# Going GoPro: Integrating a Wearable Camera into Qualitative Information Research

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## ABSTRACT

**Wearable technology has been a news-friendly trend in the past decade, particularly given the popularity of, and attendant concerns with, digital fitness trackers. One type of wearable technology, the GoPro camera, has become widely known for enabling first-person views of athletic feats such as skiing and surfing. Recently, such cameras have begun to be applied within social science research. This visual presentation offers a unique report on the sustainable integration of a GoPro into data collection for a qualitative study of everyday-life information practices. The presentation details the walking tour method into which the camera has been integrated, as well as the technical and ethical considerations involved in implementation.**

## KEYWORDS

Wearable technology, qualitative research, data collection, everyday life, embodiment, information behaviour.

## INTRODUCTION

This visual presentation reports on the integration of a wearable camera into a qualitative study of people's everyday-life information practices. The information science literature shows growing interest in wearable technologies (Adapa, Nah, Hall, Siau, & Smith, 2018). The category of "wearables" includes a variety of devices, and for most people, it brings to mind fitness trackers such as the FitBit and smart watches such as the Apple Watch. The data that wearables collect about human practices are primarily quantitative, such as geolocation data, and there are numerous potential research directions relating to these data. At the same time, as interest in topics such as embodiment and everyday life continues to expand, wearables can be investigated for their potential contribution to qualitative data collection and provision of distinctive insights into information practices.

This visual presentation examines one wearable technology, the GoPro camera, within the context of an ongoing study. It describes the walking tour technique into which the camera has been integrated, as well as the technical and ethical considerations involved in implementation. This presentation also offers attendees an opportunity to see GoPro data for themselves.

## BACKGROUND

In information science, wearable video cameras appear to have played a data collection role in one previous study, an ethnographic exploration of academic library wayfinding (Kinsley, Schoonover, & Spitler, 2016). Wearables have been more substantially examined from two other angles: technology adoption (e.g., Adapa, Nah, Hall, Siau, & Smith, 2018), and health information sharing and privacy (e.g., Banerjee, Hemphill, & Longstreet, 2018). Emerging information science research areas relating to the present study, such as embodiment, have been studied from predominately qualitative and theoretical perspectives, such as semi-structured interviews within a constructivist grounded theory approach (Lloyd, 2007), ethnographic observation framed by critical discourse analysis (Olsson, 2016), and phenomenologically-informed self-observation (Gorichanaz, 2017). Embodiment has been theorized in relation to technology (Keilty, 2016). The present study distinctively and intentionally incorporates a wearable camera, along with its material and theoretical affordances, into empirical procedure.

## METHOD

The study reported in this presentation concerns people's everyday food-related information practices. Using data collection techniques drawn from sensory ethnography (Pink, 2015), paired with a constructivist grounded theory approach to analysis (Charmaz, 2014), this exploratory study asks how a diverse sampling of people use information within the daily process of feeding themselves and their families. The study will include approximately 24 participants, with half recruited in a large Canadian city and half recruited in a rural community on the Canadian prairies. The study focuses particularly on how people's bodies are informative and involved in food-related information practices.

One of the data collection methods in the study is a video tour in which each participant shows the researcher a food-related place of their choosing. Examples of places chosen by participants include a kitchen, a backyard garden, and a community-supported farm. Each participant leads their video tour, and unstructured conversation ensues throughout. The researcher wears a GoPro camera to create a "video trace" of the tour, focusing on the participant's actions, gestures, and expressions (Sumartojo & Pink, 2017). Video tours capture participants' dynamic physicality, including gestures, movement, and sensory moments. Such tours invoke "not only the visual or verbal knowledge that might be produced through interviews or observations, but also […] a route into the more complex multisensorality of the experiences, activities, and events we might be investigating"

(Pink, 2015, p. 125). That is, video tours capture verbal and text-based data, and they simultaneously capture people's interactions with their surroundings. In this way, like other "mobile methods" (Evans & Jones, 2011; Kusenbach, 2003; Sheller & Urry, 2006), video tours create opportunities to observe embodied experiences, while also enabling observation of how people move in relation to their intentional statements and actions. The video tours, along with the semi-structured interviews that precede the tours, are undergoing constructivist grounded theory analysis using the software NVIVO.

## TECHNICAL AND ETHICAL CONSIDERATIONS

This presentation will detail the technical complexities surrounding the use of GoPro. For example, sound quality is a relatively low priority for most GoPro uses, and the camera's onboard microphone is generally inadequate for data collection. This necessitates the use of lavalier microphones and double-system recording in to ensure highly audible video data. Ethical considerations will also be emphasized. These include the nuances of ethics board review for a study involving video in public and private places, as well as the complexities around anonymization and informed consent.

## VISUAL PRESENTATION

This presentation features a poster communicating contextual and background information, and a looping video sharing vivid examples of GoPro data from the present study. The video will be available to attendees on a laptop with headphones.

## CONCLUSION

This presentation speaks to the conference theme in several ways. It describes an opportunity afforded by a recent technology to creatively enrich qualitative data collection and analysis. At the same time, by emphasizing the considerations around integrating a GoPro into data collection, this presentation highlights the careful work required to use wearable video in a person-centred and ethical way.

## ACKNOWLEDGMENTS

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