

## Street mobility and network accessibility: towards tools for overcoming barriers to walking amongst older people

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### Community Severance Glossary

**Part 1** of this glossary contains terms used by different academic disciplines when studying the problem of community severance and related issues. **Part 2** contains entries for acronyms of relevant institutions, regulations and policy instruments used in the United Kingdom and in London in particular.

#### 1. Concepts

**Accessibility:** In transport research, the term means the ease with which some place is reached from another place. Usually applied in relation to the services, facilities or opportunities that exist in the destination point, e.g. job accessibility, accessibility to health facilities. It can be analysed for a specific transport mode, e.g. car accessibility, public transport accessibility, walking accessibility. See also: [mobility](#).

**Anthropology:** The study of humankind, emphasizing biological and cultural diversity.

**Barrier effect:** Same as community severance. Often used by transport practitioners and researchers in North America.

**Bikeability:** Suitability of a street or area for cycling. See [walkability](#). The term was also adopted by the national programme for cycle training in Great Britain.

**Built environment:** Man-made space, including buildings and infrastructure.

**Collision:** Occurs when moving bodies crash into something. Traffic collisions are also known as traffic accidents.

**Community:** Group of people living in the same area or sharing characteristics or interests.

**Community action:** Initiatives taken within a community to improve local aspects, with or without the support of local authorities.

**Community cohesion:** State in which all groups in a community have a sense of belonging, participation, inclusion, recognition and legitimacy (New Zealand Public Health Advisory Committee, quoted in Quigley and Thornley 2011).

**Community effects:** Term used in some transport studies to describe the effects of a road and railway project on the surrounding neighbourhoods.

**Community engagement:** Interaction between public authorities or researchers with local communities.

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**Community resilience:** The ability of a community to respond to adversity.

**Community severance:** The variable and cumulative negative impact of the presence of transport infrastructure or motorised traffic on the perceptions, behaviour, and wellbeing of people who use the surrounding areas or need to make trips along or crossing that infrastructure or traffic

**Conceptual framework:** Organization of ideas based on their relationships.

**Connectivity:** In space syntax theory, it is the number of nodes in a network that are directly connected.

**Crossdisciplinary:** Used with the same meaning as interdisciplinary. See also [multidisciplinary](#) and [transdisciplinary](#).

**Ecological fallacy:** Inference of statistical analysis to groups as theories applying to individuals. See also [MAUP](#).

**Economic efficiency:** Measure of the number of human needs that are satisfied by a set of economic resources. Usually understood as Pareto efficiency, that is, the allocation of resources such that no one can be made better off without making others worse off. See also: [equity](#), [sustainability](#).

**Encounter rate:** Measure of the density of pedestrians in a certain space.

**Environment:** The natural world. Also used to describe what surrounds an individual.

**Environmental justice:** Fairness in the distribution of environment goods and risks across society. Also known as environmental equity. Other variants include environmental classicism and environmental racism, usually applied when referring to distributive issue among socio-economic groups and ethnic groups.

**Epidemiology:** the study of how often diseases occur in different groups of people and why.

**Equity:** In economics, the term applies to the distribution of resources, costs of benefits across society.

**Gender inequality:** differences between genders which systematically empower one group to the detriment of the other.

**GIS (Geographic Information Science):** Discipline that studies the use of information that is linked to some location. Also known as GIScience to distinguish it from GIS (Geographic Information System).

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**GIS (Geographic Information System):** System to create, store, process and visualize geographic information.

**Grassroots movements:** Groups of activists organized locally. See also [local activism](#).

**Healthy ageing:** the promotion of healthy living and the prevention and management of illness and disability associated with ageing.

**Independent mobility:** Ability to move without help from others. Usually applied in relation to children and older people.

**Interdisciplinary:** Several disciplines working together, integrating theories or methods. The same as [crossdisciplinary](#). See also [multidisciplinary](#) and [transdisciplinary](#).

**Integration:** (Space syntax) See Space Syntax glossary.

**Knowledge dissemination:** Actions for transmitting the knowledge produced by research projects to individuals and organizations inside or outside academia.

**KSI (Killed or Seriously Injured):** Term used in the classification of injuries in road traffic collisions. The definition of serious injury varies among countries.

**Land use:** In urban planning, it refers to a classification of space according to its social function (e.g. residential, agricultural, industrial, and retail). Different from "land cover", which is based on a classification on the type of surface in each place.

**Local activism:** Actions taken by local communities to influence public policies or to bring change other changes.

**Local community:** Group of people living in the same area.

**Local environment:** Natural and social characteristics of a place.

**Locality:** Small area, often used in in-depth qualitative geographic analysis.

**MAUP (Modifiable Areal Unit Problem):** Sensitivity of statistical analysis to the methods of aggregation of individual data. See also [ecological fallacy](#).

