

Accessibility, Complex Lives and Planning

Helena Titheridge

*Presentation to the International Seminar on the Integration
of Land Use and Transport in Medium-Sized Cities (InLUT)
Lisboa, Portugal, 5th June 2015*

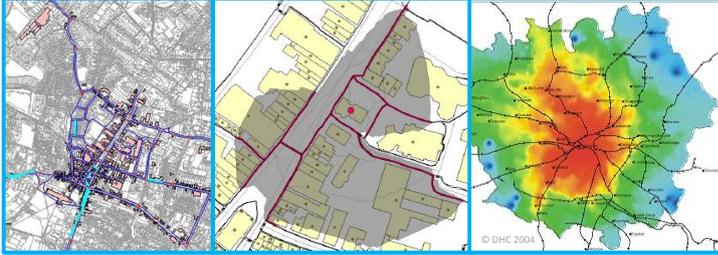


Today's presentation

1. What is accessibility?
2. Accessibility and Planning
3. Complex lives
4. Accessibility measurement and complex needs
 1. Progress
 2. Future challenges



UCL

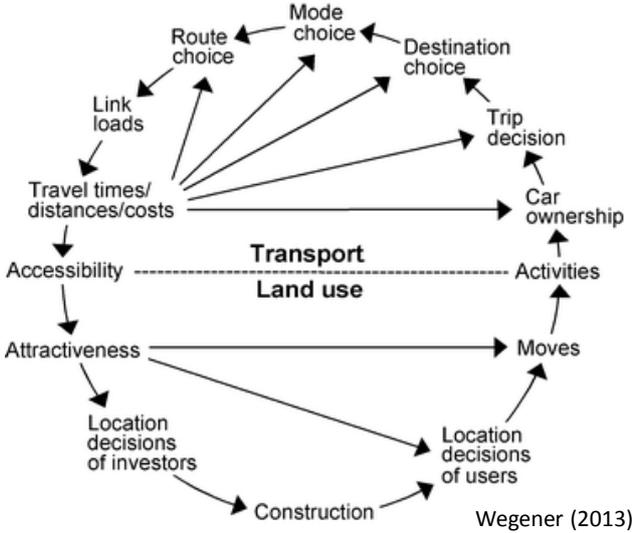


© DHC 2004

What is accessibility?

