

## Knowledge Mapping of the Knowmad Concept – A Text Mining Analysis

**Andra Nicoleta ILIESCU**

*National University of Political Studies and Public Administration  
30A Expoziției Blvd., Sector 1, 012104 Bucharest, Romania  
andra.iliescu@facultateademangement.ro*

### **Abstract**

*This study aims to achieve and present a comprehensive overview of the current state of knowledge on the knowmad workforce in the academic literature, by implementing a systematic literature review supported by an additional text mining analysis. The knowmad worker concept is relatively recent in the knowledge management literature, being introduced by John Moravec in 2008. Nevertheless, the importance of this worker typology is significant in the context of growing digitalization and technologization as part of a global knowledge economy, due to their specific characteristics that cover flexibility, adaptability, perseverance, and courage to succeed in the competitive global market. Even more, during the Covid-19 pandemics context, companies, and employees across the world experienced flexible work arrangements to comply with social distancing regulations and recent studies emphasize the latter's preference for adopting flexible working arrangements as a normal practice going forward. As such, we notice how the knowmad worker lifestyle represents not only the solution to an unprecedented global crisis but might also be at the heart of future working arrangements, as more and more companies are declaring full remote work strategies for their employees. In this context, we believe that a better understanding of the knowmad concept is required and, to obtain this, within the present study we investigate the peaks and limits of the mentioned research topic, as well as the overall interest evolution from 2008 to 2021 in the research field, by implementing a co-term analysis in VOSviewer software version 1.6.16. As such, we worked with a database extracted from the core collection of Web of Science and the obtained findings are contributing to a better understanding of the global workforce dynamics with a focus on the nomad knowledge workers. Also, by analyzing the research interest hotspots over the established relevant period, we are providing insights for identifying possible future trends in the academic field.*

### **Keywords**

*Knowledge worker; knowmad; digital nomadism; education; mobility.*

### **Introduction**

In the actual business environment impacted by a growing knowledge economy, intensified globalization, and a faster pace of work digitalization, the knowmads are playing an important part in defining near future global workforce trends. The concept has first been presented by John Moravec in 2008 and it gain increasingly more attention in the following years, setting the premises for a specific literature segment (Cobo & Moravec, 2011; Garcia, 2012a, 2012b; Kubik, 2013; Moravec, 2008, 2013a, 2013b; Moravec & van den Hoff, 2015; Orel, 2019, 2020). According to Moravec, a knowmad is a nomadic type of knowledge worker, being specifically creative, imaginative, innovative, and flexible, as one can work efficiently in almost any social, temporal, or spatial context (Moravec, 2008, 2013a, 2013b). Until today, the concept

remains one of the novelties in the knowledge management field of research, as a better understanding of their profile is still required to ensure optimal integration and retention of these at the organizational level (Iliescu, 2021).

By analyzing and working on existing literature, the purpose of this paper is to identify additional areas of interest or knowledge gaps in the literature that require future research attention. To achieve this, we are aiming to build a visual map of the established research topic, that will display the key concepts related to the knowmad concept as well as the connections and correlations developed between them. The paper is structured as follows: first, we will present the results of a systematic literature review introducing the knowmads from a complex perspective, integrating skills, characteristics, and unique traits. Next, we will present the research design and the text mining analysis methodology, followed by the detailed findings and a final discussion. Finally, we are presenting the overall study conclusions, limitations, and further research directions that resulted from the present research.

### Literature review

One of the ground correlations of knowmad concept has been established by Moravec and is represented by the intrinsic linkage with the knowledge workers and their peculiar characteristics, first shaped by Peter Drucker in 1959 (Moravec, 2008, 2013a, 2013b). Looking at the two categories of workers, we can see how the new generation is better adapted to face and overcome the current challenges, by developing characteristics and competencies that make them competitive on the global market (Cobo & Moravec, 2011; Garcia, 2012a, 2012b; Hokanson & Karlson, 2013; Moravec, 2008, 2013a, 2013b; Moravec & van den Hoff, 2015). For example, Blanca Garcia (2012b) emphasizes this generational evolution by scaling the estimated adherence of knowledge workers and knowmads to ten key competencies for the current society, as presented in Table 1.

