Research output

**Route choice decisions of e-bike users: analysis of GPS tracking data in the Netherlands**

**A multi-agent assisted approach for spatial Group Decision Support Systems: a case study of disaster management practice**

**An investigation of the operation of corporate real estate decision-making**

**Perceived benefits of science park attributes among park tenants in the Netherlands**

**Towards a segmentation of science parks: A typology study on science parks in Europe**

**Is the much discussed agility of Corporate Real Estate visible in practice? An empirical study of the relationship between business metrics and surplus property**

**Adjustment of corporate real estate during a period of significant business change**

**Analysing knowledge sharing behaviour in business centres: a mixed multinomial logit model**

**Analysing user preferences for co-working space characteristics**

**Employees’ preferences for services and facilities offered in serviced offices**

**Face-to-face interactions of university staff and students in an academic building**
Weijs - Perrée, M., Buck, L., Appel - Meulenbroek, R. & Arentze, T., 2019, (Submitted) In : *Ergonomics*.

---

**Theo A. Arentze**
**Full Professor**
**Real Estate Management and Development**
**Real Estate Management and Development**
**Email:** t.a.arentze@tue.nl
The influence of personal- and business centre characteristics on knowledge sharing types in business centres

The influence of the physical work environment of business centres on social networking and knowledge sharing in the Netherlands

Tourists' city trip activity program planning: a personalized stated choice experiment

Workplace needs and their support; are millennials different from other generations?

Location type choice for face-to-face interactions in business centers

Linking firm characteristics, science park attributes and perceived benefits: empirical approach and results

A time-use model for the automated vehicle-era

Dynamics in social activity-travel patterns: analyzing the role of life events and path dependence in face-to-face and ICT-mediated social interactions
van den Berg, P. E. W., Weijs - Perrée, M. & Arentze, T. A., 1 Aug 2018, In : Research in Transportation Economics. 68, p. 29-37

Is the much discussed agility of Corporate Real estate visible in practice? an empirical study of the relationship between business metrics & surplus property

Zelfbouw van woningen verhoogt sociale cohesie bewoners

Firms' perceived benefits of shared facilities on Dutch science parks: empirical evidence

Estimating a latent-class user model for travel recommender systems

Polarisatie stad en sociale huursector Eindhoven: vooronderzoek in opdracht van Woonbedrijf

Het belang van secundaire objectkenmerken woningen bij de bepaling van de WOZ-waarde: vooronderzoek WOZ Woningen REN
Individuals’ decisions in the presence of multiple goals

A comparative study of contact frequencies and modes among social network members in four countries.

Analysing knowledge sharing behaviour in business centres: a mixed multinomial logit model

Best living concepts for elderly homeowners: combining a stated choice experiment with architectural design

Bike2School: een onderzoek naar de factoren die van invloed zijn op het fietsgebruik van jongeren in Limburg, Noord-Brabant en Overijssel

Bike2School: factors influencing cycling behavior of teens in the Netherlands
van den Berg, P. E. W., Kropman, D., Alanis, A. K., Geurs, K. & Arentze, T. A., 2018

Location type choice for face-to-face interactions and knowledge sharing in university buildings

Location type choice for face-to-face interactions in business centers
Weijs - Perrée, M., Appel - Meulenbroek, H. A. J. A. & Arentze, T. A., 2018

Stated choice model of transport modes including solar bike

The role of sense of place in mediating the influence of shopping area characteristics on shopping behaviour
Larosi, H., van den Berg, P. E. W. & Arentze, T. A., 2018

Travel preferences of multimodal transport systems in emerging markets: the case of Beijing (under review)

Campus, technopole, science, technology or research park: a typology study on science parks in Europe

Adjustment of corporate real estate during a period of significant business change

An intelligent spatial land use planning support system using socially rational agents

Deriving attribute utilities from mental representations of complex decisions
A new approach to measure preferences of users in built environments: integrating cognitive mapping and utility models

Cognitive learning approach for travel demand modeling: estimation results

Effects of land-use transport scenarios on travel patterns: a multi-state supernetwork application

Employee’s preferences for services and facilities offered in serviced offices: results of an empirical study

Lectori Salutem: Indoor navigatiesystemen: recente ontwikkelingen en vooruitzicht

Lectori salutem: Nieuwe PhD-projecten van start bij de REMD groep

Predicting perceived neighbourhood social cohesion in Collective Private Commissioning projects in the Netherlands

Real estate resourcing on science parks: Exploratory overview of European science parks

Social networks, social satisfaction and place attachment in the neighborhood

Solar bike acceptance : mode choice behavior

Solar bikes: user acceptance: understanding user experience, preference and acceptance

The influence of personal-and business centre characteristics on knowledge sharing types in business centres

Tourists’ city trip activity program preferences: a personalized stated choice experiment

Universiteiten ontwikkelen fiets met ‘zonnewiel’
User preferences for coworking space characteristics

Bicycle commuting in the Netherlands: an analysis of modal shift and its dependence on life cycle and mobility events

Towards process validation for complex transport models: A sensitivity analysis of a social network-enhanced activity-travel model

A personalised recommender system for tourists on city trips

A personalised recommender system for tourists on city trips: concepts and implementation

Cognitive learning approach for travel demand modeling: estimation results

Implementation and reporting of sustainability measures in corporate real estate management: a content analysis of CSR reports

Measuring dynamic needs and preferences for a personalized tourist recommender system

Short-term adaptations as a response to travel time: results of a stated adaptation experiment increases

Socially rational agents in spatial land use planning: a heuristic proposal based negotiation mechanism

