



REMOTE WORK IN THE COVID-19 ERA: A HOLISTIC APPROACH

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Abstract

A documentary review was carried out on the production and publication of research papers related to the study of the variable. The purpose of the bibliometric analysis proposed in this document is to know the main characteristics of the volume of publications registered in the Scopus database during the period 2020-2021, achieving the identification of 1569 publications. The information provided by this platform was organized by means of graphs and figures, categorizing the information by Year of Publication, Country of Origin, Area of Knowledge and Type of Publication. Once these characteristics were described, the position of different authors regarding the proposed topic was referenced by means of a qualitative analysis. Among the main findings of this research, it is found that the United States, with

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471 publications, is the country with the highest production. The area of knowledge that made the greatest contribution to the construction of bibliographic material referring to the study of remote work during the COVID-19 period was Social Sciences with 590 published documents, and the type of publication that was most used during the period mentioned above was the journal article, representing 67% of the total scientific production.

Keywords: remote work, COVID 19.

1. Introduction

Remote work was introduced as a measure by exception at the beginning of 2020 with the sanitary crisis declared due to COVID 19. This occurred in the search for a work model that would guarantee that companies would continue to perform their functions without putting public health at risk and complying with the biosafety protocols established by each country. Remote work is made possible with the implementation of ICTs in all business procedures, using video conference communication platforms to set guidelines for the work to be performed, so that no physical plant is needed for the operation of an organization. This also brings with it several problems as connectivity problems arise, digital illiteracy, mental health and family relationships are affected.

The problems of connectivity and digital illiteracy are more common in developing countries which do not have technological networks throughout its territory which hinders teleworking, which represents delays and possible shortcomings in business operations. On the other hand, it is necessary to train workers in digital skills that allow them access to technological tools for the performance of their functions so it is necessary state policies that seek to improve the quality of networks in order to have greater coverage in the territory and by companies to offer technological knowledge to their workers to enable them to perform their work effectively.

Because of the isolation faced as a society in 2020, a greater number of affectations arose not only to physical health but also to mental health, since due to the critical moment faced by society and the amount of information people are exposed and also a constant feeling of uncertainty about the future and work increased the cases of anxiety and depression mainly, so for people who were in teleworking was notorious since most people experienced a work overload that led to stress which affected the sleep schedule of workers affecting their welfare. In the remote work was seen the almost disappearance of the separation of work life and family life by home activities or family time which interfere with work demands, thus causing the working day is interrupted or extended (Cortés Díaz, Henao Godoy, & Osorio Linero, 2020).

Therefore, it is important to know in terms of bibliographic resources, the current state of research on remote work in times of COVID-19, so a bibliometric analysis it is proposed on the scientific production registered in Scopus database during the period 2020-2021 to answer the question: How has been the

production and publication of research papers related to the study of remote work in times of COVID-19 during the period 2016-2021?

2. General Objective

To analyze from a bibliometric and bibliographic perspective, the production of high impact research papers on the variable Management Accounting for Decision Making in Latin American organizations during the period 2016-2021.

3. Methodology

Quantitative analysis of the information provided by Scopus is carried out under a bibliometric approach on the scientific production regarding remote work in COVID-19 times. Also, from a qualitative perspective, examples of some research papers published in the area of study mentioned above are analyzed from a bibliographic approach to describe the position of different authors on the proposed topic.

The search is performed through the tool provided by Scopus and the parameters referenced in Table 1 are established.

3.1 Methodological design

Table 1. Methodological design.

