuming artistic activities by forming an orchestra and organizing an opera festival while establishing a musical training program. The activities of the Manaus Opera House have led to the opening of hotels, restaurants, and musical instrument shops, making the city a stopover for international cruise ships that program their visit exactly during the Amazon Opera Festival, which brings together up to 10,000 spectators per year. The event runs on a budget of 100,000 dollars (76 % are government funds and 24% comes from private sponsorships), and it creates 578 jobs. In comparison, the toy industry in Manaus received a public investment of 4.5 million dollars in 2019, employing only 201 people.¹⁰ In the opinion of Flavia Furtado, executive director of the Amazon Opera Festival, if the government were to invest the same amount in culture as they are doing with the toy industry, tourism would be stimulated, fostering employment to the benefit of all members of society. As she points out: "Tourists don't come here to see or visit a factory in the free zone of Manaus; They come to visit the theater, to watch an opera show, and take the opportunity to go on an excursion

⁸ Organización para la Cooperación y el Desarrollo Económico (OCDE), "Culture shock: COVID-19 and the cultural and creative sectors", issued September 7, 2020, <https://www.oecd.org/coronavirus/policy-responses/culture-shock-covid-19-and-the-cultural-and-creative-sectors-08da9e0e/>.

⁹ D. Barrera-Fernández et al., "Impacto de los festivales en el turismo patrimonial: el caso del Festival Internacional Cervantino", *International Journal of Scientific Management and Tourism*, vol. 3 no. 3 (2017): 47-66, <https://dialnet.unirioja.es/descarga/articulo/6133525.pdf>.

¹⁰ 23 Festival Amazonas de Ópera 2021, <http://fao.teatroamazonas.com.br/>.

into the jungle, where they will also buy artisanal handicrafts from the local population. The economic and social value that this venue and our festival has for the city and the region is quite clear”.¹¹

In Bogotá, Colombia, *Festivales al Parque* —a series of six massive events taking place at Simón Bolívar Park during different dates throughout the year—¹² has become a milestone for national identity, bringing together more than 600,000 people annually, until 2019.¹³ The festival was born in the eighties, while the country was suffering one of its most violent periods. María Claudia Parias, executive president of the *Fundación Nacional Batuta*, explains that their goal was to turn parks into meeting places where people could lose their fear of diversity and their distress of imagining streets being places for mishaps.¹⁴ Salomé Olarte, music director at the *Instituto Distrital de las Artes* in Bogotá, describes how they conceived the festival to promote citizen culture with music as a tool to give new meaning to public space and the city through art, while bringing people together and changing their perception and approach to the city.¹⁵ Something similar occurs at the *Barranquilla Carnival*, an event welcoming more than 2 million people (89% from Colombia and 11% of international visitors) creating 55,000 jobs. At the activity “*La Batalla de las Flores*” (The battle of the flowers) 600,000 people attended the in-person edition in 2020.¹⁶ The director, Carla Celia points out that carnival season is the most peaceful time of the year in Barranquilla, since everyone is focused on partying and having a good time, and citizens organize themselves to maintain peace in the most dangerous spots.¹⁷

¹¹ Flavia Furtado (Executive Director of *Festival Amazonas de Ópera*), interview by Pablo Solís Vega, May, 2021.

¹² *Festivales al Parque* revolve around different genres, such as rock or opera, including jazz, salsa, hip-hop, and especially *Colombia al Parque*, a category devoted to celebrating the diversity of Colombian music.

¹³ *Cities of Music Network*, “*Festivales al Parque, Bogotá*”, UNESCO, accessed May 20, 2021, <https://citiesofmusic.net/festivales-al-parque/>.

¹⁴ María Claudia Parias (Executive President of *Fundación Nacional Batuta*), interview by Pablo Solís Vega, May, 2021.

¹⁵ Salomé Olarte (Music Manager of *Instituto Distrital de las Artes de Bogotá*), interview by Pablo Solís Vega, March, 2021.

¹⁶ *Secretaría de Cultura, Patrimonio y Turismo*, “*Carnaval de Barranquilla, Informe de Gestión 2020*”, *Alcaldía de Barranquilla, Colombia* (2020).

¹⁷ Carla Celia (Director of the *Barranquilla Carnival*), interview by Eliana Prada y Julián Cortés, February, 2021.

The Party Has Been Canceled; Tourism Has Come to a Halt

Around the world, the COVID-19 pandemic has caused massive event cancellations since the beginning of 2020, in order to protect their audiences and prevent catastrophes like the one seen in India, where the Kumbh Mela festivities in April 2021 spread the virus dramatically.¹⁸ The repercussions on tourism and its economic effects on many other sectors have been devastating, especially for towns and cities where festivals and carnivals represent a fundamental source of income.

There is now more data available on the relationship between culture and tourism and the importance of creative and cultural content when choosing a destination. For some countries, tourism amounts to up to 70% of their economy and it is estimated that cultural tourism represents 40% of the sector's income, with cultural attractions being the main motivation for travelers.¹⁹ Such is the case of Spain, where reports show 65% of its visitors participating in a cultural activity, or Canada, where estimates suggest that 50% of US tourists are driven by cultural reasons.²⁰ In Puerto Rico, there was a 45% increase in tourist visits to the island after the worldwide success of "Despacito", the song by artist Luis Fonsi.²¹ In 2019, the United Kingdom reported that music tourism represented 12.6 million travelers, generating an economic revenue of 4.7 billion British pounds, and creating 45,633 jobs.²²

According to estimations, there are around 4,000 carnivals and festivals across Colombia. When examined together, the Cali Fair, El Carnaval de Negros y Blancos (Black and White Carnival), and the Manizales Fair generated around 230 million dollars in 2019.²³ The original investment

¹⁸ Hannah Ellis-Petersen y Aakash Hassan, "Kumbh Mela: así propagó un festival súper contagiador la COVID-19 por toda India", *El Diario*, issued June 12, 2020, https://www.eldiario.es/internacional/theguardian/kumbh-mela-propago-festival-supercontagiador-covid-19-india_1_7989953.html.

¹⁹ UNESCO, "Culture and Covid-19: Impact and Response Tracker. Núm 11", accessed February 20, 2021, https://en.unesco.org/sites/default/files/issue_11_en_culture_covid-19_tracker-6.pdf.

²⁰ Organización Mundial de Turismo, "Tourism and Culture Synergies", UNWTO, Madrid, DOI, accessed January, 2022, <https://doi.org/10.18111/9789284418978>.

²¹ Sound Diplomacy y ProColombia, "Music is the New Gastronomy: White Paper on Music and Tourism - Your Guide to Connecting Music and Tourism and Making the Most Out of It", accessed February, 2021, <https://www.sounddiplomacy.com/our-insights/music-tourism-white-paper>.

²² UK Music, "Music by Numbers 2020", accessed February 22, 2021, <https://www.ukmusic.org/wp-content/uploads/2020/11/Music-by-Numbers-2020.pdf>.

²³ Catalina Ortiz, "La economía de las ferias y fiestas", *La República*, issued December 31, 2020, <https://www.larepublica.co/analisis/catalina-ortiz-400501/la-economia-de-las-ferias-y-fiestas-3106967>.

of 4.6 million dollars at the Barranquilla Carnival, which was held as an in-person event in January 2020, delivered 108 million dollars of profits, representing 23 times the amount invested. The celebration represents 1.7% of Barranquilla's GDP, and is also responsible for 8,803 positive news stories in different media, and a return on investment of 14.6 million dollars.²⁴

In Mexico, there are 645 festivals officially enlisted,²⁵ putting aside carnivals, other religious festivals, and patronal feasts. For instance, the emblematic San Marcos Fair, in Aguascalientes, which in 2018 generated 390 million dollars, bringing together nearly 8 million attendees and creating more than 9,000 jobs,²⁶ has been canceled for two consecutive years.

In the Caribbean, carnival season is the time when general income is produced for the rest of the year, since these types of events are the main poles of attraction for international visitors, who contribute to the hotel, food, transportation, and entertainment industries. The economy of the islands is closely linked to the income generated during the time of festivals and carnivals, totaling 30% of its GDP.²⁷ During two days of celebration, the Trinidad and Tobago carnival alone attracts more than 30,000 foreign visitors, generating an annual revenue valued at 60 million dollars.²⁸

The economic revenue of Brazilian carnivals is estimated at 1,600 million dollars a year. In Rio de Janeiro, the 2019 parties generated 800 million dollars, bringing together 10 million people, with 2.1 million of them being tourists (77% were Brazilians and 23% foreigners). The same year in São Paulo, a \$3.6 million dollars investment transformed into \$600 million in return, an increase of 31% compared to the previous year, bringing together 15 million "carnavaleros".²⁹

²⁴ Secretaría de Cultura, Patrimonio y Turismo, "Carnaval de Barranquilla".

²⁵ Sistema de Información Cultural, "Festivales en México", accessed February, 2021, <https://sic.cultura.gob.mx/index.php?table=festival>.

²⁶ Camila Ayala Espinoza, "Feria Nacional de San Marcos con desarrollo tecnológico", *El Economista*, issued May 7, 2019, <https://www.economista.com.mx/estados/Feria-Nacional-de-San-Marcos-con-desarrollo-tecnologico-20190507-0045.html>.

²⁷ UNESCO, "Tracker. Núm. 3".

²⁸ Riad Meddeb, "An Orange Future for Tourism in Small Island Developing States", *Medium*, issued February 23, 2021, <https://medium.com/@riadmeddeb/an-orange-future-for-tourism-in-small-island-developing-states-a07cc1a3cb1e>.

²⁹ Aline Pellegrini, "O prejuízo do ano sem carnaval. E o esforço para reduzi-lo", *Nexo Jornal*, accessed February 12, 2021, <https://www.nexojournal.com.br/expresso/2021/02/12/O-preju%C3%ADzo-do-ano-sem-carnaval.-Eo-esfor%C3%A7o-para-reduzi-lo>.

