

## Digital Ethnography: A Systematic Literature Review

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### **How to cite**

Delli Paoli, A., D'Auria, V. (2021). Digital Ethnography: A Systematic Literature Review. [Italian Sociological Review, 11 (4S), 243-267]

Retrieved from [<https://dx.doi.org/10.13136/isr.v11i4S.434>]

[DOI: 10.13136/isr.v11i4S.434]

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### **3. Article accepted for publication**

Date: January 2021

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# *Digital Ethnography: A Systematic Literature Review<sup>1</sup>*

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## **Abstract**

Digital ethnography can be defined as a contemporary form of ethnography which considers online social spaces of discussion following the advances in data transmission technology. In the last few years, various attempts of considering online spaces in ethnographic research have been made producing different styles of online ethnography, each identified by a different label. This paper aims to provide a systematic review of the topic to map the practice of digital ethnography. The research process followed four key steps: search, selection, analysis and synthesis. In the search phase, we searched contributions iteratively in Web of Science and Scopus by using a variety of keywords corresponding to the different labels used to refer to digital ethnography. In the selection phase, we adopted a selective stance that aims to provide a critical review of the existing research and practices in the context of digital ethnography. In the analysis phase, we carried out a content analysis of the papers combining deductive and inductive coding. The synthesis phase involves a process of typology development to pragmatically reduce and systematize an extensive set of features and digital ethnography practices. Basing on the type of data collected (Small vs Big Data) and the type of fieldwork (meta or contextual field), we detected four types of ethnographic

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<sup>1</sup> While this paper results from a conjoined effort, in the final draft Angela Delli Paoli wrote Sects. 2, 3, 4 and 5; Valentina D'Auria wrote Sects. 1 and 6.

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research: *social media ethnography, contextual digital ethnography, meta digital ethnography, cross-media ethnography*.

Keywords: digital ethnography, netnography, systematic literature review.

## 1. Introduction

Recent technological developments increase the scope and range of online practices and the forms and time of participation. Firstly, web 2.0 and the spread of social media, blogs and forums have upset the boundaries between online and offline realities. These new social environments have widened the opportunities for user-generated content: users become hybrid entities, *prosumers*, independent generators of content, able to interact dynamically with each other, to set up spaces for self-presentation or self-promotion and much more (Castells, 2009: 80). These new online spaces have changed over time both the forms of online participation of the users and the related times that expand to involve no longer only leisure time. Moreover, through the “Internet of things” and ubiquitous mobile devices, the Internet is also embedded in our everyday materiality making it possible to be always connected (Costello et al., 2017; Markham, 2016).

Apart from being incorporated into the everyday practices of people, the internet has become more and more incorporated into those of social researchers (Hallet, Barber, 2014; Caliandro, 2018). Therefore, today it is impossible to aim at social research excluding digital environments. The most relevant issues offered by digital context, in addition to the network of relationships between users and between users and devices, are the different types of content, such as user-generated-content and automatically generated content (metadata). Also ethnography needs to be adapted to online environments and reshaped according to them (Pink et al., 2016; Caliandro, 2018).

This modifies the concept of fieldwork introducing the need for *multi-sited ethnographies* (Marcus, 1995) where online sites complement physical fieldworks. The fieldwork is no longer defined on the basis of geographical or ethnic criteria. Culture is no longer considered as strictly linked to physical places but as a flexible construct which can be understood in the different physical and online spaces where meanings are negotiated (Weißköppel, 2009).

In the last few years, various attempts of considering online spaces in ethnographic research have been made producing different styles of online ethnography, each identified by a different label.

Starting from the works already existing in literature, this paper aims to provide a systematic review of the topic. Particularly, we aim to map the practice of digital ethnography addressing the following research questions:

- How digital ethnography is used in different disciplines?
- Which are the methodological practices of digital ethnographic research?

The paper is organized as follows. The next section provides an overview of contemporary ethnography. Then, the methodology of systematic review is presented by describing the criteria for searching, selecting, analyzing and synthesizing papers. The third section presents the procedure for coding and the final coding scheme. In the fourth section the main findings are described. The fifth section provides a typology of digital ethnography research. Finally, discussion and conclusion are drawn.

## 2. Contemporary ethnography

The term ethnography comes from the Greek *ēthnos* (= population, cultures) and *gráphein* (= write, describe) and therefore its literal meaning refers to the writing/description of cultures. The object of ethnography is therefore made up of peoples, societies, communities, groups and the purpose consists in the written description and narration of them after observing their daily life in their own time and space and in their own everyday lives in order to produce detailed and situated accounts, i.e. *thick descriptions*<sup>1</sup> (Geertz, 1973). Thick descriptions originate in observational research, which is participatory and long-term, carried out in a small-scale, even confined, contexts.

The current perspectives of ethnographic research are widening to new contexts for a number of interrelated motivations: decolonization, globalization, massive and pervasive diffusion of new information and communication technologies (ICTs). Decolonization has implied the

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<sup>1</sup> Geertz defines *thick description* the dense cultural representations, which do not stop at the exteriority of things but – by taking into account the stratified cultural meanings – manage to unravel the plot of the culture and produce descriptions consistent with the point of view of the natives. To explain the meaning of *thick vs. thin descriptions*, Geertz uses the example of a wink. A thin description would lead to define it as a contraction of the eyelid of the right eye; a thick description would instead be able to capture the deeper meaning by unraveling the sense between a nervous tic, a sentimental wink, an agreement between friends, through the entry into the communicative and relational context. Thin description is a bare report of the ‘facts’ independent of intentions or circumstances, whereas thick description represents a thorough account of the phenomena which considers also the intentions and meanings that organize them.

disappearance of primitive society meant as inferior, closed and compact communities, separated from other cultures. Globalization and the spread of ICTs have extended and changed the ethnographic field and the concept of fieldwork (Dei, 2012). The definition of field research as a systematic, long-term and face to face study of everyday interactions (Bailey, 2007) is substituted by a non-physical demarcation of the field. Since everyday life is increasingly technologically mediated, social interactions need to be studied both in their online and offline form (Murthy, 2008). In this regard, Marcus (1995) introduces the concept of *multi-sited ethnographies* as deriving from several sites – both physical and digital – of exploration. Therefore, due to the current continuous crossing of geographical boundaries and constant interactions with other ethnic groups and, differently from traditional ethnographic research, the field is no longer defined on the basis of geographical or ethnic criteria. From this perspective, the use of the term “site” as a substitute for “field” refers to the conception of culture as a flexible construct spanning different places and media where meanings are negotiated (Weißköppel, 2009). In other words, it refers to new cultural formations emerging online. Thus, the actors must be followed in their movements in physical and digital spaces where interactions are not necessarily face-to-face such as in virtual communities, discussion groups, interest groups, blogs, social media, virtual realities, etc. (Dei, 2012).

