

A Longitudinal Iterative Convergent Approach to Netnography

Full Paper

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Abstract

Netnography is a new approach that uses ethnographic principles to provide rich insights into human society. It combines archival and online communications, participation and observation, with new forms of digital and network data collection, analysis and research representation. While the use of Netnography is gaining momentum there are a few weaknesses that pose a limitation to its wide spread use. The limitations are in terms of single cycle studies lacking the power to unearth deep insights, to adequately understand a rapidly evolving field, and issues of generalizability and validity. Hence for the generalizability, validity, and usefulness of the method, we suggest three mechanisms to extend and enhance the Netnographic approach namely: longitudinal, iterations, and convergence. We adapted and extended the traditional Netnographic approach with a few more steps that fulfil the requirements and address the weaknesses. We have applied this approach to a longitudinal multi-year multi-iteration study.

Keywords

Netnography, longitudinal, iterative, convergent, ethnography, LICAN, discourse analysis, content analysis, conversational analysis, qualitative data analysis, generalizing, theorizing.

Introduction

Netnography is a relatively new approach for conducting exploratory research through the use of ethnographic principles that combines archival and online communications work, participation and observation, with new forms of digital and network data collection, analysis and research representation . The method was developed by Robert Kozinets in the mid-1990s. Netnography is “part of the ethnographic research family and is the study of fieldworks, distinctive meanings, practices and artefacts of human behaviour, societies and cultures” (Marcus 1995). Netnography can provide rich insights into human society (Klein and Myers 1999) and is different from ethnography as it is conducted through online communities with computer-mediated communications. Whereas, ethnography is purely an anthropological approach where personal engagement is the key mechanism to study a particular fieldwork or social setting (Hobbs 2006). Ethnographers immerse themselves in the life of the people they study (Myers 2010). With the appearance of online communities in the research field, this new methodology has emerged and been named “online ethnography”, sometimes referred to as “cyber ethnography” (Ward 1999) or “Netnography” (Kozinets 2010). This method helps us to gain an understanding of human experience from online social interaction and/or content. While the use of Netnography originated in marketing and consumer research studying online brand awareness and consumer behaviour, it has spread to a number of other disciplines. Netnography is now being used in a number of disciplines and fields such as psychology, sociology, anthropology, geography, leisure, education, hospitality, health, business, tourism, game studies, addiction research, and urban studies that are specifically investigating an online phenomena of human interaction, communication and behaviour. For example just to name a few, Netnography served as an effective methodology driver to understand and explore: consumer preferences in Nivea deodorant (Bilgram et al. 2011), use of negative adjectives in connection with food in touristic experience (Mkono 2011), human sexual expression and behaviour at leisure (Berdychevsky and Nimrod 2017), online gaming and internet addiction (Wood 2009), sensitive discussion in disabled online groups and weight loss communities (Langer and Beckman 2005).

Because many of us live our lives in an inter-related matrix of online and offline social communications, meaningful studies of culture must attend in understanding both types of social interactions. Every day, individuals connect to each other through online boards, networks, blogs, wikis, web pages, dungeons and chat rooms. These millions of users in the online dimension provide an abundance of valuable cultural information and with the use of Netnography, the researcher has access to unlimited relevant, detailed and naturally occurring content and context. Netnography can help the researcher to analyse and to reach insights from written conversations. In Netnography, online interactions are visualised by written communication with the human understanding of a subject, product or concept of interest. It is an adaptable method and easily transferable in comparison to other traditional methodologies. However, Netnography does take time, and can be misleading and it can distract the researcher from the initial goal of the study.

Netnography is focused not only on context, but also on conversations, content and discourse. It is important to probe more deeply into the logic behind the words, forums, images and visual presentations. However there are a few limitations to this method. And it these limitations that our approach hopes to address. There are four key limitations: (1) a single netnographic cycle may not be able to unearth all the richness of the phenomenon under study (2) the phenomenon itself maybe evolving rapidly especially considering the fact that we are studying a phenomenon rooted in digital virtual universe (3) usually the first cycle may have many errors and omissions and (4) a single netnographic cycle could have studied an outlier within the phenomenon and this cannot be used for generalization. The saying that ‘one swallow does not a summer make’ is very relevant in this context. Hence for the sake of rigor, generalizability, validity, and usefulness we suggest three mechanisms to extend and enhance the Netnographic approach (1) longitudinal (2) iterations and (3) convergence.

