Activity-Based Modeling Symposium

PROGRAM

Raitenhaslach, Germany
December 11th to December 13th, 2024

Contents

Welcome!

We, the research group Travel Behavior at TUM, are delighted to welcome you to the Third Symposium for Activity-Based Modeling. Our mission is to advance both the theoretical foundations and practical applications of activity-based models. This year, we focus on **evolutionary travel behavior**.

In land-use modeling, it has long been standard practice to adjust populations incrementally, accounting for aging, births, marriages, divorces and other demographic events. However, in transport modeling, it remains common for most models to completely regenerate travel behavior with each simulation run.

Research on habitual behavior, attitudes, values and experiences suggests that travel decisions are not made from scratch for every trip. Instead, much of our travel behavior is shaped by habits. While significant events, such as the introduction of a new transit line or the opening of a major shopping mall, may alter travel choices, such changes are relatively infrequent. For the most part, people's travel routines remain stable over time.

It is, therefore, time for transport modeling to incorporate incremental adjustments to travel behavior rather than resetting it with every simulation run. The activity-based framework is particularly suited to this task, as it models individuals rather than aggregate groups, allowing us to carry forward agents' travel behavior from one simulation period to the next.

This symposium is not only about technical advancements in modeling; it also acknowledges the critical importance of solid theoretical foundations for understanding the habitual aspects of travel behavior. We also need to understand how land-use changes, modifications to transport systems, and significant life events impact individuals' travel choices. To this end, we have invited a diverse group of experts in travel behavior and modeling to foster synergies and bridge these research domains.

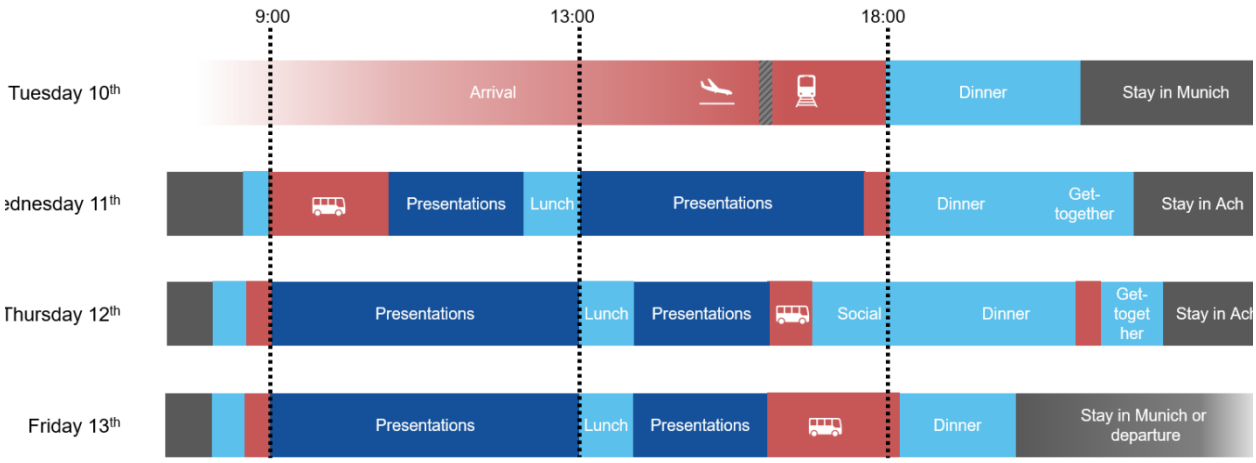
We are thrilled to host this symposium in a historic setting: the TUM Science & Study Center Raitenhaslach, a former monastery located near Munich at the Austrian border. We eagerly look forward to brainstorming with you and exploring new ideas to advance evolutionary travel behavior modeling.

Once again, welcome!

Rolf Moeckel

The symposium is supported the Technical University of Munich and the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under grant n° 552396996.