The significant variation in the degrees of attained competencies (Bratianu, Hadad, & Bejinaru, 2020) between knowmads and knowledge professionals across all ten criteria is primarily explained by the author as being generated by the knowmads' involvement with e-learning facilities, which are defined as interaction-enhancing settings found on the internet, extranets, and intranets (Garcia, 2012b). These advantages that the knowmads hold have a significant dependency on mastering information and communication technology skills. As Cobo (2013) highlights, e-awareness, technological, informational, digital, and media literacy are tenets of a knowmadic lifestyle and, even more, are the primary assets that ensure knowledge creation and recreation in present days. Business education should play an important role in developing these features (Bratianu, Stanescu, & Mocanu, 2021; Bratianu et al., 2021).

Consequently, knowmads tend to spend their professional and personal life in a blend of virtual and physical settings, where information flows in countless directions, networks are designed instantly based on project needs or personal interests, and self-sustaining knowledge-sharing environments emerge without any limits. These knowledge-sharing ecosystems operate outside any of the previous communication

boundaries (Moravec, 2008, 2013a, 2013b). Knowmads, according to Garcia, are the protagonists and architects of the contemporary networked society (2013b).

**Table 1. Estimation of competencies developed in e-learning environments**

Competencies	Knowledge workers	Knowmads
C1. Highly inventive, collaborative, and intuitive, able to generate new ideas.	35%	70%
C2. Highly adaptable to new contexts and challenges. Unafraid of failure.	35%	90%
C3. Uses information and generates knowledge to solve unknown challenges in a variety of contexts.	35%	90%
C4. Able to create socially constructed meaning.	50%	90%
C5. Network generator, always connected to people, ideas, institutions, and organizations.	50%	90%
C6. Able to generate horizontal knowledge networks.	50%	90%
C7. Digital literate, knowledgeable on technology uses and purposes.	70%	90%
C8. Attentive to contexts and information adaptability and usage.	70%	90%
C9. Values and promotes knowledge-sharing and free access to information.	70%	90%
C10. Practices life-long learning: able to learn & unlearn quickly, adding new useful knowledge.	70%	90%

*Adapted from Garcia, 2012b.*

In terms of professional knowledge networking, there is a notable change between knowledge workers and knowmads. While knowledge professionals are hesitant to share their expertise (Davenport, 2005), we have discovered that knowmad is natural knowledge networker. Similarly, Moravec (2013b) highlights how knowmads' knowledge and ideas can be adapted and applied contextually in various situations primarily because the knowmads are social networkers that emphasize collaboration and peer recognition, and they are open to cooperate and exchange information with others to increase their knowledge.

Because knowmads work and live in a virtual-physical mix environment, nomadism represents another one of their distinctive traits. Multiple researchers (Orel, 2020; Müller, 2016; Nash, Jarrahi, Shutherland, & Phillips, 2018; Wang, Schlagwein, Cecez-Kecmanovic, & Cahalane, 2018) have focused their studies on understanding current labor migration trends and found that, when it comes to knowmads, they developed methods to acquire their professional success, while positioning themselves outside of the traditional norms. While opting for flexible working hours, project-based engagements, or exotic locations to host their work setup, digital nomadism is part of a knowmad workers' lifestyle. In the literature, nomadism appears in different spectrums. While a group of authors have focused on geographical mobility (Cook, 2020; Kakihara & Sørensen, 2001; Orel, 2019, 2020) and highlighted the benefits of such a working arrangement (Cook, 2020), a second group studied the mobile work arrangements (Nelson, Jarrahi, & Thomson, 2017; Ojala & Pyöriä, 2018). Nevertheless,

a third section of the literature are looking at the intensified job fluctuations and the challenges raised to employers (Horwitz, Heng, & Quazi, 2003; Lee-Kelley, Blackman, & Hurst, 2007; Nelson & McCann, 2010) introducing as such a different manifestation of the nomadism philosophy.

Moravec (2013) explains the desire to escape from established working standards and redesign their work, by stating that knowmads frequently succeed in transcending traditional geographic boundaries by successfully integrating their knowledge through the use and integration of new technologies into their lives.

This aspect is very much connected with the idea that, by nature, knowmads risk-takers, who are not afraid of failure (Garcia, 2012b; Hokanson & Karlson, 2013; Moravec, 2013b). Hokanson and Karlson (2013) are working on the premises established by Duckworth, Peterson, Matthews, and Kelly (2007) when they focus on creativity, perseverance, and grit as the three most important non-technical competencies. Knowmads who have developed grit or tenacity, according to the authors, are more likely to achieve their goals. As such, they will find themselves more often in new stimulating projects, which will provide them with a context of growth (Hokanson & Karlson, 2013).