The paper is organized as follows. The following section introduces the foundational and traditional Netnographic approach. The third section introduces and provides an overview of our longitudinal, iterative, and convergent approach to the Netnographic process. The penultimate section discusses the details of the steps in the proposed process. The paper concludes with a discussion on potential implications, applications, and benefits of our approach.

The Traditional Netnographic Process

The Netnography research process follows five overlapping steps represented in Figure 1 (adapted from Kozinets 2010). These steps have been adopted by many Netnographic followers and cited by many studies (Abrahamsen and Hartman 2006; Belz and Baumbach 2010; Kozinets 1999, 2002, 2006, 2008, 2010, 2015; Perkins 2010). These five steps found their origin from the six ethnography steps, which are Research Planning, Entrée, Data Collection, Interpretation, Ensuring ethical standards and Research representation .

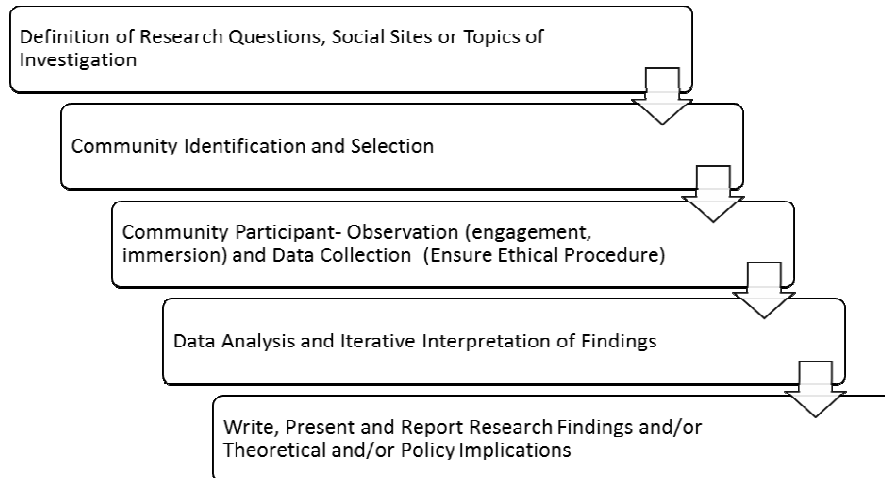


Figure 1. The Traditional Netnographic Process (Adapted from: Kozinets, 2010)

Overview of the Longitudinal Iterative Convergent Approach to Netnography

The main goal of most Netnographic research studies is to understand the behavior that occurs in online conversations in order to build a theory or draw a theoretical conclusion. Therefore, it would be unrealistic to assume that the theory can be built from only one cycle of the Netnography research process. Figure 2 illustrates the longitudinal iterative convergent approach to Netnography that we have developed and applied (author's references will be incorporated in the final). Important to note, that our approach proposes steps that can be adopted by any research study that is to be conducted on theory building of an online phenomena.

The concept behind the illustrated iterative model is that each Netnography cycle builds on the findings of the previous one, where the actual assessment and convergence takes place. The need for longitudinal studies is justified by the fact that the robust theory can only be built over time, with all the changes and new insights along the time frame. The theory is not built once all the required steps are followed. The theory building process is not a checklist of steps that need to be addressed. The data collection and analysis procedures can and do change over time as the research progresses. The iteration of the cycles are presented under the assumption that each cycle of Netnography will be different, as it takes the lessons learnt from the previous cycle to be applied to the next one. Convergence is about a deeper understanding of how people behave in online conversations. Each cycle of Netnography helps the researcher to explore online interaction at a deeper level. Each Netnographic cycle can have many iterations and even sub-iterations within. For example, the data analysis of coding might not make sense at the first trial, it is an iterative approach where a researcher tries different coding and analysis processes until it starts making sense and can be synthesised into an artefact. It is important to note that sometimes during some iterations new knowledge or insight may arise that could cause a divergence, could cause the universe of discourse to widen furthermore. But overall it is expected that as the iterations progress there will be a convergence in understanding into the phenomenon under study.

