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ESPORTS IN TIMES OF A GLOBAL PANDEMIC: OPPORTUNITIES AND FUTURE CHALLENGES WHEN TRANSFORMING GAMING INTO A SPORT IN COSTA RICA

ESPORTS EN TIEMPOS DE UNA PANDEMIA GLOBAL: OPORTUNIDADES Y FUTUROS DESAFÍOS AL TRANSFORMAR EL JUEGO EN UN DEPORTE EN COSTA RICA

OS ESPORTES ELETRÔNICOS EM TEMPOS DE UMA PANDEMIA GLOBAL: OPORTUNIDADES E FUTUROS DESAFIOS AO TRANSFORMAR O JOGO EM UM ESPORTE NA COSTA RICA

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ABSTRACT

Rojas-Valverde, D., Fallas-Campos, A. & Alpizar-Alpizar, M. (2020). Esports in times of a global pandemic: opportunities and future challenges when transforming gaming into a sport in Costa Rica. **PENSAR EN MOVIMIENTO: Revista de Ciencias del Ejercicio y la Salud**, 18(2), 1-11. In

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response to the COVID-19 global pandemic, the world has undergone a series of drastic changes. Due to this, postponement and cancellation of multiple annual big sports events have been announced, giving way to new digital alternatives that follow government isolation provisions. eSports has shown to be a rapidly evolving alternative to maintain the sportsmanship and passion that sports bring to the general population. In Costa Rica, like everywhere else, this sport has seen accelerated growth with a high rate of evolution. In this regard, the country faces significant challenges to promote future eSports events, professional development, and the creation of an organizational structure for its optimal practice. This paper aims to analyze how the global pandemic exposes the need to direct the attention to digital sports alternatives such as eSport and the future challenges that Costa Rica will face to develop it in an effective and efficient way.

Keywords: sports, technology, coronavirus infections.

RESUMEN

Rojas-Valverde, D., Fallas-Campos, A. y Alpízar-Alpízar, M. (2020). Esports en tiempos de una pandemia global: oportunidades y futuros desafíos al transformar el juego en un deporte en Costa Rica. **PENSAR EN MOVIMIENTO: Revista de Ciencias del Ejercicio y la Salud**, 18(2), 1-11. En respuesta a la pandemia relacionada con COVID-19, el mundo ha sufrido una serie de cambios drásticos. Debido a ellos, se han anunciado aplazamientos y cancelaciones de múltiples grandes eventos anuales en los deportes, las cuales dan paso a nuevas alternativas digitales que responden a las disposiciones de aislamiento del gobierno. Los eSports se muestran como una alternativa en rápida evolución para mantener el espíritu deportivo y la pasión que los deportes provocan en la población en general. En Costa Rica, este deporte ha comenzado su crecimiento, tal como sucedió en todo el mundo, y se ha acelerado con una alta tasa de evolución. En este sentido, el país enfrenta grandes desafíos para su promoción, incluyendo la de futuros eventos, el desarrollo de profesionales y la creación de una estructura organizacional para su práctica óptima. Este manuscrito busca analizar cómo la pandemia global expone la necesidad de poner atención a las alternativas deportivas digitales como el eSport y los desafíos futuros que enfrenta Costa Rica al tratar de desarrollarlo de manera efectiva y eficiente.

Palabras clave: deportes, tecnología, infecciones por coronavirus.

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RESUMO

Rojas-Valverde, D., Fallas-Campos, A. e Alpízar-Alpízar, M. (2020). Os esportes eletrônicos em tempos de uma pandemia global: oportunidades e futuros desafios ao transformar o jogo em um esporte na Costa Rica. **PENSAR EN MOVIMIENTO: Revista de Ciencias del Ejercicio y la Salud**, 18(2), 1-11. Como resposta à pandemia relacionada com a COVID-19, o mundo sofreu uma série de mudanças drásticas. Devido a isso, foram anunciados adiamentos e cancelamentos de múltiplos eventos esportivos de grande porte levados a cabo anualmente, abrindo espaço para novas alternativas digitais que respondem às disposições governamentais no que diz respeito ao isolamento. Os Esportes Eletrônicos ou eSports demonstram ser uma alternativa em rápida evolução para manter o espírito esportivo e a paixão que os esportes provocam na população em geral. Na Costa Rica, esse esporte começou a crescer, assim como aconteceu em todo o mundo, e acelerou com uma alta taxa de evolução. Neste sentido, o país enfrenta grandes desafios para sua promoção, incluindo a de futuros eventos, o desenvolvimento de profissionais e a criação de uma estrutura organizacional para que a prática seja adequada. Este manuscrito busca analisar como a pandemia global expõe a necessidade de estar alerta às alternativas esportivas digitais como o eSport e aos desafios futuros enfrentados pela Costa Rica para desenvolvê-las efetiva e eficientemente.