### Design of research

#### ***Research question***

As proven in past studies, the knowmad research area is an especially important one because it holds multiple insights about the near future workforce dynamics development. Therefore, a better understanding of this type of workers is necessary to ensure optimal transitions at the organization level towards non-traditional working arrangements. Under the COVID-19 pandemics forces, the need for alternative solutions to work within companies gave birth to an unprecedented number of employees working far from the manager's direct observation, from remote locations, at flexible hours. We see how more and more companies are considering keeping the flexible working setup including once the pandemics will no longer be a threat. Also, different countries, including Romania, are considering including digital nomad visas that will allow foreign citizens to relocate to Romania to provide remote working services to clients and companies located outside of Romania (Ernst&Young, 2021).

In this context, we aim to better understand the peaks and gaps of the knowmad literature at the moment to identify future research areas and general trends describing this topic. As such, the research question is: "*What is the theoretical diffusion of the intellectual structure of the knowmad concept in the literature today?*"

#### ***Research objectives and hypotheses***

The aims of this study are twofold: (1) to implement a systematic literature review focused on knowmad workforce characteristics; (2) to develop a knowledge mapping of the concept that can visually represent the intellectual diffusion of the ideas associated with the knowmad concept. This study hypothesizes that in the current

context it is important to focus on the next workforce dynamics and the knowmad work type can be a reference model for companies and employees.

### **Methodology**

To identify the conceptual diffusion of the knowmad concept a systematic literature review based on VOSviewer software version 1.6.16 has been implemented for designing, presenting, and navigating a network-based bibliometric map with the help of text-mining functions (Van Eck & Waltman, 2010, 2011). A term co-occurrence analysis for which the unit of analysis is represented by the terms has been implemented and the outcome of the analysis represents a conceptual blueprint of the studied phenomena (Zupic & Cater, 2015). More specifically, through this analysis, we aim to identify those concepts that are closely related to the knowmad concept amongst Web of Science (WoS) Core Collection database publications.

To achieve this, we focused on publications dated in the interval 2008-2021, having their abstracts and titles in English, and all types of documents have been considered. The data set has been extracted on May 20<sup>th</sup>, 2021, and the "knowmad\*" structure has been used as a search item in the Topic category, focusing the search on titles, abstracts, author keywords, and keywords plus to achieve more accurate results. The asterisk symbol included before, inside, or after a search item is indicating that any additional set of characters, as well as no character, could be present on the respective position. At the same time, plurals are also considered in the search process if we are using this character at the end of the search term. For example, the "knowmad\*" search is retrieving publications where terms like *knowmad*, *knowmads*, *knowmadic workforce*, etc. appear. As such, in our case, the item preceding the asterisk is representing the identified root of the concept, while different variants could have more letters or additional words in their structure. To ensure accurate findings and to exclude lemmatization, quotation marks have been used.

The search as described above provided a total result of 8 publications on WoS. When analyzed in VOSviewer by using the full counting method for term co-occurrence in title and abstracts, a total of 229 terms have been revealed. As suggested in the manual for VOSviewer version 1.6.16 (Van Eck & Waltman, 2020), when working with the co-occurrence of terms, data cleaning should be implemented to ensure an accurate data set for analysis. As such, a thesaurus file has been created where:

- abbreviations are replaced with full syntagms ("ICT" was replaced by "Information communication technologies").
- general terms that did not bring added value to the purpose of the analysis are ignored ("student", "term", "use", "usage", "work", "world" etc.).
- author names are ignored ("Moravec", "Richards", "Ahmed" etc.).
- research specific terms are ignored ("research paper", "paper", "topic", "ad hoc questionnaire", "category", "data collection", "gender", "order", "journal", "international conference" etc.).
- synonyms and plurals of key concepts are harmonized to ensure a clean conceptual distribution network (e.g.: "digital nomad lifestyle" and "digital nomads perspective" labels have been replaced by "digital nomadism").

In our perspective, while working with an emergent concept, data cleaning is a particularly important step in focusing on the more subtle, relevant connections between concepts that we want to identify, while excluding those terms that could, apparently, have a high relevance according to the text mining outcomes, but at a closer look, they are not bringing added value to the analysis process. Consequently, in our case, out of the total 229 terms, 50 relevant and unique terms were considered for the next steps. For the analysis, the minimum number of occurrences of a term has been set to 1 and the default choice of selecting only 60% (Van Eck & Waltman, 2010) of most relevant terms have been adjusted to 100%. VOSviewer generated a conceptual distribution map of 50 items (terms), associated in four clusters, presenting 440 links and a total link strength of 1,709.