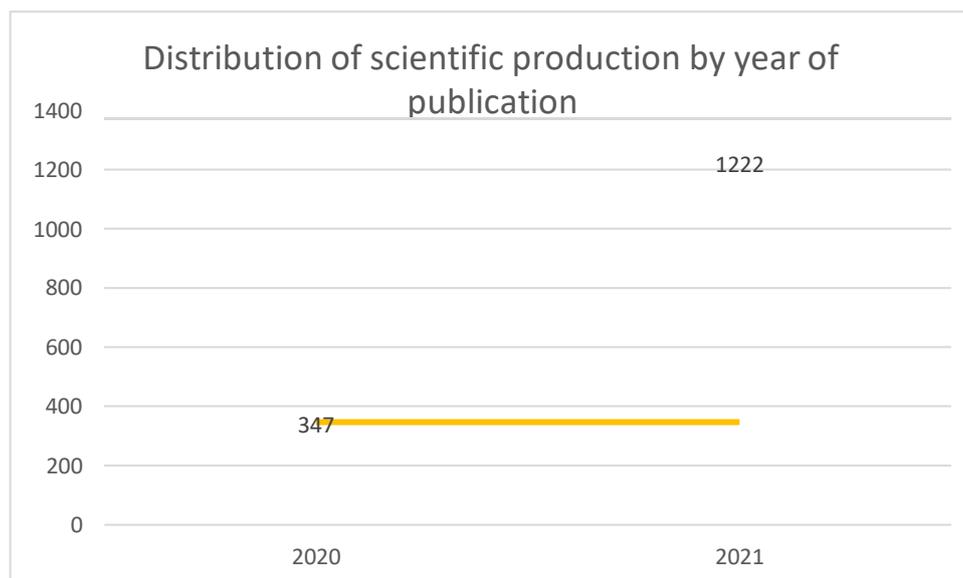
	PHASE	DESCRIPTION	CLASSIFICATION
PHASE 1	DATA COLLECTION	Data was collected using the Scopus web page search tool, through which a total of 1569 publications were identified.	Published papers whose study variables are related to remote work in times of COVID-19. Research papers published during the 2020-2021 period. Without distinction of country of origin. Without distinction of area of knowledge. Without distinction of type of publication.

As shown in Figure 1, COVID 19 is the most used keyword in the research related to the variables under study and refers to the disease for which a health crisis was declared in the early 2020's that forced to change most business and social interactions and processes. Remote work is also a keyword that refers to the modality used during the pandemic so that companies could continue to operate without violating biosecurity protocols, thus achieving the realization of processes through ICT at the home of each worker. Employees work from home, video conferencing and telecommunications are keywords that shed light on the tools used to keep in touch between workers of the organizations and the management of guidelines in order to ensure the continuity of providing a service of equal quality. Finally, in human and health, there are component keywords such as stress, anxiety, sleep and mental illnesses which speak about the main effects of teleworking on the psychological well-being of workers since being in a time of so much uncertainty there was a large increase in cases of anxiety and depression mainly in addition to alterations in the sleep schedule affecting the quality of life.

4.2 Distribution of scientific production by year of publication.

Figure 2 shows the distribution of scientific production according to the year of publication, taking into account the period from 2020 to 2021.

Figure 2. *Distribution of scientific production by year of publication.*



Source: Own elaboration (2022); based on data provided by Scopus.

2021 is the year with the highest number of papers related to the variables under study presenting a total of 1222 papers within which is the title “*I don't like this job in my living room: Practicing probation in the COVID-19 pandemic*” (Phillips, Westaby, Ainslie, & Fowler, 2021). This paper explores the impact of the Exceptional Delivery Model on staff and their practice. Analyzing the way in which teleworking

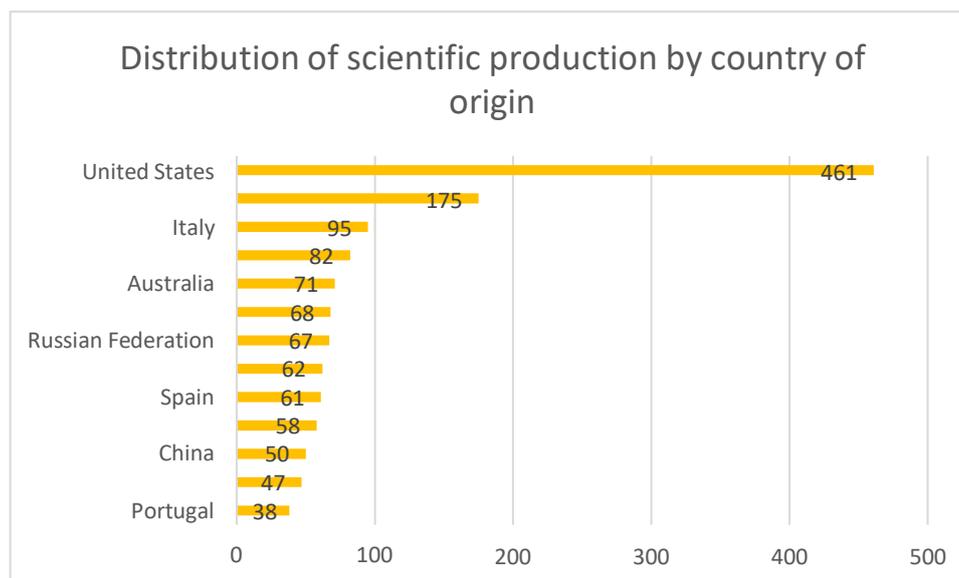
was implemented in England and Wales, which resulted in the inability to differentiate work from personal and family life and affected interpersonal relationships, a study was conducted with 61 National Probation Service practitioners and managers to identify the challenges of working from home and remote communication, experiences of risk management through home visits and the spill-over of probation work into personal life.