Woonmilieu, beleving en voorkeuren

Individuals’ social preferences in joint activity location choice: A negotiation model and empirical evidence

Incorporating mental representations in discrete choice models of travel behavior: Modeling approach and empirical application
C-space: Fostering new creative paradigms based on recording and sharing ‘casual’ videos through the internet

Simulating choice set formation processes in a model of endogenous dynamics of activity-travel behavior: The effect of awareness parameters

A multilevel analysis of factors influencing local social interaction

Dynamic adaptation of personalised recommendations based on tourists’ affective state

Dynamic social networks and travel

Dynamics in social activity-travel patterns

Factors influencing social satisfaction and loneliness : a path analysis

Factors influencing social satisfaction and loneliness in an aging society : a path analysis

Incorporating bounded rationality in a model of endogenous dynamics of activity-travel behaviour

Individuals’ spatial social network choice: model-based analysis of leisure-contact selection

Investigating situational differences in individuals’ mental representations of activity-travel decisions: progress and empirical illustration for the impact of on-line alternatives

Measuring dynamic needs and preferences for recommending personalized tourist routes

Money allocation to out-of-home leisure activities and the organization of these activities in time and space
Predicting the evolution of social networks with life cycle events

The role of dynamic needs in tourists’ activity choice: design and results of a stated choice experiment.

Effects of energy price policies on individual's activity-travel repertoires: Empirical results using script-based activity-travel adaptation data

Policies for synchronization in the transport-land-use system

A Micro-simulation model of updating expected travel time in provision of travel information : A bayesian belief approach implemented in a multi-state supernetwork

A multi-agent planning support system for assessing the role of transportation and environmental objectives in urban planning

A stated adaptation approach to assess changes in individuals’ activity-travel behavior in presence of personalized travel information

An analysis of the dynamics of activity and travel needs in response to social network and life-cycle dynamics : a structural equation model

Changing household car ownership level and life cycle events : an action in anticipation or an action on occurrence

Dynamic social networks and evolving travel patterns: findings from the U4IA project

Dynamics of face-to-face social interaction frequency : role of accessibility, urbanization, changes in geographical distance and path dependence

Incorporating needs-satisfaction in a discrete choice model of leisure activities

Modeling context-sensitive, dynamic activity travel behavior by linking short-and long-term responses to accumulated stress

Multi-day activity scheduling reactions to planned activities and future events in a dynamic model of activity-travel behavior

Multilevel analysis of factors influencing social interaction with neighbors

Multi-state supernetwork representation and location selection heuristics for two-person joint activity-travel problem

Multi-state supernetworks: recent progress and prospects

Online measurement of mental representations of complex spatial decision problems: comparison of CNET and hard laddering

Simultaneous modeling of individuals' duration and expenditure decisions in out-of-home leisure activities

The effect of emotional responses on endogenous dynamics of activity-travel behavior: numerical simulation results

The effect of stress tolerance on dynamics of activity-travel behavior: numerical simulation results

The role of affective experiences in travelers' assessments of risks and satisfaction: an experience sampling approach

Tourists' mental representations of complex travel decision problems

Tourists' dynamic needs and affects in personalised travel route recommendations

Toward personalised and dynamic cultural routing: a three-level approach

Employing agents to develop integrated urban models: Numerical results from residential mobility experiments
A multilevel path analysis of social network dynamics and the mutual interdependencies between face-to-face and ICT modes of social interaction in the context of life-cycle events

A path analysis of social networks, telecommunication and social activity-travel patterns

Adaptation to changes in geo-systems : an agent based simulation

Adaptive personalized travel information systems : a Bayesian method to learn users' personal preferences in multimodal transport networks

Agent-based modeling of cognitive learning of dynamic activity-travel patterns

An agent-based random-utility-maximization model to generate social networks with transitivity in geographic space

An analysis of the dynamics of activity and travel needs with response to the social network and life-cycle dynamics : a structural equation model

Capturing preference heterogeneity of truck drivers' route choice behavior with context effects using a latent class model

Capturing short and long term dynamics of activity travel behavior : design of a stated adaptation experiment

Design and implementation of a daily activity scheduler in the context of a personal travel information system

Distance patterns of personal networks in four countries : a comparative study

Incorporating space-time constraints and activity-travel time profiles in a multi-state supernetwork approach to individual activity-travel scheduling

Incorporating time dynamics in activity-travel behavior model : a path analysis of changes in activity and travel time allocation with life cycle events
Incorporating time dynamics in activity-travel behaviour model: a path analysis of changes in activity and travel time allocation with life cycle events

Learning and affective responses in location-choice dynamics

Location choice in the context of multi-day activity-travel patterns: model development and empirical results

Multi-state supernetwork framework for the two-person joint travel problem

Negotiating on location, timing, duration, and participant in agent-mediated joint activity-travel scheduling

Population-wide social network dynamics with life-cycle events: modeling approach and first analyses

Representing and estimating interactions between activities in a need-based model of activity generation

Simulating endogenous dynamics of activity-travel behavior: results of numerical simulations

Social interaction in the neighbourhood: a multilevel analysis

Stated adaptation experiment for individuals' time and money budget allocation decisions on out-of-home leisure activities

Time and monetary budget scenarios and changes in expenditures to leisure-out-of-home activities: a stated adaptation experiment

Travelers' preferences in multimodal networks: design and results of a comprehensive series of choice experiments

Co-evolving adaptation strategies in dynamic activity-travel behavior: results of a numerical simulation

Modelling the influence of temporal and monetary constraints on activity participation, travel, consumption of goods, residential location and work status: application in a land use transport interaction (LUTI) model
Simulating the choice of E-bike on the execution of activity-travel programs using a multi-state supernetwork approach

A heterogeneous latent class model of activity rescheduling, route choice and information acquisition decisions under multiple uncertain events

Application of albatross for scenario development: future travel behavior in an ageing population

A cognitive learning model for dynamic activity-travel patterns

A dynamic simulation model of individuals’ route choice behavior in presence of advanced travel information

A latent class accelerated hazard model of social activity duration

A model to explore cognitive learning of shopping locations

A modeling approach for cognitive learning of activity-travel patterns

A multilevel path analysis of contact frequency between social network members

Activity-based dynamic traffic modeling: Influence of population sampling fraction size on simulation error.