By progressing these iterations, the researcher should feel more comfortable with the theory and the phenomena of discovery itself. As depicted on the diagram the cycles are reducing in size, as the researcher will gain an experience from repeating the cyclical steps. There is continuous longitudinal learning and theory building with this approach. The benefit of the cyclical process that is depicted in the figure is a clear path of progression from theory initiation to more advanced theory building, with the modifications and assessments as stage gates on the way. A key question that is asked in any iterative approach is 'How many iterations?' Or putting it another way 'When do we stop?' Different approaches and heuristics could be used to decide on the number of iterations:

1. New knowledge or insight gained – if the amount of new knowledge gained or insights starts decreasing significantly then it is a sign that the process can come to a conclusion.
2. At least a minimum of 2 iterations is suggested. In Delphi studies it is suggested that at least there be three iterations. In a similar vein we would recommend that 3 iterations would help the researcher to come closer to convergence.
3. The upper limit on the number of iterations is also dictated by the speed with which the online phenomenon changes. If it is a phenomenon that is changing very quickly then it needs to be studied quickly using fewer iterations and start a separate study if the phenomenon changes drastically. But there is also value in studying a phenomenon as it changes so that there can comparison and contrasting to understand how it has changed.
4. Objectives of the research – the iterations can stop once the objectives of the study has been fulfilled or met.
5. Convergence – once there is convergence on conclusions or findings and new iterations don't throw up any more new conclusions it is time to stop.
6. Divergence – if there is also too much divergence it might be time to halt the iterations or spawn a totally new study. Especially if the divergence veers away from the initial objectives of the study.