In second place is 2020 with 347 publications about remote work during COVID 19, within these publications is “*Forced remote work and the work-life interface during confinement*” (Anderson & Kelliher, 2020). The main objective of this paper is to consider forced work from home in response to the COVID-19 pandemic and how it may differ from working from home by choice, since this change affected the interpersonal and family relationships of workers by having to work from home, so a previous study was analyzed showing that there is greater autonomy and gratitude on the part of employees for being able to choose their work arrangements by changing the conditions in which they work, interfering in the family environment, which gives way to new problems at work.

4.3 Distribution of scientific production by country of origin.

Figure 3 shows the distribution of scientific production according to the nationality of the authors.

Figure 3. *Distribution of scientific production by country of origin.*



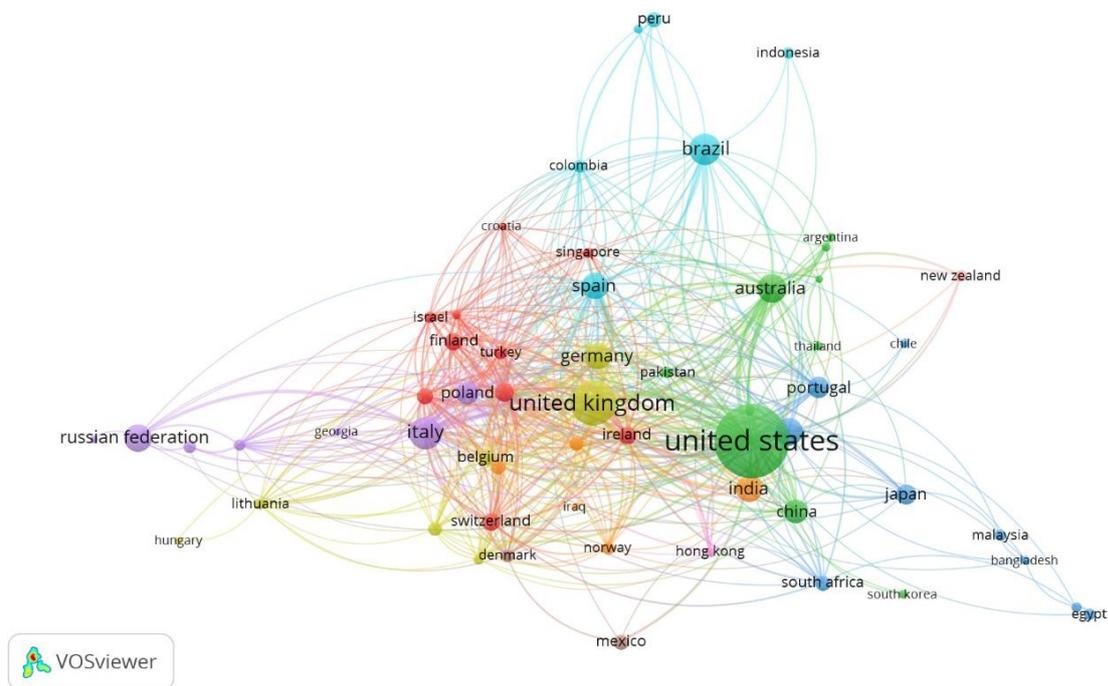
Source: Own elaboration (2022); based on data provided by Scopus.