**Table 2. VOSviewer clusters analysis (author's research)**

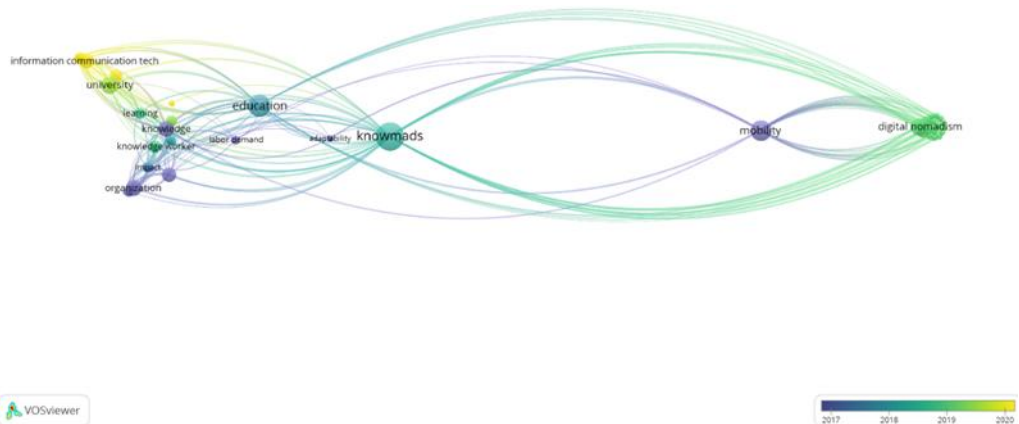
Term	Cluster	Occurrence	Link	Link strength
Knowmads	1- Knowmads	19	49	366
Organization		6	12	102
Knowledge society		5	24	94
Knowledge worker		4	23	66
Academic Learning		3	16	44
Mobility	2 - Digital nomadism	10	24	252
Digital nomadism		7	19	245
Coworking space		4	19	152
Leisure		4	19	152
Creativity		2	19	80
Education	3 - Knowledge	12	43	224
University		7	22	147
Knowledge		6	26	112
Information technology		5	11	105
Challenge		4	14	70
Adaptability	4 - Adaptability	1	7	12
Informal learning		1	7	12

In Table 2 we present the clusters as well as the most relevant five terms defining each of the four clusters, joined by the occurrence, link, and link strength analysis for each of the selected terms. For cluster 4 – Adaptability we analyzed the maximum number of existing terms: adaptability and informal learning.

Out of all the concepts presented in the table above, the highest strength values are held by three key concepts: “knowmads”, “mobility” and “education”. As explained by the developers of the software, Van Eck and Waltman (2020), the link strength represents a parameter that should always have positive numerical values which

fluctuate based on how frequently a certain unit appears across the studied texts. When it comes to term co-occurrence analysis, the greater the link strength value of a given term, the more common that word is in the documents database, and the closer it gets to representing a knowledge peak point in our analysis. In the present research scenario, because we implemented a full counting analysis (Van Eck & Waltman, 2020) the occurrences and the link strength values are describing the sum of values for any given term, throughout all documents. With a link value of 49, we understand that the “knowmads” term is linked with all other terms analyzed, making it the central focus point of our research database.