Palavras-chave: esportes, tecnologia, infecções pelo coronavírus.

The emergence of a new viral agent called SARS-CoV2 that causes the disease Coronavirus 2019 (COVID-19) and originated in the Chinese city of Wuhan, has provoked a World Health Organization (WHO) decision to declare a Public Health Emergency of International Concern (PHEIC) (Rodríguez-Morales, MacGregor, Kanagarajah, Patel, & Schlagenhauf, [2020](#)). Aside the accelerated increase in cases worldwide, there has been a wave of situations which has threatened the stability of global health and economy (Ivanov, [2020](#)). The majority of governments have taken sanitary measures and restrictions as a preventive way due to the potential risk of exposure to the virus and contagion. One of these actions was isolation as a way to prevent the transmission of the virus and thus mitigate the consequences of an exponential growth in new cases (Wang, Horby, Hayden & Gao [2020](#)). These actions have never been seen before and led to sometimes drastic decisions such as the cancellation of massive events, regulations on the access of food and other basic services, implementation of telecommuting, job layoffs and contract settlements, among others economical and sanitary measures (Watkins, [2020](#)).

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Yuval Noah Harari, doctor of the Hebrew University of Jerusalem and recognized globally for his accurate current and future analyses in social, cultural, anthropological and economic spheres, pointed out that the COVID-19 pandemic will bring a process of reflection on how society has been impacted during this global emergency. Understanding that it is difficult for the world to return to what it once was, Dr. Harari mentioned that one of the future challenges resulting from this global situation, is the immense stimulus to accelerate the expedited digital migration and automatization of certain fundamental daily life activities (Clarín.com, [2020](#)).

Sport has not escaped from being impacted by the consequences of the isolation and economic crisis related to the COVID-19 pandemic. One of these examples is the postponement or cancellation of sports events of great relevance as National Basketball Association® games, Tokyo Marathon®, Boston Marathon®, London Marathon®, Moto GP®, Formula 1®, Formula E®, Roland Garros ATP tournament®, Wimbledon ATP tournament®, EuroCup® football tournament, American Cup® football tournament, UEFA Champions League®, Europa League® and lately the 2020 Tokyo Olympic Games® (Gallego, Nishiura, Sah & Rodriguez-Morales, [2020](#)). These decisions are considered timely, consistent and rational as a containment measure and to avoid an outbreak caused by the potential spread of the virus between opponents, event staff and spectators (Halabchi, Ahmadinejad & Selk-Ghaffari, [2020](#)).

Additionally, there are limitations of access to sports centers, closed public sport facilities and restriction of outdoor exercise because of compulsory isolation. Many people have found alternatives in indoor exercise, performing physical activities from their homes; in fact, this has become a global trend in social media considering the new digital possibilities available (Suciu, [2020](#)). Nevertheless, there are still questions about the safety and relevance of exercising in a time of global pandemic of respiratory origin, because the health conditions of patients with mild symptoms related to COVID-19 or even asymptomatic people but infected with SARS-CoV2 could worsen (Halabchi et al., [2020](#)). In fact, there are currently technologies that allow exercising from home, but these activities must be carried out following a series of specific guidelines for the prevention of potential future health alterations.

As a result of the aforementioned and as it has been developing worldwide in the last decade, electronic sports (eSports) stood out once again as an alternative to keep sportsmanship alive among the global population, even in Costa Rica (Castro, [2020b](#)). There have been many examples of how attention in the sports world migrated to eSports to keep this passion alive: the show must go on.

A consistent definition of eSports has not been made, but it usually refers to an organized professional competition enabled by digital and commonly on-line technologies in the context of



electronic games. It could be practiced entirely in digital form (e.g. League of Legends[®], FIFA[®]) or in a mixed competitive entertainment (e.g. Zwift[®] cycling or running) (Ke & Wagner, [2020](#)).

