

Features and variables of quantifiable measures to be used in quantifying walkability

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Pedestrian facilities in an urban area have a significant influence on the traffic flow and socio-economic environment. Walking is considered as the most efficient mode of transport for shorter distance; it is environmentally friendly, requires minimal energy, has no direct financial cost and is accessible to all irrespective of age, gender and ability if facilities are provided appropriately. Communities with good pedestrian facilities will enhance the quality of life of the people. Measure of “walkability” has been used to evaluate pedestrian facilities. Majority of such measures are qualitative in nature and rank road segments based on the level of service concept. A recent attempt to develop a scorecard based on measurable aspects of walkability is available but it focuses only on comparing roads based on the facilities available for pedestrians. However, walkability is not only about pedestrian infrastructure and it has more elements while pedestrian infrastructure being one of them. In this research four main elements of walkability have been identified as infrastructure, destination, journey and environment. A complete walkability evaluation criterion must address all these four elements. Hence with those four elements of walkability, a through literature review on the walkability models so far developed has been carried out in order to identify quantifiable measures of walkability. A set of six quantifiable measures of walkability have been identified as connectivity, proximity, density, infrastructure, land use and environmental and safety. Finally, the features and variables of those identified measures have been identified and offers in this paper to be further reviewed. It is expected to use these measures in developing a model to prioritize pedestrian facility requirements in an urban area.

Keywords: Pedestrian facilities, Elements, Literature Review

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