

Smart Planning Initiatives 智慧新思

WAAT: A New Approach for Assessing Outdoor Walking Accessibility to Public Open Space in Hong Kong

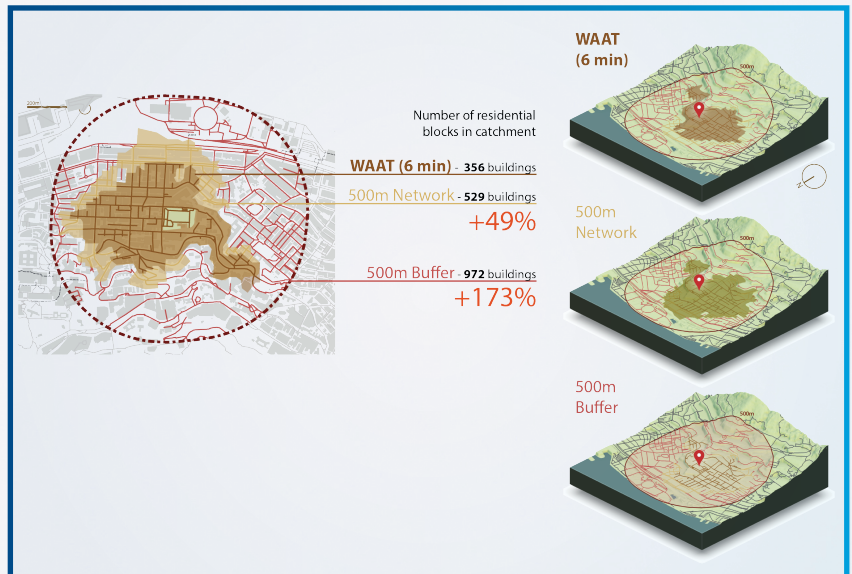
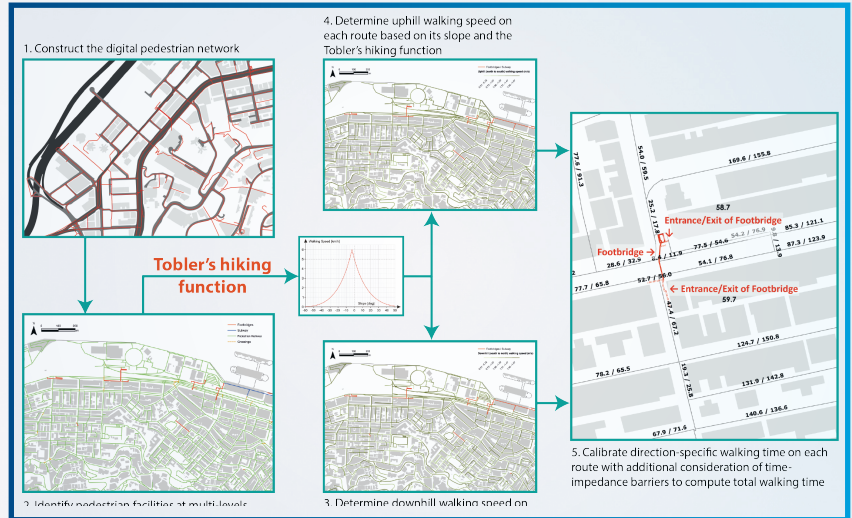
WAAT: 評估香港公共休憩空間步行可達性的新方法

WAAT (Walking Accessibility Assessment Tool) is a GIS-based planning tool which facilitates urban planners to plan and assess the walking accessibility of public open space (POS) in the comprehensive environment of Hong Kong. The analysis has been improved through considering additional factors, such as pedestrian networks, street topography, formal crossings, physical barriers to walking and designated access points. It also allows for uneven walking speeds of pedestrians, such that walking uphill is different from walking downhill.

Combined with the Gravity Model, WAAT can assist urban planners to evaluate the spatial distribution of POS in a planning area, compare the situations across different new towns/districts and identify possible improvement actions. Integrated with smart technology, WAAT helps urban planners to build Hong Kong into a walkable, smart and healthy city.

WAAT是一種利用地理信息系統平台操作的規劃工具，可幫助城市規劃師在考慮香港綜合城市環境下，更好地規劃和評估公共休憩空間的步行可達性。它通過考慮影響戶外步行的多種因素，例如行人路網絡、路面坡道、過路設施、步行障礙和公園出入口位置等，還顧及不同的步行速度，例如上坡與下坡速度，從而改善傳統規劃評估方法的不足。

WAAT可以結合重力模型幫助城市規劃師評估規劃區域內公共休憩空間的分佈，比較不同新市鎮/發展區的情況，找出改善措施。WAAT也可以結合其他智能科技，幫助規劃師將香港建設成一個更宜步行、更智能化和更健康的城市。



Gist of Adjudicators' Comments:

- A novel application of technology to facilitate planning assessment of outdoor walking accessibility to public open space in a multi-level environment, taking due heed of a wide range of considerations like topology and distance of the pedestrian network, slopes, walking speeds as well as physical barriers to pedestrian movements.
- This GIS-based planning tool is innovative, practical and versatile, which can easily be applied to various site-specific case studies and sensitivity/loading analysis. The current impact assessment system in Hong Kong could be expanded to include a walking accessibility assessment of various community facilities vis-à-vis their target users.
- The study vividly demonstrates how an academic study could be translated into a useful and practical planning tool, which is commendable and should be promoted.

評審意見撮要：

- 一種新穎的應用技術，協助評估公共休憩空間在多層戶外步行環境中的可達性。它充分考慮了步行網絡的結構和距離、坡度、步行速度以及實體障礙等對行人活動影響的因素。
- 這個建基於地理資訊系統的規劃工具具創新性，實用性和多功能性，可輕易應用於特定地點的案例研究和敏感度/負荷分析，亦可用作評估香港各種社區設施對其使用者的步行可達性。
- 此研究實在地展示了如何將學術研究轉化為實用的規劃工具，值得稱讚及加以推廣。