The United States is the country with the highest number of publications related to the study of remote work in times of COVID 19 worldwide, presenting 461 publications registered in Scopus where is the paper entitled “*Work-related well-being of employees during the covid-19 pandemic: an integrated perspective from the technology acceptance model and jd-r theory*” (Shamsi, Iakovleva, Olsen, &

Bagozzi, 2021). This paper examines how job characteristics, such as mental workload and team support, and technology-related factors, such as perceived ease of use, perceived usefulness, and technology acceptance, affect employee work engagement as a dimension of work-related well-being. It is suggested that work wellbeing is an important issue to analyze when people talk about remote work since the working conditions change when working from home, so a study was conducted with 610 academic employees from three Norwegian universities when the restrictions were implemented by COVID 19, where it was found that the commitment is proportional to the workload and its management is linked to the acceptance of new information and communication technologies.

At this point, it should be noted that the production of scientific publications, when classified by country of origin, presents a special characteristic and that is the collaboration between authors with different affiliations to both public and private institutions, and these institutions can be from the same country or from different nationalities, so that the production of an article co-authored by different authors from different countries of origin allows each of the countries to add up as a unit in the overall publications. This is best explained in Figure 4, which shows the flow of collaborative work from different countries.

Figure 4. Co-citations between countries.



Source: Own elaboration (2022); based on data provided by Scopus.

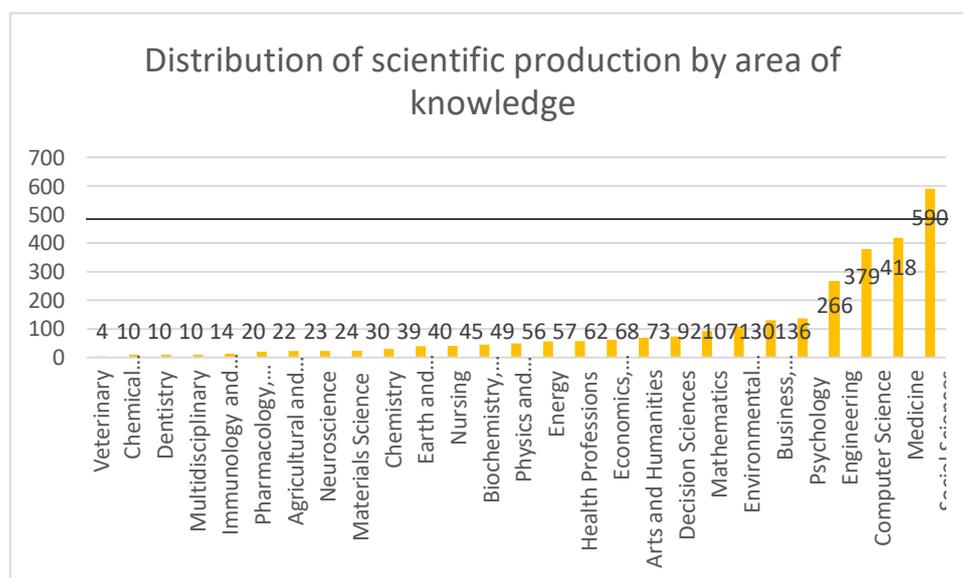
As mentioned above, the United States is the country with the greatest contribution in research related to the variables under study globally, having collaboration and co-authorship with a large number of countries in order to know this problem adapted to the different social contexts and to analyze the differences found depending on the conditions of each country. In second place is the United Kingdom

with 175 documents and in third place is Italy with 95 publications. In fourth place is Brazil with 82 publications, which is the Latin American country with the greatest contribution in studies on remote work within the framework of COVID 19 (Martins, Góes, & Nascimento, 2021). where its main objective is to find an explanation for the gap between the estimated remote work potential for Brazil and the observed remote work in the country. For this, the methodology of Dingel and Neiman is analyzed, which is a system that in principle tried to deduce the capacity of telework in Brazil and for the comparative study was also analyzed the measurement of telework provided by the survey Covid-19 of the PNAD; by this, it was found that there is a big gap of telework in Brazil evidencing of the fifth part of the employees that their functions can be performed from home live in homes without the necessary means to be in a home office, so it is necessary innovations in the country that aim to optimize the collectivity of people.

4.4 Distribution of scientific production by area of knowledge

Figure 5 below shows how the production of scientific publications is distributed according to the area of knowledge through which the different research methodologies are executed.

Figure 5. *Distribution of scientific production by area of knowledge.*



Source: Own elaboration (2022); based on data provided by Scopus.