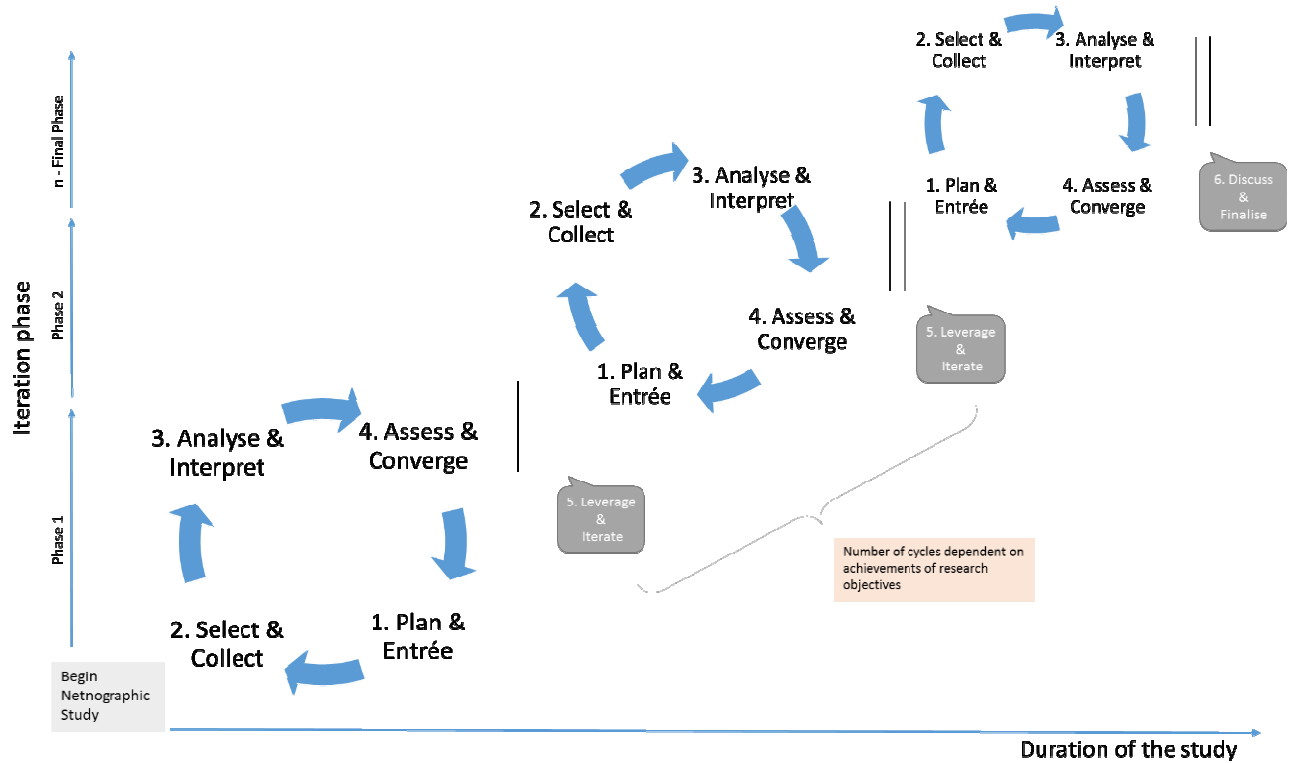


Figure 2. Longitudinal Iterative Convergent Approach to Netnography

Detailed view of the Longitudinal Iterative Convergent Approach to Netnography

Table 1 below shows the adapted Longitudinal Iterative Convergent Approach to Netnography in a nutshell. The origin of the provided steps can be found in Kozinets’ guide on how to conduct Netnography, described in his book ‘Netnography: Doing Ethnographic Research Online’ (2010). The original steps were reorganized, some were merged and new steps were added to overcome the aforementioned limitations of Netnography.

Step 1: Planning and Entrée

This step is considered to be foundational and therefore to be closely followed by Kozinets’s description, which is to proceed with the planning for the research and fieldwork. The first is to define the research parameters, objectives, and questions. Depending on the research maturity, this can be an opportunity to think about potential research requirements, artefacts, and contributions. The second is entrée, which involves the choice of networks of interest and rationale behind it. Kozinets (2010) recommends that the chosen conversations and topics should be popular with much interaction and many visitors. It is important to understand, that the researcher will need to spend a substantial amount of time in immersing and familiarising with the chosen community in order to observe, study and understand the community behavior, its participants and communication patterns (i.e. online jargon).

Step 2: Data Selection and Collection

The second step involves the data selection and collection process. This is considered to be a crucial procedure that serves many purposes in any research approach . The data selection process needs to be aligned with the research objectives. Usually the main criteria for the Netnographic study is to find online networks, websites, forums, blogs, posts, and conversations that lead to an understanding of the phenomena under consideration.

#	Steps	Description
1	Planning & Entrée	Plan for the research and fieldwork; Define, identify, select research questions, communities; conversations of interest; Familiarise and begin to study/observe communities, networks and its participants.
2	Data Selection & Collection	Set guidelines on: data selection and collection, observation, participation and engagement; Filter, review and revise conversations; and data collection challenges.
3	Data Analysis & Interpretation	Proceed with data interpretation process with the use of the discourse, content and textual analyses.
4	Assess & Converge	Assess and discuss study results, research guidelines and decisions made; Converge those into future changes for the next iteration phase if required. <i>Report and present study results if applicable.</i>
5	Leverage & Iterate	Iterate the Netnography phase by leveraging learnings from the last iteration cycle – Step 4.
6	Discuss & Finalise	Discuss, finalise and report research findings and/or theoretical implications if confirmed that no more iterations required.

Table 1. Detailed steps of the Longitudinal Iterative Convergent Approach to Netnography

We suggest to follow the five W’s selection tool to filter conversations and posts for creation of the general idea on the themes and context of online discussions . It is called ‘five Ws’ because five of the questions begin with the letter ‘W’ and one question “How?” can be added to this list (Hart 1996).

- What were the actions and what happened as a result of the actions?
- Who performed the actions in the story (or who experienced the results)
- Where did the actions occur?
- When did the actions occur?
- Why did the actions occur?
- How did the actions occur? How did it happen?

These questions should guide the researcher to choose conversations that are associated with the phenomena of study. Most of the conversations in the internet are about problems and questions that need to be resolved and/or answered. As part of Step 2, we suggest to follow Kozinets (2010) recommendation to capture three different types of data during the data collection process:

- **Archival Data:** “data that the researcher directly copies from pre-existing computer-mediated communications of online community members” (Kozinets 2010, p.98). This type of data is taken purely from online conversations; the researcher has no intention to be involved in the creation of content of archival data. Therefore, this type of data is considered to be suitable for pure observation only or use another term “Passive Netnography” .
- **Elicited Data:** “that the researcher co-creates with culture members through personal and communal interaction” (Kozinets 2010, p.98). We suggest that the researcher decides whether elicited data is required to be collected or not and if it is a study requirement, then the researcher needs to make sure that the ethical standards of conducting research are followed and maintained through the whole Netnographic study. In this case, the researcher will need to disclose the research purpose and presence to the chosen online community.
- **Field Note Data:** “the field notes that the researcher inscribes regarding their own observations of the community and its members” (Kozinets 2010, p.98).