Other Sectors at Risk Due to the Cancellation of Carnivals and Festivals

Carnivals and festivals play an important role in the performing arts industry, as they are platforms for visibility and artistic mobility, two fundamental elements for the sector. After performing at their cities of origin, the festival seasons allow additional performances to shows, plays, concerts and choreographies around different territories, extending the possibilities of income generation for performing artists. For example, the Cervantino International Festival, in Guanajuato, Mexico, extended its national and international programming to 17 states, presenting 165 performances from 60 shows across 37 cities.³⁰

National and International touring are essential for the finance of the performing arts industry, as well as for reaching new audiences. They also promote economic activation of service providers, related to stage production, infrastructure rental services, management and transportation, among others. With venues closed, large events canceled and no possibilities for touring, performing arts professionals and workers from the entertainment industry were deprived of their main sources of income.

Carnivals, local festivities, and other celebrations are also the primary source of LAC intangible cultural heritage, and the pandemic had also economically impacted its practitioners. Musicians, dancers, cooks, and artisans stopped receiving income from direct sales and subcontracting. The cancellation of festivities has put well-being of groups at risk, preventing them from celebrating their beliefs, and endangering several cultural practices that keep cultural memory of different populations alive. For Soledad Mujica, director of Intangible Cultural Heritage at the Peruvian Ministry of Culture, social distancing measures have had an impact on people's lives, both in their moral and in their chances of survival, given that their rituals are not only about celebrating life, but about guaranteeing well-being: "These practices serve to pray for fertile cattle and crops, or the well-being of the community. Not being able to perform these acts of offering and celebration leaves us in a critical position that affects our reciprocal relationship with our deities. The pandemic has broken that reciprocity by restricting processions or alpine ascents in groups to tutelary mountains. It is not only our passion and our celebrations that are at risk, but our future".³¹

³⁰ Niza Rivera, "El Cervantino 2019 termina sin definir invitados para 2020; presumen aumento en la asistencia", *Proceso*, issued October 17, 2019, <https://www.proceso.com.mx/cultura/2019/10/27/el-cervantino-2019-termina-sin-definir-invitados-para-2020-presumen-aumento-en-la-asistencia-233412.html>.

³¹ Soledad Mujica (Director of Intangible Cultural Heritage of the Ministry of Culture of Peru), interview by Pablo Solís Vega, April, 2021.

Indigenous populations around the continent, from Mexico to Argentina, have put a halt to the rites that celebrate their beliefs and traditions. According to estimations, there are 370 to 500 million people in the world who identify themselves as indigenous (5% of the total world population). 7,000 languages and approximately 20% of the planet's territory are guarded by them.³² In LAC, it is estimated that 462 indigenous populations have fewer than 3,000 inhabitants, and of them 200 live in voluntary isolation and extreme poverty.³³ Protecting these populations is important since they play a fundamental role in the conservation of biodiversity and natural heritage. Indigenous cultural practices are a living heritage of ancestral wisdom. They represent different ways of human adaptation to diverse natural environments. The knowledge of the indigenous population can teach us alternative strategies in search for sustainable development since their lifestyles are usually in harmony with the protection of the environment and sustainable use of available resources.

In addition to being spaces of economic activation, carnivals and festivals can positively impact the communities they serve. Through festivals artistic programming it is possible to address cultural diversity, promote social inclusion and gender equality, thus contributing to build peaceful societies, free from violence and discrimination. By using public space and cultural infrastructure, festivals can build inclusive and resilient cities, be the guardians of cultural and natural heritage, and encourage a sustainable tourism that promotes respect for the environment and the consumption of local products. Finally, they can create spaces for dialogue by fostering partnerships between the public and private sectors thus enhancing better governance systems.

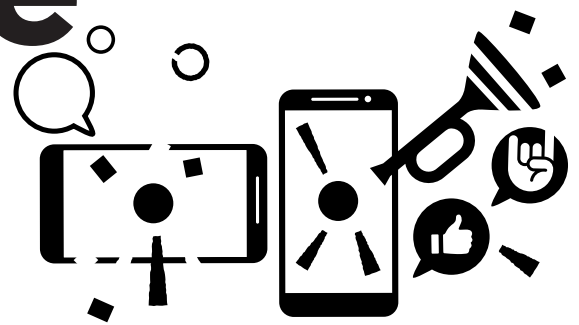
³² UNESCO, "Culture and Covid-19: Impact and Response Tracker. Núm 11", accessed February 20, 2021, https://en.unesco.org/sites/default/files/issue_11_en_culture_covid-19_tracker-6.pdf.

³³ Idem.

2. Rethinking Carnivals and Festivals: Between the Face-to-Face and the Digital Experience

Thanks to Facebook and YouTube we are discovering how each community lives the Inti Raymi festivities and getting closer to ancestral celebrations to which we usually did not have access. At the same time, we are encouraging a better understanding of their cultures and respect for their beliefs and traditions.

—**Fabiola Pazmiño**, Production Coordinator at Fundación Teatro Nacional Sucre



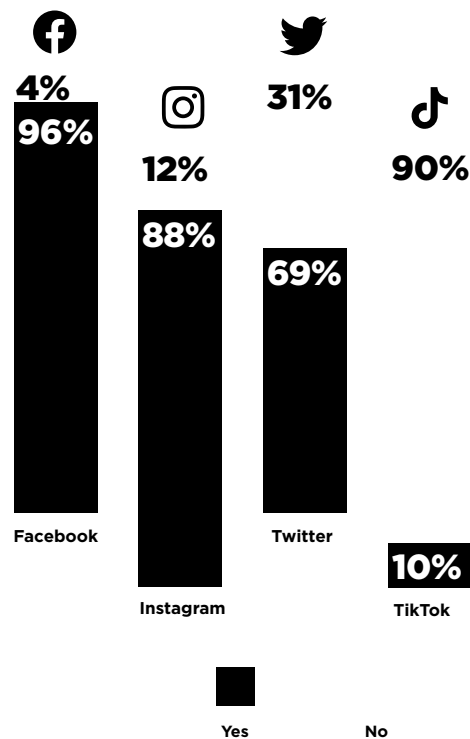
Virtuality came up as an excellent way to expand the range of our audiences, and duplicate the means we have to interact with them.

—**Ricardo Lira**, Executive Director of CRT+IC

The Digital Transformation of Carnivals and Festivals

Mass gathering restrictions forced the sector to use available digital tools, especially social networks. In the region, 82% of the respondents admitted using at least one social network, with Facebook (96%), Instagram (88%), and Twitter (69%) as the most popular platforms among them (see table 1).³⁴

Table 1. **Use of social networks in carnival and festival organizations in LAC**



The use of social networks ensured maintaining contact with larger audiences, since they are well accepted in the region due to being cost-less and accessible. Facebook in particular had 2,740 million active users during the month of January 2021, reaching 130 million and 93 million users in Brazil and Mexico respectively, which represents the fourth and fifth place globally. ³⁵ YouTube reported 2,291 million global users per month

³⁴ The survey was conducted from March to May 2021 by a telephone questionnaire to three hundred directors, managers and stakeholders from the carnival and festival industry in LAC. Aura / SIMO, “Quantitative study for the Series ‘Art, Culture and New Technologies in Latin America and the Caribbean’” (Mexico City: 2021)

³⁵ Juan Carlos Mejía Llanos, “Estadísticas De Redes Sociales 2021: Usuarios De Facebook, Instagram, YouTube, LinkedIn, Twitter, Tiktok Y Otros”, issued March 17, 2021, <https://www.juancmejia.com/marketing-digital/estadisticas-de-redes-sociales-usuarios-de-facebook-instagram-linkedin-twitter-whatsapp-y-otros-infografia/>.

in January 2021, with 55 million users in Mexico, 20 million in Colombia and 10 million in Peru.³⁶

The activities released on social media were initially thought to serve people during lockdown, while guaranteeing the continuity of rituals and traditions in the digital space. 8 out of 10 carnivals and festivals participating in our survey adopted the creation of multimedia content (see table 2), and 1 out of 2 recognized that the pandemic triggered this type of strategy (see table 3).

Table 2. **Generation of multimedia content during confinement**



Table 3. **Reasons for the development of multimedia content during confinement**



In several countries of the region, streaming was an alternative way to keep transferring funds and resources into creative communities through public grants.³⁷ Given that government funding for festivals and celebrations were originally designed for in-person activities, the planning of all public celebrations needed to be adapted for virtual formats. For instance, at the Cervantino International Festival, in Mexico, three weeks of programming were transformed into five days of online streaming.³⁸

³⁶ Julimay Cruz, “Así creció YouTube en Latinoamérica en 2020”, Folou, issued November 14, 2020, <https://folou.co/internet/youtube-audiencias-latinoamerica/>.

³⁷ Triguboff Matías, et al., “Evaluación del impacto del COVID-19 en las Industrias Culturales y Creativas. Una iniciativa conjunta de MERCOSUR, UNESCO, BID, SEGIB Y OEI” (Paris: UNESCO, 2021), <https://unesdoc.unesco.org/ark:/48223/pf0000380185>.

³⁸ Leticia Sánchez Medel, “Anuncian programación del Festival Internacional Cervantino 2020”, *Milenio*, issued August 23, 2020, <https://www.milenio.com/cultura/festival-cervantino-2020-programa>.

For the District Institute of the Arts of Bogotá, Colombia, this strategy allowed to keep transferring funds to creative professionals and guaranteeing access to culture for the general public at the same time. Part of the budget allocated for the organization of the Festivales al Parque, were used to the *Música del Parque a la Casa* Música del parque a la casa, a transmedia project that included virtual concerts, podcasts, an interactive book and a archive with digital score from Colombian composers, meant to create a digital memory.³⁹

In Brazil, despite that the Amazon Opera Festival had to be canceled, the Manaus Theater opted to organize a virtual edition for 2021. They commissioned Brazilian composers to produce three pandemic-theme-centered operas, with a duration of 30 to 40 minutes, to be streamed online on the theater's YouTube channel.⁴⁰

Assigning funds for the creation of multimedia content was another initiative to promote the virtual safeguarding of practices and rituals of indigenous communities. In Peru, a new online grant was launched, distributing nearly two million dollars specifically allocated for capturing practices and rituals in the country. The program included human resources to assist participants with the online applications, to avoid physical displacement and crowds in governmental offices. The initiative generate a new digital archive of intangible cultural heritage, from which stand out the "Hatajos de Negritos del Carmen", a series of twenty-four dances, that are rarely performed at the same time and it is the only complete audiovisual recording of the whole cycle so far.⁴¹ Soledad Mujica, Director of Intangible Cultural Heritage at the Ministry of Culture of Peru, explained that Peruvian indigenous communities transmit knowledge through gestures and orality. In her opinion, this is the reason why different groups are adopting film and photography to broadcast their practices on Facebook or YouTube, as ways for generating memories of their rituals and celebrations, as well as to pass the knowledge of their traditions to new generations.

