SHORT COMMUNICATION

Mapping the Landscape of Netnographic Research: A Bibliometric Study of Social Interactions and Digital Culture

Mapeando el panorama de la investigación netnográfica: un estudio bibliométrico de las interacciones sociales y la cultura digital

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ABSTRACT

Introduction: netnography is a research method that has emerged in response to the growing popularity of online communication and social networks.
Aim: to analyze communication patterns about netnography in the Scopus database.
Methods: a bibliometric study was conducted in the Scopus database on netnography. The analysis was conducted globally, by country, and by institution.
Results: a total of 11173 documents and 2213 authors were recovered. 35,1 % of the documents were open access. The global field-weighted citation impact was 1,27. the most productive ones in the following order: United Kingdom (275 documents), United States (223 documents), Australia (165 documents), Brazil (100 documents), and France (83 documents).
Conclusions: the results show that netnography is an emerging area of research, with a wide geographic and thematic diversity, that has experienced steady growth in recent years and is being explored in a variety of contexts, from market research to the analysis of social dynamics online.

Keywords: Netnography; Bibliometrics; Online Communities; Virtual Communities; Web Based Communities.

RESUMEN

Introducción: la netnografía es un método de investigación que ha surgido en respuesta a la creciente popularidad de la comunicación en línea y las redes sociales.
Objetivo: analizar los patrones de comunicación sobre netnografía en la base de datos Scopus.
Métodos: se llevó a cabo un estudio bibliométrico en la base de datos Scopus sobre netnografía. El análisis se realizó a nivel global, por país y por institución.
Resultados: se recuperaron un total de 11173 documentos y 2213 autores. El 35,1% de los documentos eran de acceso abierto. El impacto de citas ponderado por campo global fue de 1,27. Los países más productivos fueron, en orden, Reino Unido (275 documentos), Estados Unidos (223 documentos), Australia (165 documentos), Brasil (100 documentos) y Francia (83 documentos).
Conclusiones: los resultados muestran que la netnografía es un área emergente de investigación, con una amplia diversidad geográfica y temática, que ha experimentado un crecimiento constante en los últimos años y que está siendo explorada en una amplia variedad de contextos, desde la investigación de mercado hasta el análisis de las dinámicas sociales en línea.

Palabras clave: Netnografía; Bibliometría; Comunidades en Línea; Comunidades Virtuales; Comunidades Basadas en la Web.

INTRODUCTION

Netnography is a research method that has emerged in response to the growing popularity of online communication and social networks. It involves the use of ethnographic methods to study online communities, their culture, and the social interactions that take place within them. Netnography allows researchers to explore the dynamics of online communities and the way individuals construct and communicate their identities in these digital spaces.[1,2]

The study of netnography is relatively new, but it has already proven to be a fruitful area of research. As the use of digital technologies continues to grow and evolve, the potential for netnographic research to provide insights into human behavior and communication in digital spaces becomes increasingly important.[3]

Netnography can be used to study a wide variety of online communities, from consumer communities to political movements, providing researchers with a valuable tool for exploring a range of phenomena in the digital world.[4]

Bibliometric studies provide a quantitative analysis of research output in a particular field, allowing researchers to identify trends, patterns, and key contributors.[5] It is necessary to develop a bibliometric study of netnography to provide an overview of the research landscape worldwide.

Objective: to analyze communication patterns about netnography in the Scopus database.

METHODS

A bibliometric study was conducted in the Scopus database on netnography, using the search strategy "TITLE-ABS-KEY (netnograph*)", and then the data were exported to the SciVal tool for analysis. Descriptive bibliometric indicators such as the number of documents (Ndoc), number of citations (Ncit), citations per publication (CPP), and The Global Field-Weighted Citation Impact (FWCI) were used. Furthermore, collaboration networks among countries and authors, as well as term co-occurrence, were analyzed using Vosviewer and Bibexel. The analysis was conducted globally, by country, and by institution.

RESULTS AND DISCUSSION

A total of 11 173 documents and 2 213 authors were recovered. 35,1 % of the documents were open access. The global field-weighted citation impact was 1,27.