Agent-based modeling of cognitive learning of dynamic activity - travel patterns

Analysis of uncertainty in performance indicators of a complex activity-based model: The case of the Albatross model system

Car allocation decisions in car-deficient households : the case of non-work tours
Car drivers' compliance with route advice and willingness to choose socially desirable routes

Changing life-cycle events and dynamics of social network : first empirical analyses

Compliance with and influence of a new in-car navigation system for trucks : results of a field test

Context-dependent influence of road attributes and pricing policies on route choice behavior of truck drivers : results of a conjoint choice experiment

Feedback effects in the relationship between the built environment and travel

Incorporating planned activities and events in a dynamic multi-day activity agenda generator

Integrating a multi-agent model of land development and an activity-based model of transport demand: Progress and developments

Involvement in clubs or voluntary associations, social networks and activity generation : a path analysis

Involvement in clubs or voluntary associations, social networks and activity generation : a path analysis.

Modeling social interactions between individuals for joint activity scheduling

Modeling social networks in geographic space: approach and empirical application

New ICT's and social interaction : modelling communication frequency and communication mode choice

On the engineering of agent-based simulations of social activities with social networks

Out of sight, out of mind? : investigating changes in mode and frequency of social interaction due to lifecycle events
Simultaneous modeling of individuals' duration and expenditure decisions in out-of-home leisure activities

Spatial environmental analysis on the effects of a new navigation system for freight transport

Supernetwork approach for modeling traveler response to park-and-ride

The effects of pre-experimental training on the validity and reliability of conjoint analysis : the case of housing preference

The spatiality of personal networks in four countries : a comparative study

Travel demand modelling : conceptual developments and perspectives

Uncertainty in forecasts of complex rule-based systems of travel demand: Comparative analysis of the Albatross/Feathers model system

Understanding travelers' behavior in provision of travel information : a Bayesian belief approach

A multimodal transport network model for advanced traveler information systems

Sustainable city-plan based on planning algorithm, planners' heuristics and transportation aspects

Application of supernetworks in modeling activity-travel behaviour

A dynamic model of time-budget and activity generation: development and empirical derivation

A latent class accelerated hazard model of social activity duration.

A multilevel path analysis of contact frequency between social network members
A multimodal transport network model for advanced traveler information systems

A multimodal transport network model for advanced traveler information systems

A multimodal transport network model for advanced traveler information systems

A path analysis of social networks, ICT use and social activity-travel patterns

A simulation model assessing impacts of advanced information and communication technologies on activity-travel patterns

Assessing the relative importance of input variables for route choice modeling: a neural network approach

Constructing personalized transportation networks in multi-state supernetworks: a heuristic approach

Development of a dynamic network model for activity-travel patterns

Emerging urban futures and opportune repertoires of individual adaptation

Error propagation in complex large-scale computational process models of activity-travel behavior.

Estimating a model of dynamic activity generation based on one-day observations: method and results

Estimating social travel demand of senior citizens in the Netherlands

Estimating time, money and location effects in the organisation of leisure activities in time and space
Estimating time, money and location effects in the organization of leisure activities in time and space

Exploration of location influences on firm survival rates using parametric duration models

Exploring location influences on firm survival rates using parametric duration models

Exploring the use of travel information - identifying contextual market segmentation in Seoul, Korea

Influence of travel advice, pricing and environmental awareness on route choice behavior of car users: results of a stated choice experiment

Instantaneous emission modeling with GPS-based vehicle activity data: results of diesel trucks for one-day trips

Longitudinal model of longer-term mobility decisions: framework and first empirical tests

Matching office firms types and location characteristics : an exploratory analysis using Bayesian classifier networks

Modeling multimodal transport network with personalized routing calculation

Modelling complex activity-travel scheduling decisions: procedure for the simultaneous estimation of activity generation and duration functions

New credit mechanism for semicooperative agent-mediated joint activity-travel scheduling : negotiating with incomplete information

Representing and estimating interactions between activities in a need-based model of activity generation

Social influences on household location, mobility and activity choice in integrated micro-simulation models
Spatial attributes mediating regional carrying capacity for office firm sectors: a stochastic frontier approach

The effect of ICT on social travel behavior: modeling communication frequency and communication mode choice

The effect of ICT on social travel behavior: modeling communication frequency and communication mode choice

The effect of monetary expenditures, socio-demographic factors and time-location variables on duration of leisure activities

The effects of different interaction protocols in agent-based simulation of social activities

The effects of social networks on choice set dynamics : results of numerical simulations using an agent-based approach

The impact of urban environment on physical active travel behavior in deprived neighborhoods

The spatiality and frequency of interaction of personal networks in four countries : a comparative study

Transport models and urban planning practice: experiences with Albatross

Transportation and social interactions

Using an activity-based framework to determine effects of a policy measure on population exposure to nitrogen dioxide

Factors influencing the planning of social activities: Empirical analysis of data from social interaction diaries

Implementation framework and development trajectory of FEATHERS activity-based simulation platform

