

# Crowdsourcing Research to Mobile Consumers? Emerging Themes on Videographic Data Collection.

Lauri Pitkänen and Joni Salminen

**Abstract**—We combine two concepts – videography and crowdsourcing – and seek to discover emerging themes that are relevant for crowdsourcing videographic data collection, especially by using mobile phones. In particular, we discuss four emerging themes identified in the literature, namely (1) guidance, (2) quality, (3) incentives, and (4) representations. A conceptual model of emerging themes is created to answer the following questions: How should the researcher guide consumers when crowdsourcing data collection? How can the quality of crowdsourced videographic research data be judged? What motivates consumers to create and collect data for research purposes? And, finally, how should researchers approach the videographic material collected by “crowds”?

**Keywords**—Consumer research, crowdsourcing, mobile phones, videography.

## I. INTRODUCTION

MOBILE consumers are carrying mobile phones with high-quality cameras and video recording features, enabling them to capture high-quality footage wherever they go. Through mobile Internet, they are always connected to information, friends, and firms; creating an opportunity for researchers to collect consumer-related data in new ways. At the same time, videography has become an established form of visual research. Rokka [9] defines that videography “consists of audiovisual methods that are used for ethnographic purposes in the study of consumer, culture and markets”, using video “not only to register evidence from ethnographic field sites, but also to analyze and present findings” and suggests that visual elements reflect the actual field and can be put in the center of research until representations emerge. In terms of methodology, videography can be applied with different techniques and methodologies of qualitative consumer behavior research [1, 6]. Belk and Kozinets [1] list individual or group interviews, naturalistic observation and autovideography as traditional methodological options. However, they recognize other varieties of methodology [6], such as collaborative, retrospective and impressionistic

videography. Pink underlines video’s role in recording reality and suggests that material could be created based on video diaries, note-taking and recording processes and activities of interest [7].

Meanwhile, Howe [5] introduced “crowdsourcing” as a new way for consumers to participate. Most crowdsourcing platforms exist on the Internet, but the platforms have started to shift mobile. The use of mobile phones creates new possibilities for ethnographic consumer research. However, Belk and Kozinets [1] underline that the presence of video cameras affect informants’ behavior, denaturalizing the situation. In contrast, Hein et al. [3] found that use of mobile phones during ethnographic researches reduced the level of disruption and revealed insights of the consumers otherwise hard to capture. With mobile phones consumers can participate by producing ethnographic research data and bringing multiple perspectives to researches [4]. Mobile phones “allow researchers to record their observations, co-create data, and share experiences with their participants in ways that enhance the quality of ethnographic interpretations and understanding.” They not only allow a prominent way to capture reality, but to “gain insight into multiple social realities” as well [4].

This study combines these two concepts – videography and crowdsourcing – and seeks to *discover emerging themes that are relevant for crowdsourcing videographic data collection via mobile phones (or platforms)*. In particular, we discuss four emerging themes identified in the literature relating to the two concepts, namely (1) guidance, (2) quality, (3) incentives, and (4) representations. A conceptual model of emerging themes is created to answer the following questions: How should the researcher guide consumers when crowdsourcing data collection? How can the quality of crowdsourced videographic research data be judged? What motivates consumers to create and collect data for research purposes? And, finally, how should researchers approach the videographic material collected by “crowds”? The concepts are brought together to identify notable features and requirements of videography and crowdsourcing, and to create a synthesis of crowdsourcing practices and videographic requirements for collection of research data. “Research” is used ambiguously here, referring to both academic and firm practices.

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## II. VIDEOGRAPHY AND CROWDSOURCING: EMERGING THEMES

The following model depicts four emerging themes on applying crowdsourcing to videographic research. The “nodes” of the model correspond to the research questions presented in the introduction.