IMPACT OF A GLOBAL PANDEMIC ON ESPORTS: ADVANTAGES AND DISADVANTAGES

eSports has a series of conditions that are ideal in the way to succeed even in times of global pandemics such as COVID-19. Among these digital advantages, the following should be mentioned: possibilities for viewers to access events via streaming, possibility to train and compete with other professionals online, fast rate of evolution of the game, great possibility of choosing games according to the preferences of the participants, possibility of competing individually and multiplayer with a single click among other particularities of digital and remote tools.

Although competitive eSports has not proven entirely invulnerable to this global pandemic, it was not catastrophic either. With mainstream sports worldwide on hold, people are increasingly looking to gaming to fulfill idle hours at home during lockdown and isolation. Domestic peak-hour usage has been reported to increase 75% in the first quarantine weeks; in addition, one of the biggest streaming platforms for games, estimated a growth in its audience by a third only in march 2020 (Heinrich, [2020](#)). The eSports audience is growing exponentially as more best-known athletes are competing and trying eSports platforms from home, this is the case of cycling, triathlon, Nascar[®], Formula 1[®] or MotoGP[®], in which we have witnessed how athletes like elite triathletes (e.g. Lionel Sanders, Vicent Luis), pro road cycling riders (e.g. Christopher Froome, Egan Bernal) and moto riders (e.g. Aleix Espargaró) have approached eSports as a way to stay competitive.

This has not only impacted the audience and new users but the way eSports is being practiced: the participation of traditional sports athletes in this type of virtual platforms has exposed certain limitations of eSports related to fair competition and basic quality criteria so that there are equal conditions when competing. The exhibition of these limitations has caused that the organizers must evolve not only in their offer but the criteria of quality of their sports when hosting virtual competitions. An example of this is recycling: platforms like Zwift[®] or BKool[®] have had to take efficient and controlled measures to control possible biases in competition such as the way in which the generated watts are quantified, type of stationary bicycle controlled, weight control of the athletes and live report forms these variables. This evolution would not only cause that the conditions are fairer, but it is a great step to professionalize eSports in the future.

New marketing strategies have been developed and now streaming can provide a way for professional teams to show off their sponsors and meet planned obligations. This has in some cases allowed clubs and athletes to maintain good relationships with sponsors by developing new or additional content outside of regular competition. This alternative has shown that whether

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your car, jersey, shoes or bike are real or digital, athletes can still have the same brand exposure.

This rapid evolution could be the vehicle to increase the knowledge of sports worldwide and thus increase its audience and potential sponsors. The growth and diversification are necessary at a time when most traditional sources of income are depleted. It is necessary to entail creating an international strategy to redirect this content growth, merchandise diversification and the creation of new commercial networks.

BOOST OF ESPORT DURING A GLOBAL PANDEMIC

Despite the fact that the COVID-19 pandemic has caused a series of cancellations of eSports events such as Tekken World Tour[®], LOL's Mid-Season invitational[®], NorCal Regionals[®], ESL Pro League Season 11[®], LCS Spring Split[®], Fighter's Spirit[®] or NBA 2K League[®], other developers in a very timely manner have migrated their formal events to eSport platforms. An example of this evolution, are the cases of LigaMx[®] and the Australian Football League[®], which found a momentary solution to the interruption of the Mexican and Australian professional soccer leagues. In April the launch of the eLiga MX[®] and E-League[®] respectively, were announced as a virtual version of the regular tournament (El Comercio, [2020](#); Heinrich, [2020](#)). In other countries as Spain and Costa Rica, some media companies have made similar efforts by organizing a parallel eSports tournament where players from the La Liga Santander[®] and First Division of Costa Rica soccer league (FPD) could compete against each other from their homes and the matches can be viewed via streaming by clubs fans using FIFA[®] 2020 platforms. The National Basketball Association[®] developed similar online championships where professional players could play against each other in the 2K20 Player Tournament[®].

eSports are in the struggling process of being considered by the International Olympic Committee[®] as sport and there have been several efforts to be included in the list of Olympic sports (Impey, [2019](#)). This is supported due to the fact that worldwide eSports have around 495 million viewers with annual incomes of near to one billion dollars and constantly increasing, which will be double by 2025 (El Espectador, [2020](#)). The International eSports Federation is in charge of regulating this sport at a global level and Asia, USA and Europe are the regions with the highest professionalization nowadays (Díaz, [2018](#)).

