Behavior Mapping and Its Application in Smart Social Spaces

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Behavior mapping is the systematic observation of people using their environments. The Smart Social Spaces research project, recently completed in Sydney, Australia, is used as a vehicle to illustrate the usefulness of this method for understanding the relationships between people and public spaces in cities. Behavior mapping was the central method used to establish what impact the inclusion of smart technology and street furniture had on people's use of two public spaces. Using this method, it is possible to record real-time patterns of people's use of public space, enabling local authorities to better support the social use of public space and the management of its infrastructure.

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Behavior mapping is the systematic observation of people using their environments. Behavior mapping enables the real-time recording of patterns of people's use of public space and its infrastructure. The technique can reveal what people do in these spaces, how users' activities relate to each other spatially, and how the space supports or hinders people's activities. Data from this method enable: (1) efficient and informed design and management of public space and its infrastructure; and (2) a greater understanding of the engagement by the community with regularly frequented places. This information provides an evidence base for community development authorities and is invaluable to city planners and other built environment professionals (e.g., urban designers, landscape architects) in understanding how space is used and how to meet the needs of users.

Behavior mapping has been used intermittently since the 1960s and remains a relevant method for evaluating people/place relationships in both private and public contexts. Digital versions of the method are now in use [1][2][3], but the traditional deployment of research or practitioner teams, with maps and log-sheets, also remains relevant. Behavior mapping provides city planners and designers with a rich set of findings that can assist them to articulate both the social and physical dimensions of any place, pre-and post-intervention, in the built environment.

In many cities there can be tension between community members and the use of public spaces. A typical problem is insufficient public open space or infrastructure to support social use. Where there are spaces, some have no obvious function nor public affordance. The landscaping and urban small-scale infrastructure can be absent, out-of-date, inferior quality or poorly maintained. In many locations, the infrastructure is in the wrong location or hard to

access via public transport and accordingly is not well used. Some spaces are simply not accessible for people with all abilities. At times, urban infrastructure is unsafe—this may result from poor maintenance or private/public partners failing to make consistent investment in the space. Together, these considerations represent the many reasons why public spaces can fail in their usability and why people are not present in them.

In this entry, recently completed research referred to as the Smart Social Spaces project is used as a vehicle to illustrate the usefulness of behavior mapping as a method for understanding the relationships between people and public space in cities. The Smart Social Spaces project was designed to improve amenity in two public spaces: a park (Olds Park, Penshurst) and a square (Memorial Square, Hurstville) in the Georges River Council local government area (LGA) in Sydney, Australia. The two sites selected represented different forms of public space: a green open space and a constructed urban square. Also, both sites represented active, socially successful public spaces which were well utilized by their surrounding communities. One of the aims of the project was to understand the patterns of community use of both spaces before and after adding a new technological overlay of amenity to the public infrastructure available. Behavior mapping was used as the central method to assess these interventions and their impact on people's use of these spaces. For the purpose of this discussion, the process of behavior mapping and its analysis will be discussed in relation to Olds Park as only one site is needed to demonstrate the value of the method for city planners and designers.

The journey of this discussion includes an outline of behavior mapping as a method, its theoretical origins and its strengths and limitations. It describes its use in the Smart Social Spaces project and demonstrates the data and findings that can be produced using this method which supports built environment professionals' understanding of people's use of place.

References

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