According to Fabiola Pazmiño, production coordinator of the Fundación Teatro Nacional Sucre, a similar phenomenon occurred with indigenous populations in Ecuador. By using technology, they are now showing their rituals and customs, generating audiovisual records that are now registered on social networks. This is why Inti Raymi festivities feel closer to new audiences. In these ancestral celebrations the indigenous populations thank the sun for the abundant crops, and by socializing

³⁹ Olarte, interview.

⁴⁰ Furtado, interview.

⁴¹ Mujica, interview.

them, audiences around the country acquired greater understanding of their traditions, as well as different ways of living and thought.⁴²

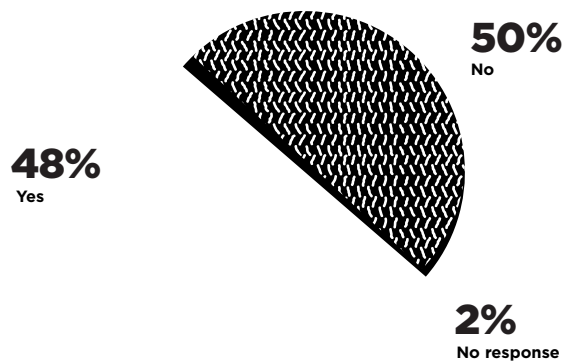
The Challenges of Technological Adoption

Implementation of technology was mostly a result of the health crisis and sanitary regulations. Prior to the pandemic, 58% of interviewees considered to have good technological infraestructure (see table 4) and only 48% had previous plans for development and innovation in the digital field (see table 5). After the pandemic started, 61% recognized the need to incorporate additional technologies (see table 6). Besides the adoption of online streaming (from 24 to 61%), innovation includes teleconferences (from 20 to 55%), podcasts (from 6 to 17%), virtual visits (from 11 to 20%) and the integration of QR codes (from 13 to 18%) (see table 7).

Table 4. **Qualification of technological development prior to the pandemic for the carnival and festival sector in LAC**



Table 5. **Plans for the development or acquisition of technology prior to the pandemic**



⁴² Fabiola Pazmiño, (Production Coordinator at Fundación Teatro Nacional Sucre), interview by Pablo Solís Vega, March 2021.

Table 6. **Availability of existing technological tools within organizations during the pandemic**

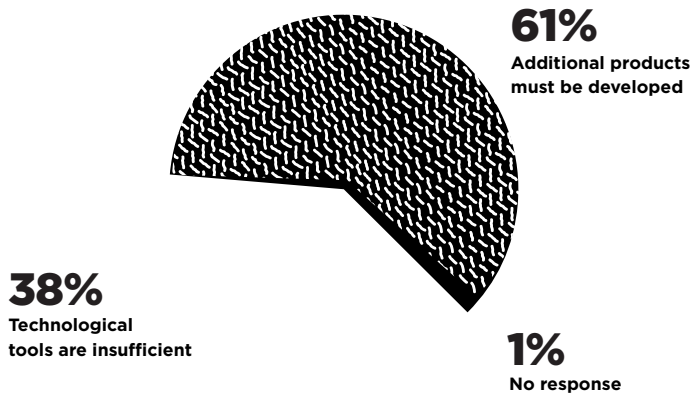
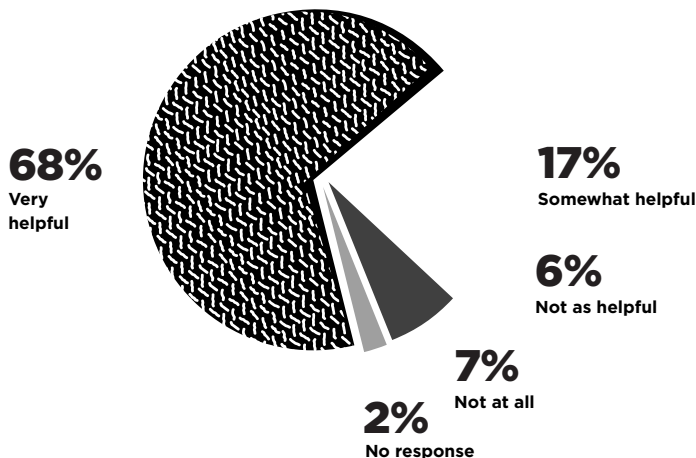


Table 7. **Affirmative responses to the use of technological tools**

tool	Before the pandemic	As a result of the pandemic
Streaming	24%	61%
Teleconferencias	20%	55%
Podcasts	6%	17%
Virtual tours	11%	20%
QR codes	13%	18%
Online ticketing	15%	11%

Although 7 out of 10 agreed that technological innovation helped them perform their tasks (see table 8), digital transition was not homogeneous and significant shortcomings were faced. 87% of the respondents agreed that the main challenge for technological adoption is lack of economic resources (see table 9), which is why many organizations resorted to the most popular social networks, such as Facebook, YouTube or Instagram.

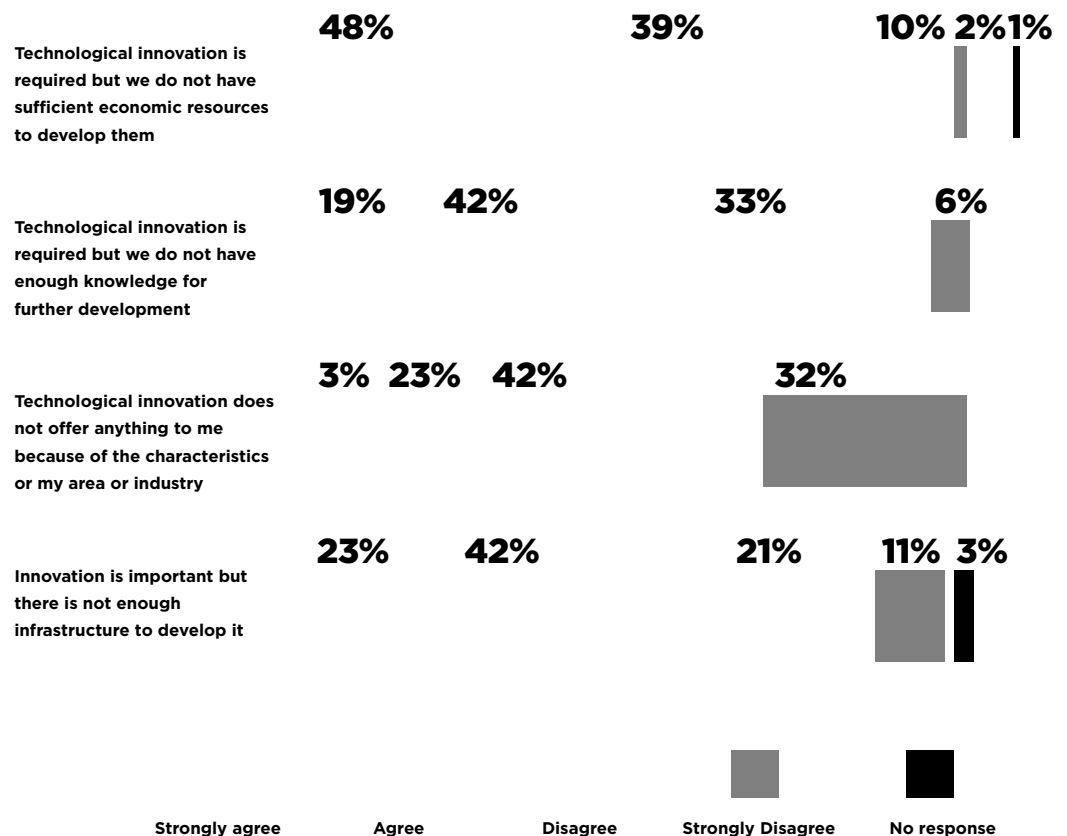
Table 8. **Level of support in technological tools since the pandemic**



The lack of digital skills was singled out by 61% of respondents (see table 9), with online broadcasting as a new challenge for the production of both events, and of artistic content. To adapt stage productions into the virtual world, art professionals had to either teach themselves technical skills for the production of quality digital content, or hire professionals with pertinent profiles like lighting designers, video editors and streaming experts.

In Chile, to strengthen technical skills of creative professionals, during the *Santiago a Mil* festival, a series of workshops for stage creators were held to improve the production of digital content. This project was launched after the organizers started noticing that from all the proposals they were receiving, not all of them showed the desired quality.⁴³ Something similar occurred at the Manizales International Theater Festival, which expanded its educational offer through several training programs on streaming. To strengthen the skills of their audience, the festival also launched the School of Spectators, aimed at creating audiences and increasing the online consumption of performing arts.⁴⁴

Table 9. **Main limitations for the adoption of technologies**



⁴³ Carmen Romero Quero (general director of the Teatro a Mil Foundation), interview with Pablo Solís Vega, March 2021.

⁴⁴ Octavio Arbeláez (director of the Festival Internacional de Teatro de Manizales), interview with Pablo Solís Vega, March 2021.