Kozinets pays much attention to the ethical consideration of the study. Depending on the study purpose and research objectives, these guidelines can be modified, but not ignored. Langer and Beckman (2005), for example argue with the disclosure of the research purpose on online communities or internet forums. They suggest that it is not always needed or possible to disclose yourself on online communities or networks. Moreover, information offered on the internet is publically available and contributors of online content should be aware of this. This approach suggests that ethical standards should be always applied, but how these standards are executed depends on many factors that need to be ethically considered by the researcher.

Step 3: Data Analysis and Interpretation

Kozinets (2010) notes that “Netnography is based on the observation of textual discourse”, stating that content and discourse analyses are used to expedite the coding procedure and analysis of data. However, Kozinets (2010) does not refer to conversational analysis in his manual on how to use Netnography. Conversational analysis is an important component for the method of looking into various conversations and tries to understand the context, meanings and trends. This approach will heed Kozinets’ advice on using content and discourse analysis in addition it will also add a third component: conversational analysis. Figure 3 shows the framework for the construction of the data analysis and interpretation step of our process. This step consist of three analyses: discourse, content and conversational.

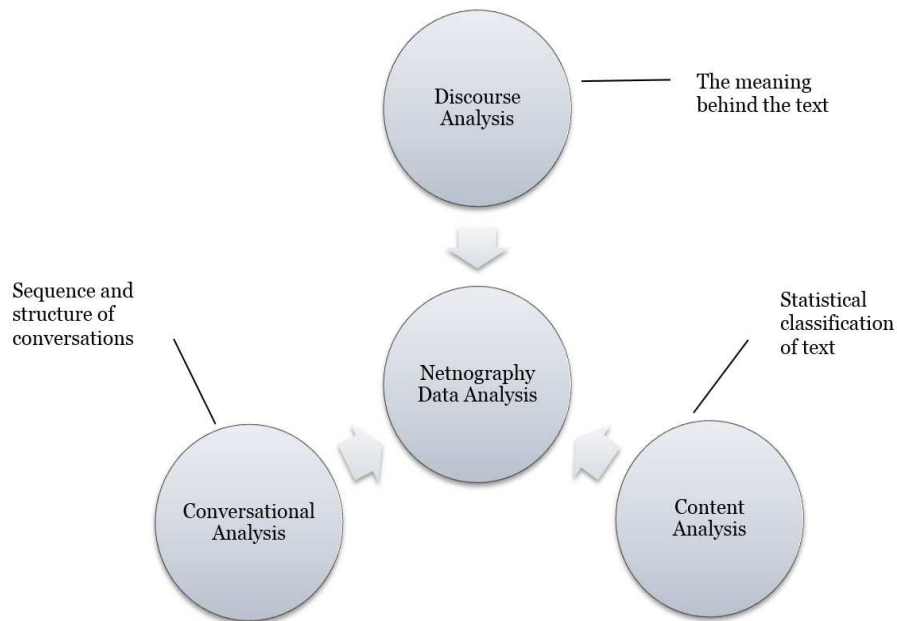


Figure 3. Data Analysis Framework for Longitudinal Iterative Convergent Approach to Netnography

Discourse analysis is a general term for written, spoken or sign language analysis. According to Phillips and Hardy (2002), discourse analysis is embodied and enacted in a variety of texts, and the practice of their production is to bring an object into being. Discourse analysis explores the text meaning and the constitution of social reality. It aims at revealing the socio-psychological characteristics of a person rather than the text structure.

Content, in comparison with Discourse analysis, is more scientific in its nature; it is quantitative analysis that is designed to study the content of communication and text. Hsieh and Shannon (2005, p.1278) define content analysis as a “research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns”. Following Hsieh and Shannon’s (2005) description, content analysis can be used to work with the content by the statistical occurrence of defined units/codes.