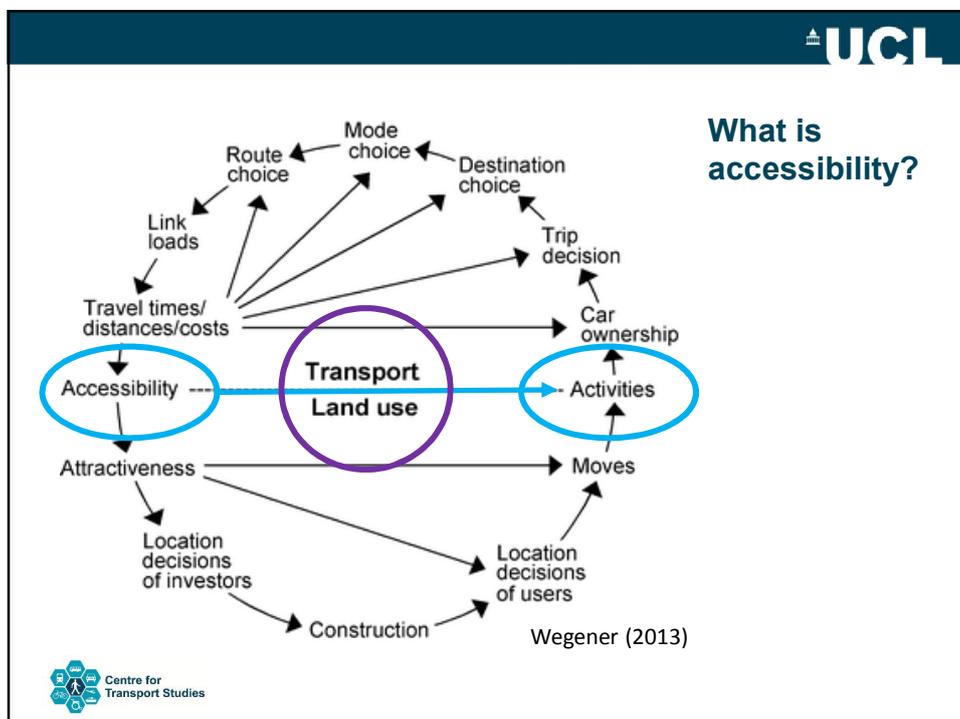
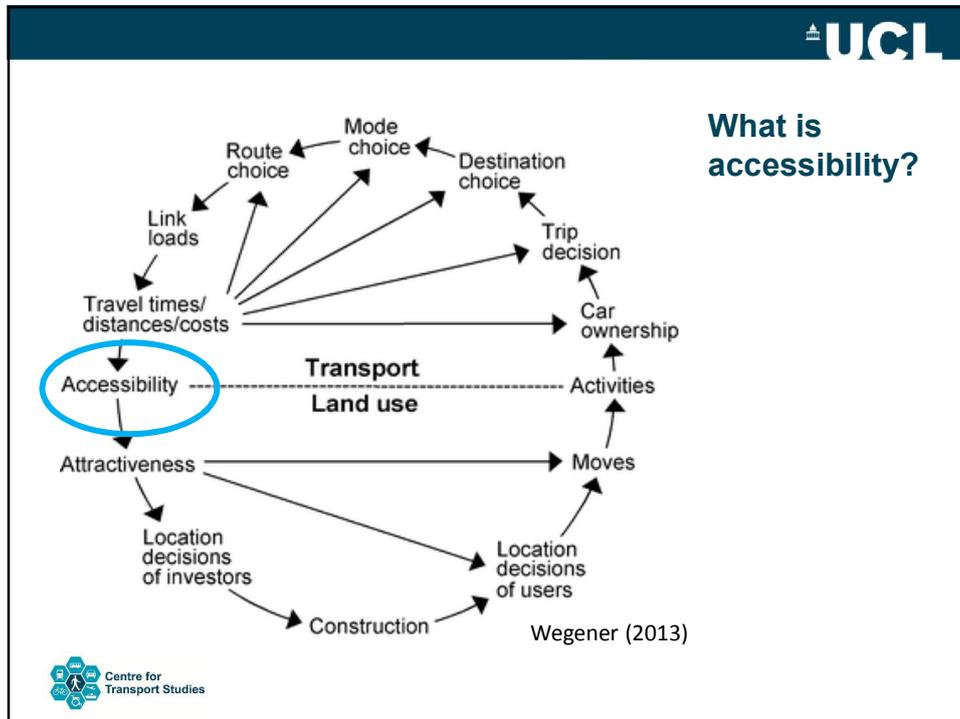
 Centre for Transport Studies

UCL



Wegener (2013)

 Centre for Transport Studies



“Accessibility is a slippery notion”
(Gould, 1969)

- Multiple definitions
- Multi-layered (e.g. Ferreria and Batey, 2007)
- Multi-dimensional
- Multiple scales