Another shortcoming is related to scarce broadband infrastructure and poor connectivity, affecting the reliability of streaming systems which resulted at first in poor quality transmission. In this regard, 65% of respondents pointed out the infrastructure limitations in their countries (see table 9). An illustrative case is that of Argentina, where the organizers of the Cosquín Rock Festival wanted to recreate the physical experience of being in a concert hall. After obtaining the required permits from authorities, they selected four emblematic theaters throughout the country and organized live shows with empty seats, using multimedia experiences and immersive transmissions filmed by 360-degree cameras. However, they found that the connectivity conditions at venues were not appropriate for high-definition live streaming. The main internet providers in the capital city could not offer the required bandwidth either, and there was limited availability of 360-degree filming equipment in the country. Ultimately, to organize the 2020 edition of the festival —featuring more than 50 artists at 4 simultaneous virtual stages, and bringing together 150,000 virtual global and local attendees— the event’s management incurred unforeseen costs, to improve connectivity at venues, and sign new broadband service contracts.⁴⁵

The novelty of online streaming also posed the problem of how much to charge for new online experiences. José Palazzo, director of the Cosquín Rock festival, comments on this matter: “We were wrong about the ticket price because we didn’t know the costs of streaming, nobody knew. We believed four dollars was standard, which of course was not enough to cover all the costs of online transmissions”.⁴⁶

At Prisma, the International Contemporary Dance Festival of Panama, the organizers also faced the dilemma of whether or not to charge for tickets to virtual shows—taking into account the complex economic situation at the time and the oversupply of free cultural and artistic content on the internet—: “We did not want to charge for tickets because we felt that perhaps some people could not afford them, but setting a price on it was important because sometimes people believe that art is costless and do not appreciate the value of paying a ticket to see a dance performance. We set a symbolic price of three dollars, but people could donate more money if they wanted to, even if most of them did not”.⁴⁷

In LAC, most public celebrations opted to stream for free, while some private organizations that opted to sell tickets for online shows had mixed

⁴⁵ José Palazzo (director of Cosquín Rock Festival), interview with Eliana Prada and Julián Cortés, May 2021.

⁴⁶ Idem.

⁴⁷ Analida Galindo and Marlyn Attie de Mizrachi (co-directors of Fundación Espacio Creativo), interview with Pablo Solís Vega, March 2021.

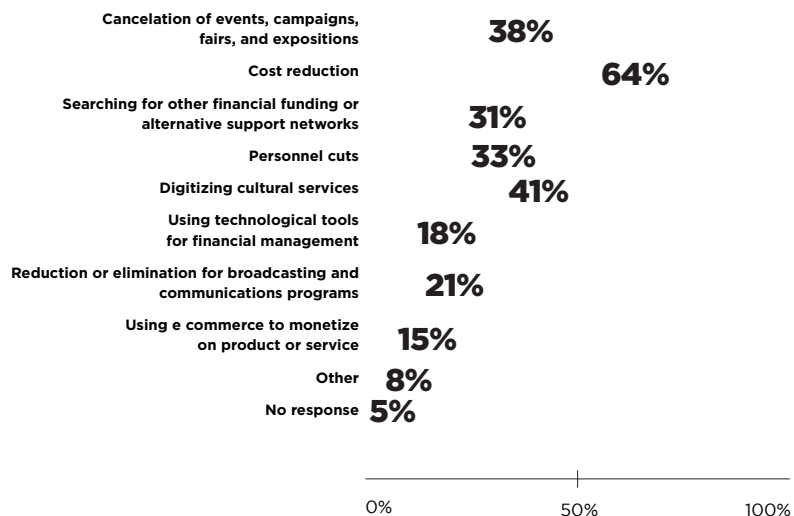
results. Even if 80% of respondents admitted that technology helped them develop new income strategies (see table 10), only 15% of them ventured into electronic commerce and only 18% more reported using technology for financial management (table 11). Octavio Arbeláez commented on the experience of the Manizales International Theater Festival, that he did not see any business growth, despite having multiplied its audience by five, since streaming was available for free. On the other hand, if they had charged for it, their audience might not have grown that much.⁴⁸

These opinions show that although digital tools are perceived as a driving force for new business models, they have not been used accordingly, leaving significant potential to grow, with the digital economy as an area of opportunity and development in LAC. Online streaming during lockdown laid the foundations for a business model that is expected to be profitable in the medium and long term with online ticketing as an alternative way of generating income. For now, the monetization of carnivals and festivals in the virtual world has not proved to be a feasible financial tool, at least during the pandemic.⁴⁹

Table 10. **Perception of the use of technologies to develop new income generation strategies**



Table 11. **Incorporation of financial strategies based on the use of technologies**



⁴⁸ Arbeláez, interview.

⁴⁹ UNESCO et al., “Evaluación del impacto del COVID-19”.

The Multiplication of Audiences: Breaking Geographical Barriers

Online streaming of carnivals and festivals has also increased collaborations among different countries, thus reaching new audiences in new territories. By focusing on digital means, new forms of international interchange and collaboration were discovered, which served to extend professional work networks across the globe, while virtually linking audiences, as well as increasing co-productions between countries.

Although International exchange was already being put in place, artistic festivals such as Santiago a Mil, in Chile; the Manizales International Theater Festival, in Colombia; the MUTEK Mexico festival; or the Cosquín Rock, in Argentina have now profited from the new conditions to increase the international content of their program grids.

In the Caribbean, cancelation of the carnivals season, musicians from several islands organized the Quarantine Extempo Challenge, an event in which they exchanged calypso and soca music videos, sending a message of solidarity with musicians and groups from Barbados, Saint Kitts and Nevis, Trinidad and Tobago, and Saint Martin and the Grenadines.⁵⁰

In Mexico, the performance arts community joined forces in the Antifestival in June 2020, a virtual show featuring 20 real-time experiences, 19 pre-recorded pieces, and several conferences and round tables. In total, 58 activities were scheduled with the participation of more than 30 independent studios from 18 different federal provinces.⁵¹

In Colombia, the Red Eurolatinoamericana de Festivales de Teatro (REDELAE) organized the First Festival of Festivals⁵² in May 2020, a collective event featuring 32 groups from 11 countries, which reached 8,000 viewers in only 3 days of streaming.⁵³ On the other hand, the Manizales International Theater Festival virtual audience has quintupled, bringing together 150,000 visitors from more than 30 countries.⁵⁴

In January 2021, in the midst of strict quarantine regulations, at a hybrid edition of festival Santiago a Mil, 1,637 shows took place (both

⁵⁰ UNESCO, “Tracker 11”.

⁵¹ Alejandra Serrano, “Reflexiones pandémicas desde el teatro independiente”, *Investigación Teatral. Revista de artes escénicas y performatividad*, vol. 11, núm. 18 (2020), <https://investigacionteatral.uv.mx/index.php/investigacionteatral/article/view/2649/4605>.

⁵² First Festival of Festivals, REDELAE, <https://redelae.org/i-festival-de-festivales-redelae>

⁵³ Arbeláez, interview.

⁵⁴ *Idem*.

in-person and in digital format). According to director Carmen Romero, for over 36 days, 122 shows from 19 countries reached an audience of 300,000 viewers.⁵⁵ In contrast, The MUTEK Mexico festival, partnered up with the festival's franchise in Japan to produce a joint virtual program, reaching more than 8,000 Internet users and selling nearly 5,000 tickets.⁵⁶

In Panama, 33,150 visitors attended the Prisma festival with 108 companies being part of it. The festival brought together 583 artists in 144 spectacles and offered 140 training workshops. They streamed using the YouTube channel of the Fundación Espacio Creativo (umbrella brand), reaching 51,268 views in 2020, a figure that has increased up to 88,871 by May 2021. In addition, while in 2020 95% of the audience was from Panama, by May 2021 it was so diverse that 45% were national users, 30% were from Colombia, and 17% were from Mexico.⁵⁷

Virtuality & Immersive Environments and its Market Potential

The use of digital tools allows to have audience profiles in terms of age, preferences, background, and the time segments and formats they are consuming. New technologies have also helped improve the audience experience, better engaging with them, through a wide range of online content and marketing campaigns targeted specifically to increase the consumption of digital goods and services.

As the boom in the creation of multimedia content continues, different programs have decided to launch streaming platforms of their own, seeking more independence from social media platforms. For some companies, developing their own digital tools is crucial to have better access to their users' information, and carry out in-depth profile analysis of their audience. An example of innovation in this sense is the platform for the MUTEK festival, first born in Montreal, Canada. Founded as a space for the promotion and dissemination of avant-garde thinking applied to sound and digital art, there are now sister editions of the festival taking place in San Francisco, Mexico City, Buenos Aires, Barcelona, Tokyo, and Dubai. As a result, a network of collaboration has formed, fostering both creative and professional exchanges and initiatives at the intersection of

⁵⁵ Romero, C., interview.

⁵⁶ Damián Romero (Founder and General Director of festival MUTEK México), interview with Pablo Solís Vega, April 2021.

⁵⁷ Galindo and Attie de Mizrachi, interview.

art and technology.⁵⁸ The pandemic meant accelerating the process of developing a digital platform for the international MUTEK network, fully funded by the Canadian government. For the organizers, this tool was the only way to have full access to all the metadata. Damián Romero, CEO and founder of MUTEK Mexico, says all the information from users on social networks is not public and companies like Facebook or Google will never completely share it. That is why they decided to create their own platform: “We learned that we needed to build our own space, where you are in control of the data and where you are able to reach your audience directly without third parties involved. Doing this is the only way you can engage in the battle for metadata and all the consequences of your information roaming on the apps and the statistics generated when interacting in the digital world”.⁵⁹

Online payments are a trend that is in full development. It is estimated that in countries like Mexico, free transmission services, also known as over-the-top services (or OTT, which are transmission of audio and video on the internet without traditional operators controlling or distributing the content) will grow 26% reaching a market value of 881 million dollars in 2021. And according to other estimations, between 2019 and 2024, the media and entertainment industry will have a combined annual growth of 2.27%, although fixed broadband penetration will remain below 60% by the end of 2024.⁶⁰

Online ticket sales did not necessarily mean more income. Nevertheless, experts agree it is a new business model that is here to stay. José Palazzo, director of Cosquín Rock, strongly believes that streaming will help thousands of fans who cannot attend the festival to actually watch it from home, opening doors to new international markets.⁶¹ This is the bold plan of Live Nation, the global giant of the entertainment industry with a share in LAC markets, who announced the launching of a platform hosting part of their in-person performances to be broadcast through live streamings. In order to have the infrastructure requirements for online streaming of live shows, they have made significant investments at several venues.⁶²

⁵⁸ MUTEK México Festival Internacional de Creatividad Digital, <https://mexico.mutek.org/>.