Conversational analysis studies social interactions in ordinary conversations, either written or spoken (Goodwin and Heritage 1990). Conversational analysis can be used to describe the orderliness, structure and sequential patterns of online interactions. Conversational analysis involves easily locating the significance of a story by breaking it down into specific segments.

Wood and Kroger (2000) explain the reasons for using combination of quantitative (content) and qualitative (discourse and conversational) approaches for the analysis of text. Their argument is that most people, most of the time during their life are involved in communication activities (i.e. talking, writing). To do anything in life, communication is required, and it is usually converted into verbal or textual expression (Wood and Kroger 2000). Until very recently, little attention has been given to what people are

actually saying or doing in particular everyday circumstances. All three analyses do have similarities and differences, which is why in combination, they are able to produce overall better quality analysis.

The above framework is to be used as a meta-level approach to data analysis in a Netnography study. What is anticipated is that there will be a second layer of data analysis of the online conversations themselves, which is to be more detailed and finer. Since Netnography has its roots in ethnography, the conversation and discourse data analysis process will follow a grounded theory approach. Kozinets (2010) follows the procedure described by Miles and Huberman (1994, p 9) shown in Figure 4. Kozinets (2010) makes a point that these steps need to be adapted and implemented in sequence.

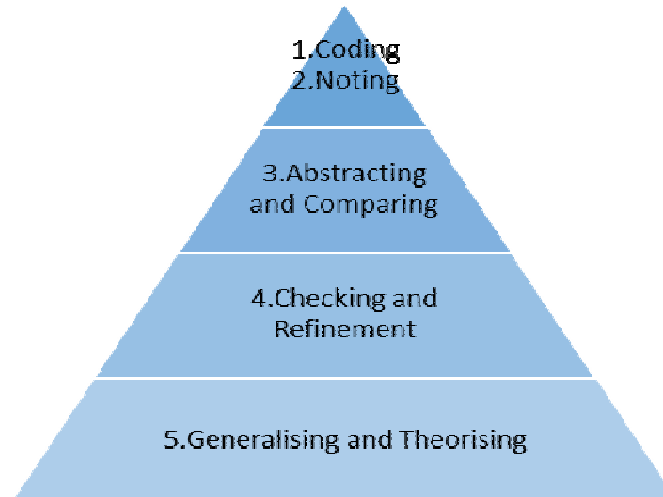


Figure 4. Qualitative Data Analytic Process (Adapted from: Miles and Huberman 1994)

Glaser and Strauss (1967) suggest that the first step is to collect the data and refine it to a series of codes which are extracted from text and might not be assigned to a theory at a first stage. Later the codes are grouped into concepts that are noticeable from coded transcripts. From the developed concepts, the researcher needs to form categories that are the basis of emerging theory. Similar to the process of grounded theory analysis, our process is synthesized from Leonard and McAdam (2001) and Strauss and Corbin (1990).

Step 4: Assess & Converge

The Assess and Converge step is an additional step that was specifically added to enrich the Kozinets process. This step was developed based on the overall thinking of the theory building process and its requirements. There is a continues convergence of the body of knowledge (theory, definitions, content) which guides and informs the method by which that knowledge was derived .We describe this step as a step of assessment of study results, research guidelines and all the decisions made – whether it is the theory chosen, or the planning step. The convergence of these results in future changes for the next Netnography iteration cycle if it is decided to proceed based on the study results and lessons learnt. The research findings or results summary can be presented at the end of this step, if the researcher feels the need to share, make a contribution to the academic field or receive a peer review. We consider this step as a necessary component in order for the body of knowledge to be converted into theory.

Step 5: Leverage and Iterate

The Leverage and Iterate step is also a new step that has been added to the Netnographic process. This step can be optional and referred as a stage gate. This step is about application of the lessons learnt from the previous cycle and applying these lessons into the next cycle. If a study went through one or many iterations of Netnographic process cycles and there is still a need to conduct more, the researcher proceeds to this step – stage gate. This is to help to leverage on the previous cycle' findings and iterate within the next cycle keeping in mind additional objectives and lessons learnt.

