Walkability: to quantify or not to quantify

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Academics and policy makers have developed quantitative approaches to judging how conducive a location is to walking. This has resulted in new terms like “walkability,” and the trademarked industry term Walk Score has entered the lexicon because of www.walkscore.com. The website rates one place against another, implying that some areas are a “walker’s paradise” and others are not. Some believe that the Walk Score provides a direct and replicable method to benchmark or measure walkability. While as a metric walkability indices typically use three key factors (proximity to goods and services, population dynamics and the concentration of street intersections, i.e. connectivity), some propose a more expansive view of walkability based on both quantitative and qualitative factors (Riggs 2011, 2014).

For example, Jane Jacobs would describe the variables at play as beauty, community, and sense of place, something that thinkers like Alexander, Ishikawa, and Silverstein (1977), Appleyard (1981), Jacobs and Appleyard (1987), and Lynch (1960) might echo. The psychological and emotional influencers of walkable environments, for example, cannot be quantified. When city planning practices attempt to define walkability using a technocratic, rationalist approach, their conclusions may lack meaning and suffer from what some describe as a “tyranny of experts” (Douglas 1970; Lieberman 1970). This leads to a provocative question: Should planners, designers and policy makers quantify the propensity to walk?

The urban planning literature tells us that areas with many walkers are highly connected, have high residential density, and are designed for a pleasant experience. Within walkable areas, levels of obesity are lower and economic productivity is higher. To promote healthy, productive neighborhoods, planners have improved infrastructure. They advocate more sidewalks and bulb-outs, and changes to street alignments that eliminate conditions like the one depicted in Figure 1.

A rationalist approach to framing commutes and urban health for policy has limitations. Though walkability scores raise the desirability of urban areas in the celebrated “urban century,” the research also disparages the fact that city growth leads to suburban growth. A highly scientific approach ignores the complexity of the issue, polarizing our views of urban areas as utopia or paragon. A focus solely on the quantitative glosses over socio-economic and demographic issues. Examples are the “avoid ghetto app” that redlined certain high-crime areas as unwalkable ghettos and the engineering-related pushback on the potential benefits of one-to-two-way street conversions (Riggs and Gilderbloom 2015).

Put simply, metric-based approaches may undermine the nuance of the intangible aspects of walking and the benefits that investment in livability yields.

I propose that four themes be considered in determining walkability as framed by thinkers such as Jacobs, Appleyard and Lynch: experimentation; leadership; people power; and informality. These themes make it possible to explore experiential case studies that expand the definition of a walkable neighborhood. The goal is to respect the unique nature of each locale, so that city planners, local government officials, neighborhood activists and citizens can create walkable futures in their communities.

Some cities are already developing these themes. London, for example, has become a city of experimentation. Through the efforts of dynamic mayors like Ken Livingstone and Boris Johnson, and through financing from congestion pricing, London has become a beacon for walking and sustainability. London
W. RIGGS has also been using dynamic strategies to encourage walking and cycling and has connected those strategies to consistent funding streams through the use of congestion pricing. In the last 10 years they have been able to dramatically expand their bicycle highway and have sunk over £150 M into alternative transportation efforts.

Chicago provides an example of leadership facilitating change. Mayor Daly made specific leadership moves, and Chicago has invested in being green. Downtown parks, residences, and changes to right-of-ways make the streets and waterfront active. Several Midwest cities, from Indianapolis to Louisville, have followed Chicago in urban canopy, greenways, and innovations such as the conversion of train bridges to pedestrian walkways.

Another city, San Francisco, has taken advantage of existing assets and people power. San Francisco’s experimentation harnesses the intrinsic value of the landscape using the power of neighborhood groups and social movements. For example, the Saturn Street Steps near the Castro neighborhood are seemingly secret pedestrian routes that have been formalized. Their vegetation and tree canopy provide a pleasant walk while navigating the city’s notorious hills, but they are anchored by an active group in the neighborhood who have taken a vocal role in speaking out about their preservation and importance as a part of the transportation network.

Figure 1. My son attempts to walk where a sidewalk abruptly ends.
Western cities are not the only innovators. Delhi, India, offers a lesson in informality. In the past, such places have been considered exotic rather than normative. Now, many cities in the West mimic aspects of Indian cities. Walking in historic marketplaces like Chandi Chook, Karol Bagh and Connaught Place stimulates the senses. Sights and smells keep walkers interested and active as they pass items such as shawls, rugs, and mathi (sweets). Streets are narrow and nonlinear – the same aspects of beauty often cited in reference to streets in the north end of Boston and pre-Haussman Paris, where Baudelaire would stroll to contemplate the beauty and spontaneity of his surroundings.

The experiences of cities that have been able to encourage walking offer a separate lens to examine walkability – one that supports an ephemeral and intuitive approach with an overarching theme of simplicity. If a space cannot be “read” by a pedestrian as walkable, then perhaps it is not in fact walkable – even if quantitative models show that it should be conducive to walking. Perhaps there are additional ways that planners and academics need to consider pedestrian level of service. Perhaps observation, experience and participation provide an additional (or dare I say better) lens into how planners assess what will encourage active travel behavior. In sum, as our cities face pressure to go carless, the challenge is not simply to create “walkability” but to create great walkable streets that encourage activity, observation and experience, beauty and visual interest.

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No potential conflict of interest was reported by the author.

Notes on contributor
William Riggs is a professor at Cal Poly, San Luis Obispo and a consultant at Sustinere Consulting. He focuses on parking & transportation, active travel, housing, economics, and technology. He has over 50 publications in these areas, and has had his work featured in multiple national media outlets—including the Wall Street Journal, Washington Post and the Atlantic. Prior to his academic career he worked as a professional practitioner for over 15 years. This included serving as: the Principal Planner and Parking and Transportation Program Manager for UC Berkeley; a project planner for the consulting firm Arup in which he worked on the master planning of 5,000+ acres on former military land in Concord, CA and completed the certification of two of the pilot LEED Neighborhood Design projects; a planner for the US Coast Guard conducting award winning physical design and mobility planning for Coast Guard bases domestically and abroad. He holds his PhD from UC Berkeley’s College of Environmental Design, where he was a National Science Foundation Fellow and a University of California, Transportation Center Fellow. He is also a member of the American Institute of Certified Planners (AICP), is LEED certified by the US Green Building Council (LEED AP). He currently sits on the City of San Luis Obispo, Planning Commission.

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