The documents received 20 100 citations (17,1 citations per publication). Figure 1 shows the main bibliometric indicators of scientific production on Netnography by year. No patents on this subject were found.
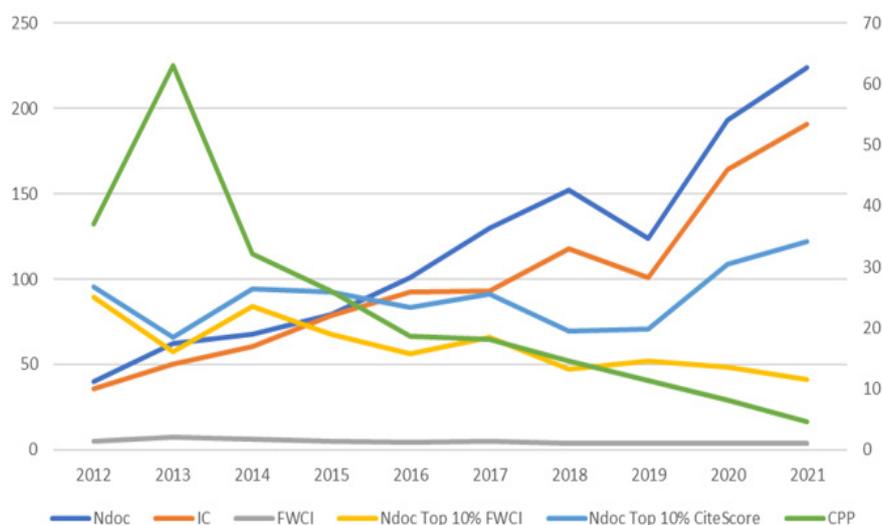

Figure 1. Main bibliometric indicators by year

The Scholarly Output in Netnography with both academic and corporate author affiliations were 0,9 % (Ndoc: 11; CPP: 6,2; FWCI: 1,20). 23,5 % of the documents had international collaboration, 21,7 % national collaboration, and 32,2 % institutional collaboration (table 1).

There are 821 Institutions in Netnography. Table 2 shows the institutions with at least 10 published papers.

Table 1. Scholarly Output in Netnography by amount of international, national and institutional collaboration

Metric	Ndoc	%	Ncit	CPP	FWCI
International collaboration	275	23,5	5494	20	1,43
Only national collaboration	254	21,7	3959	15,6	1,34
Only institutional collaboration	377	32,2	6679	17,7	1,05
No collaboration	265	22,6	3968	15	1,37

Table 2. Institutions in Netnography

Institution	Sector	Country	Ndoc	Ncit	Authors	CPP	FWCI
University of Southern California	Academic	United States	18	438	4	24,3	3,8
University of Queensland	Academic	Australia	16	493	12	30,8	1,93
Griffith University Queensland	Academic	Australia	15	492	20	32,8	2,29
Bournemouth University	Academic	United Kingdom	15	641	16	42,7	2,94
York University Toronto	Academic	Canada	15	207	7	13,8	1,94
The University of Auckland	Academic	New Zealand	13	1993	16	153,3	3,7
Royal Melbourne Institute of Technology University	Academic	Australia	12	308	15	25,7	1,64
Southern Cross University	Academic	Australia	12	509	6	42,4	1,36
Aalborg University	Academic	Denmark	12	79	14	6,6	0,62
University of Aveiro	Academic	Portugal	12	67	13	5,6	0,75
Edith Cowan University	Academic	Australia	11	210	17	19,1	1,72
Hong Kong Polytechnic University	Academic	Hong Kong	11	195	17	17,7	1,31
University of Surrey	Academic	United Kingdom	11	522	7	47,5	2,85
Tampere University	Academic	Finland	10	147	14	14,7	0,9
Liverpool John Moores University	Academic	United Kingdom	10	112	11	11,2	0,67