After each cycle, the researcher might want to modify and change the study parameters. Based on lessons learnt and the new modifications, the new cycle will be an iteration of the Netnographic process, but with the applications of modifications that have been identified and assessed in Step 4. The subsequent iteration cycle might not necessarily take as much time as the previous one, due to the fact, for example, that some of the work on choosing communities, identifying conversations (Step 1) has been already done and the researcher may need to progress with modified data analysis only. Even though, the path of Netnographic cycle will be repeated, it should be easier and faster for the researcher to progress with. However, for quality assurance the researcher needs to repeat the cycle and modifications are allowed to suit the needs. At the same time, there is a risk that more questions after each phase of iteration might arise, where the researcher might reconsider some of the decisions made during the first phase (for the communities and conversations selected and/or data analysis approach). As mentioned earlier this could cause divergence and not necessarily convergence. Nevertheless, the bulk of foundational work should be done during the first phase, except in the case where the researcher decides to completely scrap the work of the first phase and has to commence a new study. Each Netnographic cycle and each iteration of five steps come together as layers for theory building. The theory that is being developed will be finalised at the moment the study meets the research objectives. The cycles of iteration continues until the changes in study parameters do not seem to affect the results and any additional objectives will not make a difference. Then at this stage the Netnography study can end and the results can be finalised.

Step 6: Discuss and Finalize

Once the researcher has gone through as many iterations as required and confirms that the study meets the research objectives, and collected enough insights to build and in some cases validate the theory, then, the longitudinal iterative convergent Netnographic study can come to an end. This is the step where the researcher analyses results after each cycle and asks the questions if there is enough discovered to have an understanding of the phenomena and confirms that another cycle of Netnography is not needed.

The last step of the longitudinal process is to discuss and finalise the research findings and/or theoretical implications, if confirmed that there are no more iterations required. This step is the same as the last step of Kozinets process, where he mentions that the research results need to be published and shared. As mentioned before, publications of research findings can happen even after the step 4 of any Netnographic cycle, there is more benefits to publish and present the study results earlier than later and before they have been finalised, in order to receive valuable peer reviewed feedback. This is akin to the “fail fast” approach that is used commonly across development and design competencies (Horst et al. 1998). But, the step 6 is specifically encouraging the finalization and presentations of the final results and if possible, publication of the theory and findings after the longitudinal iterative convergence Netnography study has been conducted in full.

Conclusion

Netnography is still a new approach in exploratory research through the use of ethnographic principles to provide rich insights into human society. It combines archival and online communications work, participation and observation, with new forms of digital and network data collection, analysis and research representation (Kozinets 2010) While the use of Netnography is gaining momentum there are a few weaknesses that pose a limitation to its wide spread use. The limitations are in terms of single cycle studies lacking the power to unearth deep insights, to adequately understand a rapidly evolving field, and issues of generalizability and validity. Hence for the generalizability, validity, and usefulness of the method, we suggest three mechanisms to extend and enhance the Netnographic approach namely: longitudinal, iterations, and convergence. We adapted and extended the traditional Netnographic with a few more steps that fulfill the requirements and address the aforementioned weaknesses. There are many advantages to the approach that we propose. While the initial cycle seems to take a long time, the following iterations can be done quicker with more insights and richer contextual data. This is because we are able to shorten the cycle time since we know what to do and how to do. We are also able to quickly overcome the data collection challenges in the latter cycles and do not get drawn into the data since the objectives are much clearer in the mind of the researcher as the cycles progress. The focus goes into answering research objectives and see uniqueness and not managing the data and the admin side of data collection. Multiple cycles also help us to analyse different representative networks to validate the

generalizability of our findings. This results in a broader understanding of the concept and theory. The ability to compare and contrast networks and communities of interest and re-use lessons learnt and leverage the insight and wisdom garnered is absolutely vital to our approach. The multiple cycles in Netnography allows us to study the changes in behavior over a period of time and the way participants are evolving and interacting. The longitudinal iterative convergent approach to Netnography has been tested in the field. We have conducted a multi-year (4) and iterative (4) Netnographic study that converged on some interesting results (Sadovykh, Sundaram and Piramuthu 2015, Sadovykh and Sundaram 2015, 2016, 2017). The advantages mentioned were realized in our longitudinal, iterative, convergent study. Through our approach we are trying to open up the digital/virtual phenomena under study and think outside the box, that we could so easily get into when we just conduct a single cycle Netnographic study.

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