Program



For more information or dynamically updated information, please consult the program webpage: *https://www.mos.ed.tum.de/en/tb/workshops/abm2024/program/*

Tuesday, December 10th

	Arrive at Citadines Apart'hotel Arnulfpark, Arnulfstr. 51, Munich
Optional program:	
5:45 PM	*Meeting in Hotel Lobby*
6:00 PM	*Dinner in Augustiner Keller München, Munich*

Wednesday, December 11th

7:30 – 8:45 AM	*Breakfast at Hotel, Munich*
8:45 AM	*Meet in Hotel Lobby*
9:00 AM	*Bus transfer from Munich to Raitenhaslach (90 min)*
10:30 AM	*Arrive at TUM Science & Study Center Raitenhaslach, store luggage*
10:30 – 11:00 AM	*Short coffee break*
11:00 – 11:30 AM	**Welcome and Introductions**
11:30 AM – 12:00 PM	*Keynote: From equilibrium to evolution* **Peter Jones:** What would an evolutionary model of travel behavior (instead of an equilibrium model) look like?
12:00 – 1:00 PM	*Lunch*
1:00 – 3:00 PM *The world has changed!*	**Steven E. Polzin:** Trends in U.S. Travel Behavior: Insights and Implications **Chandra Bhat:** An Evaluation of the Long-Term Effects of the COVID-19 Pandemic on Public transportation Use **Ziyue Dong & Eric Miller:** Non-work/school activity participation in a flexible work future: A pre/post-pandemic comparative study **Sergio Jara-Diaz:** Should these recent changes lead us to reconsider core assumptions in how we model and plan a transportation system?
3:00 – 3:30 PM	*Coffee break*
3:30 – 5:30 PM *Modeling the long-term evolution and stability of travel?*	**Martin Kagerbauer:** Integration of Longitudinal Data in Agent-Based Travel Demand Models **Rolf Moeckel:** Stability of travel behavior: Longitudinal data analysis **Giovanni Circella:** Evolution of remote/hybrid work adoption and travel choices: Insights from the analysis of the California Mobility Panel (CMP) data **Kay Axhausen:** If we model the evolution of travel behavior, what is the starting point? Would this allow us to estimate our models to replicate the change in behavior, rather than calibrate them to match base-year conditions?
5:30 PM	*Bus transfer and check-in Hotel Burgblick, Ach 31, 5122 Ach, Austria*
6:45 PM	*Meet in hotel lobby and walk to dinner restaurant (15 min)*
7:00 PM	*Dinner in Burghausen at Restaurant Bichl*

Thursday, December 12th

7:30 – 8:30 AM	*Breakfast*
8:40 – 9:00 AM	*Bus transfer to TUM Science & Study Center Raitenhaslach*
9:00 – 11:00 PM *Modeling day-to-day variability and time use*	**Corin Staves & Qin Zhang:** Incorporating day-to-day stability into operational simulations **Marija Kukic & Michel Bierlaire:** Synthetic populations and activity-based models: a dynamic perspective **Baiba Pudāne:** Time use, increasing time flexibility, multitasking **Dave Ory:** What insights can we gain by incorporating day-to-day variability in our models? How do we effectively distinguish day-to-day variability from meaningful changes when comparing scenarios?
11:00 – 11:30 AM	*Coffee break*
11:30 – 1:00 PM *Data collection to support evolutionary models*	**Brian Lee:** Household Travel Survey Data Collection: Meeting the needs of planning practice and research **Greg Erhardt:** The Potential for Linked Longitudinal Data in Transportation Research **Aruna Sivakumar:** If our community could access a $10m/10m EUR annual data collection budget, what should we prioritize?
1:00 – 2:00 PM	*Lunch*
2:00 – 3:30 PM *The stability of attitudes and habits*	**Charisma F. Choudhury:** Modelling the changes in attitudes towards self driving cars in different parts of the world over time using Twitter (X) data **Patricia Mokhtarian:** How temporally stable are attitudes? It depends **Kelly Clifton:** Which aspects of travel behavior should we expect to be most and least stable?
3:30 – 3:45 PM	*Group photo*
3:45 – 4:15 PM	*Coffee break*
4:30 PM	*Bus transfer to Altötting (30 min)*
5:00 PM	*Guided city tour and visit of X-Mas market in Altötting*
7:00 PM	*Dinner in Altötting – Zur Post*
9:00 PM	*Bus transfer to Hotel Burgblick, Ach 31, 5122 Ach, Austria*