The opening of ethnography to online and digital social spaces, has been called in different ways by different authors: Netnography (Kozinets, 1998, 2002, 2010, 2015); Cyber Ethnography (Morton, 2001; Escobar, 1994), Ethnography of Virtual Spaces (Burrell, 2009), Ethnography of the virtual word (Boellstorff et al., 2012), Virtual Ethnography (Hine, 2008), Internet Ethnography (Boyd, 2008), Ethnography on the Internet (Beaulieu, 2004), Internet related ethnography (Postill, Pink, 2012); Digital Ethnography (Murthy, 2008), Webnography (Puri, 2007), Expanded ethnography (Beneito-Montagut, 2011) multi-sited ethnography (Marcus, 1995).

The differences in terminology sometimes also imply differences in the way of conceptualizing this digital research approach. The proposed definitions, in fact, range from limiting online ethnography to a specific *technique* to considering it as a more extensive and complex research approach (Varis, 2014). Moreover, some authors attribute to it independence from ethnography: within this perspective this approach would adapt traditional ethnography to the study of the specificities of digital networks while maintaining a distinct identity. On the contrary, other authors conceive the observation of digital spaces as complementary to the physical ones and inevitable, given the pervasive diffusion of ICT. Due to the capillarity of technologies with their new forms of aggregation which make the boundaries between online and offline increasingly blurred, many scholars consider scientifically and practically ineffective the

distinction between virtual and real life and the consideration of online as a separate sphere of human experience (Garcia et al., 2009; Beneito-Montagut, 2011; Scaramuzzino, 2012).

At its origins the label Netnography appears as designed to study online communities and is conceived as an entirely online approach (Kozinets, 1998). Recently, the practice of observing online contents spans its boundaries to other sites. Digital ethnography can be defined as a contemporary form of ethnography which considers online social spaces of discussion. It can be considered a methodological research approach which recently has assumed a wide reach across many fields such as sociology, management, marketing and business, education, geography, health, sport, tourism and so on. The cognitive objective of a digital ethnography does not concern the characteristics of the medium or its use, but rather the cultural, relational and value experiences developed within cross-media digital spaces. Therefore, it relates elements such as identity, cultural meanings, language, rituals, imagery, symbolism, norms, roles, values, myths (Kozinets, Scaraboto, Parmentier, 2018).

Prior reviews have discussed the potentiality of online ethnographic research highlighting its benefits and limits (Masullo, Addeo, Delli Paoli, 2020; Addeo et al., 2020; Kozinets, 2010; Varis, 2014; Murthy, 2013; Scaramuzzino, 2012). Some of the benefits are shared with its offline parallel (ethnography) such as its naturalistic nature interested in studying social experiences and practices in their everyday context (Kozinets, 2010), its multi-method approach which made it the effect of *bricolage* among different research techniques and methods and its flexibility and adaptability to issues arising from the field (Varis, 2014). Other strengths are peculiar to digital ethnography such as its efficiency in data collection which is far less time consuming, its opportunity to expand the geographical dimension of the research field and connect dispersed networks around the world, the researcher invisibility and relative unobtrusiveness, that is the possibility of disclosing the researchers' presence (Kozinets, 2010; Murthy, 2013; Scaramuzzino, 2012), its capability of investigating sensitive topics, illegal acts and addressing difficult to reach groups (Costello, McDermott, Wallace, 2017; Langer, Beckman, 2005; Addeo et al., 2020), its possibility of longitudinal analysis, of archiving historical data and studying trends over time (Puri, 2007).

Limits include the impoverishment of the fieldwork in online decontextualised social spaces and artificial arenas and ethical dilemmas of unseen observations and of using private opinions and information (Garcia et al., 2009; Kozinets, 2002; Prior, Miller, 2012; Scaramuzzino, 2012). It emerges, therefore, the distinction between the natural life context of ethnography and the context artificially created for research purposes by not participating in the daily life practices of this meta-fields.

More systematic reviews were carried out by Costello, McDermott, Wallace (2017), Tunçalp and Lê (2014), Bartl, Kannan, Stockinger (2016). Costello, McDermott, Wallace (2017) analyzed the number of communities included in a netnographic study (if single or multiple), the types of data collected (if text, videos, images, etc.) and the depth of the study in term of duration. Tunçalp and Lê (2014) stressed the boundary setting of the online ethnographic approach in management disciplines by analyzing in 59 academic articles how researchers draw space and time boundaries and engage their field. Bartl, Kannan and Stockinger (2016) carried out a citation and bibliographic analysis of 116 papers testifying a huge increase in the number of online ethnographies in the last years with consumer behaviors being the most studied topic and Kozinets being the dominant author.

While these papers discuss the potentiality and analytical features of this method, they do not offer a systematic review of different methodological practices in digital ethnography. Our paper fills this gap by offering a review of the current state of research in different academic fields.