Modeling movement patterns across multiple colliding worlds the potential of multi-state supernetworks
The residential choice module in the albatross and ramblas model systems

A model of time and money allocation of households

A multi-agent planning support system for assessing externalities of urban form scenarios: Results of case studies

A path analysis of social networks, ICT use and social activity-travel patterns in the Netherlands

A support system that delineates location-choice sets for firms seeking office space

An agent-based heuristic method for generating land-use plans in urban planning

An agent-based micro-simulation framework for modeling of dynamic activity-travel rescheduling decisions

An overview of negotiation models for activity-travel applications

Analysis of differential impact of teleworking scenarios on household energy consumption : results of a CHAID analysis

CNET and APT : a comparison of two methods for measuring mental representations underlying activity-travel choices

Co-evolving social networks and activity-travel patterns

Covariate analysis of time use for social activities and travel of the elderly

Effects of advanced information and communication technology on activity-travel pattern: Conceptualization and modelling approach
Eliciting needs underlying activity-travel patterns and their covariance structure: results of multi-method analyses

Eliciting the needs that underlie activity-travel patterns and their covariance structure: results of multimethod analyses

Estimating social travel demand of senior citizens in the Netherlands

Exploring location influences on firm survival rates using parametric duration models

Factors influencing the planning of social activities: empirical analysis of social interaction diary data

Habit formation and affective responses in location choice dynamics

Health and the city: The impact of urban environment on physically active modes of travelling

Incorporating power into joint social activity negotiation
Ronald, N. A., Ma, H., Arentze, T. A. & Timmermans, H. J. P., 2010, *Proceedings of the 3rd World Congress on Social Simulation, Kassel (Germany), September 2010*. Kassel, Germany, p. 8-

Incorporating time and income constraints in dynamic agent-based models of activity generation and time use: approach and illustration

Learning and affective responses in location choice

Location and accessibility mediated influences on office firm closure rates: a proportional hazard model

Location and Accessibility Mediated Influences on Office Firm Closure Rates: A Proportional Hazard Model

Location-type choice for face-to-face social activities and its effect on travel behavior

Making our mobility more intelligent- A framework of a personalized multimodal traveller information system
Matching office firms types and location characteristics: an exploratory analysis using Bayesian classifier networks

Measuring the quality of urban environments: a need-based micro-simulation approach

Modeling households activity participation decisions in a rule-based system of travel demand

Modeling the evolution of cognitive representation of urban networks: key concepts and mechanisms

Modelling the dynamics between social networks and activity-travel behavior: framework and research agenda

Multi-player multi-issue negotiation with incomplete information in agent-based activity-travel scheduling

Parameter estimation of a dynamic need-based activity generation model

Primary and secondary effects of teleworking policies on household energy consumption

Revealed or hidden?: insights into ways of measuring mental representations online: A comparative study of APT and CNET applied to an online agent

Route choice behavior of individuals: a case study in retail districts of Eindhoven

Supernetwork approach for multimodal and multiactivity travel planning

The contribution of activity-based transport models to air quality modelling: A validation of the ALBATROSS–AURORA model chain

The Effects of Travel Related Changes on Households' Dynamic Budget Allocation Decisions
U4IA: Emerging urban futures and opportune repertoires of individual adaptation: program overview

Validating of complex agent-based models of social activities and travel behaviour

Disaggregation of nation-wide dynamic population exposure estimates in The Netherlands: Applications of activity-based transport models

Spatial data mining, cluster and pattern recognition

A geo-informatics support system for location decisions of firms

A geo-informatics support system for location decisions of office firms

A multi-agent modeling approach to simulate dynamic activity-travel patterns

A Multi-Agent Modelling Approach to Simulate Dynamic Activity-Travel Patterns

A multi-agent planning system: a tool for ensuring public interest in planning

A need-based model of multi-day, multi-person activity generation

A study on travel patterns and characteristics of travellers and land uses in seoul using a large data set

A support system for delineating location choice sets of a firm seeking office space

An agent-based framework for modelling social influence on travel behaviour
An agent-based model of residential choice dynamics in nonstationary housing markets

Continuous choice model of timing and duration of joint activities

Developing dynamic models of activity-travel behavior: principles, mechanisms, challenges in data collection and methodological issues

Estimating social travel demand of senior citizens in the Netherlands

Estimating the parameters of a dynamic need-based activity generation model

Geo-Office: a geo-informatics tool for supporting the planning of office development

GRAS: a spatial decision support system for green space planning

ICT and social interaction : modeling communication mode choice and its effect on travel behavior

Individuals' activity-travel rescheduling behaviour: experiment and model-based analysis

Location-type Choice for Face-to-face Social Activities and Its Effect on Travel Behavior

Modeling social networks in geographic space: Approach and empirical application

Modelling social interactions between individuals for joint activity-travel scheduling

Multi-day activity scheduling reactions to planned activities and future events in a dynamic agent-based model of activity-travel behavior
Regimes in social-cultural events-driven activity sequences: modeling approach and empirical application

Road pricing as an impetus for environment-friendly travel behavior: Results from a stated adaptation experiment

Size and composition of ego-centered social networks and their effect on geographical distance and contact frequency

Size and composition of ego-centered social networks and their effect on travel distance and contact frequency

Social influence on location choice dynamics
Han, Q., Arentze, T. A. & Timmermans, H. J. P., 2009, Transportation and Geography: proceedings of the 14th international conference of Hong Kong Society for Transportation Studies. Donggen Wang and Si-Ming Li, X. (ed.). HongKong: Hong Kong Society for Transportation Studies

Spatial Choice: a matter of utility or regret?