Figure 2 segment size represents relative publication published per Subject Area. It is valid to clarify that a publication can be mapped to multiple Subject Areas.
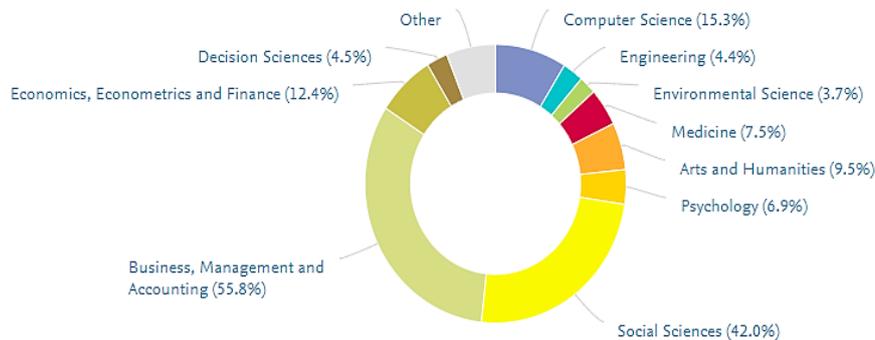

Figure 2. Publication by Subject Area

The most productive authors were Muchazondida Mkono (16 documents), Robert V. Kozinets (15 documents), and Daiane Scaraboto (10 documents). Figure 3 shows the authorship networks of the scientific production on Netnography.
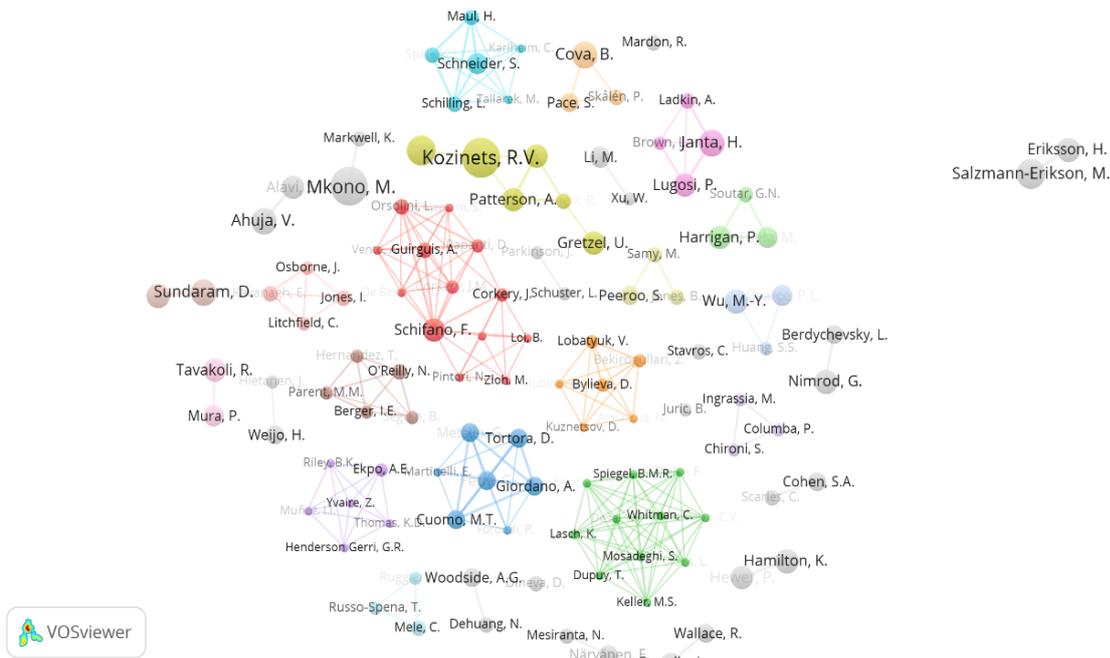
Figure 3. Authorship network