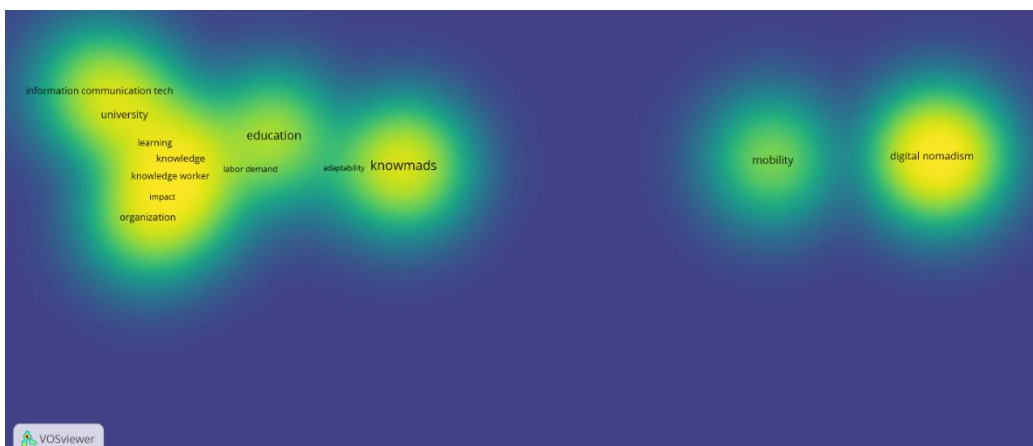
In Figure 1 we can observe the clusters color-grouped by publication year. While topics like “knowledge”, “mobility”, “organization” and “knowledge society” were at the center of research attention ever since 2017 (purple), we notice how attention shifted more and more towards “education”, “knowmads” and “holistic learning models” during 2018 (blue) and continued to focus on “learning”, “digital nomadism”, “tourism”, “freedom”, “coworking space”, “flexible office environments” towards 2019 (green). In publications dated 2020 (yellow), the research interest is focused on the “new skills”, “digital skills”, “challenges”, “competitive environment”, and “adaptability”.



**Figure 1. Overlay visualization by VOSviewer software version 1.6.16**

In Figure 2 we are presenting the density overview of the clusters, revealing the most visited concepts of the knowledge map. Each term sphere diameter and distance are visual correspondences to their connection strength values provided in the tables, according to Van Eck and Waltman (2010). “Knowmads” concept appears to be in closer relationship with “adaptability”, “education”, “learning”, “knowledge”, and “knowledge workers” amongst others. The cause for this grouping is the fact that closer topics on the density map are part of the same articles. It is interesting to observe how certain terms from cluster 1 have a strong relationship with certain terms from cluster 2. This once again indicates the important connection between Knowmads (1) and Knowledge cluster (3).





*Figure 2. Density visualization by VOSviewer software version 1.6.16*

### Results and discussion

The first step in the present research was to define the area of interest and to introduce the context about knowmads defining characteristics. This was made by implementing a preliminary literature review, but we found it beneficial to implement a complementary analysis with VOSviewer software to assess the current intellectual diffusion of knowmad concept to identify the hotspots of research directions. To highlight these, we present below a selection of the analyzed documents.

When it comes to hotspots of the literature, we can mention the visible interest for the education area and the educational impact in acquiring knowledge by future generations for the global workforce challenges. First, Garcia, Llamas-Salguero, Fernandez-Sanchez, and del Campo (2020) are focusing on the challenges faced by the education system adapting to new learning models that could develop skills and competencies to meet contemporary market requirements. Nevertheless, by implementing quantitative research on 757 Spanish students with ages between 20 and 57 years old, the authors find that not only universities need to adapt their approach for preparing students for a knowmadic global society, but students also need to equip themselves with information and communication technology skills to benefit of new academic programs designed for the future. As such, we notice how a potential future research area could focus in Romania as well on understanding the future students' readiness for onboarding in alternative learning models, suited for the future requirements.

Secondly, Harkema and Popescu (2018) are discussing the need of universities to prepare for receiving young knowmads, that display unique characteristics due to having been already exposed to digital and technological learning tools: they are more independent learners than previous generations, they have visual intelligence and memory, preferring graphics over text, they tend to seek competencies development and do not favor simple memorization or attendance, they prefer brainstorming and group learning activities and they see the teacher as a learning facilitator. Overall, knowmads are portrayed by the authors as willing to integrate technology in their



learning processes, as open-minded and results-oriented individuals. Therefore, a holistic teaching approach, having the student in focus could prove beneficial for providing young knowmads with key skills required by the global knowledge economy. According to Harkema & Popescu (2018), the proposed holistic model is focused on four key areas: the world, the cultural space, the economic order, and the social arena. Each area is composed of related subjects, relevant to the current social and economic context, out of which we name the study of globalization, interconnectedness, and digitalization or developing inclusive and diverse societies, based on multiculturalism values. A knowledge gap associated with this interesting topic where we consider that further research might be required relates to understanding how the future knowmad workers will integrate into organizations as they develop key competencies in holistic learning environments. Are the managers ready to work with knowmad workers?

