Mobility and Accessibility: What are the Main Problems Individuals with Mobility Issues Encounter in the KGO neighbourhood in their Daily Commute within the Neighbourhood?

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Abstract (Summary): In the 20th century, people realize how suburbanism significantly impact on their environment and economy, such as high dependence of automobile causes oil resource depletion. As a consequence, new theme of the planning, which is new urbanism, is set by geographers and planners in order to create highly walkable and accessible community for every resident include disability people. This research paper will argue that disability is not only about biological impairment but it is socially constructed concept and society disables people because of the lack of appropriate services and facilities. In this research paper, I want to argue that disability is socially constructed form and discover the main issues individuals with mobility issues face in their daily community in the Kingston-Galloway-Orton Park area.

Keywords: Accessibility, Mobility, Walkability
Mobility and Accessibility: What are the main problems individuals with mobility issues encounter in the KGO neighbourhood in their daily commute within the neighbourhood?
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In the 20th century, people realize how suburbanism significantly impact on their environment and economy, such as high dependency of automobile causes oil resource depletion. As a consequence, new theme of the planning, which is new urbanism, is set by geographers and planners in order to create highly walkable and accessible community for every resident include disability people. Disability is often considered as the term for the people who have physical, mental, emotional problem in body function or structure. Therefore their activity is limited due to their impairment. However, this research paper will argue that disability is not only about biological impairment but it is socially constructed concept and society disables people because of the lack of appropriate services and facilities. In this research paper, I want to argue that disability is socially constructed form and discover the main issues individuals with mobility issues face in their daily community in Kingston Galloway Orton Park area. Moreover, I will describe the definitions such as disability and walkability and the result of this research.

Planning a walkable and accessible community is significant because it closely relates to individual's life. Defining the term ‘walkability’ is complex because it contains varieties of aspects such as land use, emotion, streets, and transit. Walking is a fundamental human behavior and daily activity. Kelly, Schootman, Baker, Barnidge, and Lemes (2007) say that “walking is an activity that most people can engage in, regardless of age or fitness level” (978p). Walking is a basic human activity and natural behavior, moreover, people want to live in livable community which they can walk, bicycle, recreate and enjoy. In the article, there are many reasons that people walk: to visit friends, to go to stores, for exercise, for the joy of walking etc. If people are not walking, this means they are disrupted from physical barriers and insufficient infrastructures. In other words, high walking rate means better
walking system (McLean 2002: 1). However, ‘walkability’ is not just about creating pedestrian. It involves details such as what materials are under our feet and how they constructed. In other words, pedestrian design is significant and pedestrian has to be accessible to every walker include the people with mobility issue.

Walkability contains four main themes such as land use, emotion, transit, and streets. First, land use involves creating walkable community like having destinations close to each other and creating commercial districts that people can access by foot and wheelchair. Moreover, the most walking trips should be less than 0.8km (McLean 2002: 4). Second, people walk where they can feel safe, not only safe from the traffic, but safe from personal security such as crime. For example, I notice that people with mobility issue often fear the poorly maintained sidewalk in the previous interview: the bad road conditions such as bumps and cracks might cause them to fall from the wheelchair. Fear is an important component of walkability. Concern about crime hotspots and walking after dark can be barriers of walking (Mackett, Achuthan, Titheridge). For example, the distance between house and work is close and sidewalk condition is excellent but the area is crime hotspot then the place may not be a high walkability area. Moreover, abandoned buildings or vacant lots on the street segment, the presence of trash, graffiti, broken windows, and abandoned cars on the street segment may create fear to the walkers. Third, walking and transit are both important. Good pedestrian conditions will encourage the usage of public transportation, since most public transit trips include a pedestrian trip. Last, streets are also significant due to the many functions such as the linkage from cities to each other, people to service, and people to people. The articles (Kelly, Schootman, Baker, Barnidge, and Lemes, 2007; Mackett, Achuthan, Titheridge) use items such as presence and conditions of sidewalk.
in order to define walkability. For instance, the existence of steps, difficulty finding the way for people with visual impairment, lack of curb ramps, insufficient time to cross at pedestrian crossings, poor quality pavements, no sidewalk on either side of the street, and sidewalk on one side of the street is used for the walkability index.

I will more focus on the details of pedestrian design in order to examine ‘walkability’. First, sidewalks are should be wide enough. The Institute of Transportation Engineers (ITE) guidelines recommend a minimum width of 1.5 m for a sidewalk or walkway, which allows two people to pass comfortably or to walk side-by-side. Wider sidewalks should be installed near schools, at transit stops, in downtown areas, and hospitals to all pedestrian include wheelchair users (McLean 2002: 43). Second, curb ramps are significant for the people with mobility issue. Curb ramps gives access to sidewalks and roads for the people with wheelchairs, strollers, walkers, and crutches. According to the article, they must be located at all intersections and midblock locations where pedestrian crossing exists, as mandated by federal legislation (1973 Rehabilitation Act). Third, crosswalk materials and sidewalk conditions are noticeable. According to the article, all crosswalks should be visible, particularly at night.

The City of Toronto tries to create accessible city and adopted the Statement of Commitment to Creating an Accessible City in August 2009 (City of Toronto website). In this statement, the principles and standards are created under the Accessibility for Ontarians with Disabilities Act 2005. In other words, the city will provide accessible services to everyone include disability people. I will define the term disability. My argument is society disables people due to the inappropriate services and facilities. In other words, not only people who have mobility issues face the problems of walkability and accessibility but
people who do not have any biological impairment face those problems.