Just as there are many gaming options, there are multiple online competition alternatives. In this regard, over the last decade some eSports have stood out due to their graphic characteristics, technical settings, and online options. The most important sports disciplines can be classified into three main categories: Real Time Strategy RTS, First Person Shooting (FPS) and Multiplayer Online Battle Arena (MOBA). Other future technological options such as immersion games, simulated and virtual reality games are about to become new games alternatives.

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In Latin America, eSports events have had up to 15,000 spectators during a single event, and up to 450,000 have watched an event online or via streaming. Since 2019, countries such as Brazil, Mexico, Chile, Colombia, Argentina, Peru and Costa Rica have competitive professional eSports teams (Castro, [2020a](#)). These national and regional competitions serve as a platform to access more prestigious competitions such as the Latin American League® (LLA), SP Gaming Tournament®, Gears Pro Circuit Mexico®, e-Sports Mexico®, Liga Movistar Latinoamericana® and ROG eSports Fest®. Thanks to the high demand for this type of event and the growing interest among spectators, companies developing technology specialized in video games and regional television companies have created and inaugurated this year in Mexico City an exclusive venue to host eSports events called HyperX ARENA eSports Stadium® (El Tiempo, [2020](#)). This shows the interest of companies to sponsor and promote eSports as it has been done globally.

In Costa Rica, the National Federation of Electronic Sports® (FNDE) was founded and eight professional teams compete in the Costa Rican League of Electronic Sports in games as League of Legends®, FIFA®, among other famous videogames. It is estimated that this sport modality has a market of more than 100,000 dollars annually (Garza, [2019](#)). One of the groups that have developed this sport is the professional team called Infinity eSports®, which has the Infinity Gaming and Training Center® in Costa Rica and has participated in world events representing the American continent. In 2019, renowned events such as the Gillette Infinity eSport Latam® and eSports Summit® were organized in the national territory, and among the most sought-after games nationwide are League of Legends®, Rainbow 6®, Class Royal®, Counter-Strike® and FIFA® (Castro, [2020a](#)).

eSports have proven to be an alternative to other less accessible sports not only for their practice but also to be watched under different online platforms. Certainly, the aforementioned confirms the potential growth of eSports in Costa Rica, Central America and Latin America. This sport modality is shown as a high value and attractive market for technology companies thanks to its high demand and audience.

The COVID-19 pandemic not only reinforced the idea that eSports have experienced exponential growth, but in Costa Rica the need to increase financial support, research and resources destined to improve the conditions of eSport's professional players and thus increasing performance and accessibility to this versatile sports alternative.

FUTURE CHALLENGES OF SPORTS INDUSTRY CONVERTED TO ESPORTS

The future of eSports has been described many times under three characteristics: bigger, messier, and worldwide. Experts have described three future scenarios on how eSports can impact global sport (Jonasson & Thiborg, [2010](#)). In the first scenario, eSports are presented as the counterculture or an alternative of modern sports, this would happen considering that there

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are difficulties in being officially accepted as a sport. The second scenario visualizes that eSports will be considered and accepted within the current sports culture as it has been achieved in East Asian and Nordic countries. The third scenario visualizes eSports as the hegemonic sport on a global level and this would change the dynamics of the entire sports culture and turn the history of the sport as we know it.

Therefore, in the immediate future, the development of eSports in Costa Rica faces several great challenges, which many times traditional sport has not been able to decipher. From a sporting point of view, actions may be focused on developing new training protocols and programs to improve playing skills and other tactical plans and strategies that will lead to better individual and team performance. Due to the accelerated growth of eSports and its evolutionary nature, it could sometimes be difficult to create structures that regulate the games, but this is an essential step on the way to developing regulations and authority structures in the country. In this respect, government entities such as the Costa Rican Institute of Sport and Recreation (ICODER), Sport Ministry (MiDepor), Costa Rican National Olympic Committee (CON) and other involved public institutions should make an official statement about the status and future of eSports in the country.