Another important peak of interest in the literature is represented by digital nomadism and mobility. Orel (2019) is studying the tendency of knowmad workforce to trade working in one rooted location for geographical freedom and flexibility as they enable the advantages brought by digital tools and infrastructure. In this context, the author is analyzing the motivation behind this nomadic behavior and is seeking to validate the perceived benefits of coworking hubs that traditionally cover: boosting knowmad's mobility, improving their learning processes and knowledge sharing activities, sustaining their collaboration, and contributing to their work-life balance. By implementing a set of 21 interviews with remote working knowmads that have also been attending co-working spaces, findings prove that most respondents are seeking freedom, inspiration, and motivation when opting to work remotely from multiple different locations. Some of the challenges mentioned by respondents are aimed at discipline, level of productivity, and loneliness. Therefore, digital knowmads are drawn towards coworking spaces, as they prove to reduce the sense of isolation, increase motivation, help them separate work and leisure spaces, and are promoting knowledge sharing and innovation. Nevertheless, amongst the limits of the study, Orel refers to the need to analyze the coworking hubs from a management perspective, as this kind of analysis is likely to reveal additional challenges that digital nomads face while working from a distance. This argument is aligned with this papers' hypothesis that more understanding is necessary concerning the practices of this group of workers.

## Conclusions

The present paper aims to build a visual map of the knowmad concept by implementing first a systematic literature review, sustained by text mining analysis with the help of VOSviewer software. We have found that while education, mobility, and digital nomadism are some of the most visited areas of research when focusing on understanding the knowmad workforce, certain areas require more research attention that can benefit both academics and practitioners: the readiness of the future students to shift towards alternative learning arrangements that will prepare them for the global market challenges, the willingness of the business market to integrate them and improve the flexible working conditions to mitigate risks like isolation, work-life balance, and decrease of motivation.

When it comes to the research trends, we noticed how an interest in skills is developing in the field but given the limited coverage of the literature at the moment, we consider that further research is also required.

The main limitation of this research is represented by the scarce number of documents on the relevant topic indexed in the Web of Science, generated by the overall novelty of the concept in the academic field.

## References

- Bratianu, C., Hadad, S., & Bejinaru, R. (2020). Paradigm shift in business education: a competence-based approach. *Sustainability*, 12(4), 1348-1365. <https://doi.org/10.3390/su120413448>
- Bratianu, C., Stanescu, D. F., & Mocanu, R. (2021). Exploring the knowledge management impact on business education. *Sustainability*, 13(4), 2313. <https://doi.org/10.3390/su13042313>
- Bratianu, C., Vatamanescu, E. M., Anagnoste, S., & Dominici, G. (2021). Untangling knowledge fields and knowledge dynamics within the decision making process. *Management Decision*, 59(2), 306-323. <https://doi.org/10.1108/MD-05-2019-0559>
- Cobo, C., & Moravec, J.W. (2011). *Aprendizaje invisible. Hacia una ecología de la educación*. Laboratori de Mitjans Interactius / Publicacions i Edicions de la Universitat de Barcelona.
- Cook, D. (2020). The freedom trap: digital nomads and the use of disciplining practices to manage work/leisure boundaries. *Information Technology & Tourism*, 22, 355-390. <https://doi.org/10.1007/s40558-020-00172-4>
- Davenport, T. H. (2005). *Thinking for a living: how to get better performance and results from knowledge workers*. Harvard University Press.
- Del Campo Canizares, E. (2013). M-learning and Informal Learning in Higher Education through mobile devices. *Historia y Comunicación Social*, 18, 231-242.
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 92(6), 1087-1101. <https://doi.org/10.1037/0022-3514.92.6.1087>
- Ernst & Young (2021). Proiect de lege pentru crearea unei vize "Nomad digital" pe termen lung. <https://www.eyromania.ro/tax-alert/proiect-de-lege-pentru-crearea-unei-vize-nomad-digital-pe-termen-lung/>
- Garcia, B. C. (2012a). MAKCi: a knowledge-based development metrics experience. *International Journal of Knowledge-Based Development*, 3(4), 367-387.
- Garcia, B.C. (2012b). New e-learning environments: e-merging networks in the relational society. [https://www.researchgate.net/profile/Blanca\\_Garcia5/publication/224830017\\_New\\_e-Learning\\_Environments\\_e-Merging\\_Networks\\_in\\_the\\_Relational\\_Society/links/00b49531629495ce78000000.pdf](https://www.researchgate.net/profile/Blanca_Garcia5/publication/224830017_New_e-Learning_Environments_e-Merging_Networks_in_the_Relational_Society/links/00b49531629495ce78000000.pdf)
- Harkema, S., & Popescu, F. (2018) Taking a Holistic Approach in Training and Educating Knowmads and Daredevils of the 21st Century. In Kantola, J., Barath, T., & Nazir, S., (Eds.). *Advances in Human Factors, Business Management and Leadership, Advances in Intelligent Systems and Computing* (pp. 329-340). Springer.
- Hokanson, B., & Karlson, W. R. (2013). Borderlands: developing character strengths for a knowmadic world. *On the Horizon*, 21(2), 107-113. <https://doi.org/10.1108/10748121311323003>
- Horwitz, F. M., Heng, C. T., & Quazi, H. A. (2003). Finders, keepers? Attracting, motivating, and retaining knowledge workers. *Human Resource Management Journal*, 13(4), 23-44.
- Iliescu, A. N. (2021). The emergence of knowmads from the knowledge workers. *Management Dynamics in the Knowledge Economy*, 9(1), 94-106. <https://doi.org/10.2478/mdke-2021-0007>