Social sciences is the area of knowledge with the largest number of contribution through the theories framed in it, in the search for new knowledge about remote work during COVID 19 presenting 590 publications, within which is “*Characteristics of remote work in Ukraine and the European Union: comparative legal aspect*” (Yaroshenko, Melnychuk, Moroz, Havrylova, & Yaryhina, 2021). This paper has as its main objective to analyze the legal aspects of remote work according to the labor legislation

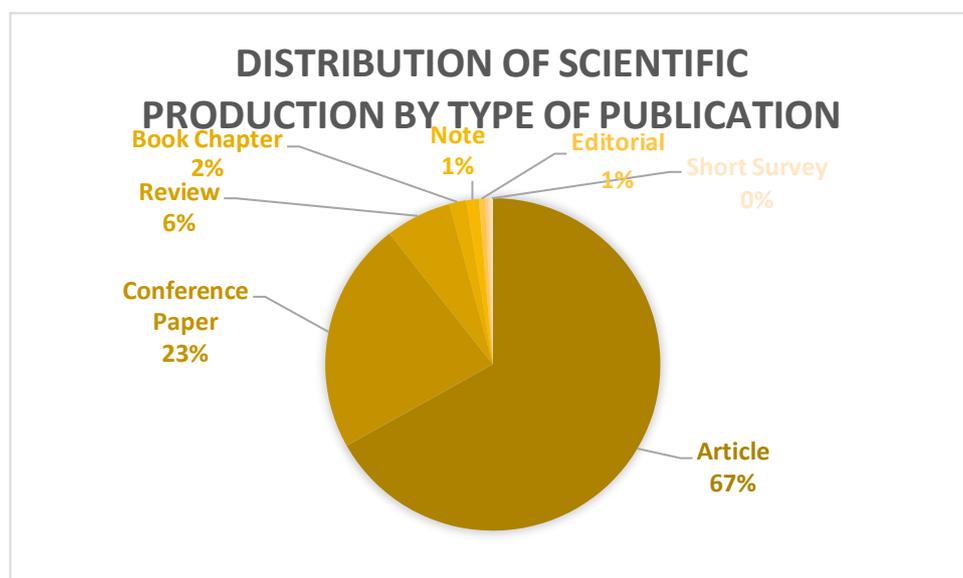
of Ukraine and the European Union, focusing on the concept of remote work, rights and obligations of remote workers. This in order to study the interactions between employer and employee that ensure compliance with labor guarantees for remote work in addition to the circumstances and factors that determine labor discipline in remote work.

In second place is medicine, where 418 documents were written following the guidelines of the topics related to this area, among which is “*Distance teaching in teacher training: three Latin American experiences in times of pandemic by COVID-19*” (Aquino, Zuta, & Cao, 2021). This document analyzes remote classes and work in Brazil, Ecuador and Peru, starting from the difficulties that these countries have in connectivity, so that certain methodologies must be determined to allow the correct pedagogical process, thus demonstrating the effectiveness of teaching focused on autonomous work, which is based on asynchronous activities guided by the teacher for greater clarification.

4.5 Type of publication

Figure 6 shows how the bibliographic production is distributed according to the type of publication chosen by the authors.

Figure 6. *Type of publication*



Source: Own elaboration (2022); based on data provided by Scopus.

As shown in Figure 6, within the different types of publications, 67% of the total number of documents identified through Phase 1 of the Methodological Design, correspond to Journal Articles, within which is the one entitled “*Motivation and challenges of teleworking employees of educational institutions in Latvia during COVID-19*” (Roventale, Grintale, Paegle, Vanadzins, & Matisane, 2021). This paper has as its main objective is to discover the motivation and challenges of teleworking employees of

educational institutions in Latvia during COVID-19 pandemic. This study was conducted starting from the point that motivation is important for an efficiency in teleworkers so 495 teleworkers were surveyed in September-October 2020 where it was found that salary, good working conditions, social guarantees, stable work, career opportunities, training opportunities and interesting work are motivations that helped educators to be more efficient in their work.

In second place are conference proceedings which represent 23% of the total number of documents identified in this study, within these publications we can identify “*Remote work of employees of housing and communal services enterprises in the context of the Covid-19 pandemic*” (Yekimov, Nianko, & Mazhigova, 2021). This document presents the need to improve the housing conditions of employees of communal services as it intervenes in the execution and operation of the company. So, it concluded that it contributes to the provision of higher quality public services to companies and residents, as this is a fundamental part of remote work and their working conditions, thus seeking to provide better service to the community.