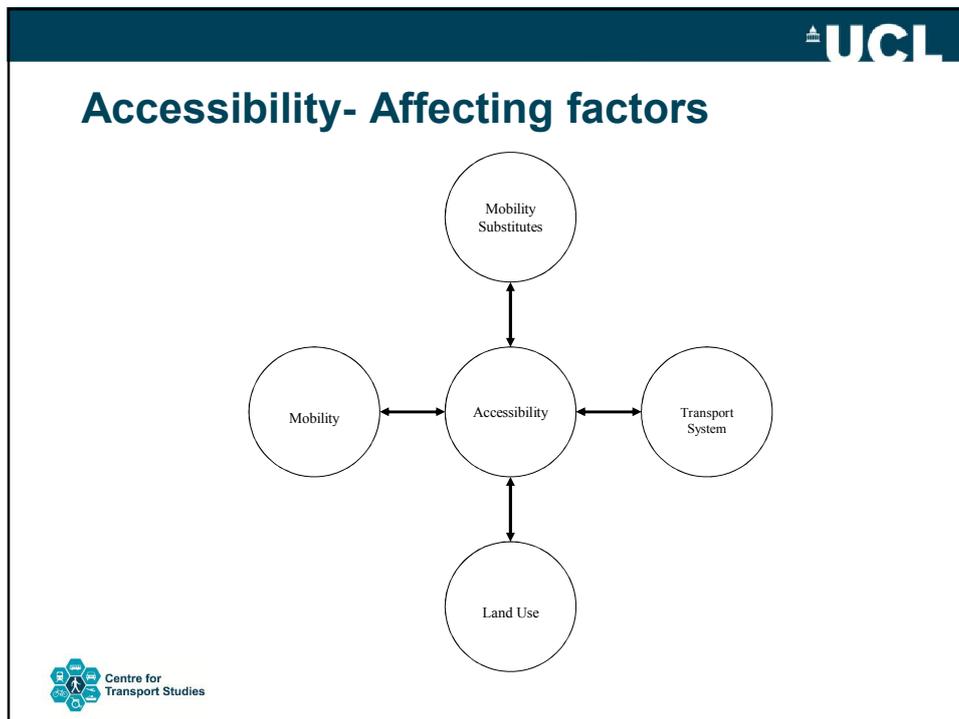
- Objective v Subjective
- People v Place
- Conceptual v operational



A sample of accessibility definitions:

- *The potential of opportunities for interaction*
(Hansen, 1959)
- *The ease with which any land-use activity can be reached from a location using a particular transport system*
(Dalvi and Martin, 1976)
- *The freedom of individuals to decide whether or not to participate in different activities*
(Burns, 1979)
- *The benefits provided by a transportation/land-use system*
(Ben-Akiva and Lerman, 1979).







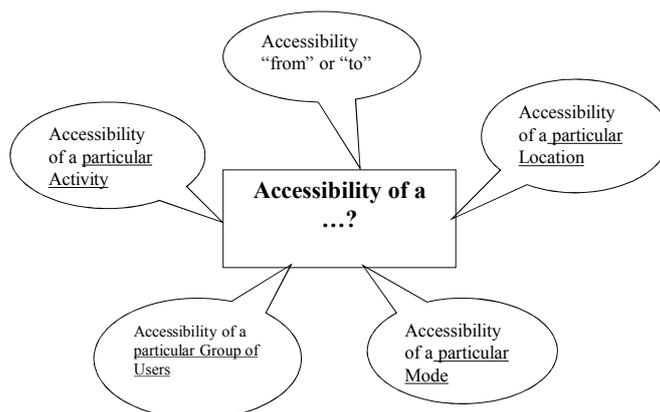
Approaches to defining accessibility

Ferreira and Batey (2007) identified 5 different approaches

- Transport-based
- Demand-aware
- Time-aware
- Perceptions-aware
- Institutionally-aware

 Centre for
Transport Studies

Different Perspectives of Accessibility



What is accessibility?



Accessibility and planning



Accessibility planning objectives

1. Connectivity
2. Economic growth, jobs, regeneration
3. Environmental – reducing the need to travel
4. Tackling social exclusion and disadvantage

