ERSA 55th Congress "World Renaissance: Changing roles for people and places"

Lisbon, Portugal, 25-28 August 2015

Cluster 6: Accessibility

NECTAR-ERSA Special Session Call for Papers on the Theme:

"New Data and Methods In Accessibility Analysis"

Organizers: Ana Condeço-Melhorado, Javier Gutiérrez, Aura Reggiani

NECTAR (Network on European Communications and Transport Activities Research) – in cooperation with ERSA (European Regional Science Association) – is organizing a Special Session focusing on the topic "New Data and Methods in Accessibility Analysis". This special session aims to bring together leading researchers from Europe, the United States and elsewhere. Arrangements for publication of the papers presented are under consideration.

Topics of Interest

Nowadays a great amount of data is available thanks to the widespread use of sensors such as GPS, smartphones, tablets, credit cards and smart cards. All this technology gives geo-referenced information characterized by its high temporal and spatial resolution. Recent studies have shown some examples on how to use these new sources of data to monitor the movement of population across space and time, produce OD matrices, estimate speeds and travel times on a network, measure the social networks intensity or the spatio-temporal intensity of urban use. However the use of these geo-referenced data in accessibility analysis is still in its infancy.

In addition, there is increasing availability of digital networks provided by volunteers, public bodies and companies. Google Maps and Navigation companies such as Navteq and TomTom offer very detailed data on road networks that can be used to a more accurate estimation of travel times in accessibility analysis, given their high spatial and temporal resolution. New data and digital networks increase the quality of accessibility analysis, with promising applications to measure the attraction of destination places and the travel times to them in a dynamic way.

On the other hand the increase of data availability needs an improvement of better methods to measure accessibility and support spatial planning decisions. Old Conventional accessibility issues, such as the estimation of travel times, distance decay, the attraction of destination places, MAUP or spatial autocorrelation, can find new answers. At the same time, these new advances provoke new

issues (e.g., data homogenization in time-scale analyses, dynamic accessibility structures, accessibility and spatial-economic inequalities, etc.), challenging researchers for new solutions.

This special session aims at contributing to the development of new methods and the use of new data to improve accessibility analysis. Suggested themes are (not exhaustive):

The use of new geo-referenced data in accessibility analysis
Historical data in accessibility analysis
Temporal dynamics of accessibility
Spatial variation of accessibility
Accessibility and distance decay calibration
Accessibility and travel time variation across time
Accessibility and MAUP
Accessibility and spatial statistics
Accessibility and socio-economic networks
Accessibility and spatial-economic inequalities
Accessibility modelling

Deadline for submission of abstracts is 2 March
Abstracts should be submitted through the Congress Participant Area
(http://www.ersalisbon2015.org/#!services3/cjbt)
When submitting the abstract you will need to select the session type as 'Special session' and the name of the session as 'S_ZE. New Data and Methods in accessibility Analysis'

Additionally, abstracts should be sent to:
Ana Condeço-Melhorado, Institute of Prospective Technological Studies, Spain:
amcondeco@gmail.com

Other deadlines and registration procedure can be seen in the Congress website

Looking forward to meeting you in Lisbon this summer!

Ana Condeço-Melhorado, Javier Gutiérrez, Aura Reggiani