### **3. Research design**

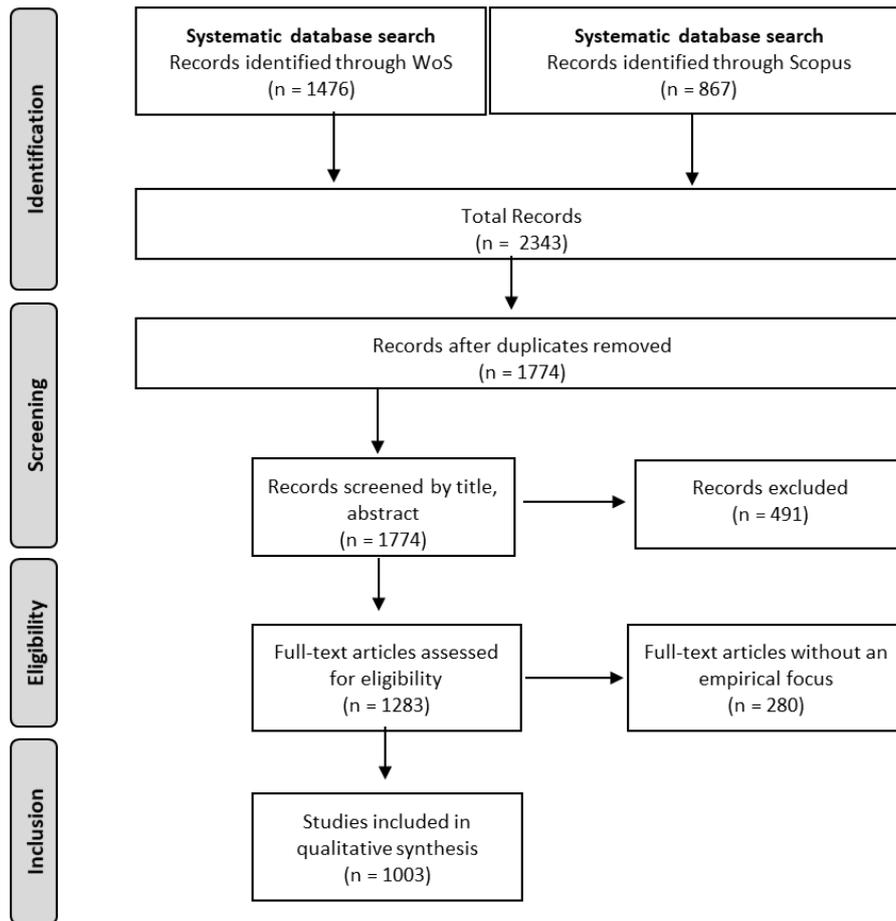
We carry out a systematic literature review of relevant academic contributions. The methodology started with the phase of planning to identify both the research topic and the research questions. Afterward, the research process followed four key steps such as search, selection, analysis and synthesis (figure. 2). Although we represent this process as a series of distinct steps toward a final interpretation, in practice, phases of work overlapped as our interpretation developed iteratively. These steps were not performed in a linear fashion, rather we returned to previous steps as determined by the analysis and interpretations of texts.

In the search phase, we searched contributions iteratively in Web of Science and Scopus by using a variety of keywords (see figure 2). The unit of analysis consists of papers published in English in academic journals. The papers were collected between September and November 2020. This first phase yielded 2108 papers (see figure 1).

In the selection phase, we adopted a selective stance aiming to provide a critical review of the existing research and practices in the context of digital ethnography. One author screened papers to select a subset fulfilling the following criteria: 1. Empirical; 2. Using ethnographic method in an online setting. The second author screened again the set to further triangulate the results. Thus, we confined our research to those studies with an empirical focus, which in other words adopts an empirical ethnographic research. At the end of

this phase, 491 papers were eliminated because inconsistent with the topic and 280 papers were dropped out because they did not implement a digital ethnography, for a total of 1003 papers to be analyzed (figure 1).

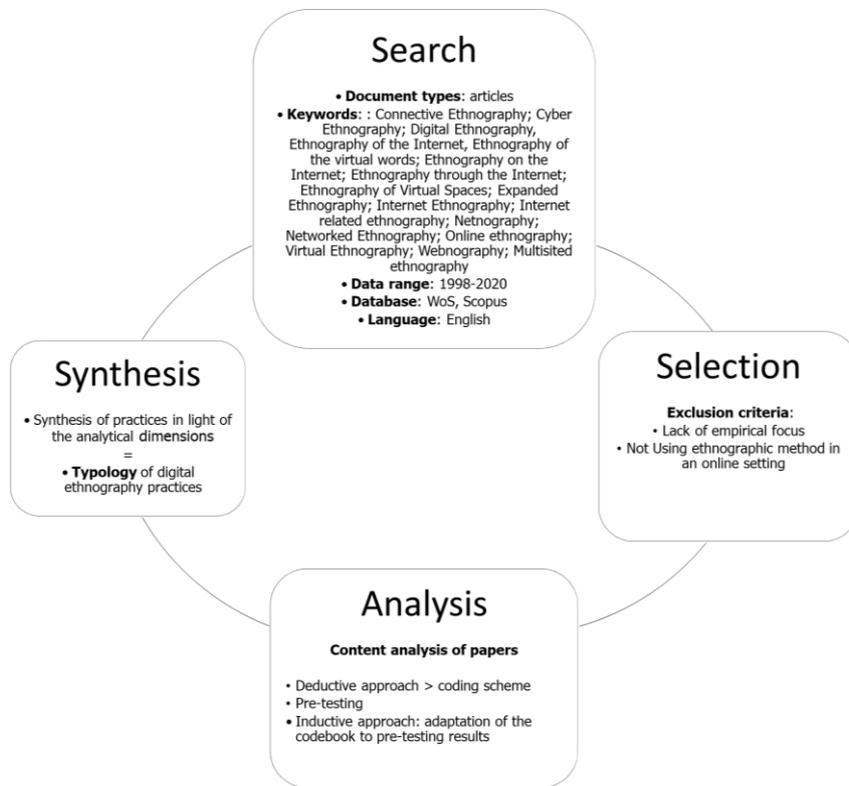
FIGURE 1. The selection process.



In the analysis phase, we carried out a content analysis of the papers selected. Content analysis is essentially based on the interpretation and classification of texts with the help of the most disparate, sometimes competing and contradictory procedures (Rositi, 1988) to make inferences from texts to their meanings. It can be defined as “a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the context of

their use” (Krippendorff, 2013: 24). Basing on explicit procedures of analytical breakdown, classification and coding, it allows compressing many words of text into a limited number of content categories (Weber, 1990; Losito, 1996). For the coding of papers, a hybrid content analysis procedure was adopted based on the sequential use of deductive and inductive coding approaches. In the first phase, papers were coded deductively, on the basis of pre-defined categories and a priori classifications developed on the basis of the concept map and literature review of previous research in the field of digital ethnography.