From an academic point of view, the research related to this sport has increased tremendously, covering disciplines such as business, media studies, sport science, information technologies, sociology and cognitive science that help to understand the scientific state of eSports. (Reitman, Anderson-Coto, Wu, Lee & Steinkuehler, [2020](#)). As a result, multiple opportunities are opened to approach eSports from psychological analysis (Pedraza-Ramirez, Musculus, Raab & Laborde, [2020](#)), physiological evaluations (Pereira Monteiro, Brito, Figueiredo & Verhagen, [2019](#)) as well as marketing and sport management assessments (Hallmann & Giel, [2018](#)). These two key points will help catapult eSports as an professional activity in the country.

From the areas of management, administration, and communication of this type of sports, local events and tournaments are required to have the support of sponsors, federations and public and private entities, in order to succeed. Considering that eSports receives attention on a large scale, this should be used to attract investment and visibility from the media and other organizations. In the same way, the efforts made by associations, federations, individuals, or teams must seek the massification and specialization of sport, initially at the local level. To achieve this, the use of digital tools such as social networks are an essential and accessible marketing option. Another important point that eSports must handle with caution is the approach of the media rights because there are international companies of great weight like Riot Games® that cover the world of broadcasting; in order to approach this issue, alternative ways of accessing national and international competitions with national capital must be explored.

Other sectors must look with great criticism and reflection on the example of how eSports were able to evolve to online platforms in an indisputably effective and efficient way. Likewise,

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other sports disciplines must question how they are presented to spectators and look for more attractive ways to project their activities and events to get better acceptance. Some proposals have been developed in order to attract more public to certain disciplines: during this pandemic we have seen successful cases such as interactive indoor cycling apps, fitness, strength and conditioning apps or sport simulations under virtual reality settings that allow people to enjoy their sports discipline and manage to stay healthy, mentally and physically even under these pandemic circumstances. Indeed, some of these regular sports could be transformed on a digital and online modality; indoor cycling is a good example of viable way to compete remotely. This kind of technology could be the solution for future similar scenarios or even be part of our *modus vivendi* in a society that is increasingly confined indoors.

CONFLICT OF INTEREST

The authors declare that the article was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

REFERENCES

- Castro, J. (March 24th, 2020a). eSports, el deporte que ver en tiempos de cuarentena por Covid-19. *La República.Net*. Recuperado de <https://www.larepublica.net/noticia/esports-el-deporte-que-ver-en-tiempos-de-cuarentena-por-covid-19>
- Castro, J. (October 1st, 2020b). Equipo tico de eSports se enfrentará al campeón latinoamericano. *La República.Net*. Retrieved from <https://www.larepublica.net/noticia/equipo-tico-de-esports-se-enfrentara-al-campeon-latinoamericano>
- El Comercio. (April 7th, 2020). La Liga mexicana de fútbol se muda a los eSports por la covid-19. *El Comercio*. Retrieved from <http://www.elcomercio.com/deportes/liga-mexicana-futbol-esports-covid19.html>
- Clarín.com (April 6th, 2020). Harari, un historiador ante el coronavirus: “Estamos presenciando experimentos en millones de personas. *Clarín*. Retrieved from https://www.clarin.com/cultura/harari-historiador-coronavirus-presenciando-experimentos-millones-personas-0_4d0WuFl1J.html
- Díaz, A. (September 16th, 2018). Equipo costarricense Infinity eSports es el campeón de América en el videojuego ‘League of Legends.’ *La Nación*. Retrieved from <https://www.nacion.com/viva/entretenimiento/equipo-costarricense-infinity-esports-es-el/RPVQQWWS2NHHVETCNHBVAAJT6I/story/>