Traveler compliance with advice: a Bayesian utilitarian perspective

A dynamic activity-based population modelling approach to evaluate exposure to air pollution: methods and application to Dutch urban area

A multi-agent paradigm as structuring principle for planning support systems

A random regret minimization model of travel choice

An agent for supporting and simulating locations decisions of firms

An agent-based system for simulating dynamic choice-sets

An integrated activity-based modelling framework to assess vehicle emissions : approach and application
Assessing activity-related vehicle emissions through an integrated activity-based modelling framework

Car allocation between household heads in car deficient households: A decision model

Creating synthetic household populations : problems and approach

Design of a computer-assisted instrument for measuring mental representations underlying activity-travel choices

Design of stated adaptation experiments: discussion of some issues and experiences

Do choice-sets matter?

Extending activity-based models of travel demand to represent activity-travel behaviour of children: Some descriptive results

Guest editorial: Social networks, choices, mobility, and travel

Interview techniques for measuring individuals - mental representations in space-time choices

Latent class model accounting for information preference heterogeneity in activity-travel scheduling decisions under multiple uncertain events

Leisure trip choice: Data mining of trip diary data using a structural learning algorithm

Modeling and measuring individuals' mental representations of complex spatio-temporal decision problems
Modeling individuals' cognitive and affective responses in spatial learning behavior

Modelling context-sensitive dynamic activity-travel behavior under conditions of uncertainty incorporating reinforcement learning, habit formation, and behavioral and cognitive adaptation strategies

Modelling social aspects of travel behaviour: a preliminary review

More gray hair – but for whom?: scenario-based simulations of elderly activity travel patterns in 2020

Multi-day activity scheduling reactions to future events in a dynamic agent-based model of activity-travel behaviour

Retrospective surveys: some experiences in the context of measuring lifecycle events

Shopping context and consumers’ mental representation of complex shopping trip decision problems

Social networks, ICT use and activity-travel patterns. Data collection and first analyses

The applicability of Bayesian belief networks for measuring user preferences: some numerical simulations

Towards longitudinal activity-based models of travel demand

A multi-agent activity-based model of facility location choice and use

Activity-travel rescheduling decisions: estimating parameters of response patterns

Agent Activity-Rescheduling Decisions under Unexpected Events
Applying an activity-based modeling framework to the evaluation of vehicle exhaust emissions

Behavioural aspects of travel information: models and experiments

Capturing tour mode and activity choice interdependencies: A co-evolutionary logit modelling approach

Congestion pricing scenarios and change of job or residential location: Results of a stated adaptation experiment

Decision styles and learning rules in acquiring travel information: a discrete choice model using a laboratory experimental design

Decision tables

Dynamic model for generating multiday, multiperson activity agendas: approach and illustration

Employing agents to develop integrated urban models

Estimation of a regret-based model of traveler response to uncertainty and information using data from a multimodel travel simulator

Examining temporal effects of lifecycle events on transport mode choice decisions

Identifying skeletal information of activity pattern of a group

Identifying skeletal information of activity patterns by multidimensional sequence alignment
Information impact on quality of multimodal travel choices: conceptualizations and empirical analyses

Information impact on quality of travel choices: analysis of data from a multimodal travel simulator

Measuring the quality of urban environments: a need-based micro-simulation approach

Micro-simulation of individual space-time behavior in urban environments: a new model and first experience

Modelling car allocation decisions in automobile deficient households

Modelling dynamics of activity-travel behaviour

Modelling land-use decisions under conditions of uncertainly

Modelling short-term dynamics in activity-travel patterns: conceptual framework of the Featers model

Modelling the dynamic formation of activity location choice-sets

Parametric action decision trees: Incorporating continuous attribute variables into rule-based models of discrete choice

Refining Albatross: Modeling household activity generation and allocation decisions using decision tree induction

Regimes in social-cultural events-driven activity sequences

Robust approach to modeling choice of locations in daily activity sequences
Simulated effects of accessibility change on activity-travel patterns

Simulating the influence of life trajectory events on transport mode behavior in an agent-based system

Social activities and travel demands: a model-based analysis of social-network data

Social influences on household location, mobility and activity choice in integrated micro-simulation models

Social Networks, ICT and activity-travel patterns in different spatial settings: data collection instrument and first results

Social networks, social interactions, and activity-travel behavior: a framework for microsimulation

The effects of social networks on choice set dynamics: results of numerical simulations

The value of public transport information for car-drivers

Towards an integrated LUTI model of long term and short-term mobility decisions of households using social learning

Towards an integrated LUTI model of long-term and short-term mobility decisions of households using social learning

Travelers' need for information in traffic and transit: results from a web survey

Validation of a multimodal travel simulator with travel information provision

A Heuristic Method for Land-Use Plan Generation in Planning Support Systems
A Model of Within-Households Travel Activity Decisions Capturing Interactions between Household Heads

A Multi-Agent Model for Generating Local Land-Use Plans in the Context of an Urban Planning Support System

Bilevel negotiation protocol for multiagent simulation of housing transactions and market clearing processes

Characterisation and comparison of gender-specific utility functions of shopping duration episodes

Het effect van OV-informatie op vervoerswijzekeuzes van automobilisten: modellen en simulaties op basis van spijt-minimalisatie

Integrating Bayesian networks and decision trees in a sequential rule-based transportation model

Measuring and predicting adaptation behavior in multi-dimensional activity-travel patterns

Modelling the influence of structural lifecycle events on activity-travel decisions using a structure learning algorithm

Modelling complex activity-travel scheduling decisions: procedure for the simultaneous estimation of activity generation and duration functions

Modelling consumer choice behaviour with Bayesian belief networks

Modelling Residential Search and Location Choice - Framework and Numerical Experiments

Multi-agent models of spatial cognition, learning and complex choice behavior in urban environments
Observing the making of travel choices under uncertainty and information: validation of travel simulator

Personal intelligent travel assistants: gebruik en mogelijke effecten

Responses to transit information among car-drivers: regret-based models and simulations

Social commitments and activity-travel scheduling decisions

Social commitments and activity-travel scheduling decisions

The value of travel information for generating choice alternatives: conceptualizations and numerical examples.