Figure 4 shows the collaboration network among countries, highlighting the most productive ones in the following order: United Kingdom (275 documents), United States (223 documents), Australia (165 documents), Brazil (100 documents), and France (83 documents).
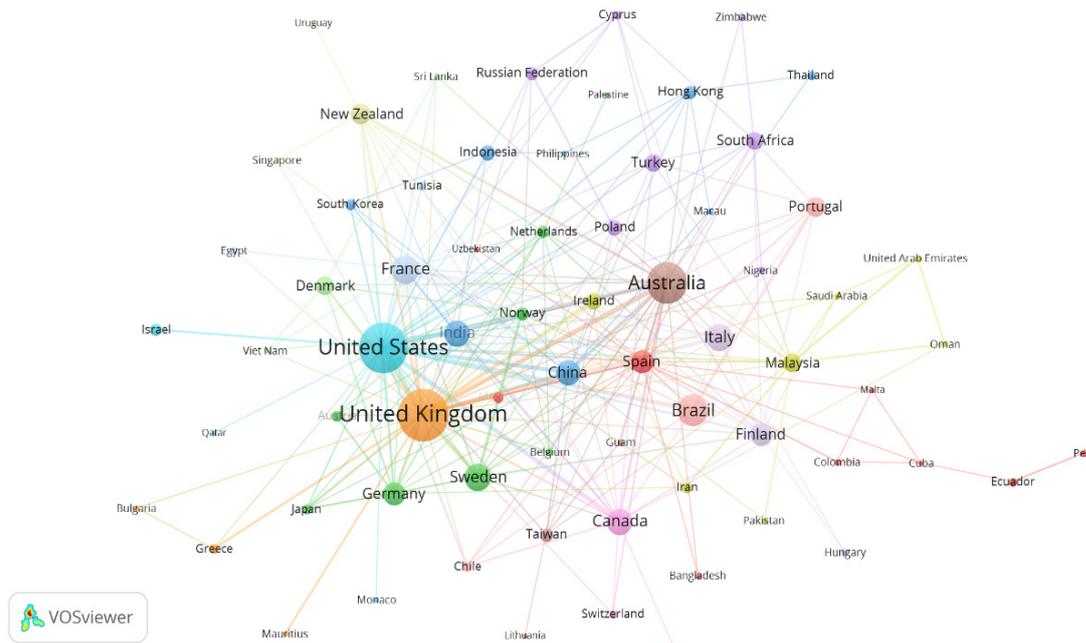

Figure 4. Network of countries

A qualitative analysis of the publications was carried out, ranging from descriptive ones such as the 20 Topics & Topic Clusters (table 3) and the Topics & Topic Clusters by Subject Area (figure 5). On the other hand, Vosviewer was used to visualize the co-occurrence of terms (figure 6) and the density visualization (figure 7).

Table 3. Top 20 Topics & Topic Clusters		
Topic	**NDoc**	**FWCI**
Marketing; Consumer Culture; Netnography	210	1,33
Social Media; Online Reviews; Brand Community	116	1,66
Place; Heritage Tourism; Tourist Experience	42	1,57
Product-service Systems; Service Economy; Value Co-Creation	19	1,88
Open Source Software Development; User Innovation; Photographic Developers	16	0,94
Social Media; Election Campaigns; Political Communication	15	0,47
Self-Help Groups; Social Support; Public Health	15	0,74
Platforms; Collaborative Consumption; Peer to Peer	15	1,55
Social Networking Sites; Social Media; Instagram	13	0,84
Wine; Hedonic Price Function; Implicit Price	13	1,81
Travel Motivation; Music Festival; Destination	12	0,64
Online Games; Avatar; Players	11	0,56
Technology Acceptance Model; Mobile Payment; E-Learning	7	1,99
Synthetic Cannabinoid; Mephedrone; 1-Pentyl-3-(1-Naphthoyl)Indole	7	1,4
Team Identification; Sports Fans; Social Media	7	0,61
Customer Satisfaction; Complaint Behavior; Perceived Justice	6	1,41
Servicescape; Customer Experience; Community Participation	6	2,39
Destination Image; Competitiveness; Revisit Intention	6	1,2
Twitter; Medical Education; Professionalism	6	1,08
Celebrity Endorsement; VIP; Purchase Intention	6	1,06