Friday, December 13th

7:30 – 8:30 AM	*Breakfast*
	Check out from hotel rooms
8:40 – 9:00 AM	*Bus transfer to TUM Science & Study Center Raitenhaslach*
9:00 – 11:00 PM *Disaggregate behavior and aggregate outcomes*	**Marlin Arnz:** Desire-based activity simulation and aggregated traffic assignment
	Patrick Singleton: Extracting travel behavioral sensitivities to time-varying influences using aggregate data sources
	Amanda Stathopoulos: Evolving views of transportation equity: Plurality and subjective judgement on resource distribution
	Hani Mahmassani: Are we reporting the right metrics?
11:00 – 11:30 AM	*Coffee break*
11:30 – 1:00 PM *Changing commercial and goods travel*	**Alison Conway:** The Effects of Changing Commutes on Home Delivery Activity
	Monique Stinson: Assessing the Stability of Company Strategies over Time
	John Gliebe: What are the most important trends we should be monitoring in commercial travel?
1:00 – 2:00 PM	*Lunch*
2:00 – 3:30 PM *A toolbox for collaborative development*	**Joan Walker:** Towards a Benchmarking Sandbox for Advancing Mode Choice and Beyond
	Greg Macfarlane: A multiple modeling sandbox
	Greg Erhardt: What are the key questions that we as a community should agree on?
3:30 PM	**Closing remarks – Rolf Moeckel & Peter Jones**
4:00 – 4:30 PM	*Coffee break*
4:30 PM	*Bus transfer to Munich (90 min)*
	Estimated arrival time at Munich Hotel 6:00 PM
6:30 PM	*Meet in Hotel Lobby*
7:00 PM	*Dinner in Munich at Il Mulino (optional)*
	Participants may choose to stay this night at Citadines Apart'hotel Arnulfpark, Arnulfstr. 51, Munich

Additional program details

Arrival via Flight:

Munich International Airport - Citadines Apart'hotel Arnulfpark, Arnulfstr. 51, Munich

Munich has direct connection via public transit between the airport and the city center. There are two main routes:

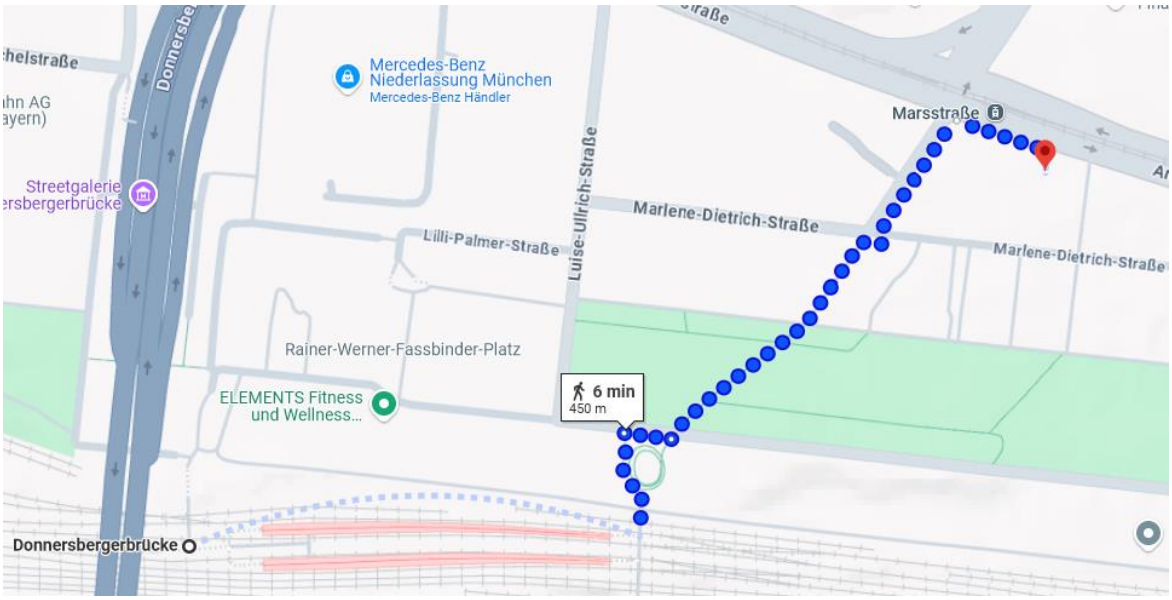
By public transit Suburban Train (S-Bahn):

The S-Bahn stations are located within the terminals. Follow signs for public transportation.

1. Take either the **S1** or **S8** line in the direction of **Munich (München) City or Munich Central Station (München Hauptbahnhof/Hbf)**

   The trains depart every **10 minutes** and the train ride takes **35 – 40 min**.

2. Get off at **Munich Donnersbergerbrücke**.
3. From Donnersbergerbrücke, it is a short walk (~5min) to the Citadines Hotel in Arnulfstrasse.