The value of travel information: Decision strategy-specific conceptualizations and numerical examples

Travelers' need for information: an empirical study into the role of knowledge.

Alternate methods of conjoint analysis for estimating housing preference functions: Effects of presentation style

A cognitive agent-based simulation framework for dynamic activity-travel scheduling decisions

A micro-simulation model system of departure time using a perception updating model under travel time uncertainty

A multiagent model for alternative plan generation

A multipurpose shopping trip model to assess retail agglomeration effects

A utility-based analysis of activity time allocation decisions underlying segmented daily activity-travel patterns
ALBATROSS: A Learning-Based Transportation Oriented Simulation System

Albatross version 2: A learning-Based Transportation Oriented Simulation System

Alternative methods of causal inference in a multi-agent model of land use decisions under conditions of uncertainty

An agent-based model of residential choice dynamics in non-stationary housing markets

An analysis of context and constraints-dependent shopping location decisions using qualitative decision principles

Developments in Activity-Based Modelling: Approaches and Experiences with Albatross

Examining temporal effects of lifecycle events on transport mode choice decisions

Identifying Impacts Of Explanatory Variables In Complex Rule-Based Models Of Activity-Travel Behavior

Impact of institutional change on shopping patterns: application of a multi-agent model of activity-travel behavior

Implementation of a model of dynamic activity-travel rescheduling decisions: an agent-based micro-simulation framework

Incorporating parametric action decision trees in computational process models of activity-travel behavior: theory and illustration

Information gain, novelty seeking and travel: a model of dynamic activity-travel behavior under conditions of uncertainty

Internet-based travel surveys: selected evidence on response rates, sampling bias and reliability

Mental models and shopping scheduling decisions: measurement and analysis using Bayesian belief networks
Modeling impact of travel information on activity-travel rescheduling decisions under conditions of travel time uncertainty

Modeling the impact of key events on long-term transport mode choice decisions : a decision network approach using event history data

Modeling the impact of key events on long-term transport mode coice decisions: decision network approach using event history data

Modeling The Impact of Travel Information on Activity-Travel Rescheduling Decisions Under Conditions of Travel Time Uncertainty

Modeling the impact of travel information on activity-travel rescheduling decisions under multiple uncertain events: distributed myopic decision heuristics

Modelling learning and adaptation in transportation contexts

Multi-agent simulation of behaviour in non-stationary transportation networks: model formulation and numerical experiments

Parametric Action Decision Trees: Incorporating Continuous Attribute Variables Into Rule-Based Models of Activity-Travel Behavior

Perceived information value: a theoretical framework and some numerical examples

Representing mental maps and cognitive learning in micro-simulation models of activity-travel choice dynamics

Social Networks and Activity-Travel Choice: Significance and Prospects for Micro-Simulation

Social networks and activity-travel choice: significance, prospects and some concepts

Spatial impact of congestion pricing scenarios
Testing a multi-agent model for alternative plan generation

The Albatross model system: sensitivity tests and pilot applications

The effects of land use policies on activity-travel patterns: an application of the albatross multi-agent simulation system

The impact of simplification in a sequential rule-based model of activity-scheduling behavior

The sensitivity of activity-based models of travel demand: results in the case of Albatross

The Value of Time for Shopping: Analyses of Consumer Segments and Gender Differences

Value of travel information: Theoretical framework and numerical examples

A learning-based transportation oriented simulation system

A micro-simulator of urban land use dynamics integrating a multi-agent model of land development and an activity-based model of transport demand

A spatial decision support system for provision and monitoring of urban green space

A theoretical framework for modeling activity-travel scheduling decisions in non-stationary environments under conditions of uncertainty and learning

Activity-travel scheduling and rescheduling decision processes: empirical estimation of Aurora model

Capturing interdependencies in tour mode and activity choice: a co-evolutionary logit modelling approach
Capturing the role of awareness and information search processes on Choice Set Formation in Models of Activity-Travel Behavior

Improving performance of multilateral rule-based model for activity pattern decisions with Bayesian networks

Modeling the dynamic use and impact of travel information on activity-travel: (re)scheduling decisions

Modeling perception updating of travel times in the context of departure time choice under ITS

Multi-agent models of urban land development: theory and numerical simulation of retail location decisions

Multi-agents generating alternative plans in local land-use planning: specifying their reasoning and interaction

Multimodal public transport: an analysis of travel time elements and the interconnectivity ratio

Multistate supernetwork approach to modelling multi-activity, multimodal trip chains

Predicting multi-faceted activity-travel adjustment strategies in response to possible congestion pricing scenarios using an Internet-based stated adaptation experiment

Towards a generic multi-agent engine for the simulation of spatial behavioural processes: MASQUE/SwarmCity

Using Bayesian decision networks for knowledge representation under conditions of uncertainty in multi-agent land use simulation models

A multiagent model of negotiation processes between multiple actors in urban developments: a framework for and results of numerical experiments

A theory and simulation model of activity-travel rescheduling behavior
Assessing the effects of constrained and unconstrained policy scenarios on activity-travel patterns using a learning-based simulation system