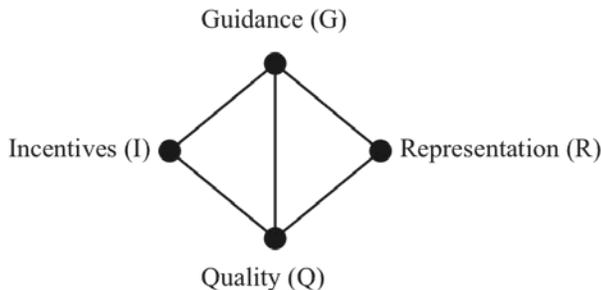


Fig. 1 Model for videographic crowdsourcing

We will proceed by discussing each item individually, while making references to other items of the model. Finally, a summary stating the relationships and proposition based on the model will be presented.

### A. Guidance – How should the researcher guide consumers when crowdsourcing data collection

Videography is perceived closer to practice than theory, but analyzes of videography can also be used in developing and testing theories [6], although interpretation and constructivism are always associated. Taking field-notes is not a familiar method for consumers [3] and even if mobile phones facilitate the creation of video, they need to be guided to achieve results of desired quality. The richness of context makes videographies complex to evaluate. Movements, facial expressions, background noises and atmosphere are recorded on video providing rich data but, at the same time, resulting in heterogeneity and variety in quality. Further, decisions of what to include or exclude in the representation are made during both filming and editing, influencing the eventual representation. Kozinets and Belk [6] defined topical, theoretical, theatrical and technical criteria to evaluate videographies. Considering them during research, filming and editing gives directions for an effective and reasonable research. In practice, this is associated with providing sufficient guidance and incentives. Researches tend to focus on certain groups of consumers, which means that the target group should include the required attributes. Although current mobile phones are advanced enough to create the research footage, issues may relate to consumers’ skills and willingness. Overcoming these obstacles requires a deeper understanding of the target consumers as well as creating effective incentives when necessary.

The data collection process depends on consumers’ interaction with the researcher [3], but finding consumers to participate in research is highly dependent on the researcher. Well-chosen crowds [11] can solve various problems highly efficiently, autonomously and self-guided, but guidance is

required to ensure compliance with research goals. When mobile phones are used for data collection, the communication consists of giving tasks to the consumers, followed by their responses of sending the research data. Ensuring that tasks contain or give access to the required information, and being transparent concerning the research process are key factors for a successful crowdsourcing of data collection [8]. ‘Access’ implies the possession of all the necessary information related to filming, whereas transparency is linked to the objectives of the research. Overall, the guidance will not only affect the quality of data collected, but the creation of representations as well. Using crowds includes risks for researchers: Will consumers answer the tasks in the correct way, and will there be enough qualified answers? Transparency and making consumers aware of the importance of their answers reduces researcher’s risk and generates trust in between [8].

### B. Quality – How can the quality of crowdsourced videographic research data be judged?

Videography is perceived closer to practice than theory, but analyzes of videography can also be used in developing and testing theories [6], although interpretation and constructivism are always associated. Taking field-notes is not a familiar method for consumers [3] and even if mobile phones facilitate the creation of video, they need to be guided to achieve results of desired quality. The richness of context makes videographies complex to evaluate. Movements, facial expressions, background noises and atmosphere are recorded on video providing rich data, but at the same time, resulting in heterogeneity and variety in quality. Furthermore, decisions of what to include or exclude in the representation are made during both filming and editing, influencing the eventual representation. Kozinets and Belk [6] defined topical, theoretical, theatrical and technical criteria to evaluate videographies. Considering them during research, filming and editing gives directions for an effective and reasonable research. In practice, this is associated with providing sufficient guidance and incentives. Researches tend to focus on certain groups of consumers, which means that the target group should include the required attributes. Although current mobile phones are advanced enough to create the research footage, issues may relate to consumers’ skills and willingness. Overcoming these obstacles requires a deeper understanding of the target consumers as well as creating effective incentives when necessary.