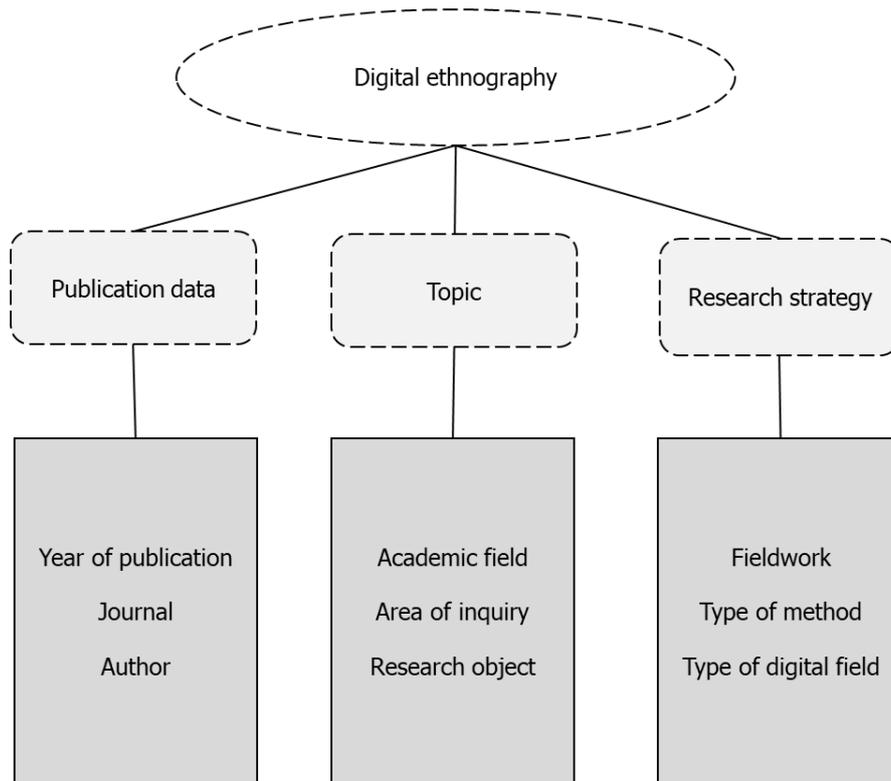
FIGURE 2. The research design.



In the second phase, a pre-testing of the coding scheme was carried out on 300 papers. Subsequently, the coding scheme was inductively adapted *in itinere* and emergent codes were added when during coding unforeseen results (factors, topics and codes not previously considered and included into the pre-defined categories) emerged from the analysis. In the third phase after adaptation of the codebook to pre-testing results, it was applied to the analysis

of the papers collected. The coding and interpretation procedure, both in the pre-testing phase and in the actual analysis phase, involved two analysts, in order to effectively evaluate the quality of the coding ensuring adequate intercoder reliability.

FIGURE 3. *The concept map.*



The synthesis phase involved a process of typology development to pragmatically reduce and systematize an extensive set of features and digital ethnography practices.

Papers were classified on the basis of three dimensions: 1. the publication data; 2. their topic; 3. their research design (figure 3).

Publication data includes the *year* of publication, the name of the *journal* and the *author(s)*. The topic includes the *academic field* that is the field of study and disciplines recognized by university faculty and research, the *area of inquiry* that is the specific research stream emerging from research questions and the *research object of the study* which can be represented by purely online or

online/offline phenomena/topic. Purely online phenomena/topics include online practices such as exclusively online community like those dedicated to particular interests (e.g. cooking, bio, etc.) in which members have only Internet interactions and no offline contacts or purely online behaviors by definition such as the online coming out, cyber-bullism, cybersex, digital culture, etc. Online/offline phenomena include broad offline phenomena (such as migration, citizenship, homosexuality, etc.) developing also online like in the case of a blog of migrants in Italy.

Research strategy refers to the specific *fieldwork* where ethnography is carried out (if physical, digital or both), the *type of method* which refers to the ethnographic approach implemented (if implemented as a stand-alone method or in conjunction with other method), the *type of digital field* studied (if contextual field as in the case of blogs, groups communities or meta-field as in the case of multi-media analysis).

TABLE 1. The coding scheme.

| Dimension        | Variables  | Description   | Coding                                |
|------------------|--|---|---------------------------------------|
| Publication data | Year of publication  | Year the paper was published  |                                       |
|                  | Journal  | Entire name of the journal where the paper was published                      |                                       |
|                  | Author   | Name and surname of authors of the paper                                      |                                       |
| Topic            | Academic field recognised by university faculty and research                   | Fields of study and disciplines recognised by university faculty and research | Medicine                              |
|                  |  |   | Anthropology                          |
|                  |  |   | History                               |
|                  |  |   | Linguistics and languages             |
|                  |  |   | Philosophy                            |
|                  |  |   | Religion                              |
|                  |  |   | The arts (performing and visual arts) |
|                  |  |   | Literature                            |
|                  |  |   | Geography                             |
|                  |  |   | Cultural studies                      |
| Area of inquiry  | Specific areas of inquiry and research stream emerging from research questions |   | Gender and sexuality                  |
|                  |  |   | Organizational studies                |
|                  |  |   | Political science                     |
|                  |  |   | Psychology                            |
|                  |  |   | Sociology                             |
|                  |  |   | Business and Management               |
|                  |  |   | Market economy                        |
|                  |  |   | Computer science and engineering      |
|                  |  |   | Religion and spirituality             |
|                  |  |   | Activism and social movements         |
| Area of inquiry  | Specific areas of inquiry and research stream emerging from research questions |   | Social conflicts                      |
|                  |  |   | Cultures                              |
|                  |  |   | Identities                            |
|                  |  |   | Gangs and criminals                   |
|                  |  |   | Sustainability                        |

| Dimension       | Variables             | Description   | Coding   |
|-----------------|-----------------------|---|--|
| Research design |                       |   | Education<br>ICTs and Media<br>Health<br>Aging<br>Disability<br>Childhood<br>Youth<br>Family, motherhood and fatherhood<br>Migration<br>Work<br>Sport<br>Consumption<br>Tourism<br>Game studies                            |
|                 | Research object       | Research questions focusses on purely online or online/offline phenomena/topic. | Purely online phenomenon<br>Online/offline phenomenon  |
|                 | Fieldwork             | Specific fieldwork where ethnography is carried out                             | Physical field<br>Digital field<br>Both  |
|                 | Type of method        | Type of ethnographic approach implemented                                       | Mono-method<br>Multi-method  |
|                 | Multimethod specified | Specific type of methods carried out in conjunction with ethnography            | Focus group<br>Qualitative interview<br>Questionnaire<br>Content analysis<br>Sentiment analysis<br>Computational analysis<br>Physical observations<br>Social network analysis<br>Desk analysis/documental analysis         |
|                 | Type of digital field | Type of digital field studied   | Blog<br>Facebook group<br>Facebook page<br>Online community<br>Twitter account<br>Facebook account<br>Instagram account<br>Online content on specific topics<br>Instagram content with specific #<br>Twits with specific @ |

#### 4. Findings

Table 2 illustrates the twenty journals with the highest publication count. The Journal of Business Research, the Journal of Marketing Management and the European Journal of Marketing, with respectively 21, 17 and 14 articles, provided the highest number of publications.