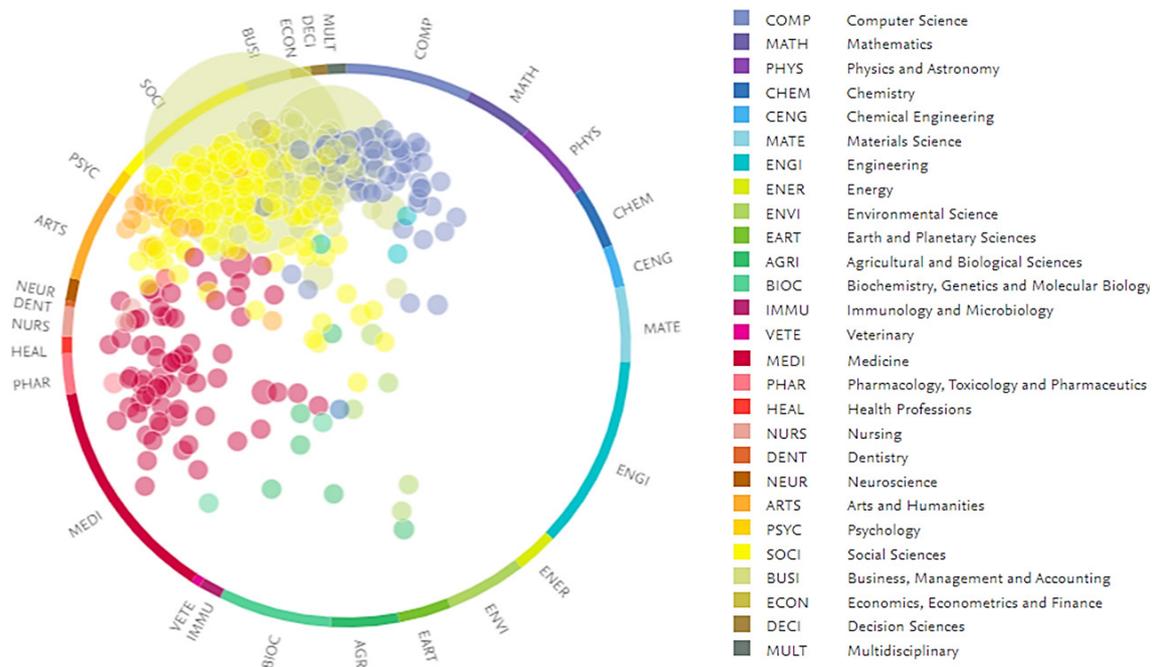|	
COMP	Computer Science
MATH	Mathematics
PHYS	Physics and Astronomy
CHEM	Chemistry
CENG	Chemical Engineering
MATE	Materials Science
ENGI	Engineering
ENER	Energy
ENVI	Environmental Science
EART	Earth and Planetary Sciences
AGRI	Agricultural and Biological Sciences
BIOC	Biochemistry, Genetics and Molecular Biology
IMMU	Immunology and Microbiology
VETE	Veterinary
MEDI	Medicine
PHAR	Pharmacology, Toxicology and Pharmaceutics
HEAL	Health Professions
NURS	Nursing
DENT	Dentistry
NEUR	Neuroscience
ARTS	Arts and Humanities
PSYC	Psychology
SOCI	Social Sciences
BUSI	Business, Management and Accounting
ECON	Economics, Econometrics and Finance
DECI	Decision Sciences
MULT	Multidisciplinary

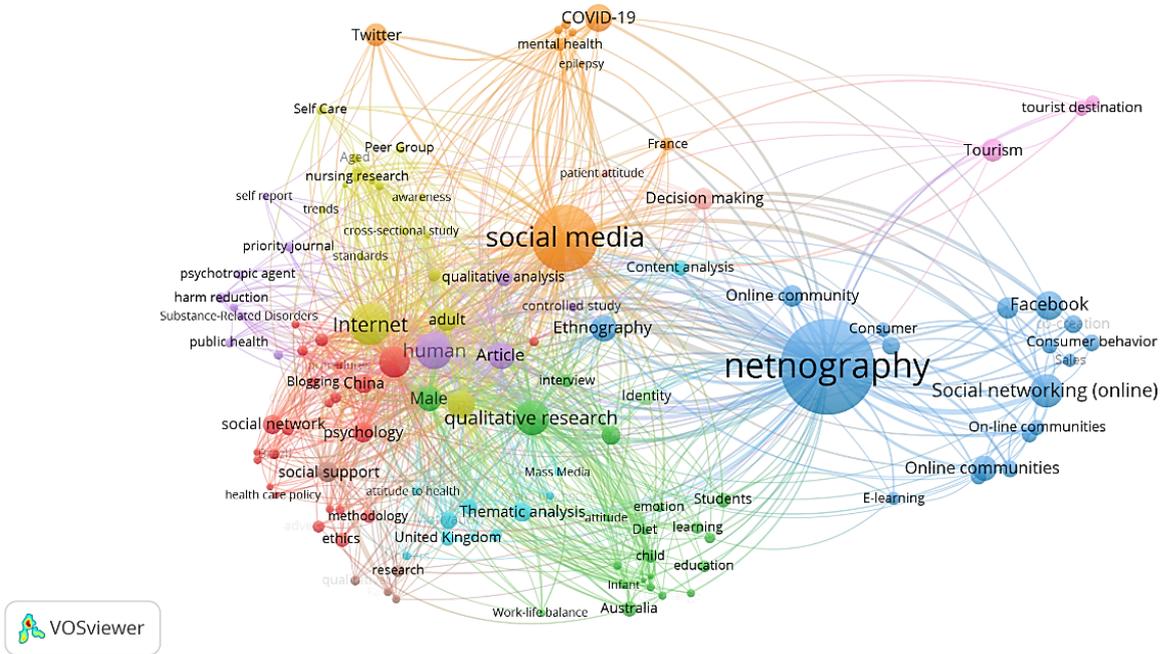**Figure 5.** Topics & Topic Clusters by Subject Area