- El Espectador. (April 6th, 2020). Esports, un universo en expansión. *El Espectador*. Retrieved from <https://www.elespectador.com/tecnologia/esports-un-universo-en-expansion-articulo-913200>
- Gallego, V., Nishiura, H., Sah, R., & Rodriguez-Morales, A. J. (2020). The COVID-19 outbreak and implications for the Tokyo 2020 Summer Olympic Games. *Travel Medicine and Infectious Disease*, 34, 101604. doi: <https://doi.org/10.1016/j.tmaid.2020.101604>
- Garza, J. (2019). Gamers comienzan a profesionalizarse en Costa Rica. La República.net. Retrieved from <https://www.larepublica.net/noticia/gamers-comienzan-a-profesionalizarse-en-costa-rica>
- Halabchi, F., Ahmadinejad, Z., & Selk-Ghaffari, M. (2020). COVID-19 Epidemic: Exercise or Not to Exercise; That is the Question!. *Asian Journal of Sports Medicine*, 11(1). E102630. doi: <https://doi.org/10.5812/asjasm.102630>
- Hallmann, K., & Giel, T. (2018). eSports – Competitive sports or recreational activity?. *Sport Management Review*, 21(1), 14–20. doi: <https://doi.org/10.1016/j.smr.2017.07.011>
- Heinrich, S. (April 10th, 2020). Esports ride crest of a wave as figures rocket during Covid-19 crisis. *The Guardian*. Retrieved from <https://www.theguardian.com/sport/2020/apr/11/esports-ride-crest-of-a-wave-as-figures-rocket-during-covid-19-crisis>
- Impey, S. (June 10th, 2019). Intel and IOC discuss esports Olympics inclusion - SportsPro Media. *SportsPro*. Retrieved from <https://www.sportspromedia.com/news/intel-ioc-esports-gaming-olympics-inclusion>
- Ivanov, D. (2020). Predicting the impacts of epidemic outbreaks on global supply chains: A simulation-based analysis on the coronavirus outbreak (COVID-19/SARS-CoV-2) case. *Transportation Research Part E: Logistics and Transportation Review*, 136, 101922. doi: <https://doi.org/10.1016/j.tre.2020.101922>
- Jonasson, K., & Thiborg, J. (2010). Electronic sport and its impact on future sport. *Sport in Society*, 13(10), 287–299. doi: <https://doi.org/10.1080/17430430903522996>
- Ke, X., & Wagner, C. (2020). Global pandemic compels sport to move to esports: understanding from brand extension perspective. *Managing Sport and Leisure*. doi: <https://doi.org/10.1080/23750472.2020.1792801>
- Pedraza-Ramirez, I., Musculus, L., Raab, M., & Laborde, S. (2020). Setting the scientific stage for esports psychology: a systematic review. *International Review of Sport and Exercise Psychology*, 13(1), 1–34. doi: <https://doi.org/10.1080/1750984X.2020.1723122>
- Pereira Monteiro, A. Brito, J., Figueiredo, P., & Verhagen, E. (2019). Virtual sports deserve real sports medical attention. *BMJ Open Sport & Exercise Medicine*, 5(1). doi: <https://doi.org/10.1136/bmjsem-2019-000606>



- Reitman, J. G., Anderson-Coto, M. J., Wu, M., Lee, J. S., & Steinkuehler, C. (2020). Esports Research: A Literature Review. *Games and Culture* 15(1), 32–50. doi: <https://doi.org/10.1177/1555412019840892>
- Rodríguez-Morales, A. J., MacGregor, K., Kanagarajah, S., Patel, D., & Schlagenhauf, P. (2020). Going global – Travel and the 2019 novel coronavirus. *Travel Medicine and Infectious Disease*, 33, 101578. doi: <https://doi.org/10.1016/j.tmaid.2020.101578>
- Suciu, P. (2020). Fitness Goes To Social Media During COVID-19 Outbreak. *Forbes*. Retrieved from <https://www.forbes.com/sites/petersuciu/2020/03/19/fitness-goes-to-social-media-during-covid-19-outbreak/>
- El Tiempo. (February 6th, 2020). Ya es una realidad, el primer estadio de e-sports en Latinoamérica. *El Tiempo*. Retrieved from <https://www.eltiempo.com/tecnosfera/videojuegos/ya-se-inauguro-el-primer-estadio-de-esports-en-latinoamerica-459578>
- Wang, C., Horby, P. W., Hayden, F. G., & Gao, G. F. (2020). A novel coronavirus outbreak of global health concern. *The Lancet*, 395(10223), 470–473. doi: [https://doi.org/10.1016/S0140-6736\(20\)30185-9](https://doi.org/10.1016/S0140-6736(20)30185-9)
- Watkins, J. (2020). Preventing a covid-19 pandemic. *The BMJ*, 368. doi: <https://doi.org/10.1136/bmj.m810>

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