TABLE 2. *Top twenty journals.*

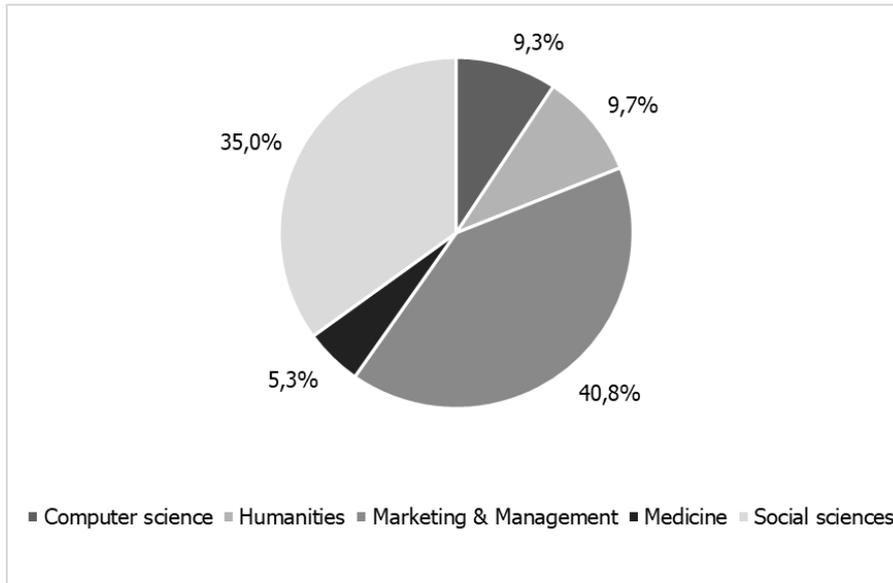
| <b>Journal</b>   | <b>N papers</b> |
|--|-----------------|
| Journal of Business Research                                 | 21              |
| Journal of Marketing Management                              | 17              |
| European Journal of marketing                                | 14              |
| Qualitative market research                                  | 11              |
| Tourism Management   | 11              |
| New Media & Society  | 10              |
| International Journal of Consumer Studies                    | 9               |
| Journal of Consumer Behaviour                                | 8               |
| Qualitative Research   | 8               |
| Games and Culture  | 8               |
| Annals of Tourism Research                                   | 8               |
| Consumption Markets & Culture                                | 8               |
| Marketing Theory   | 7               |
| Sexualities  | 6               |
| Journal of Services Marketing                                | 6               |
| Tourism Management Perspectives                              | 6               |
| Media Culture & Society                                      | 6               |
| International Journal of Cultural Studies                    | 6               |
| International Journal of Contemporary Hospitality Management | 6               |
| Current Issues in Tourism                                    | 6               |

More than 500 different journals are included in our analysis. Their diversity indicates the diffusion of online ethnography also in different fields from marketing and management and its applicability to a vast range of topics. This outcome shows the wide scope of digital ethnography.

Online ethnography appears to be expanding its scope beyond marketing and management. Indeed, by looking at the academic field, we can see that digital ethnographic research in Social Sciences (sociology, psychology, cultural studies, anthropology, political sciences) almost equal that in marketing and management (figure 4).

By analyzing publications over time, we can see a steady increase within the past years. The start year is 1998 when Kozinets first introduced Netnography as a research method. From its beginning online ethnography with its variety of applications was adopted by more and more researchers. After 2010, with the rise of social media, the number of publications has increased considerably (figure 5).

FIGURE 4. Academic field (% of papers).



n=1003

The study of Internet and online phenomena is differently labeled in the literature (figure 6).

The most common label to indicate the ethnography of online spaces is *Netnography* (59% of papers). The term was proposed by Kozinets (1998) and found the approval of many researchers, particularly in marketing and management contexts (table 3). Common uses of Netnography include the consumption experience such as the reaction to advertising stimuli, the consumer behavior, consumer subcultures, new product development, online reviews and reputation, online word-of-mouth, branding, community of practice, boycott practices (table 4).

The label Netnography is followed by *virtual*, *online* and *digital ethnography*, both particularly used in Social Sciences and humanities to study purely online phenomena (such as ICTs and media practices as online subcultures, online practices, online social movements, gaming), cultures, identities and identification issues or sensitive research topics and phenomena difficult to study through face-to-face encounters such as gender and sexuality, religion and spirituality, social conflicts, deviant behaviours and illegal acts, illnesses, health concerns and interests, stigmatic phenomena and groups (migrants, disabled, autists, LGBTs, etc.) (table 4).

FIGURE 5. Publications by year (number of papers).

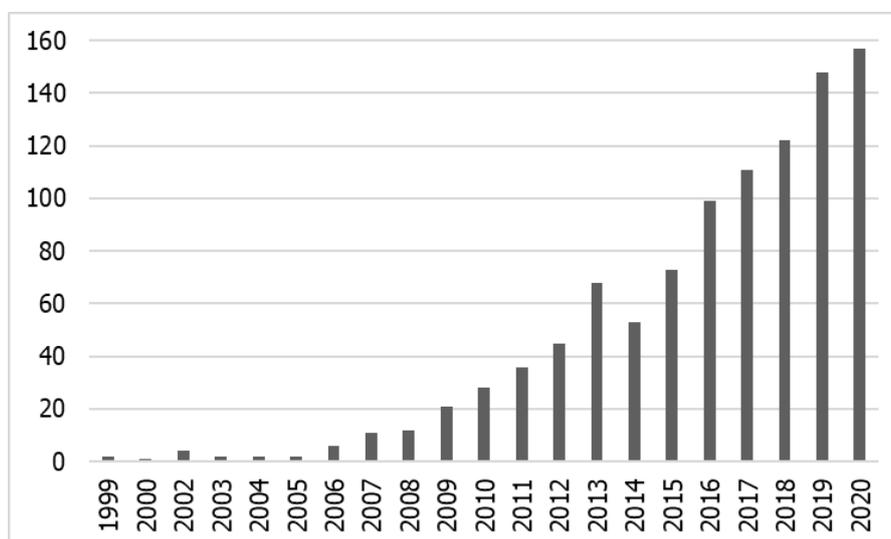
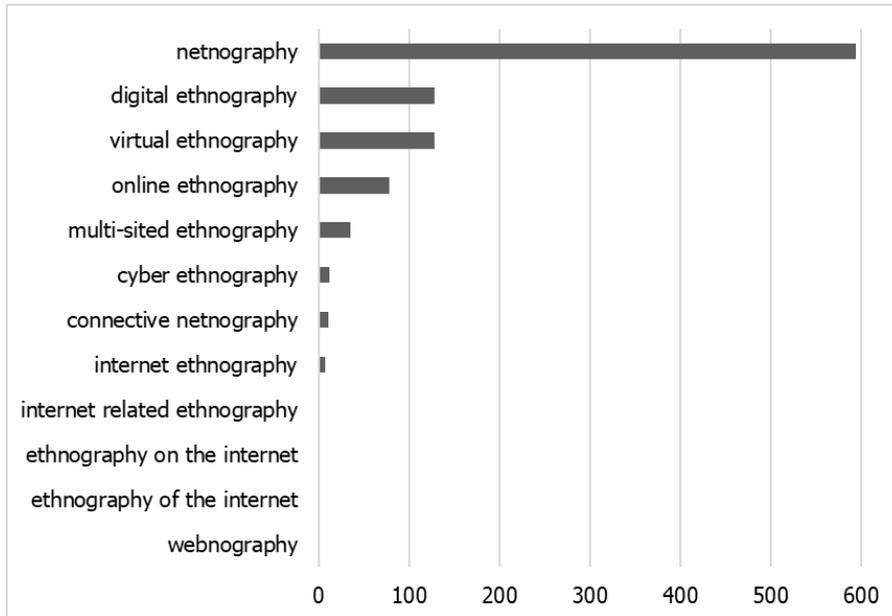