### C. Incentives – What motivates consumers to create and collect data for research purposes?

The crowds need to be both guided and motivated in order to extract data of desired quality. Consumers are typically contributing to crowdsourcing projects “for little or no money” [5]. When innovations are freely shared, anyone can benefit from them, and the objective is to create something that the larger community will benefit from, as is often the case with open source projects. Even when the community does not require financial compensation, crowdsourcing is hardly a free ride because crowdsourcing projects require

commitment and time from researchers [9]. Because consumers are carrying mobile phones with them, they have everything required to participate in research, missing but some form of persuasion from the researcher's part to start collecting data. The reasons for crowds to produce content seem to be more related to their personal interest than money or other researcher-provided incentives; in other words, intrinsic motivation, learning, and social motives are important [2]. Regarding tasks given by the researcher, the instructions should be sufficient to extract the answers for the question asked, but at the same time sufficiently open to motivate creativity and achievement of personal interests [2]. Researchers have to focus on guiding crowds, while being clear and transparent concerning IPRs [5]. If successful in this, researchers can accomplish extremely cost-efficient alternative for data collection [5].

#### *D. Representations – How should researchers approach videographic material collected by “crowds”?*

Videographic representations are divided into documentaries and visual ethnography [9]. Documentaries focus on argumentation representing meaning, explanation and interpretation, but visual ethnography is seen as a more intersubjective and multivocal method that aims into new ways of understanding, creating a tighter bond between vision and observation that reflects the reality. Whatever mode of representation the researcher chooses the representation should show the relation between reality and theory, and underline what is the connection to written text despite of videographic argumentation. Crowdsourcing the data collection relies on collaboration between with consumers and researcher to draw out relevant experiences. The context is built on material from consumers by researcher, but it still brings out the consumers' voices [7]. While creating the representation, researcher can use Kozinets and Belk's criteria as the base to judge quality [6]. In the context of crowdsourcing, data collection, topical and theoretical criteria are fully reliant on tasks given by researchers. Theatricality and technical parts depend on the material consumers have filmed, but receive their final forms in researcher's editing table. Of course, a well-defined guiding affects the consumers' filming decision, but the choice of what to include into the representation remains with the researcher.

In the following table, we summarize our findings as ten postulates.

### III. IMPLICATIONS OF THE STUDY

Crowdsourcing is a valid alternative for collecting research data. The most critical issues include finding the right group of consumers and motivating them by incentives based on their interests [5]. Crowd-creation as a mode of crowdsourcing fits well in the techniques of crowdsourcing videographic data collection. There should be a focus on granting consumers access to the relevant information to complete the research task, risk assessment on researcher's behalf, and transparency in the process to create mutual trust. A large corpus of data stresses both filtering out the relevant and having analytical

skills; it follows that the researcher should take the ownership of analyzes and representation. The advantages of videography are in audiovisual elements and richness of the context – particularly, ethnographic researchers are enable to study the context by filming people in their authentic environments and avoid using only the voice of interviewees. Despite the challenges, crowdsourcing videographic consumer research has a great potential especially among the future, “mobile generations”.

TABLE I  
POSTULATES FOR VIDEOGRAPHIC DATA COLLECTION

P	Relationship	Postulate
1	Guidance-Quality	How the researcher guides, interacts and communicates with the crowd affects the <i>quality</i> of material produced.
2	Guidance-Representation	How the researcher guides, interacts and communicates with the crowd <i>frames</i> the possible research outcomes, or representations.
3	Guidance-Incentives	How the researcher guides, interacts and communicates with the crowd may in some cases act as an incentive to participate <i>per se</i> .
4	Quality-Guidance	The quality of material collected affects how the researcher is evaluating and improving <i>future guidance</i> .
5	Quality-Representation	The quality of the material collected <i>frames</i> the possible representations that the researcher can create.
6	Quality-Incentives	The quality of material collected affects how the researcher is evaluating and improving <i>future incentives</i> .
7	Representation-Guidance	When creating the representation, the researcher strives to hold <i>consistency</i> with the guidance given to participants.
8	Representation-Quality	When creating the representation, the researcher is considering different criteria for <i>judging quality</i> .
9	Incentives-Guidance	Instead of removing the the need for guidance, incentives may even increase it if the <i>number of participants</i> increases (in complex tasks).
10	Incentives-Quality	Incentives may have a positive effect on quality, although this cannot be interpreted as a rule due to <i>fuzziness of personal (hidden) motives</i> .

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