⁵⁹ Romero, D., interview.

⁶⁰ PwC Entertainment, “La industria del entretenimiento y medios se reconfigura”, Global Entertainment & Media Outlook 2020-2024, accessed May 10, 2021, http://explore.pwc.com/mx_gemo2020/wp_gemo2020_mexico.

⁶¹ Palazzo, interview.

⁶² Juan Carlos García, “Live Nation ve en el streaming su mina de oro”, Reforma, 6 May, 2021, https://www.reforma.com/live-nation-ve-en-el-streaming-su-mina-de-oro/ar2190407?__rval=1.

On the other hand, the Belgian festival Tomorrowland launched UNITE, to expand the presence of the brand in Spain, Germany, Lebanon, Taiwan, Malta, South Korea and the United Arab Emirates, where hybrid simultaneous editions take place, combining live shows with streaming of what is occurring at the centerpiece show in Belgium.⁶³

Online broadcasts are becoming richer thanks to technology, particularly through virtual reality and additional interactive technology, such as augmented reality (AR), mixed reality (MR) and extended reality (ER). Together they have triggered the emergence of immersive virtual environments (IVE), which have seen an exponential growth during the past two years.⁶⁴

Audiences have become more demanding, asking for innovative and high-quality content to stay engaged. Octavio Arbeláez quotes the South Korean philosopher Byung-Chul Han, who has coined the term “burnout society”⁶⁵ explaining how difficult it has become to keep the viewer’s attention due to the speed and immediacy of information in modern times. Carmen Gil, curator of Voltaje: Salón de Arte y Tecnología, and professor at the Arts Department of the Universidad de los Andes, Colombia, emphasizes that virtual experiences, even if fun and well-designed, can be dull: “We are getting used to consuming one-minute videos and scrolling through our phones all day, but we are not willing to watch a play on a virtual platform for an hour”.

The industry of carnivals, festivals and massive shows can resort to immersive content design, due to its advantages to produce appealing events focusing on greater interaction with their audience. The so-called “metaverses” are positioning themselves as a highly profitable business, due to the number of users and the “within-metaverse” marketing options. Virtual festivals have started to be held in these virtual spaces, reaching an unthinkable number of viewers when compared to in-person events. The company Epic Games, through its video game *Fortnite*, holds the record of 12.3 million of connected gamers at the virtual show of the American singer Travis Scott in April 2020, surpassing the 10 million attendees for the Marshmello’s concert in 2019.⁶⁶

⁶³ José Silva, “All you need to know and understand about UNITE Tomorrowland”, Widefuture, April 8, 2019, <http://widefuture.com/2019/04/08/all-you-need-to-know-and-understand-about-unite-tomorrowland/>.

⁶⁴ Tom Rockhill, “To engage remote audiences, AR is more vital than ever”, Digital Arts, April 6 2020, <https://www.digitalartsonline.co.uk/features/ha-king-maker/engage-remote-audiences-ar-is-more-vital-than-ever/>.

⁶⁵ Byung-Chul Han, *The Burnout Society* (Barcelona: Herder, 2012).

⁶⁶ Fornite Game, “Over 12.3 million concurrent players participated live in Travis Scott’s Astronomical, an all-time record!”, Twitter, April 23, 2020, <https://tinyurl.com/4867rpex>.

In LAC, more and more companies are developing virtual or augmented reality technologies, as solutions for immersive content production. Such is the case of Hoppia,⁶⁷ founded in Mexico City in 2020 with the goal of coping with COVID-19 social distancing restrictions. Through immersive virtual environments (IVE), Hoppia offers digital alternative spaces to organize sports, educational, musical, or live performing events. The first public event they organized in March 2021 was Domingodular,⁶⁸ an electronic music festival in which a three-dimensional virtual space recreated the physical space of a face-to-face festival. After choosing their own avatar, attendees could pace around and interact among each other, in similar ways as they do on video games.⁶⁹

Currently, one of the most popular strategies to enhance the user experience is gamification. According to Rodrigo Garrido, CEO of Hoppia: “An attractive add-on to immersive environments can be the pairing of video games with conferences or concerts, experienced simultaneously. We are aware of their good performance, since there are people who can be playing over and over again while listening to a conference or a concert, encouraging them to spend three or four hours at events of six or seven hours of duration, which is a very high average.”⁷⁰

Some of these experiences have also been tested in the Caribbean. In Trinidad and Tobago, the Animaecaribe Animation Festival,⁷¹ besides streaming animated short films, organized a closing party for its November 2020 edition, which hosted an immersive virtual reality environment, innovation that implied an increase of 500 % in their audience.⁷² Founded in 2001, the festival has had a positive impact on the development of the national animation sector, where there were very few professionals, and suffered from a lack of training programs for a variety of subjects at schools. As Camille Selvon, creative director of the festival explains, the founders wanted to publicize digital creation while encouraging more people to get involved with this sector. Results were so positive that the growing interest from students led to the opening

⁶⁷ Hoppia, streamings, eventos y mundos virtuales con avatares, <https://hoppia.world/>.

⁶⁸ “Hoppia, la plataforma de metaversos mexicana se une a Domingodular”, Facebook, March 19 2021, <https://www.facebook.com/watch/?v=465407551320738>.

⁶⁹ Rodrigo Garrido (CEO of Hoppia), interview with Pablo Solís Vega, May 2021.

⁷⁰ Idem.

⁷¹ Animaecaribe, <https://www.animaecaribe.com/>.

⁷² Camille Selvon (Creative Director of Animaecaribe, Caribbean Animation Festival), interview with Pablo Solís Vega, May 2021.

of an Animation Department at the University of Trinidad and Tobago. Eventually, the festival also organized professional encounters to provide job opportunities for young students, laying the foundations of the animation industry in the Caribbean.⁷³

The strongest evidence that the digital world is heading towards the development of immersive virtual spaces was the announcement of Meta, the new corporate name of Facebook Inc. This metaverse merges the applications and technologies of the corporation conglomerate to help people connect, find communities, and grow their businesses through immersive experiences. Carnival and festival organizers will be able to take advantage of the imaginative and lucrative possibilities that these digital tools offer, transferring their celebrations into virtual worlds, where the potential seems endless. It is no longer just about quality streaming using 360-degree viewing technology and fantastic and unreal scenarios (difficult to duplicate in real life), but about e-commerce, online sales, and online marketing. In the metaverse branding campaigns and advertising spaces for sponsors can be replicated, but it can also be reproduced in any number of virtual stores.

An example of this glimpse into the future occurred in 2021 at the Metaverse Festival hosted by Decentraland, a digital world running on the Ethereum blockchain. In October 2021, the “inhabitants” of this space could enjoy more than eighty interactive concerts from artists from all corners of the planet, while purchasing official merchandise from their favorite bands at virtual merch stands or buying food at virtual food trucks. Visitors could even buy virtual “parcels and estate” to build profitable businesses targeting future attendees during coming festivals in the metaverse.⁷⁴ Founded in 2020 Decentraland is a space, created by Argentines Ari Meilich and Esteban Ordano, where users can create, monetize, and explore contents and applications, while interacting with other users buying or renting digital real estate. There, users are entitled to build any type of profitable scene they can imagine, from universities or e-stores to art galleries or casinos and concert halls to organizing virtual festivals. All transactions are made using cryptocurrency, and it is a world ruled by a decentralized autonomous organization (DAO), meaning that it is not controlled by any central organization, bank, or company, designed to turn ownership of contents to their original creators (users in the virtual world).⁷⁵

⁷³ Idem.

⁷⁴ David Cash, “The Largest Metaverse Music Festival is Launching in Decentraland”, NFT WTF, October 21, 2021, <https://nfts.wtf/the-largest-metaverse-music-festival-is-launching-in-decentraland/>.

⁷⁵ Pablo González, “Conoce Decentraland y MANA: un mundo virtual con miles de posibilidades”, Blogs Bitso, November 5, 2018, <https://blog.bitso.com/llega-mana-a-bitso-la-monedade-decentraland-9ea68ffe14be>.

By fostering digital development demands, long-term investments, as well as programs promoting specialized research, the Centro para la Revolución Tecnológica en Industrias Creativas (CRT+IC) was founded in Chile in 2021. Led by the Fundación para la Revolución Tecnocreativa (run by Bizarro Live Entertainment and funded by CORFO),⁷⁶ the CRT+IC is a talent development platform and incubator that provides technological solutions in the entertainment industry, aiming at promoting cutting-edge technology. The project revolves around four axes and a training program consisting of workshops, seminars, and courses that bring technological knowledge closer to the creative sector. It provides an open space for exchange among people interested in science, technology, and culture, and supports the piloting and development of projects through residencies. It will also seek to promote further development and escalation of projects incubated at the center, through fund-raising and owning their financing strategies. The CRT+IC has formalized a strategic partnership with the company Epic Games, which makes them, for now, the only authorized training center for the Unreal Engine in Chile.⁷⁷

In 2021, the Creative Tech Lab, organized by the IDB in partnership with the Caribbean Industrial Research Institute (CARIRI), gathered creative professionals from different disciplines during three consecutive days in Trinidad and Tobago.⁷⁸ In order to reflect on digital alternatives and innovative solutions to cushion the effect of the cancellation of carnivals on regional economies, working groups were formed by artists, producers, designers, programmers, animators, public officials, lawyers, and civil society leaders,⁷⁹ who strengthened their professional ties while devising solutions for the near future. Different prototypes of technological applications came out from the meeting, aiming at promoting the growth of digital commerce while reducing the economic dependence of the islands on foreign visitors.