5. Conclusions

Thanks to the bibliometric analysis proposed in this research, it can be determined that the United States is the country with the largest number of bibliographic records in the Scopus database during the period between 2020 and 2021 with a total of 461 documents. The scientific production related to the study of remote work in times of COVID-19 has presented an important growth during the previously mentioned period, going from 347 publications in 2020 to 1222 units in 2021, that is, it was possible to increase greatly the creation of bibliographic records in a period of 2 years, which indicates the importance of determining how remote work has developed from 2020 with the arrival of COVID 19 and how this affected workers, employers and the industry.

Remote work was the ideal modality that allowed companies to stay in business, allowing workers to work from home and continue to perform their duties, all this through ICT. This modality was practically mandatory at the beginning of 2020 in order to safeguard public health but with the aim of not slowing down the entire economy. In this implementation, certain problems were also evidenced since for remote work it is necessary to have a good internet connection and digital devices that allow access to organizational platforms; in addition to this, it was evidenced affectations to the welfare of workers to suffer from work overloads, extensions in their working day, increased stress levels and alterations to the sleep schedule. All of the above, allows this article to conclude, highlighting the importance of knowing the theory or bibliographic resources that seek to awaken the interest in organizations to determine the necessary innovations to make remote work a lasting modality that allows facilitating a large part of the organizational processes. It is for this reason that the need for studies such as the one presented in the present document is emphasized, which make a tour of those texts that deal with the

mentioned topic, with the purpose of giving the reader a wide vision of the current situation of the bibliography on remote work in times of COVID-19.

References

- Anderson, D., & Kelliher, C. (2020). Enforced remote working and the work-life interface during lockdown. *Gender in Management* , 677 - 683.
- Aquino, O., Zuta, P., & Cao, E. (2021). Remote teaching in professor training: Three latin american experiences in times of COVID-19 pandemic. *Education Sciences*.
- Cortés Díaz, G., Henao Godoy, N., & Osorio Linero, V. (2020). Remote work during covid-19 and the impact on workers. *Pontificia Universidad Javeriana*.
- Martins, F., Góes, G., & Nascimento, J. (2021). Potential and effective remote work in Brazil: Looking into the gap between metrics. *Economia* , 265 - 277.
- Phillips, J., Westaby, C., Ainslie, S., & Fowler, A. (2021). 'I don't like this job in my front room': Practising probation in the COVID-19 pandemic. *Probation Journal Probation Journal* , 426 - 443.
- Rozentale, S., Grintale, I., Paegle, L., Vanadzins, I., & Matisane, L. (2021). Motivation and Challenges of Teleworking Employees of Educational Institutions in Latvia During COVID-19. *Journal of Teacher Education for Sustainability* , 106 - 120.
- Shamsi, M., Iakovleva, T., Olsen, E., & Bagozzi, R. (2021). Employees' work-related well-being during covid-19 pandemic: An integrated perspective of technology acceptance model and jd-r theory. *International Journal of Environmental Research and Public Health*.
- Yaroshenko, O., Melnychuk, N., Moroz, S., Havrylova, O., & Yaryhina, Y. (2021). Features of Remote Work in Ukraine and the European Union: Comparative Legal Aspect. *Hasanuddin Law Review* , 136 - 149.
- Yekimov, S., Nianko, V., & Mazhigova, E. (2021). Remote work of employees of housing and communal services enterprises in the context of the Covid-19 pandemic. *Ist International Conference on Applied Science and Engineering, ASE 2021*. Grozny: AIP Conference Proceedings.
- 5th IFIP WG 5.15 international conference on information technology in disaster risk reduction, ITDRR 2020 (2021). Retrieved from www.scopus.com
- Erratum to “Deborah zimmermann, DNP, RN, NEA-BC, FAAN” [nurse leader 19 (2021) 229-231] (nurse leader (2021) 19(229-231) (S1541461221000240), (10.1016/j.mnl.2021.02.005)). (2021). *Nurse Leader*, 19(4), 335-340. doi:10.1016/j.mnl.2021.07.004.
- Proceedings of 2021 4th ACM SIGCAS conference on computing and sustainable societies, COMPASS 2021. (2021). Paper presented at the Proceedings of 2021 4th ACM SIGCAS Conference on Computing and Sustainable Societies, COMPASS 2021, Retrieved from www.scopus.com