According to Pfeiffer, he explains the disability model and the problems are embedded in people's negative attitude towards disability and inadequate services. It reveals social discrimination as the most significant problem to people with disabilities. The United Nations make a difference between disability and handicap. Disability is "any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being" and Handicap is a "disadvantage for a given individual, resulting from an impairment or disability, that limits or prevents the fulfillment of a role that is normal, depending on age, sex, social and cultural factors, for that individual" (U.N. Decade of Disabled Persons 1983-1992, 1983). Therefore handicap has relationship between disabled people and their environment. The difficulty happens when cultural, physical, and social barriers limit their accessibility to various services of system in society. In other words, people without visible disability can also have handicap due to the inappropriate social service. This means everyone, not just people with disability is challenged and handicapped due to the services in society. In the article of Adkins (2003), he describes the change concepts of blindness and deafness. Blindness and deafness can be seen as helplessness. Tomas Gallaudet wanted to share the God's gospel with people who have hearing problem in the first nineteenth century. He created sign language in order to educate deaf people with God's words. Deaf is a disability but the creation of sigh language able those people to have normal life. In other words, disability is socially constructed.

In order to examine how the society services disables people include disability people, I will explore what are the main problems individuals with mobility issues encounter
in the KGO neighbourhood in their daily commute. I define the group 'individuals with mobility issue' as a group that uses walking assistance devices, such as walker and wheelchairs. Accessibility refers to ability to access. The ease at which, one may reach a location. It can be measured in terms of distance, time or cost. For the purpose of this project focus will be placed on physical barriers, yet, non-physical barriers such as social class or ethnicity are also being acknowledged. Interview and assessment are used as methodology. In order to obtain the actual and true obstacles of people with mobility issues, I have an interview with focus group that is arranged by Dianne Edwards: members of the wellness group of the East Scarborough Storefront and nine individuals and three under the category of individuals with mobility issues.

In the interview I ask three questions: what aspects of the built environment in the neighbourhood appear to be the main problem in your daily commute around the KGO neighbourhood? What areas within the KGO do you consider as the most problematic and/or dangerous when trying to mobilize around the neighbourhood? What kind of changes or initiatives would you like to see in the neighbourhood that would facilitate their mobility, while making your commute safer and efficient? I discover that poor quality of sidewalks and ramps, lack of crosswalks that allow safe street crossing, traffic light timing for pedestrians is too short, and lack of snow removal of sidewalks during the winter time are the considerable problems. The most problematic areas are Morning side triangle where is busy area with many services, high traffic of pedestrians and automobiles; Lawrence Avenue where is extremely dangerous as people are often jaywalking; and Centenary Hospital where is high demand and low service (Figure 1). The members also request more crosswalks or islands for crossing along Lawrence Avenue and better snow removal during winter time.
along sidewalks.

In order to assess those areas, I find audits about accessibility and walkability, however, I cannot use them in order to examine the community because they are made from different countries with different planning associated, such as the United States and Europe. Therefore, our team made our own audits based on the existed audits that we found (Figure 2). The audit contains mostly the conditions of sidewalk and crosswalk and helps to examine the area easily. One of the members of the interviewlend her walker in order to have actual experience and the score are marked based on the experience with walker and the team members all agree with the given mark. According to the assessment, the most problematic area is Lawrence Avenue (Figure 3). The overall condition of the facilities is poor include narrow sidewalk, poor surface of roads, no curb ramps at the major intersections, erased crosswalks (Figure 4). The Hospital area has fewer problems than Lawrence Avenue yet still serious problems are observed include narrow sidewalks, conditions of roads, no curb ramps at few sidewalks, and erased crosswalks (Figure 5). The area of Morningside triangle has the fewest problem compare to those three areas. Most of the categories are highly accessible due to the new construction along the new plaza; however, the traffic light’s duration is too short: the time was almost thirty seconds, however, the light is too short for the people with walker.

As I explore those three areas, I realize the neighbourhood has seriously poor accessibility because the total score is forty but all those areas barely pass the half of the mark. The current facilities and services limits the activities of the people with mobility issues, moreover, the problems disable people in order to access to services. Through this assessment, I realize disability is not really about individual’s impairment but it can be
created by lack of appropriate facility and services. In order to make assessable community just as the City of Toronto declared, the municipal government should reconstruct and reinforce those current infrastructure and facilities rather than creating new service. Due to time constrains and resource limitations, the full extent of the project cannot be completed. However, other academics can continue on or build upon the research already built in our project. Also, we realize that population first stated at the beginning of the project may not have been as comprehensive, so further improvement is needed. Through this research paper, I have learned the concept of accessibility and mobility the concept of disability, problems of KGO community. Moreover, I truly enjoy this research especially audit part. I hope to see the further improvement of this community.
Figure 1 The focus area

Figure 2 Walkability and disability audit

<table>
<thead>
<tr>
<th>Sidewalk Rating Scale:</th>
<th>Poor</th>
<th>Average</th>
<th>Good</th>
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</thead>
<tbody>
<tr>
<td>Sidewalk Wideness</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Surface Quality (Bump/holes)</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Buffer Zone</td>
<td>1</td>
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<tr>
<td>Curb Ramps (Steepness)</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>User conflict (Mixed use of bike and pedestrians)</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<thead>
<tr>
<th>Crossing Rating Scale:</th>
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<th>Good</th>
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<tr>
<td>Time to cross at traffic light</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Crossing provision</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Deviation from desire line</td>
<td>1</td>
<td>2</td>
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Total Score:
Figure 3. The overall assessment

Survey Criteria Scoring

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<tr>
<th>Study</th>
<th>Sidewalk Wideness</th>
<th>Surface Quality (Bumpholes)</th>
<th>Buffer Zone</th>
<th>Curb Ramps (quality)</th>
<th>User conflict (Mixed use of bike and...)</th>
<th>Time to cross at traffic light</th>
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Figure 4 Problems in Lawrence Avenue

Narrow sidewalks

Cracks on road, no curb ramps, and no crosswalks
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