TABLE 3. Label by academic field (column percentage).

| Label                   | Academic field | Computer science | Humanities | Marketing & Management | Medicine | Social Sciences | Total            |
|-------------------------|----------------|------------------|------------|------------------------|----------|-----------------|------------------|
| Digital ethnography     |                | 9,7%             | 25,8%      | 4,6%                   | 15,1%    | 19,4%           | 12,9%            |
| Multi-sited ethnography |                | 4,3%             | 9,3%       | 2,2%                   | 1,9%     | 3,4%            | 3,5%             |
| Netnography             |                | 46,2%            | 32,0%      | 86,8%                  | 60,4%    | 38,2%           | 59,3%            |
| Online ethnography      |                | 11,8%            | 11,3%      | 2,0%                   | 7,5%     | 12,8%           | 7,9%             |
| Virtual ethnography     |                | 19,4%            | 19,6%      | 3,4%                   | 9,4%     | 20,5%           | 12,8%            |
| Other                   |                | 8,6%             | 2,1%       | 1,0%                   | 5,7%     | 5,7%            | 3,7%             |
| <b>Total</b>            |                | 100,0%           | 100,0%     | 100,0%                 | 100,0%   | 100,0%          | 100,0%<br>(1003) |

Another common label is *multi-sited ethnography* which draws on the exhortation of Marcus (1995) to follow participants throughout their movements across space, across online and offline fields since they are spending a significant part of their everyday life on the Internet. In this research stream online ethnography complement the physical one and is used to explore online and offline phenomena such as migration, citizenship, gender, sexuality and homosexuality, work, volunteering, activism and social movements. In other words, in these studies the online phenomena are only a part of a broader phenomenon, as the case of migration clearly testifies.

FIGURE 6. The distribution of the different labels (number of papers).



Other labels sporadically occur in isolated contributions about the topic and are not significantly related to any discipline.

In the majority of papers, digital ethnography is used as a stand-alone approach (67% of papers). The nature of online ethnography as a multi-method approach is not confirmed in our sample. Indeed, only the 33% of study are based on adaptation or bricolage, being built on the combination of digital ethnography with different research techniques and methods. With reference to multimethod ethnographies, it is very common to come across a combination between content analysis and in-depth interviews conducted online, offline or both or focus groups. Sometimes multiple techniques are used to enhance the validity of online ethnography as a research method as in the research by Xun and Reynolds (2010) who complemented online ethnography with interviews to verify the accuracy of accounts. In multi-sited study, online ethnography combines with in person observation and diaries analysis. In some cases, a mixed method approach is carried out combining online ethnography with quantitative research methods such as network analysis, sentiment analysis and text mining.

TABLE 4. Label by research question (row percentage).

| Research question                               | Label | Digital      | Multi-sited | Net          | Online      | Virtual      | Other       | Total         |
|---|-------|--------------|-------------|--------------|-------------|--------------|-------------|---------------|
| Activism, social movements and social conflicts |       | 23,5%        | 5,9%        | 39,7%        | 11,8%       | 16,2%        | 2,9%        | 100,0%        |
| Consumption                                     |       | 2,8%         | 1,2%        | 91,5%        | 1,2%        | 2,4%         | 0,8%        | 100,0%        |
| Education                                       |       | 6,9%         | 5,2%        | 29,3%        | 15,5%       | 31,0%        | 12,1%       | 100,0%        |
| Gender and sexuality                            |       | 13,1%        | 4,9%        | 41,0%        | 13,1%       | 19,7%        | 8,2%        | 100,0%        |
| Health  |       | 14,9%        | 5,7%        | 57,5%        | 5,7%        | 10,3%        | 5,7%        | 100,0%        |
| ICTs and Media                                  |       | 17,9%        | 2,9%        | 45,1%        | 11,0%       | 18,5%        | 4,6%        | 100,0%        |
| Migration                                       |       | 26,9%        | 7,7%        | 23,1%        | 19,2%       | 23,1%        | 0,0%        | 100,0%        |
| Religion and spirituality                       |       | 31,3%        | 6,3%        | 37,5%        | 6,3%        | 18,8%        | 0,0%        | 100,0%        |
| Tourism   |       | 2,2%         | 1,1%        | 92,3%        | 0,0%        | 4,4%         | 0,0%        | 100,0%        |
| Work  |       | 18,4%        | 10,5%       | 52,6%        | 5,3%        | 5,3%         | 7,9%        | 100,0%        |
| Cultures and Identities                         |       | 18,3%        | 4,3%        | 32,3%        | 16,1%       | 24,7%        | 4,3%        | 100,0%        |
| Other   |       | 26,7%        | 0,0%        | 57,8%        | 8,9%        | 4,4%         | 2,2%        | 100,0%        |
| <b>Total</b>                                    |       | <b>12,9%</b> | <b>3,5%</b> | <b>59,3%</b> | <b>7,9%</b> | <b>12,8%</b> | <b>3,7%</b> | <b>100,0%</b> |

The majority of study focuses on purely digital fields without extending the analysis to physical fields. Online environments can be mainly classified into two categories:

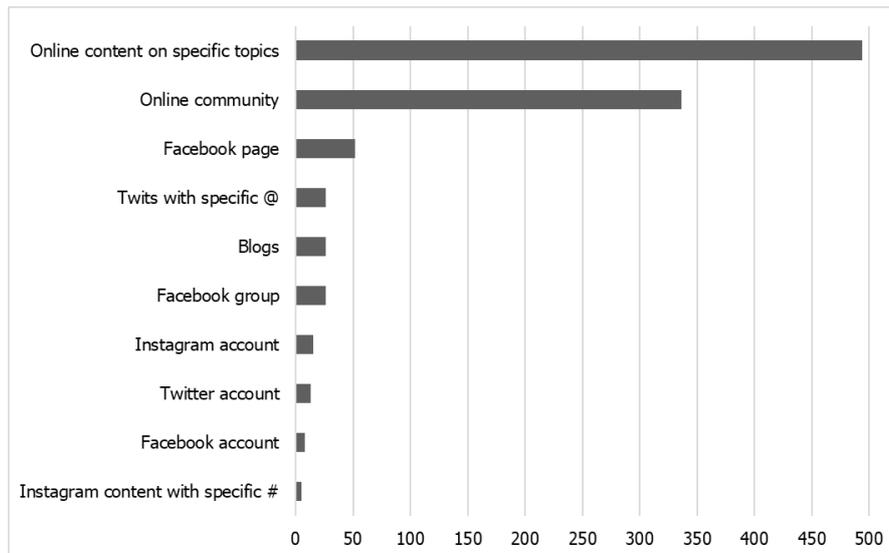
- *open* environments, whose contents are free and accessible to anyone;
- *closed* environments, where the contents are accessible upon user's registration which is, in turn, subject to the approval of one or more administrators.

The field chosen by the majority of research under analysis is represented by open environments. However, there is a huge variety of digital fields (figure 7).

Online communities and blogs are one of the privileged sites. However, in the last years they are substituted by metadata and social media sites. Indeed, contrary to what was usual in the first ethnographic research on the Internet, it is not possible to confine the digital field only to online communities, the classical *loci* of Internet research. Online communities can be defined as delimited digital spaces of social aggregation around lifestyles, value and moral beliefs, emotions, shared consumption practices (Cova, 1997), they are discussion groups developing social relationships around a given domain of

common interest in dedicated blogs (Rheingold, 1993). In fact, the shift to web 2.0 and the rapid growth of social media platforms and applications, created new sites for ethnographic fieldwork fostering new types of ethnographic practice.

FIGURE 7. *Digital fields (number of papers).*



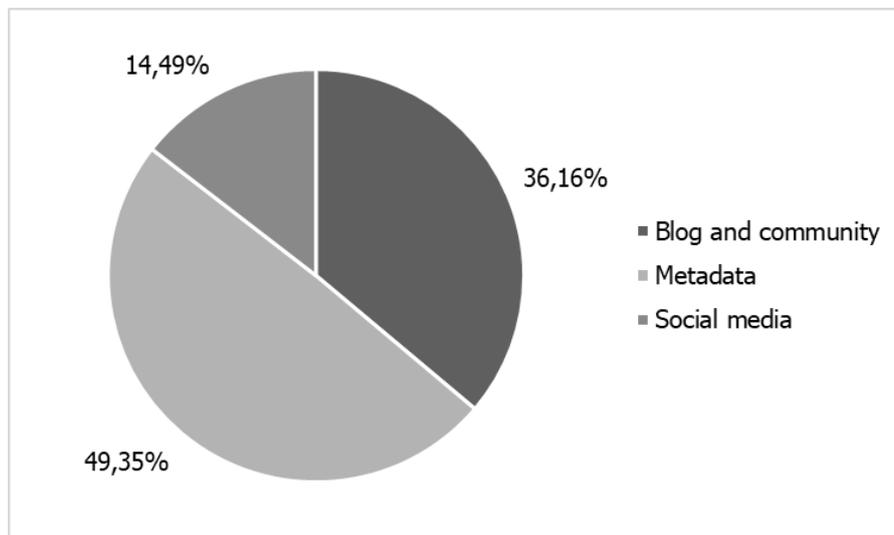
Moreover, recent technological developments such as the diffusion of standards in the recording of metadata, the use of tags and metadata, online algorithms and data mining techniques in the organization of information, combined with the pervasive and ubiquitous diffusion of mobile devices, have revolutionized the spaces and times of online discussions. As a result, such discussions seem to be independent from individual media to anchor themselves to thematic domains, thus assuming the trans-medial characteristics. The context of online interactions is more and more volatile, has no defined spatial boundaries but is delimited by content through the use of tags, algorithms and data mining techniques that organize the flow of information and act as metadata across web pages allowing actors to move in non-linear directions from one media to another (Airoldi, 2018).

Given its digital nature, the ethnographic observation of digital spaces cannot therefore be confined to a central media, that is exclusively related to the study of defined online spaces such as blogs and communities. The model of “community” and communitarism turned out not to be so readily applicable

to the whole spectrum of online interactions. In some case, it loses its space-time anchorage in digital contexts often characterized by temporary, disperse and ephemeral interactions (Caliandro 2018; Caliandro, Grandini, 2019). In the case of many online interactions, we can no longer refer to aggregates of people with sustained membership over time, experiencing a shared sense of belonging, shared values and interests in a defined place. The dimension of space (defined place and media) and time (lasting relationships) is rather replaced by an affective dimension. In this sense, the concept of community is replaced by that of “public”, groups of people characterized by an intense emotional union, but dispersed in space, who gather on different media around a common discourse, being it an opinion, a political issue, a media event, a brand, an interest, giving rise to a social imaginary (Caliandro, 2018; Caliandro, Grandini, 2019).

The ethnographic field is therefore extended to cross-media digital spaces and the definition of the field becomes an important step in the design of an ethnographic research with ethnographers making decisions about the most appropriate way to define their field site. Digital ethnography cannot therefore be exhausted in the identification of an online community but must expand to the mapping of networks of meaning, sociality, and relationality that social actors develop through different devices around a specific object (a theme, a subject, an interest, etc.). A concrete example can be the discursive space developed on different social media around the hashtag (#) #metoo which become a viral campaign around violence against women.

FIGURE 8. Type of digital field (%).



In this case, however, the stable context of a discussion community is replaced by an information and discursive space entailing heterogeneous sets of actors and articulating heterogeneous sets of opinions mediated through specific keywords in a given time frame, without a defined history or community, a “liquid” space (Airoldi, 2018).