5. Increasing well-being



Well-being

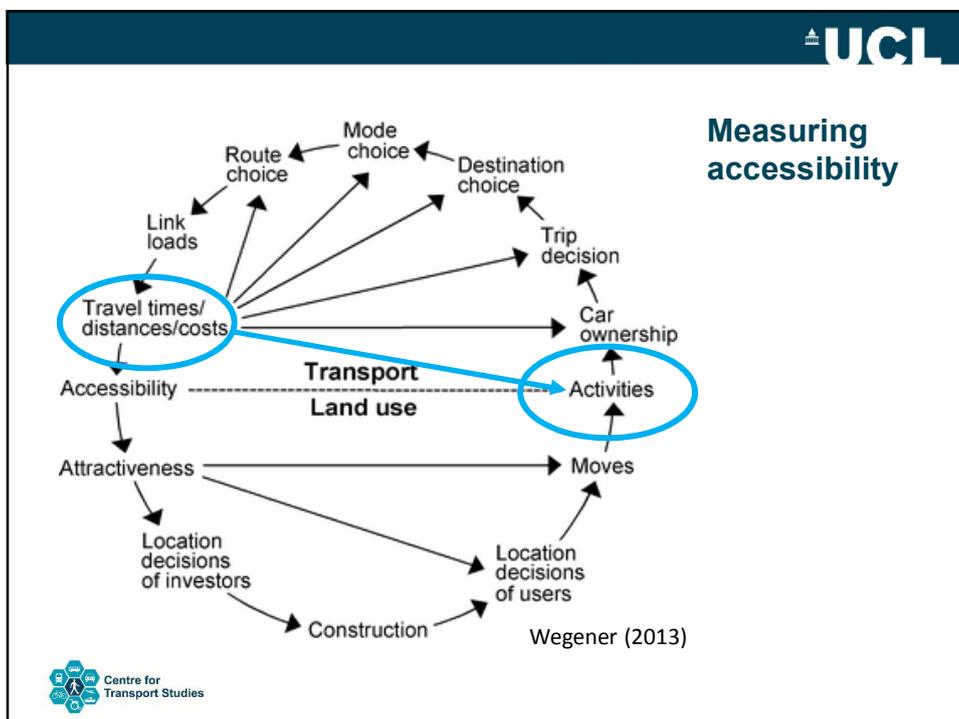
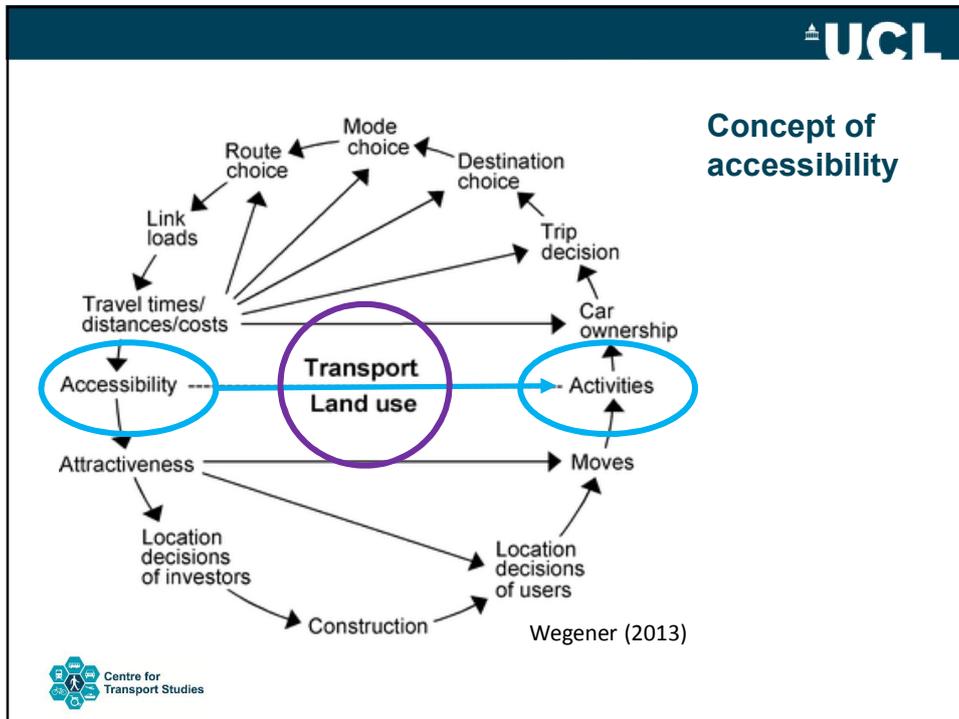
- Broadly defined as a person's physical and mental health
- Subjective well-being: a person's perception of their wellness, including their moods and emotions as events happen (affective) and their broad judgements about life as a whole (cognitive)
- Has multiple domains: work, family relationships, social network, financial, etc.