Capturing interdependencies in tour mode and activity choice: a co-evolutionary logit modelling approach

Effects of task complexity and presentation format on the validity of stated choice responses for respondents with limited literacy skills

Estimating non-linear dynamics of continuous time in the context of an activity schedule model

Estimating non-linear utility functions of time use in the context of activity schedule adaptation model

Generating alternative plans in a planning support system using multi-agent technology

Learning and adaptation behaviour: empirical evidence and modelling issues

Measuring impacts of condition variables in rule-based models of space-time choice behavior: method and empirical illustration

Measuring the goodness-of-fit of decision tree-based models of discrete and continuous time activity-travel choice: methods and empirical illustration

Modeling agglomeration forces in urban dynamics: a multi-agent system approach

Modeling agglomeration forces in urban dynamics: a multi-agent system approach

Modeling learning and adaptation processes in activity-travel choice: a framework and numerical experiments

Modeling perception updating of travel times of departure time choice under ITS

Modelling agglomeration forces in urban dynamics: a multi-agent system approach
Modelling perception updating of travel times in the context of departure time choice under ITS

Models of learning and adaptation behaviour in urban transport settings

Predicting Multi-Faceted Activity-Travel Adjustment Strategies in Response to Possible Congestion Pricing Scenarios Using an Internet-Based Stated Adaptation Experiment

Reinduction of Albatross decision rules with pooled activity-travel data and an extended set of land use and cost-related condition states

Representing mental maps and cognitive learning in micro-simulation models of activity-travel choice dynamics

Transport stated choice responses: effects of task complexity, presentation format and literacy

Understanding activity scheduling and rescheduling behaviour : theory and numerical illustration

Variation of activity patterns with features of the spatial context

Activity pattern similarity : a multidimensional sequence alignment method

Activity scheduling and rescheduling behavior.

Amadeus: A framework for Developing A Dynamic Multi-Agent, Multi-Period Activity-Based Micro-Simulation Model of Travel Demand

Analysing space-time behaviour : new approaches to old problems

Applicability of stated preference for mode choice studies among less literate commuters

Erratum to "Activity pattern similarity : a multidimensional sequence alignment method" (Transportation research, part B, vol 36, no. 5(2002), p. 385-403)
Modeling individual's activity-travel rescheduling heuristics: theory and numerical experiments

Modeling the formation of activity agendas using reactive agents

Stationary and time-varying patterns in activity diary panel data: explorative analysis with association rules

The Impact of Irrelevant Attributes on the Accuracy of Classifier Systems in Generating Activity Schedules

The Spatial Transferability of the Albatross Model System: Empirical Evidence from Two Case Studies

Towards a Local Planning Support System: Introducing the Masque Framework

A Micro-simulation Model of Individuals Activity Travel Behaviour In Urban Environments

A micro-simulation model of individuals' activity-travel behavior in urban environments.

A model for Generating Activity Skeletons in the Context of the Albatross System

A position-sensitive sequence-alignment method illustrated for space-time activity-diary data

Albatross: Model and Experience

Assessing urban context-induced change in individual activity travel patterns: case study of new railway station

Association rules in identification of spatial-temporal patterns in multiday activity diary data

Coevolutionary approach to extracting and predicting linked sets of complex decision rules from activity diary data

Combining Data Mining and Logit Techniques for Discrete Choice Modeling With Large Spatial Data Sets
Creating Synthetic Populations: Approach and Results

Data Needs and Sources for Albatross 1.0 Applications

Deriving performance indicators from models of multipurpose shopping behaviour

Deriving rules from activity diary data : a learning algorithm and results of computer experiments

Generating Synthetic Populations

Impact of urban setting on activity-travel patterns : comparison of performance indicators with quasi-experimental design data

Inductive learning approach to evolutionary decision processes in activity-scheduling behavior : theory and numerical experiments

Interactive Agency Choices in Land Use Transport Dynamics: The Case of the Residential Housing

Inter-agent Interactions in the Amadeus Long Term Submodule

Introducing Multi-Agents in an Integrated GIS/VR System for Supporting Urban Planning and Design Decisions

Modeling effects of anticipated time pressure on execution of activity programs

Modelling the Formation of Activity Agendas Using Reactive Agents

Multidimensional sequence alignment methods for activity-travel pattern analysis : a comparison of dynamic programming and genetic algorithms

New activity diary format : design and limited empirical evidence
Pattern recognition in complex activity travel patterns: comparison of Euclidean distance, signal-processing theoretical, and multidimensional sequence alignment methods

Questionnaire Design and Findings

Representing and predicting tourist choice behavior: rule-based vs. utility-based approach
Middelkoop, van, M., Borgers, A. W. J., Arentze, T. A. & Timmermans, H. J. P., 2001, In : Tourism Analysis. 5, p. 113-118

Representing and predicting tourist choice behaviour: rule-based vs. utility-based approach

Representing and Predicting Tourist Choice Behaviour: A Rule-Based vs. a Utility-Based Approach

Rule-based versus utility-maximizing models of activity-travel patterns: a comparison of empirical performance

Spatial Variability in Response Rates and Data Quality of a Designated Days Leave Behind-Full Activity Diary

The Amadeus Program: Scope and Conceptual Development

The long-term Effects of Multi-modal Transportation Networks: The residential Choice Behavior of Households

The Spatial Transferability of the Albatross Model System

Towards A Theory and Model of Activity-Travel Rescheduling Behavior

Understanding activity scheduling and rescheduling behaviour: theory and numerical illustration

Urban Form Network Type and Mode Choice for Frequently Conducted Activities: A multi-level analysis