Some of the experiences are: the Artist-ID app,⁸⁰ an online directory intended to increase artists' visibility and their chances of winning contracts; the Capture Carnival, a commercialization app for marketing

⁷⁶ Corporación de Fomento de la Producción, an agency from the Ministerio de Economía, Fomento y Turismo of Chile.

⁷⁷ Ricardo Lira (Executive Director of CRT+IC. Centro para la Revolución Tecnológica en Industrias Creativas), interview with Pablo Solís Vega, May 2021.

⁷⁸ Vashtie Dookiesingh (Senior Specialist in private financial operations at IDB Lab), interview with Pablo Solís Vega, May 2021.

⁷⁹ Loop News, "Developers wanted for Creative Tech Lab T&T funded by IDB", Loop News, March 23, 2021, <https://tt.loopnews.com/content/developers-wanted-creative-tech-lab-tt-funded-idb>.

⁸⁰ Artist-ID, <https://myartist-id.com/user/login-form>.

goods and services from the carnival experience: through it any business (restaurants, hotels, costume stores, designers, and so on) can sell their products while gaining brand visibility; and TT Phoenix Carnival, an immersive environment where visitors can have a virtual experience of the carnival, through exhibition halls for local artists, and exhibition rooms with images of the history of Trinidad and Tobago. Also, the cARnival app is intended to develop augmented reality games. Aiming at showcasing the cultural heritage of both the festivals and the region, users can acquire badges that can be exchanged for NFT (Non Fungible Token) by answering some trivia.⁸¹

Whether or not these prototypes will be developed in the near future, promoting spaces where professionals from the creative sectors can meet with technology specialists is relevant in the context of a growing demand for solutions aiming at real problems.

Development of technological infrastructure in the virtual world will open new spaces of communication and commercialization of goods and services, not only from the creative and cultural industries, but from other sectors as well. Carnivals and festivals may be the perfect reason for the digital economy to take off, due to its social-oriented nature which brings people together. Since they are closely entwined with other productive sectors, digital platforms for these events will not only become spaces to display the cultural diversity of some community or nation, through a digital ticket selling system, but they may also function as digital gateways into virtual stores by artisans, merchants, producers, or any other provider of the gastronomic, tourist, or hospitality industries.

In Peru, virtual stores have already become an innovative alternative to commercialize handicrafts or locally manufactured goods, used by artisans to be part of ecommerce, after the cancellation of carnival season and the reduction of their income. A digital platform was launched as a continuation of the Ruraq Maki Hecho a Mano program.⁸² To present, it encompasses forty-four virtual stores where artisans from different corners of the country have been able to sell their products to any market in the world.⁸³ Although the project started in October 2018 with ten virtual

⁸¹ Creative Tech Lab Trinidad and Tobago, “CTL TT Online Closing Ceremony”, Facebook, June 1, 2021, <https://www.facebook.com/Banjht/videos/2587677324861697>.

⁸² La iniciativa Ruraq Maki Hecho a Mano es un programa integral para la salvaguarda del arte tradicional que se implementó en 2007 como una plataforma de comercialización de artesanías y productos de comunidades indígenas, organizado en forma de feria presencial que se realiza dos veces al año, reuniendo a 150 colectivos de artesanos de todo el país.

⁸³ Ruraq Maki.pe Tiendas virtuales, <https://tiendasvirtuales.ruraqmaki.pe/>.

stores, the pandemic pushed it to grow faster, helping more communities to market their handicrafts through the platform. In addition to sharing technological infrastructure, the program offers a series of training sessions on the use of technology, and workshops on banking, commercialization, marketing, and export.

For instance, professionals and experts from the Ministerio de la Producción, trains users on microcredits; at the Instituto Nacional de Defensa de la Competencia y de la Propiedad Intelectual they receive advice on copyright and collective marks issues; and at the Peruvian Postal Services they show them how to make shipments using the national postal service or Exporta Fácil, a program to send shipments abroad. According to Soledad Mujica, the intention is “to give [artisans] the necessary tools to rise in a complex universe of e-sales, since traditional artists are in an absolutely critical position, after tourism stopped, and galleries, shops and fairs have been canceled”.⁸⁴

The Digital in the in-person events: Creating Better and Safer Experiences

Besides the virtual world, technology also brings innovation to face-to-face interactions. Some of the technologies with the greatest potential for the sector are Radio Frequency Identification (RFID) or Near Field Communication (NFC). These technologies are used on smart bracelets that have become a popular item in some festivals around the world. Both technologies represent innovative solutions to different areas involved in the organization of a festival. From a logistical and mass management point of view, the wristbands help to streamline admission and reduce waiting lines.⁸⁵

Georeferencing can also aid to spot crowded areas, giving organizers the necessary information to picture alternative exits or access routes in real time. The wristbands work as pre-loaded credit payment systems too, and some of them are even connected directly to users’ bank accounts, through an app on their phones, thus reducing cash-based operations significantly. But they also simplify business transactions, improve accounting and bookkeeping, reduce fraud risk, while rising consumption. The collected data consumption patterns can be identified and used in building accurate user profiles, while cross-referencing data in real time.

⁸⁴ Mujica, interview.

⁸⁵ Nick Thompson, “How technology is giving more life to festivals”, *UKTN*, issued July 27, 2016, <https://www.uktech.news/news/technology-trends-give-festivals-life-beyond-physical-now-20160727>.

Through data it can be determined which was the most-selling drink at any given period of time or stage, which stages were the most attended, what was the average of time spent at each concert, the most-and-least-crowded areas, and traffic patterns inside the festival's space.

Experimentation with virtual or augmented reality technologies has begun, enriching the face-to-face experience of festival goers and adding layers of attractivity, thus building a loyal audience.⁸⁶ For instance, the K-pop group BTS, performed on an augmented reality stage⁸⁷ in Wimbledon, England, in February 2019, with technology similar to that used for the Pakistan Cricket Super League opening ceremony.⁸⁸

The company StubHub has developed another VR tool to buy concert tickets that is already being used by some venues in the UK. Through it, clients profit from a 360 perspective, watching the stage from the seat they had previously selected.⁸⁹ On the other hand, the company Subpac, has developed a contact-based technology through wearables, allowing users to feel low-frequency vibrations, and exposing users to high decibels, regardless of not being close to the speakers.⁹⁰

Not all technological innovations are received with the same enthusiasm. Facial recognition systems used at some festivals are proved to be controversial for possible violations of privacy, leading to some demands for banning this type of technology.⁹¹

In summary, developing tools to improve user experiences and increase their loyalty, can increase sales and revenues for organizers. Technology-based and creative innovation are thus helping to cope with issues related to energy consumption and lighting, security, food production, logistics, ticketing, and even loyalty programs. Thanks to this whole new range of tools, measuring economic and environmental impact has become a growing possibility.

⁸⁶ Tom Rockhill, op. cit.

⁸⁷ BTS Love Yourself World Tour, Vimeo, <https://vimeo.com/341610605>.

⁸⁸ Opening Ceremony of 2019 Pakistan Super League, Disguise, <https://www.disguise.one/en/insights/case-studies/pakistan-super-league/>.

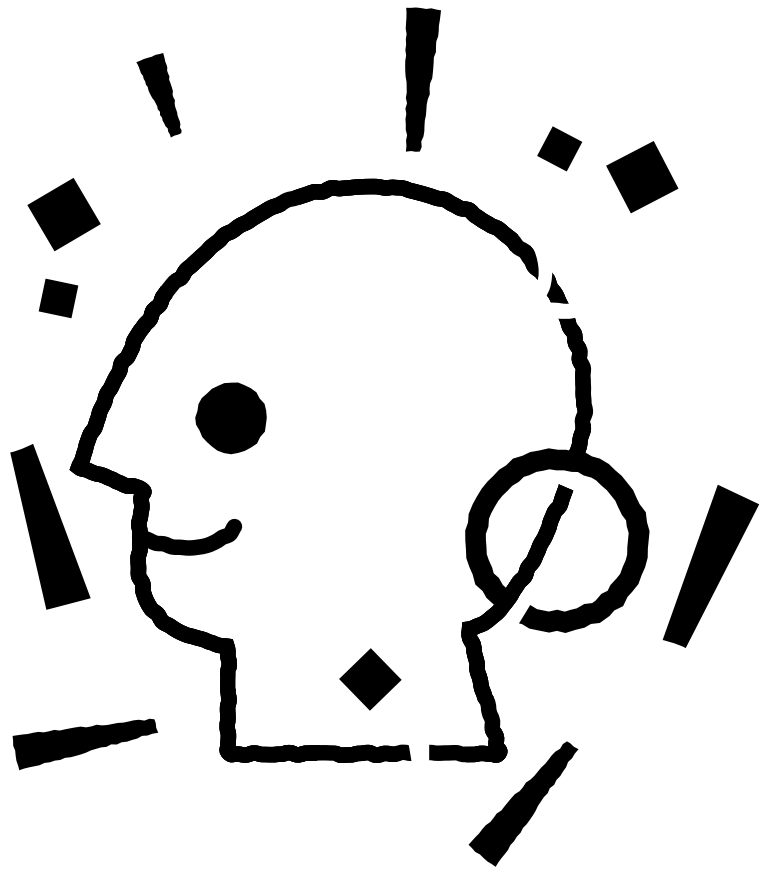
⁸⁹ "Cómo la Tecnología Mejora la Experiencia en Festivales de Música", Promocionmusical.es, accessed on October 12, 2021, <https://promocion-musical.es/tecnologia-festivales-musica-mejorando-experiencia/>.

⁹⁰ Tom Kacicki, "5 Festival Tech Trends That Are Reshaping the Industry", Intellitix, December 11, 2019, <https://intellitix.com/hub/5-festival-tech-trends-reshaping-industry>.

⁹¹ "Ban facial recognition", accessed on October 13, <https://www.ban-facialrecognition.com/festivals/>.

3.

Cases of Innovation



Speaking in terms of technology, it has been an important step for a society that was not ready to consume some of the already-existing tools. [now] we have begun to experience immersive technologies, like virtual reality, augmented reality, and others that before were alienated from us. It will be interesting to witness how the virtual component will complement the physical component to create a much more expansive and stronger experience.