The field of digital ethnography thus becomes a “meta-field” (Airoldi, 2018), if defined following the online discourse(s), a field made up of other fields, transversal to digital spaces and in constant change that temporarily aggregates dispersed communicative content through common domains (such as a tag or a hashtag) classified in metadata and created by the daily practices of users who constantly produce social media feeds, search keywords on search engines, use tags and hashtags in this way interacting in a communicative field without space. Also, these meta fields and their creators can be the sites of digital ethnography (Caliandro, 2018). Thus, the field becomes a meta-field of decontextualized, disconnected or connected self-narratives through shares and comments, about a shared object (Airoldi, 2018; Caliandro, 2018).

These meta-fields differ from more delimited spaces identified by *following the people* (Marcus, 1995) and defined “contextual fields” (discussion forums, Facebook groups, blogs, etc.) (Airoldi, 2018). Contextual fields are bounded spaces that bring together people who address a specific audience through a given definition of the situation that gives shape to their social behaviors. Meta-fields and contextual fields are thus the two main loci of digital ethnography.

These difference in digital ethnographic fields testify that a research field is never something just out there and neutral. It is always created through deciding and constructing its boundaries. What is more, such differences imply an internally diverse array of approaches. There is no single form of online ethnography.

## 5. A typology of digital ethnography research

In order to classify the different uses of digital ethnography we detect two classificatory principles:

1. The **depth of content** which relates to digital traces of human activities detached from their context (*metafield*) or social contextualized environments (*contextual fields*). In other words, we can see contextual fields as bounded and delimited spaces (e.g. discussion forums, communities, facebook groups, etc.) and metafield as unbounded and artificially created fields aggregated on the basis of

- shared keywords being it a phrase or combination of words (e.g. Instagram or facebook’s social feeds);
2. The **type of data** which ranges from large sets of traces of user activities collected by digital platforms (*Big Data*) to small corpuses (*Small Data*). The distinction is based on the scale of data with Small Data focusing on specific cases, nuances and contextual stories and Big Data integrating different sources.

FIGURE 9. A typology of digital ethnography research.

|                 |            | Depth of content  |   |
|-----------------|------------|---|---|
|                 |            | Metafield   | Contextual field  |
| Data collection | Small data | <p><b>Social media ethnography</b></p> <p>Twitter accounts<br/>Facebook accounts<br/>Instagram accounts</p> | <p><b>Contextual digital ethnography</b></p> <p>Online community<br/>Blog<br/>Facebook groups<br/>Whatsapp groups</p> |
|                 | Big data   | <p><b>Meta digital ethnography</b></p> <p>Online dispersed content #</p>                                    | <p><b>Cross-media ethnography</b></p> <p>Online and offline fields</p>  |

From the intersection of these two classificatory principles 4 types of digital ethnography emerge (figure 9):

- **Meta digital ethnography** uses content analysis or analytical techniques of data and text mining and has a global focus. It encompasses a range of large masses of data from microblogging and other social media sites in order to detect patterns and construct understandings of cultural and social phenomena. The field is not contextualized to bounded sites but is represented by collection of things that become intertwined. An example of this type of digital ethnography is the research on Erasmus experience by Airoldi (2018) who aggregated public posts, web sites and other online content featuring the keyword “Erasmus” to identify the main narratives of Erasmus identity through qualitative coding. Thus, he identifies four

main narratives of Erasmus identity: independence, cosmopolitanism, transgression, sociality. Another example is the study by Song (2020) who in order to study the medical student burnout analyses contents which explicitly mention burnout or its grammatical variations through Reddit's search function. The study carries out an inductive content analysis to detect the predominant themes (e.g. difficulties dealing with freedom, existential isolation, meaninglessness, etc.).

- **Social media ethnography** entails types of research aimed to study patterns of activity or behaviors exhibited in the social media world through user's posts that is their verbal or visual expressions. This type of digital ethnography is carried out by searching and aggregating social media content according to computational criteria and internal search engine. An example is the research by Lubinga and Sitto (2019) who studies the discourse on abortion in South Africa by analyzing comments on twitter consequent to a radio conversation and those deriving from a tweet by a young women presenting abortion as a woman right.
- **Contextual digital ethnography** is carried out in bounded digital settings often represented by semi-public or private environments such as facebook groups, whatsapp groups, discussion forums, online communities or blogs, structured places with specific users, a relative stable community of members and definition of the situation. An example is the study by Neumann (2020) on Fat admirers (FAs), communities of individuals who accept and admire fatness, carried out by analyzing a dedicated online community in order to understand their stigmatized identity and their self-protective strategies.
- **Cross-media ethnography** traverses online and offline contexts, meta and contextual environments by creating fields dispersed across web platforms, online and locality-based realities. It follows the flow of a given research object, being it a social phenomenon, a brand, a group or a single user, across different online platforms or online and offline environments. An example is the research by Molz (2017) who studies the phenomenon of worldschooling as an alternative education and lifestyle practice consisting in taking children out of conventional education to educate them while traveling the world. To do so, the study combines the analysis of blogs, of dedicated facebook groups where worldschooling communities congregate and in-person observations during travelling as a parent with other worldschooling families.

## **6. Discussion and conclusion**

This paper concentrates on the practice of digital ethnographic research twenty year after its introduction by providing a first comprehensive systematic review of the empirical literature on it. It contributes to methodology and the possibility of digital ethnography as a research method. Moreover, it contributes to show how ethnography of online spaces have developed and reshaped its offer. Since the method is developing along with the advancement of technology, the present study offers an update of knowledge about the method.

The literature review shows that digital ethnographic research is progressing and changing on several fronts. In the last years it appears in a variety of research areas with different labels. This indicates that the ethnographic study of online spaces tends to be less grounded in any one discipline, but it is used to answer issue-specific questions closely linked to their discipline. This is allowing for this method to develop and become mainstream.

The technology revolution has provided platforms that have enabled data to be collected on mass and at a more rapid rate. Datification offers new cultural spaces where human behavior is shaped and causes intersection between digital ethnography and Big Data. Consequently, the approach includes a broad spectrum of method inspired by the fundamental principle that methods should co-evolve with their object of study and continuously adapt their field.

Current uses of digital ethnography remixes different methods, devices, infrastructures and data forms into thick data blurring the boundaries between qualitative and quantitative methods, numbers and narratives, exploration and explanation.

The nature of participant observation seems to change. Participant observation in the daily life of a group which represent the main method of the initial online ethnography seems to transform in participating in the online cultural context deriving from cross-media and cross-field observations.

The challenge seems to be to increase the breadth of data while enhancing their depths resisting the tendency to reduce culture and humanity to decontextualized numbers.

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