A Decision Support System for Land-Use Selection Decisions Using a Combined AHP and KBS Approach
A knowledge-based system for developing retail location strategies

A spatial decision support system for retail plan generation and impact assessment

Activity Selection, Travel Party and Duration Decisions

Activity Start Time and Trip-Chaining Decisions

Activity Transport Mode and Location Choice

ALBATROSS
Arentze, T. A., 2000

ALBATROSS: a learning based transportation oriented simulation system

Albatross: multi-agent rule based model of activity pattern decisions

Analyzing Space-Time Behavior: New Approaches to Old Problems

Conceptual Framework

Conclusions and discussion

DANA (Dissimilarity Analysis of Activity Patterns): A Tool for Multidimensional Activity Pattern Comparison and Pattern Classification in Transportation Research

Data about the space-time environment
Data Needs, Data Collection and Data Quality Requirements of Activity-Based Transport Demand Models

Deriving decision rules from activity diaries

Determinants of attrition rates in two-wave, two-day household activity diary: probit analysis

Effects of respondent demand on response rates and quality of multi-day activity diaries

Identifying decision structures underlying activity patterns: an exploration of data mining algorithms

Modeling learning and evolutionary adaptation processes in activity settings: theory and numerical simulations

Modeling Short-Term Adjustment Processes of Individual Activity Schedules in Time and Space

Modelling Activity-Travel Patterns
Arentze, T. A., 2000

Observed Activity Patterns

Relative Predictive Ability

Representing and Inducing Decision Rules

Representing and Predicting Tourist Choice Behaviour: A Rule-Based vs. a Utility-Based Approach

Rule-Based versus Utility-Maximizing Models of Activity-Travel Patterns
Sequence alignment method

Sequence Alignments Methods

SYLVIA

Synthesizing Populations Using Micro-Simulation

The Activity Dairy

The ALBATROSS System

The Long-Term Effects of Multi-Modal Transportation: the Resident Choice Behavior of Households

Transport Mode Decisions Related to the Primary work Activity

Using ALBATROSS for Impact Analysis: Some Illustrations

Using decision tree induction systems for modeling space-time behavior

A qualitative approach to modelling space-time behaviour of individuals in urban environments: the case of trip chaining

A spatial decision support system for the planning of retail and service facilities
An Analysis of Context and Constraints-Dependent Shopping Location Decisions Using Qualitative Decision Principles
Arentze, T. A. & Timmermans, H. J. P., 1999

Deriving Decision Rules from Activity Dairies


System for logical verification and inference of activity (SYLVA) diaries

The development of ALBATROSS: some key issues

Training for underground environments

Using Models of Consumer Spatial Shopping Behavior for Developing Retail Networks

A Multipurpose Trip Model to Assess Retail Agglomeration Effects

An Analysis of Spatial and Temporal Properties of Daily Activity Patterns

Economische Effecten van Parkeermaatregelen in Noord-Brabant. Nameting 1997 (Deelrapport)

Economische Effecten van Parkeermaatregelen in Noord-Brabant. Onderzoek naar Economische Effecten van Parkeermaatregelen in Winkelgebieden in Noord-Brabant (Hoofdrapport)

Experiences with developing ALBATROSS: a learning-based transportation oriented simulation system

Extending spatial DSS with spatial choice models of multipurpose shopping trip behaviour

Investigating consumers' tendency to combine multiple shopping purposes and destinations
Location planner: a DSS for the location planning of retail and service facilities

Using models of consumer spatial shopping behavior for developing retail networks

A generic spatial decision-support system for planning retail facilities

A multi-objective model for developing retail location strategies in a DSS environment

A Multipurpose Destination Choice Model For Shopping Trips: Some Empirical Results

Constructing and consulting fuzzy decision tables

Economische effecten van parkeermaatregelen: winkelcentrum- en vervoerswijzekeuze van consumenten in Noord-Brabant

Estimating A Rule-Based System Of Activity Scheduling: A Learning Algorithm And Results Of Computer Experiments

Measuring the Similarity of Activity Patterns

An efficient search strategy for site-selection decisions in an expert-system

Design of a view-based DSS for location planning

Integrating GIS into the Planning Process

Integrating GIS and spatial modeling: a generic DSS for retail planning

The development of a knowledge-based decision support system for retail and service planning
The development of a knowledge-based spatial decision support system for retail and service planning

The integration of expert knowledge in decision support systems for facility location planning

Geographical information systems and the measurement of accessibility in the context of multipurpose travel: a new approach

Multistop-based measurements of accessibility in a GIS environment

A model of multi-purpose shopping trip behavior

Geographical information systems and the evaluation of the location of facilities

Projects
SPARK Impuls (Science park facilities and the role of ecosystem formation)
1/07/16 → 31/12/19

Activities
Stakeholders-oriented spatial decision support system
Theo Arentze (Examiner)
17 May 2019

A sustainable industrial site redevelopment planning support system
Theo Arentze (Examiner)
2 Apr 2019

Efficient storage and retrieval of detailed building models: multi-disciplinary and long-term use of geometric and semantic construction information
Theo Arentze (Examiner)
2 Apr 2019

The users' value of business center concepts for knowledge sharing and networking behavior within and between organizations
Theo Arentze (Examiner)
26 Mar 2019
A tool to analyze urban development
Theo Arentze (Speaker)
2019 → …

Simulating Annual Long-Distance Travel Demand
Theo Arentze (Examiner)
2019

Presentation at the Department of Civil Engineering, University of Pretoria, Pretoria, South Africa
Theo Arentze (Speaker)
29 Nov 2000