—**Damián Romero**, Founder and General Director of MUTEK México

After cancellations of large-scale events due to the health crisis, some carnivals and festivals tried to adapt to the digital world, by increasing their multimedia content and developing new platforms to interact with audiences. They have not only innovated in how to stream live scenic shows, but also in finding ways to transfer resources directly to the communities that depend on them. Here we present six cases of innovative solutions using technology. Due to the novelty of many tools, some of these innovations have not yet achieved the expected results, but they are precise examples of the potential that new technologies have for carnivals and festivals in the virtual world.

Teatroamil.tv. Chile

How Can a Festival Adapt to a Video on Demand Platform?

The Santiago a Mil Festival, organized by the Teatro a Mil Foundation in Chile, developed a digital platform in 2018 to host the memory and digital archive of previous festival editions. Considered a side project at first, the site had low traffic and was intended solely for registration purposes. Servers and storage capacity were limited, as was its traffic, with only 3,000 registered visitors. After the pandemic it became the central node for the festival's activities and a way to expand contact with its audience, reaching up to 80,000 visits per week, in a very short time. Due to its success, the foundation opted to turn their website into a Netflix-style and video on demand (VOD) platform, with a digital catalog including pieces of theater, choreographies, concerts, radio soap operas and even seminars—both filmed at face-to-face presentations or original digital productions—. This transition forced members to follow workshops and specialized programs to understand all the technologies involved on the new platform, bearing in mind how to make its design more readable, user friendly, and fit for all audiences. The digital transition also required an investment in adapting the design and coding of the platform, improving its functionality, expanding the storage capacity and traffic, to finally turn it into a content platform on demand with different subscription plans. To ensure the quality of the streamed content, training workshops were proposed to artists. The development of this platform has allowed them to strengthen the digital strategy of both the festival and the foundation itself. By having a well-built and functional tool, they have been able to offer content to global audiences and enhance international collaboration. Examples of these exchanges are the signing of collaboration agreements with the Rambert - Contemporary Dance Company London school, in England, or with the Grec festival, in Spain. The tool is now used

as a display to present all the digital programming of the Santiago a Mil Festival coming editions, strengthening their digital component.

The Open Pit Festivals on Minecraft. United States

What is the potential of video games for the organization of virtual festivals?

Minecraft is a video game where players can create a world of their own. Users have begun to use these worlds to create virtual festivals that they program, promote, and monetize. One of the companies involved in this trend is Open Pit, founded by a group of young people whose story started as a fun way to celebrate the birthday of one of the members. When the pandemic hit, the amount and importance of these festivals grew exponentially since they could host massive musical celebrations in safe digital environments, while raising funds for social organizations in the United States at the same time. Nether Minth, organized in April 2020, reached 112,000 unique views, raising \$8,000 for the Charity360 foundation. Two weeks later, Square Garden was virtually attended by 178,000 users (including Minecraft, Twitch and YouTube users), raising \$50,000 for the Feeding America Foundation. Concerts on these platforms are more appealing due to three-dimensional immersion and exploration, in contrast to video streaming limited to the possibilities of two dimensions. They are also more interactive, since online video game users pace around different environments where they can chat among each other, using their avatars. The same can be done on Twitch, where viewers can leave comments while watching the streaming event in real time. This is an example of how new forms of socialization are stemming from this type of platforms, where users have taken over virtual spaces to expand their creativity and monetize them, while interacting according to new social dynamics.

Antillea World. Trinidad and Tobago

Which Immersive Experiences Alternatives Are There for Carnivals?

Antillea is a virtual island developed by Ceasar's Army LTD, the same company hired to create experiences for the Trinidad and Tobago carnivals. During the pandemic, they envisioned a tool to find alternative ways of income, while offering their clients with digital innovative solutions. Using the virtual space, they recreated Trinidad and Tobago beaches,

drawing inspiration from real landscapes. It has been designed to host events, stream shows, organize network meetings, play basketball games, or even display firework spectacles. It can be accessed through VR lenses or through any computer —through AltspaceVR, the immersive space platform developed by Microsoft—. The experience starts at a hub, a waiting room where visitors can pick one of two scenarios: the east wing or west wing of the island. Once inside, you can feel the waves crashing on the shore, see the coconut trees swaying in the breeze and listen to the sounds of Caribbean music, while experiencing the warmth, splendor, and beauty of the surroundings. Antillea World is planning a weekly program of Caribbean artists shows to attract users, spread the word, and eventually monetize the platform. They intend to expand their portfolio and offer other companies services like the organization of corporate events, virtual meetings, press conferences or commercial launches of a product or service. Lastly, another goal they have is to attract visitors who are willing to experience the face-to-face edition of the carnival.

Evento Medido. Chile

How to Measure the Impact of a Festival and Make the Invisible Visible?

In 2020 the Chilean company, Evento Medido, specialized in data and measuring tools and methodologies for artistic events, received financing to develop software from Bizarro Lab, a technological acceleration program for enterprises working for the music and entertainment industry. This is important, since funding is one of the main challenges of the sector in LAC without any question. The project will make it possible to systematize data collection in an easier and faster way. The company intends to expand services worldwide, helping festival organizers to highlight relevant data like economic revenue, among many others. In its early stages, the startup came up with an app that gathered information on cultural events in Chile, so that organizers and users alike could know about concerts and live events taking place in any given part of the country. This first version of the tool also showed recommendations, but above all, it was used to obtain data on age segments and preferences, according to each user profile. Over time, the company designed a methodology to quantify impact of events, both of concerts and festivals, generating dashboards where they could measure and publish direct economic impact (tickets, food and merchandise sales), as well as indirect economic impact (transportation, lodging, food, contracting tourist services, and so on). They also measure precise sociodemographic profiles (gender, age, level of schooling, place of origin) and they can

even calculate environmental impact, using tools to determine the carbon footprint of these events.

SplendorXR. Australia

How to Recreate a Festival in Virtual Reality?

COVID-19 prompted the organizers of Splendor in the Grass, one of Australia's biggest music festivals, to organize an online edition of the show, aiming at engaging with their virtual audience. Splendor XR took place on July 24 and 25, 2021 on a modeled version of Byron Bay Park, the festival's traditional venue. Using an avatar, visitors entered the park while pacing around the different stages. The virtual space mirrored exactly the real park, reproducing the mountains, the trees, and the usual settings that surround the place. On splendor XR users could interact with other attendees using a proximity chat system, exchanging points of views about their experience. The event streamed more than fifty artists' shows, who were encouraged to record their presentation at their convenience: in a rehearsal room, in a concert hall or in the open field. The objective was to give artists freedom to innovate in the way they were presenting and streaming a pre-recorded concert. For instance, some of them used green screens to later edit their presentations, simulating that they were playing on the main stage of Splendor in The Grass. The project was developed by Sansar, a virtual reality platform to stream live three-dimensional events developed by Linde Lab, the same firm behind the creation of Second Life. The organizers hope to further develop the platform and use it in the future, adding value to the digital streaming of their face-to-face editions. The event was considered one of the first immersive festivals during the pandemic.

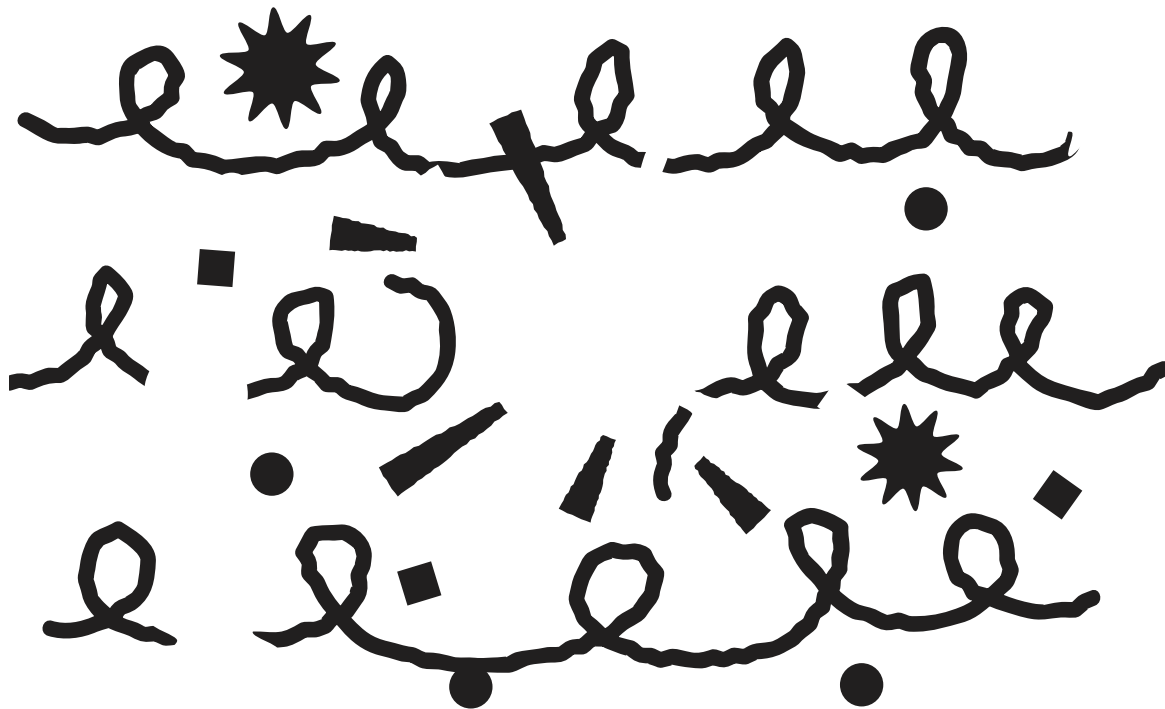
Isla Viva Galapagos Music Conference. Ecuador

How to Connect Artistic Activities with Digital Initiatives for Sustainable Development?

