

How Do the Movement Patterns of Homeless Youth Affect Their Information Seeking Behaviors Within the Systems Provided to Them

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Abstract. This work provides a reflection on the relationship between movement patterns, homeless youth, and their information seeking behaviors within the information systems they have access to in order to find help. While understudied, the relationship between the movement patterns of the homeless youth population could be used to build information systems that are customized to the way this population looks for and uses resources. We propose a two phase user study focused on homeless youth that consists of a semi-structured interview as well as a user study on a tool they use to locate resources for help.

Keywords: Homelessness · Spatial Information · Information Seeking Behavior

1 Introduction

The homeless population is often thought of as a moving population [15]. Although this is the case, one aspect that is often overlooked in the literature is the interactions the homeless have with their physical space and how that might affect the way they seek information to find resources. At the same time, studies of intergovernmental policy [6] and nonprofit data systems [2] have given insight into the type of data governments require organizations to collect and store. Confounding this further is the fact that research and data collection often concentrates on homeless individuals who meet a specific criteria set by government requirements in order to receive federal funding [11][6][2]. Within the homeless population, the sub-population of homeless youth faces unique challenges including an increased risk to the dangers of street living, such as pimps and drug dealers [13][14]. Furthermore, their distrust in adults and institutions often makes them inaccessible to social assistance [16]. Taking this into account,

there are a variety of resources provided to homeless youth they are not accessing [16]. To begin to understand why they are underutilized, it is necessary to first understand how homeless youth search for resources and if they truly are a transient population. It is in this space that this work lies. Examining the information seeking behavior of homeless youth within information systems, and its relationship to their movements appears to be an understudied, but important, undertaking. In this study, information systems will be defined as digital resources, such as accessing a website through a computer or using a phone to search for sources that may aid the homeless youth. An expansion on this definition can be found in [16]. To begin understanding this problem, we propose a two part study. The first part includes a semi-structured interview methodology that focuses on their movements and how they access resources. The second part of the study includes a contextual inquiry focused on their information seeking behavior which will also include a speak aloud protocol. The speak aloud protocol will be conducted to understand how easily homeless youth are able to successfully navigate a digital resource in order to address the problem they needed help solving.

2 The homeless population, generally, as a moving population

In general, the homeless population is often characterized as being mobile [15]. Reasons for moving around the city include searching for resources [7][3][4] to provide basic daily needs, maintaining familiar ties, hunting for work, and everyday travel. These patterns are often viewed as coping methods [15][3][4]. However, the question about whether or not their movements affect the way they interact with their spaces as well as the resources in them appears to be unanswered. How does the physical space affect how they use digital information systems to find resources? Conversely, are their movement patterns determined by how they seek and locate information?

3 How are homeless youths searching for services

The emergence of technology has an impact on the information seeking patterns of homeless youth. Studies demonstrate the use of technology among emerging homeless adults [9][5], but they fail to mention their process when searching for resources. In order to understand if technology is successful in aiding homeless youth to locate resources, the way these individuals use technology must first be understood. It is also unknown if the way they use these resources influences or changes mobility patterns within this sub-population.

4 Proposed Study

To begin understanding the relationship between homeless youth, their movements, and their information seeking behavior in digital information systems,

we propose a study that uses semi-structured interviews [9][16] as well as a user study of web based applications utilizing a contextual inquiry and speak aloud protocol as they navigate through the digital resource. The purpose of this study would be to bridge the gap between how homeless youth are seeking information and the tools they have at their disposal to see if they are being successfully utilized as they move. In keeping with past work in this space [9], we hope to recruit up to 75 homeless youth ages 18-25 from homeless shelters in the city of Pittsburgh, PA, USA. We hope to form a partnership with these shelters to ensure that our data collection protocols are safe. We also hope to collect our data in a private area in these spaces. This will help us to ensure that our population is safe and comfortable while participating in the study.

4.1 Methodology

Since we will be conducting the same study across the entire recruited population, we plan on taking rolling interviews. The study will be broken down into two parts.

1. A semi-structured interview focusing on the information seeking behavior of the participants. This will be done to gain insight regarding the type of resources the homeless youth need to best help their situation, as well as understanding how they seek digital resources.
2. A user study focused on which digital information sources the participant uses/favors. The speak aloud protocol will be conducted on a cell phone and laptop that will be provided.

Semi-Structured Interview We will ask participants a series of questions designed to help us develop an understanding of how their movements impact their access to resources. Questions will include their mode of transportation (e.g. public transit, bike, car, etc.), frequency of movement, if they follow a certain pattern of movement (e.g. do they frequent the same places every day), how they use technology to find resources in their area, their experiences with locating and accessing those resources, and how useful those resources are for them, etc.

User Study In this portion of our study, we propose having the youth show us which digital sources, if any, they use to find resources. Our questions will not only focus on resources, such as food and shelter, but also those related to personal needs and development. The following will be the types of tasks that may be included:

- Task 1 - Looking for a shelter for the night
- Task 2 - Looking for food source
- Task 3 - Looking for a job
- Task 4 - Looking for public transit - close by and faraway
- Task 5 - Looking for a doctor's office

The number of web pages visited will be recorded, as well as what was searched for, terminology and language of queries, and how long it took participants to find the preferred result. The preferred result will be self-concluded and self-reported meaning that they will let us know when they have found it. While they are performing the tasks, we will ask them to engage in a speak aloud protocol. This will allow us to analyze why they are looking for things in specific places, as well as understand how easy it is to navigate the digital web pages. After the interview and user study is conducted, we will then transcribe and code the interview data with an emphasis on movement patterns. We will then compare how much of their user study was focused on location specific resources that may not be available to them if they move to a different location. From here, we hope to be able to get a glimpse of the relationship between the information seeking behaviors of homeless youth and their movements. Possible future research may include a comparison study between homeless youth who have successfully accessed resources, such as a shelter, to homeless youth who have been unable to.

While not officially a vulnerable population, working with homeless youth means that a high ethical standard must be considered. In order to do no harm to the target population, we propose a three pronged ethical approach. First, we plan on obtaining informed consent from the participants, making sure they know the scope of the study as well as their participation in it. Second, we plan on keeping all participants anonymous. Lastly, and most importantly, we plan on sharing resources where they can get help both locally as well as nationally.

5 Conclusion

In conclusion, this work provides a reflection on the relationship between movement patterns, homeless youth, and their information seeking behaviors within the information systems they have access to. While understudied, the relationship between the movement patterns of the homeless youth population could be used to build information systems that are customized to the way this population looks for and uses resources.

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