- Kakihara, M. & Sørensen, C. (2001). Expanding the 'mobility' concept, *ACM SIGGROUP Bulletin*, 22 (3), 33–37.
- Kubik G. H. (2013). Limitless: becoming remarkable in the borderless economy. *On the Horizon*, 21(2), 114–126. <https://doi.org/10.1108/10748121311323012>
- Lee-Kelley, L., Blackman, D. A., & Hurst, J. P. (2007). An exploration of the relationship between learning organizations and the retention of knowledge workers. *The Learning Organization*, 14(3), 204- 221.
- Moravec, J. W. (2008). A new paradigm of knowledge production in higher education. *On the Horizon*, 16(3), 123-136. <https://doi.org/10.1108/10748120810901422>
- Moravec, J. W. (2013a). Knowmad society: the 'new' work and education. *On the Horizon*, 21(2), 79-83. <https://doi.org/10.1108/10748121311322978>
- Moravec, J. W. (Ed.) (2013b). *Knowmad society*. Education Futures.
- Moravec, J. W., & van den Hoff, R. (2015). Higher education 3.0: knowmads create their own value!. In A. Daily-Hebert & K. S. Dennis (Eds.). *Transformative perspectives and processes in higher education, advances in business education and training* (pp. 233- 240). Springer.
- Müller, A. (2016). The digital nomad: buzzword or research category? *Transnational Social Review*, 6(3), 344–348.
- Nash, C., Jarrahi, M. H., Shutherland, W., & Phillips, G. (2018). Digital nomads beyond the buzzword: Defining digital nomadic work and use of digital technologies. In *Transforming Digital Worlds* (pp. 207-217). Springer International Publishing.
- Nelson, S. B., Jarrahi, M. H., & Thomson, L. (2017). Mobility of knowledge work and affordances of digital technologies. *International Journal of Information Management*, 37(2), 56-62. <https://doi.org/10.1016/j.ijinfomgt.2016.11.00>
- Nelson, K., & McCann, J. E. (2010). Designing for knowledge worker retention & organization performance. *Journal of Management and Marketing Research*, 1, 1-18.
- Ojala, S., & Pyöriä, P. (2018). Mobile knowledge workers and traditional mobile workers: assessing the prevalence of multi-locational work in Europe. *Acta Sociologica*, 61(4), 402-418. <https://doi.org/10.1177/0001699317722593>
- Orel, M. (2019). Coworking environments and digital nomadism: Balancing work and leisure whilst on the move. *World Leisure Journal*, 61(3), 215-227. <https://doi.org/10.1080/16078055.2019.1639275>
- Orel, M. (2020). Life is better in flip flops. Digital nomads and their transformational travels to Thailand. *International Journal of Culture, Tourism and Hospitality Research*. <https://doi.org/10.1108/IJCTHR-12-2019-0229>
- Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
- Van Eck, N. J., & Waltman, L. (2011). Text mining and visualization using VOSviewer. *ISSI Newsletter*, 7(3), 50–54.
- Van Eck, N. J., & Waltman, L. (2020). *VOSviewer Manual*. Universiteit Leiden.
- Zupic, I., & Cater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods*, 18(3), 429-472. <https://doi.org/10.1177/1094428114562629>
- Wang, B., Schlagwein, D., Cecez-Kecmanovic, D., & Cahalane, M.C. (2018). Digital work and high-tech wanderers: three theoretical framings and a research agenda for digital nomadism. *Australasian Conference on Information Systems*.