The Galapagos Islands of Ecuador are a protected natural area; 90 % of its economy depends on tourism. As a strategy to support the island's economic activity, a music conference has been held since 2018 to discuss ecological solutions in the midst of cultural events. During this gathering other events such as networking meetings and academic activities take place to share good practices on ecological conservation and human development, while connecting arts with the communities

that host the encounters. During the pandemic the Isla Viva Galápagos Music Conference turned into a virtual gathering to discuss topics like self-management and sustainability. The conference also included activities on improving the skills of professional agents, focusing on ways to monetize the digital space, organizing launch events, and finding new means of virtual distribution and international circulation. A donation system was also made available to send seeds to local farmers, paired with a training program on urban gardens thus promoting self-sustainability in the island. These activities helped the organizers to successfully reenact a festival for professionalization and commercialization of creative services in virtuality. In addition, they managed to transfer funds and skills to the inhabitants of the island, helping them survive at a time when they were unable to receive foreign visitors, thus supporting their income.

4. Final Observations



This pandemic has taught us to improve the way we are connected. The question is, how do we go about achieving the changes the planet needs? Being more collaborative, working in dialogue with the territories, caring for the environment and water resources...How can we continue to be an international festival in the context of an environmental crisis? We have to shed light on how to place value and activate the cultural artistic ecosystem.

—**Carmen Romero Quero**, General General
President of the Fundación Teatro a Mil

The impossibility of holding massive events sparked innovation at festivals and carnivals, opening ways for digital exploration and creating new forms of interaction enhanced by technological advances. Means to engage with audiences had to be diversified, bringing new business opportunities in the digital space. Despite the degree of development of some virtual experiences, they are still far from being equal to face-to-face experiences: sensory stimuli in both cases are very different, and for that reason they cannot compete against each other. Both experiences—the virtual and the in person— will benefit from technological advances, coexisting from now on. In the face-to-face world, technology focuses innovation on improving the attendees' experience, making the organization of mass events more efficient and productive, particularly using the full potential of data intelligence. The virtual realm can be enhanced by audio and video transmissions, using virtual, augmented, mixed and extended reality technologies, so that the ongoing growth of immersive content will continue to be exponential. Festivals and Carnivals are fertile ground for exploration and experimentation that will help enhance services and experiences within the framework of virtuality.

Below we present some reflections of the role that these events can play in helping achieve the IDB's Vision 2025 and some possible future scenarios for massive celebrations with the help of new technologies.

1. Carnivals and festivals can promote sustainable and socially equal communities

1.1 Promoting inclusion and gender equality. Digital content has the ability to promote women empowerment and make vulnerable populations visible, by guaranteeing equity among participants, in terms of gender and corporality, reflecting the diversity of contemporary societies.

1.2 Making visible cultural diversity. Digital carnivals and festivals can go beyond their geographic limitations, expanding their audiences and showcasing a diversity of cultural expressions. This can contribute to mutual understanding and the eventual construction of peaceful societies.

1.3 Safeguarding cultural memory in the digital sphere. The creation and dissemination of culturally diverse digital content will encourage building digital repositories, keeping the memory of cultural heritage practices. Doing so will contribute to expand access to distant or inaccessible cultures, and to encourage self-representation of communities and safeguarding their own memory, while learning new technological skills.

1.4 Promoting behavioral change and favoring sustainable lifestyles.

Carnivals and festivals are a powerful means to transmit messages of awareness about different social, political, or ecological topics. Marketing campaigns of such events can trigger social or behavioral change, by displaying and disseminating messages promoting water and energy saving or the adoption of more sustainable lifestyles.

2. Carnivals and festivals can help develop digital economy

2.1 Making heritage, cultural, and natural wealth visible to attract visitors. Digital editions of carnivals and festivals will give greater visibility to the region's tourist attractions, strengthening tourism and promoting post-pandemic economic reactivation.

2.3 Bringing local production closer to international markets and audiences. Virtual platforms can become digital billboards for local goods and services, particularly for SMEs and entrepreneurs from the cultural heritage sector, opening up ways of marketing their traditional and artisan products for a global market.

3. Carnivals and festivals can deconstruct productivity and encourage innovation in digital economy

3.1 Creating accurate consumer profiles. Developing content platforms for carnivals and festivals will make the registration of users' information easier, helping organizers spot specific users' profiles and eventually building better communication campaigns to engage a greater number of visitors and consumers.

3.2 Sharpening 21st century skills. Carnivals and festivals can become ideal channels for the transmission of content promoting learning and critical thinking, which are both useful skills for the audience at a personal and professional level, particularly when it comes to social and intercultural issues.

4. Public policies can foster the development of digital economy

4.1. Strengthening technological infrastructure. The flourishing of the digital economy depends on strengthening the technological and

connectivity infrastructure currently available, as well as granting universal Internet access by reducing the cost of digital services and optimizing digital payments, making them easier and more secure.

4.2 Promoting the creation of multimedia content. In the new digital value chain, digital content holds a central role. This will raise the demand of technological skills among participants making it necessary to create and support careers in both creative and innovative fields, making them key to help bolster the development of regional manufacturing productions.

4.3 Expanding investment possibilities. Broadening seed capital funding will trigger entrepreneurship and the development and creation of digital content, improving competitiveness in the region using global context as a parameter.

4.4 Encouraging consumption of local content. Considering fierce competition to engage audiences and digital consumers, it will be necessary to support developing platforms focusing on locally produced multimedia content. This type of investment will be necessary for local producers in order to compete with entertainment giants that currently dominate global markets.

4.5 Promoting digital copyright legislation. To improve monetization, and to encourage a more equitable distribution of royalties in the digital space, it will be necessary to create and strengthen regulations to protect intellectual property, favoring collection of royalties by creators.

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Quantitative Study for this Research

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6. Glossary

2030 Agenda for Sustainable Development

Global action plan enacted by the United Nations based on 17 Sustainable Development goals, including the ending of poverty and the fight against climate change.

A

Artificial Intelligence

Combination of algorithms that simulate human intelligence processes performed by machines.

Avatar

Graphic element representing the virtual identity of a user in a digital environment.

B

Blockchain

Chain of information that records digital transactions and operations.

C

Culture Satellite Account

Statistical tool that measures the contribution made to the GDP by the cultural sector, adding up all the activities that comprise it.

D

Dashboards

Reporting tool displaying the most important information of a business or a company.

Copyright

Rules and legal principles that protect the rights that creators have over their works.

Public Performance Rights

Legal term referring to the authorization to perform a work publicly.

E

Encounters

Exhibition spaces that host artistic manifestations during a period of time.

Engagement

In Marketing, the ability of a brand or product to create a mutual commitment with the user.

Immersive Virtual environment (IVE)

Three-dimensional (3D) environment that can be accessed by users even without using a virtual reality helmet or virtual glasses.

Ethereum

Digital platform built using blockchains. Market creation and programming of smart contracts are some of its functionalities.

Digital experience

Interaction between the user and digital media.

F

Prerecorded (fake) live

Term that defines the live release of content that has been previously recorded and scheduled.

Fairs

Events taking place in a specific place and time with the purpose of promoting cultural goods and services.

Festivals

Events taking place in a specific place and time with the purpose of showing exhibitions or performances of an artistic or folkloric nature.

Celebrations

Social events celebrated publicly. They can be traditional, religious, profane, carnivalesque or national holidays.

Full HD

Image resolution of 1920 x 1080 pixels.

G

Gamification

Learning strategy based on playful elements or game design components, with reward mechanisms playing a key role.

L**Licensing**

permission granted for the exploitation of a work protected by copyright.

M**Mapping**

Audiovisual technique projecting videos on surfaces, displaying animated elements or dynamic images, using artistic effects.

Metadata

Descriptive information that helps interpret, identify, process and preserve data. They are the data of the data, the describing informational content of an object or resource.

Multimedia

Combination of text, images, animation, and sound to create hybrid content.

Immersive world

Digital environment similar to a real space, where the user can experience being part of it.

O**OTT (Over-the-top)**

Free transmission services consisting of audio, video, and other contents streamed through the Internet without traditional distribution operators being involved.

P**LED screen**

Electronic device that projects multimedia content using LED diodes.

Content platforms

Online website putting together all kinds of multimedia content within the reach of the user.

R**Augmented reality (AR)**

Technological interface that allows users to see and interact with digital items, in a physical reality context.

Extended Reality (ER)

Combination of technologies that allow interaction between real and virtual environments.

Mixed reality

Immersive technology that combines elements of virtual reality and augmented reality.

Virtual reality (VR)

Technological interface that creates an immersive virtual environment out of simulated scenes or places.

S**Scroll**

Action of sliding through an interface to view content from top to bottom.

Streaming

Multimedia technology programmed to watch recorded or live content on digital platforms.

T**Immersive technologies**

Set of tools to simulate real environments in the digital sphere.

Transmedia

Narrative strategy by means of which a content is divided to be displayed on different media.

V**360 Video**

Video format that enables a holistic panoramic view, in 360 degrees.

Video on Demand (VoD)

OTT video service, in which users are allowed to choose between different videos hosted on a platform, at any given time.

7. Chart of Projects Discussed in This Publication

Company / Project	Country	Type of project	Page
Animae Caribe Animation Festival	Trinidad and Tobago	Festival	28
Antillea	Trinidad and Tobago	Web in virtual reality	36, 37
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BTS	South Korea	Music group	33
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Negros y Blancos Carnival	Colombia	Carnival	11
Río de Janeiro Carnival	Brazil	Carnival	12
Sao Paulo Carnival	Brazil	Carnival	12
Trinidad y Tobago Carnival	Trinidad and Tobago	Carnival	12
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Company / Project	Country	Type of project	Page
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Hoppia	Mexico	Digital company	28
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Red Eurolatinoamericana de Festivales de Teatro (REDELAE)	Colombia	Network of festivals	24
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The Creative Tech Lab Trinidad y Tobago	Trinidad and Tobago	Educational initiative	30
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Company / Project	Country	Type of project	Page
Voltaje: Salón de Arte y Tecnología de la Universidad de los Andes	Colombia	Festival	27
WhatsApp	United States	Social network	17
YouTube	United States	Digital video platform	16, 17, 18, 20, 25, 36

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