**Mobility:** Ease of movement, without considering a specific destination of travel mode.

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**Monetary valuation:** Assignment of a value expressed in monetary units to the costs and benefits of a project. See also stated preference, revealed preference, willingness to pay and payment vehicle.

**Multidisciplinary:** Several disciplines working together, not necessarily integrating theories or methods. See also [crossdisciplinary](#), [interdisciplinary](#) and [transdisciplinary](#).

**Network accessibility:** Measure of the way a node is connected to other nodes in a network.

**Participatory action research:** Simultaneous production of knowledge and social change based on the engagement of researchers with local communities.

**Participatory mapping:** Production of geographical information based on the input of individuals and groups who gave direct knowledge about the areas mapped.

**Payment vehicle:** In monetary valuation, it is the mechanism that is suggested in stated preference surveys for collecting the values that individuals are willing to pay for improvements in their access to some good or service.

**Pedestrian environment:** Features of roads and streets that influence pedestrians' experience of walking.

**Permeability:** Extent to which the street network allows the movement of vehicles and pedestrians.

**Personal geography:** The set of places used by a person, or the places with which he/she is familiar with.

**Physical severance:** Used by some authors to refer to the effects of roads on local mobility. See social severance.

**Policy-maker:** Governmental body responsible for the application of policies.

**Practitioner:** Person engaged in a profession or discipline, e.g. transport practitioner, health practitioner.

**PPGIS (Public participation geographic information systems):** System to produce or use geographic information involving local communities.

**Public Health:** all organised measures (whether public or private) to prevent disease, promote health, and prolong life among the population as a whole.

**Public policy:** Actions taken by the executive branch of governments to solve public problems.

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**Public realm:** Public-owned space, including roadways, pavements, right of ways, parks and public buildings.

**Public space:** Space open to the use of the public.

**Qualitative information:** Information that characterizes an object. See also [quantitative information](#).

**Quality of life:** General term for individual or collective well-being.

**Quantitative information:** Information that measures the attributes of an object. See also [qualitative information](#).

**Resilience:** in the context of ageing, refers to the ability to 'bounce back' after health related adversity (e.g. surgery, chronic disease diagnosis). See also [successful ageing](#).

**Revealed preference:** Method of monetary valuation that infers people's preferences from the choices they make in competitive markets.

**Sense of place:** Residents' feeling of a strong identity and local character that makes a community unique and "home".

**Social cohesion:** Degree to which the different groups in society are connected or cooperate with each other. See also [community cohesion](#).

**Social contacts:** Interactions between individuals or groups.

**Social determinants of health:** The circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics.

**Social encounters:** Occasions where an individual meets another individual while walking in a certain area.

**Social gradient:** Within countries, the evidence shows that in general the lower an individual's socioeconomic position the worse their health. There is a social gradient in health that runs from top to bottom of the socioeconomic spectrum. See also [social determinants of health](#).

**Social justice:** Fair distribution of rights, obligations, or resources, among individuals or groups in society.

**Social network:** Set of relationships linking individuals and groups in society.

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**Social severance:** Used by some authors to refer to the wider social effects arising from the physical severance effects of a road.

**Social spaces:** Place where people interact.

**Socio-economic inequality:** In economics, unequal distribution of economic resources across different groups in society. Refers to differences between groups in terms of social and economic conditions, and their effects on people's lives. See [also social gradient](#).

**Spatial communities:** Group of people linked by living, working or doing some activity in the same place.

**Spatial configuration:** Same as [spatial structure](#).

**Spatial mismatch:** Term used to describe the geographic distance between jobs and residential areas in dispersed cities. Often used as a variable to explain employment outcomes of some groups, especially less-qualified and car-less populations.

**Spatial scale:** Size of the geographical unit of interest for public policies or research projects.

**Spatial structure:** Pattern formed by the man-made structures that make up a city. See also [urban structure](#), [urban form](#) and [spatial configuration](#).

**Stakeholder:** Individual or group affected by a project.

**Stakeholder engagement:** Involvement of stakeholders in the planning of a project or on research about a problem that affects them.

**Stated preference:** Method of monetary valuation that asks individuals to choose from hypothetical alternatives, each with an associated cost and a set of attributes.

**Street mobility:** Ability to move through the streets of a city neighbourhood.

**Street planning:** Definition of the characteristics of a new street and the way they relate with other streets and roads in a given network.

**Street design:** Characteristics of the elements for managing the flow of different types of users of a street, including lane widths, pedestrian pavements, intersections, and traffic calming elements.

**Street network:** Representation of a set of streets and their intersections.

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**Street redesign:** Changes to the design of a street, often to assign higher priority to a certain mode of transport (walking, cycling and private or public transport).