Travel can affect (subjective) well-being both positively and negatively

- | | |
|---------------------------------------|---|
| • physical activity | • noise |
| • socializing | • pollution |
| • feelings of freedom | • stress |
| • sense of control | – overcrowding |
| • sense of speed | – unpredictability |
| • exposure to the environment | – waiting |
| • time for working, playing, relaxing | • time taken away from other activities |





Danger – priorities, understanding and solutions may be limited if we choose the wrong measures of accessibility

Complex lives

Jenny



- Two children, part-time job at school
- Lives in an inner suburb,
- Works in an outer suburb across town.
- Travel needs:
 - Escort children to/from nursery and school
 - Escort children to/from evening activities
 - Weekly food shopping with mother
 - Work
- Constraints:
 - Time and timing
 - Pets

Marie



- Homeless,
 - Lives in temporary accomodation, occassionally sleeps on the streets
 - Hostel is in an area of offices and hotels
- Travel needs:
 - Hospital treatments x2, Doctors
 - Housing office,
 - Big Issue offices;
 - Daily food shopping
- Constraints:
 - health,
 - finances,
 - banned from certain areas.

David



- Full-time shift worker, out-of-town location
- Married, 1 child
- Travel needs:
 - Escort child from school
 - To/from work
 - Gym
 - Fortnightly visit to parents some distance away
 - Various escort trips with mother-in-law
- Constraints:
 - Work finish time is uncertain

Arthur



Image: my name's axel
on Flickr



- Retired
- Lives in the suburbs, on a steep hill with uneven paving
- Activity needs:
 - Voluntry work
 - Food shopping
 - Childcare and escort for grandchildren
- Constraints:
 - Difficulty managing heavy bags
 - Fear of falling
 - No longer drives

UCL		
Journey element	Transport Planners and Policy makers' Views	Views of older people and people with disabilities
Travel time	Important, occurs in many accessibility indicators.	Not seen as particularly important.
Journey cost	Seen as important, but rarely included in accessibility indicators due to data problems.	Relatively unimportant for older people as they are entitled to free bus travel.
Destinations, places	Access to employment, health care, education, food shops are seen as priorities.	Concerned with being able to "get out and about", to get to post offices, libraries, friends and family, social and leisure activities.
Physical obstacles and barriers	Often treated as absolute barriers (even when they are not) and in isolation.	The effect of an obstacle on accessibility varies depending on the individual, their journey and other circumstances. Obstacles that individually can be coped with can combine to become a barrier to movement.
Reliability	Generally not included in accessibility indicators. Emphasis on public transport running to timetable.	Reliability is more than just buses running on time, it is about being confident that every stage of the journey can be completed with ease.
Information provision	Not included in accessibility indicators. Emphasis on providing real-time information and several formats of public transport timetables.	Need tailored information about every aspect of the journey; both in advance of undertaking a journey and during the course of a journey.

A comparison of different elements of accessibility as measured by planners and experienced by older people and those with disabilities

(Titheridge et al, 2013)

UCL	
Accessibility benchmarks for older people (Titheridge and Solomon, 2007)	
Activity	Number of journeys required
Food shopping	twice a week
Comparison shopping	twice a month
Social or recreational activity	twice a week
Post Office	Once a week
Medical trip (all, e.g. feet, teeth, doctor, hospital, chemist etc.) and visits to friends and relatives.	Once a week
Holiday	twice a year
Structured day time activity appropriate to need	2-10 times a week

 Centre for Transport Studies

Progress and future challenges

Complexity and accessibility



Choices and options

- The nearest may not be sufficient
 - Types of services, range of goods on offer at one location
 - Quality of service
 - Prices
 - Opening times, entry requirements
 - Preference for certain types/brands of product
- People value choice
 - *Variety is the spice of life*



Scale

1. Integration of local, district and regional accessibility needed to reflect the full range of activities people undertake
2. Micro level details affect macro level accessibility
3. Local accessibility affects higher levels of accessibility

•Example:

- Lack of pedestrian crossing makes it difficult to reach bus stop,
- Which makes it difficult to get a bus to the railway station,
- Which makes it difficult to travel to a nearby city.