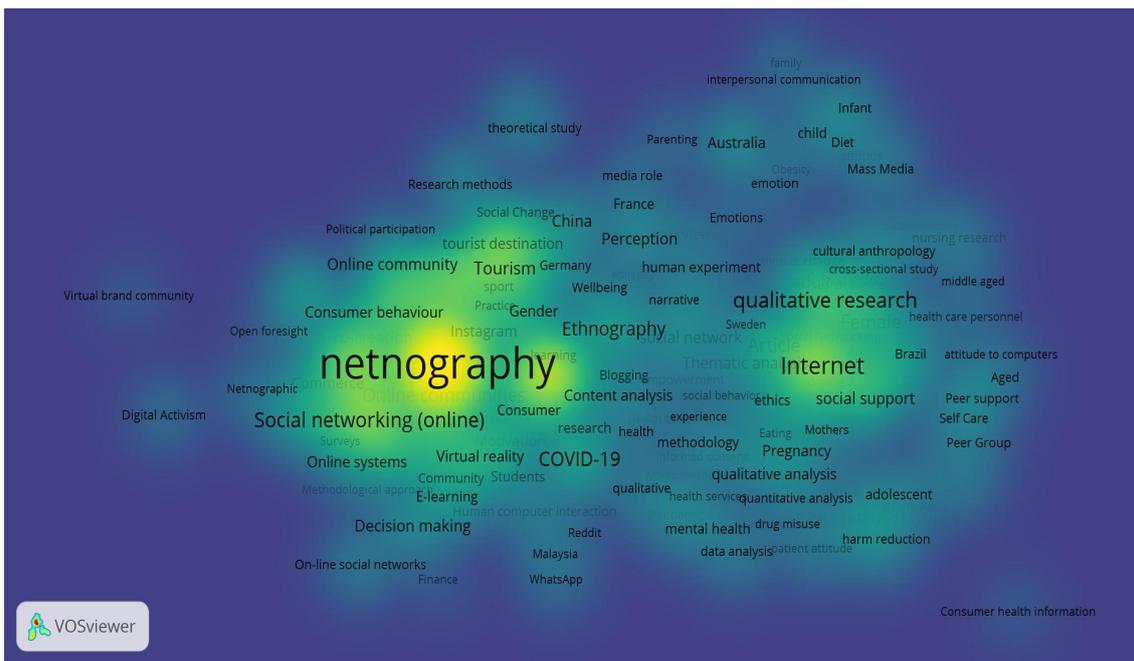**Figure 6.** Cooccurrence of terms

Figure 7. Density Visualization

DISCUSSION

Kozinets[6] established four principles for conducting netnographic research:

• Researchers must be transparent about their presence and identity to the members of the online community they are studying.

• The privacy and anonymity of the informants must be protected by the researcher.

• The researcher should actively seek and incorporate feedback from online community members.

• The researcher should obtain permission from community members before directly quoting any specific postings.