- Remote working - lessons from the COVID-19 pandemic and lockdown. (2020). *Progress in Neurology and Psychiatry*, 24(4), 30. doi:10.1002/pnp.685.
- Abalkheel, A. (2021). AMALGAMATING BLOOM'S TAXONOMY AND ARTIFICIAL INTELLIGENCE TO FACE THE CHALLENGES OF ONLINE EFL LEARNING AMID POST-COVID-19 IN SAUDI ARABIA. *International Journal of English Language and Literature Studies*, 11(1), 16-30. doi:10.18488/5019.v11i1.4409.
- Abascal, J., Biele, C., Cnotkowski, D., Górska, G., Kowalski, J., Law, E. L. -, . . . Zrodowska, A. (2021). Remote conferencing in the times of the pandemic doi:10.1007/978-3-030-85607-6_80 Retrieved from www.scopus.com
- Burova, A., Heinonen, H., Palma, P. B., Keskinen, T., Hakulinen, J., Opas, V., Turunen, M. (2021). Toward efficient academia-industry collaboration: A case study of joint VR system development. Paper presented at the ACM International Conference Proceeding Series, 176-185. doi:10.1145/3464327.3464367 Retrieved from www.scopus.com
- Busu, M., & Gyorgy, A. (2021). The mediating role of the ability to adapt to teleworking to increase the organizational performance. *Amfiteatru Economic*, 23(58), 654-668. doi:10.24818/EA/2021/58/654.
- Cabezas, H., Casanova, N., Cortes-Rico, L., & Sarmiento, W. J. (2021). Homemade XR: Enriching conversations and shortening social distancing. Paper presented at the Proceedings - 2021 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops, VRW 2021, 679-680. doi:10.1109/VRW52623.2021.00222 Retrieved from www.scopus.com
- Cadel, L., Marcinow, M., Sandercock, J., Dowedoff, P., Guilcher, S. J. J. T., Maybee, A., Kuluski, K. (2021). A scoping review of patient engagement activities during COVID-19: More consultation, less partnership. *PLoS ONE*, 16(9 September) doi:10.1371/journal.pone.0257880.
- Cai, J., Ryu, S. J., Wohn, D. Y., & Kum-Biocca, H. H. (2021). Teleworker's perception of technology use for collaborative and social during the COVID-19 pandemic. Paper presented at the 34th British Human Computer Interaction Conference Interaction Conference, BCS HCI 2021, 329-342. doi:10.14236/ewic/HCI2021.36 Retrieved from www.scopus.com
- Callaway, M., Greenhalgh, R., Harden, S., Elford, J., Drinkwater, K., Vanburen, T., & Ramsden, W. (2021). Accelerated implementation of remote reporting during the COVID-19 pandemic. *Clinical Radiology*, 76(6), 443-446. doi:10.1016/j.crad.2021.01.004
- Enos, J., Burriss, A., Caulfield, L., DeYoung, T., Houg, S., & Kubitz, C. (2021). Managing a lean six sigma project in a remote environment. Paper presented at the IISE Annual Conference and Expo 2021, 91-96. Retrieved from www.scopus.com
- Ensmann, S., Whiteside, A., Gomez-Vasquez, L., & Sturgill, R. (2021). Connections before curriculum: The role of social presence during covid-19 emergency remote learning for students. *Online Learning Journal*, 25(3), 36-56. doi:10.24059/olj.v25i3.2868.

- Erlam, G. D., Garrett, N., Gasteiger, N., Lau, K., Hoare, K., Agarwal, S., & Haxell, A. (2021). What really matters: Experiences of emergency remote teaching in university teaching and learning during the COVID-19 pandemic. *Frontiers in Education*, 6 doi:10.3389/educ.2021.639842.
- Espinosa-Gonzalez, A. B., Neves, A. L., Fiorentino, F., Prociuk, D., Husain, L., Ramtale, S. C., Delaney, B. C. (2021). Predicting risk of hospital admission in patients with suspected COVID-19 in a community setting: Protocol for development and validation of a multivariate risk prediction tool. *JMIR Research Protocols*, 10(5) doi:10.2196/29072.
- Evangelakos, G. (2020). Keeping critical assets safe when teleworking is the new norm. *Network Security*, 2020(6), 11-14. doi:10.1016/S1353-4858(20)30067-2.
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