Temporality

• From a people perspective accessibility changes as:

- Perspectives change
- Health, moods, emotions and capabilities change
- Regulations changes
- Knowledge changes
- Location changes
- By time of day
- Needs change
- According to who you are with and who you are meeting next

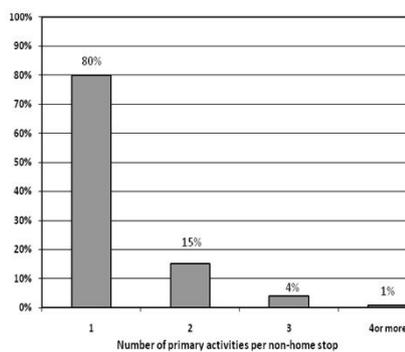


Multi-tasking and multi-functional places

- People can undertake several activities in the same place and at the same time
 - e.g. meeting friends and eating
- Some activities can take place in-home, out-of-home or at someone else's home.
- Some spaces have multiple functions
 - e.g. church halls, community centres
- Activities can take place in unusual places
 - e.g. using a bike shelter as a meeting place
- Transport as an activity space
 - e.g. meeting friends, doing work



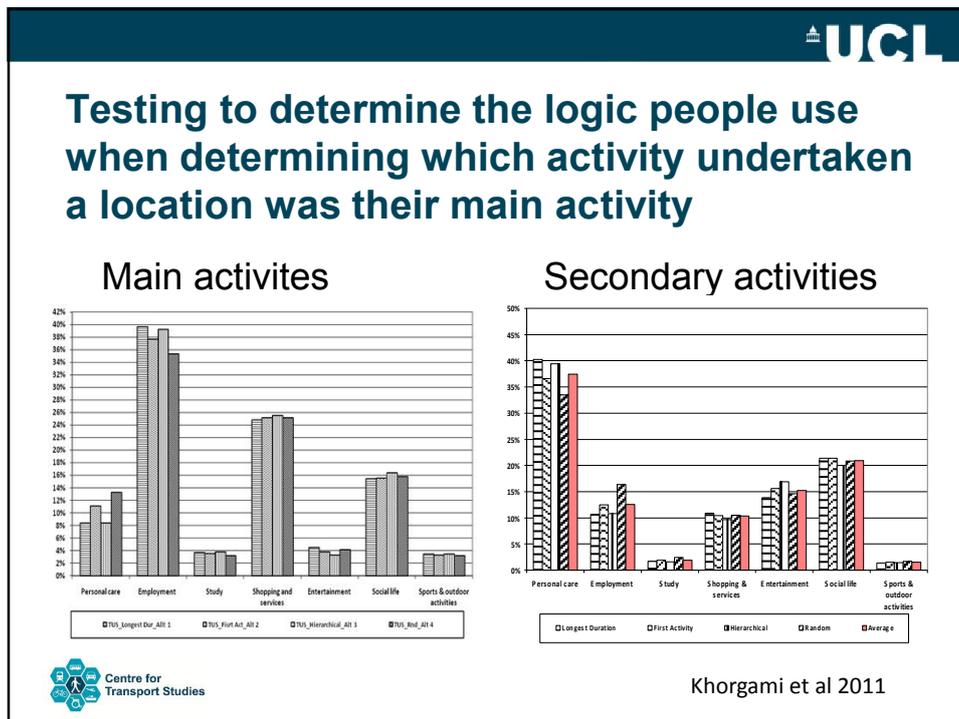
Multi-tasking



- In 20% of locations people took part in more than one activity
- At 31% of locations people also engaged in a secondary activity

Khorgami et al, 2010







Informality

- Lift giving, ride sharing
- Car sharing, car borrowing
- Favours, volunteering, gifts
 - Fetching
 - e.g. fresh bread for a neighbour
 - Doing
 - e.g. dyeing a friend's hair when they can't get to the hairdressers.



Some conclusions

- Accessibility is a multidimensional concept
- We need to use accessibility measures with care and caution
- Advances are being made to improve the measures we use to better reflect the complexity and detail of experiences
- There is still lots more to be done.

Thank you

- For further information
H.titheridge@ucl.ac.uk
- www.ucl.ac.uk/cts