Netnographies are like extraction and exploration mining rigs; netnographies can try to use a lot of tools to analyze word counts, sentiment analyses, and natural language similarities to known routines, to derive cultural understanding in a given context.[7]

A netnography study is a method of market research that is interested in 'computer mediated conversations'. A netnography study is relevant for the analysis of customer attitudes and brand behavior online. It is still a rather novel approach to research, often advocating the combination of qualitative and quantitative techniques and tools for tapping into the mindset of customers in the virtual space. Netnography helps researchers in deriving a communicative and cultural comprehension of the embedded understanding of the customer thought process by mapping the customer comments posted on social media.[6]

In relation to the most productive countries, it coincides that there are specific strategies for the development of netnography, used in a variety of contexts, from studying online communities to market research, and providing valuable information about online communities, consumer opinions, and Internet user behaviors.

In the United Kingdom, Goad et al.[8] found that the use of netnography in the UK has significantly increased in recent years, and is expected to continue growing in the future. In the United States, Kozinets et al.[9] showed that it is a valuable tool for market research and analysis of public opinion. Meanwhile, in Brazil,[10,11] its application is particularly useful for understanding consumer behaviors online.

The thematic categories allow organizing and categorizing areas of knowledge. Reflecting on the most relevant ones found, we can systematize that in relation to:

•   Business, Management and Accounting: netnography is a useful tool for market research, allowing researchers to obtain valuable information about consumers and online communities, which can be used to improve business decision-making.[12]

•   Social Sciences: netnography allows researchers to study the dynamics of online communities and how individuals construct and communicate their identities in these digital spaces, providing valuable information about social behaviors and human interactions.[13]

•   Economics: netnography is a useful tool for market research, allowing researchers to obtain valuable information about consumer preferences and behaviors online, which can be used to improve business decision-making and the development of commercial strategies.[14,15]

•   Computer Science: netnography uses ethnographic research methods to study online communities, their culture, and the social interactions that take place within them, involving the use of computer tools and techniques for the collection and analysis of online data.[7,16]

Netnographic researchers deal with a range of multimedia content, including images, drawings, photography, sound files, edited audiovisual presentations, website creations and other digital artifacts.[2]

In order to migrate the refined perceptivity of ethnography to online media, netnography provides participative guidelines, such as the inclusion of Skype interviews, and in-person participative fieldwork, and an advocacy of the research web-page. With methodological rigor, care, and humility, netnography provides a dance of possibilities for human understanding in social technological interaction. The interpretation of human communications under realistic contexts is a key aspect of netnography, as it allows for a deeper understanding of native conditions of interaction when those human communications are shaped by new technologies.[2]

These approaches are aligned with the findings of term co-occurrence in netnographic research, where the thematic cores take into account the variety of multimedia content and the context in which it is created and consumed.

A detailed qualitative analysis of the main themes in netnographic research has allowed researchers to gain a deep understanding of the key topics in the field. As a relatively young and evolving area, this analysis can provide valuable information about trends and changes in the field, as well as identify areas where more research is needed.

Furthermore, this analysis can provide information about the current challenges and limitations of the field, which can help researchers focus their future work on areas where improvements or innovative approaches are needed.

As noted by Vega-Almeida et al.[17] a qualitative analysis of the main themes in netnographic research can also help identify gaps in the literature and areas where more research is needed. This can be especially valuable for researchers seeking to conduct new studies in the field, as it allows them to identify areas of research that may have a greater impact and generate new knowledge.

Limitations and future perspectives

This bibliometric study on netnography has focused solely on the Scopus database, which can be considered a limitation in terms of comprehensiveness. It is possible that some relevant publications may not have been included in this database. Therefore, future bibliometric studies should include other relevant databases and sources of information.

This analysis has mainly focused on the quantity of publications and their temporal and geographical distribution, providing an overview of the scientific production on netnography. However, future bibliometric studies should delve deeper into the analysis of emerging themes and trends in netnography research.

On the other hand, the results of this study provide valuable information for researchers and professionals

working in the field of netnography, as it allows them to identify the main trends and patterns in scientific production. This can be used to improve the planning and management of future research and projects in the field of netnography.

CONCLUSIONS

In conclusion, this bibliometric study on netnography in the Scopus database provides a general overview of the scientific production landscape in this field. The results show that netnography is an emerging area of research, with a wide geographic and thematic diversity, that has experienced steady growth in recent years and is being explored in a variety of contexts, from market research to the analysis of social dynamics online.

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CONFLICT OF INTEREST
No conflict of interest.

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