**Sustainability:** Use of resources that allows for similar levels of use by other people, living in the present or in the future. Term often used in relation to the use of natural resources and preservation of environmental conditions. Can also be used in relation to [social cohesion](#).

**Sustainable living:** Lifestyle that considers the impact of individual choices on the social and environmental sustainability of regions, countries, or the planet as a whole.

**Theoretical framework:** See [conceptual framework](#).

**Transdisciplinary:** Several disciplines working together, creating new theories or methods. See also [multidisciplinary](#), [crossdisciplinary](#) and [interdisciplinary](#).

**Transport:** Movement of people or goods from one place to another.

**Transport appraisal:** Same as transport evaluation. Used mainly in the UK.

**Transport evaluation:** Assessment of the social worth of a transport project or policy, based on the economic value of the resources used and of the positive and negative effects.

**Transportation:** Same as transport (used mainly in the USA).

**Transport Economics:** Study of the distribution of resources to satisfy human needs for transport. Topics include the pricing of transport systems, the evaluation of new projects and the study of private transport markets.

**Transport Geography:** Study of all the aspects of transport that cannot be dissociated from their geographic location.

**Transport infrastructure:** Set of facilities enabling transport, e.g. roads, railway lines and stations.

**Transport planning:** Study of the consequences of transport projects before they are implemented.

**Transport policy:** Restrictions on the use of transport or on the freedom of buying or selling goods and services in the transport market. Examples include: traffic restrictions, road pricing, public transport regulation.

**Urban design:** Definition of the characteristics of streets and other public spaces in the city.

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**Urban fabric:** Physical attributes of the structures that make up the city, such as buildings, public space.

**Urban segregation:** Separation of areas within the city according to the characteristics of its residents, such as income or ethnicity.

**Visual blight:** Term used to describe the negative visual impact of large transport infrastructure, especially elevated roads and motorways.

**Walkability:** Conditions of a street or area for walking. Includes factors such as existence and quality of pedestrian pavements, existence of services and facilities within walking distance, safety, street lighting and building accessibility. See [bikeability](#).

**Welfare:** See [wellbeing](#).

**Wellbeing:** Used as an overarching term for positive aspects of the life of individuals and groups, including happiness, physical and mental health, and comfort. In Microeconomic theory, the term welfare can be used with the same meaning as wellbeing and refers to the degree to which individuals' preferences are satisfied.

**Willingness to pay:** In Economics, it is the estimated amount that individuals would pay for the provision of some good or service. Willingness to accept is the estimated amount individuals would pay to avoid some cost.



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### 2. Policy instruments

**Bus Origin and Destination Survey (BODS):** Survey on number of passengers, boarding, alighting or inside buses in a bus stop, usually split by bus service and made at various times of the day or days of the week.

**Cost-benefit analysis (CBA):** Method of economic evaluation used to assess the social worth of public policies, based on the monetary valuation of all the positive and negative effects of the policy. Standard method for transport evaluation in most countries. Also known as BCA (Benefit-cost analysis) or SCBA (social cost-benefit analysis).

**Department for Transport (DfT):** Ministerial department responsible for transport issues in the UK.

**Environmental Impact Assessment (EIA):** Assessment of the impact of a public policy on the environment.

**Green Book:** HM Treasury guidance for public sector bodies on how to appraise proposals before committing funds to a policy, programme or project. Available at <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

**Health Impact Assessment (HIA):** A means of assessing the health impacts of policies, plans and projects.

**Multi-criteria analysis (MCA):** Method to support decisions involving several competing objectives, assessed with several indicators, not necessarily expressed in the same units. Method increasingly used for transport evaluation. Also known as MCDA (Multi-criteria decision analysis).

**Pedestrian Environment Review System (PERS):** Software for assessing the quality of pedestrian environments, including surface, lighting, conflict with traffic, pedestrian facilities, obstructions, cleaning and drainage. Developed by Transport Research Laboratory (TRL) in co-operation with TfL.

**Roads Task Force:** Body set up by the Mayor of London for studying the challenges facing London's streets and roads.

**Strategic Environmental Assessment (SEA):** Legal framework at the European Union level for the assessment of the long-term effects of public policies.

**Social Impact Assessment (SIA):** Evaluation of the impacts of an infrastructure project on society.

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**Streetscape guidance:** Guide produced by TfL for the design, appearance and upkeep of London's streets and roads. Available at <http://www.tfl.gov.uk/cdn/static/cms/documents/streetscape-guidance-2009-executive-summary.pdf>

**Transport for London (TfL):** Local government body responsible for the transport system in London.

**Transport for London Road Network (TLRN):** Roads that are owned and maintained by TfL.

**Valuing Urban Realm (VUR):** A toolkit developed by TfL for the monetary valuation of improvements to public space.

**WebTag:** DfT guide for the planning and evaluation of transport projects in the UK. Available online at <http://www.dft.gov.uk/webtag/>