Tickets:

- For transport to the city center only, purchase a **Single Ticket Adult (zones M–5) for 13.60 €**.
- In case you want to further use public transport on your arrival day, purchase a **single Airport-City-Day-Ticket or a Single Day Ticket for zones M–5**. They both cost **€15.50** and are valid for any journey(s) on the public transport system until the next morning (6 a.m.)
- You may purchase a ticket at the **ticket vending machines** in or near the S-Bahn station of Munich International Airport. The machines accept cash (euros) or credit/debit cards.
- Alternatively, you may purchase the tickets online or through the MVG app at any time
    - To buy tickets online, visit: *https://ticketshop.mvv-muenchen.de/index.php/tickets*
    - To download the app, search for *MVGO* in the app store or go to the following links:
        - *Android*
        - *Apple*

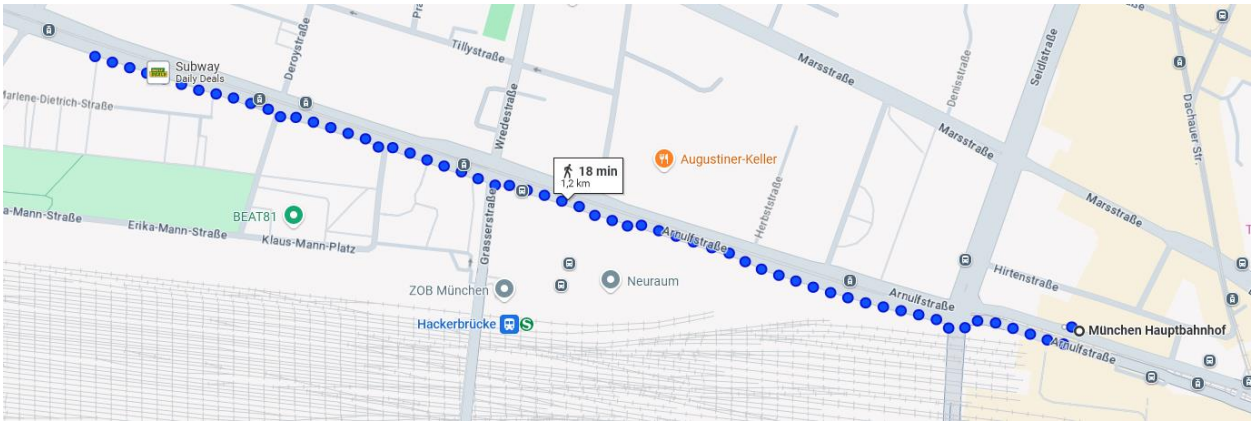
Within this app, you can also find micromobility renting options (bikes, e-bikes, scooters)

    - For more information on public transport and tickets, visit:
        - *Airport-City-Day-Ticket*
        - *MVV - Public transport information for air travellers*
        - *Airport - Public transport information for air travellers*

By Lufthansa Express Bus:

- Buses depart from Terminals 1 & 2 of Munich Airport to Munich Central Station every **20 minutes** between **6:25 AM to 10:25 PM**.

1. The ride from Munich Airport to Munich Central Station takes **45 min**.
2. Bus stops directly in front of Munich Central Station. From there, it is a 18 minute walk to the hotel.



Tickets:

- Tickets can be purchased at the bus station or online. A single adult one way ticket cost **€13.00** when purchased directly from the bus driver upon boarding or **€12.00** online.
- Purchase online at - *https://airportbus.palisis.com/?locale=en*

Taxi:

There are also taxi ranks at both Terminals 1 & 2. A ride from the airport to the Citadines Hotel may cost around **€100** and can take **30 min – 60 min**.

For more information on all transport connection possibilities for Munich International Airport, consult the website: https://www.munich-airport.com/transport-directions-260334

Dinner on Tuesday evening (optional)

Time: 6 PM on Tuesday, December 10th
Location: Augustiner Keller München

Directions from Hotel to Augustiner Keller:

1. Meet at **5:45 PM** on Tuesday, December 10th, in the hotel lobby and find **Rolf**, who will gather and lead everyone to the restaurant.
2. To reach the restaurant, we will just have to walk 10 minutes eastwards along the Arnulfstrasse.

Bus transfer from Munich to Raitenhaslach

Time: 9 AM on Wednesday, December 11th

1. Meet in Hotel Stay at Citadines Hotel lobby at 8:50 AM on Wednesday, December 11th.
2. Ride to Raitenhaslach takes approximately **90 minutes**.

Guided city tour and visit of X-Mas market in Altötting

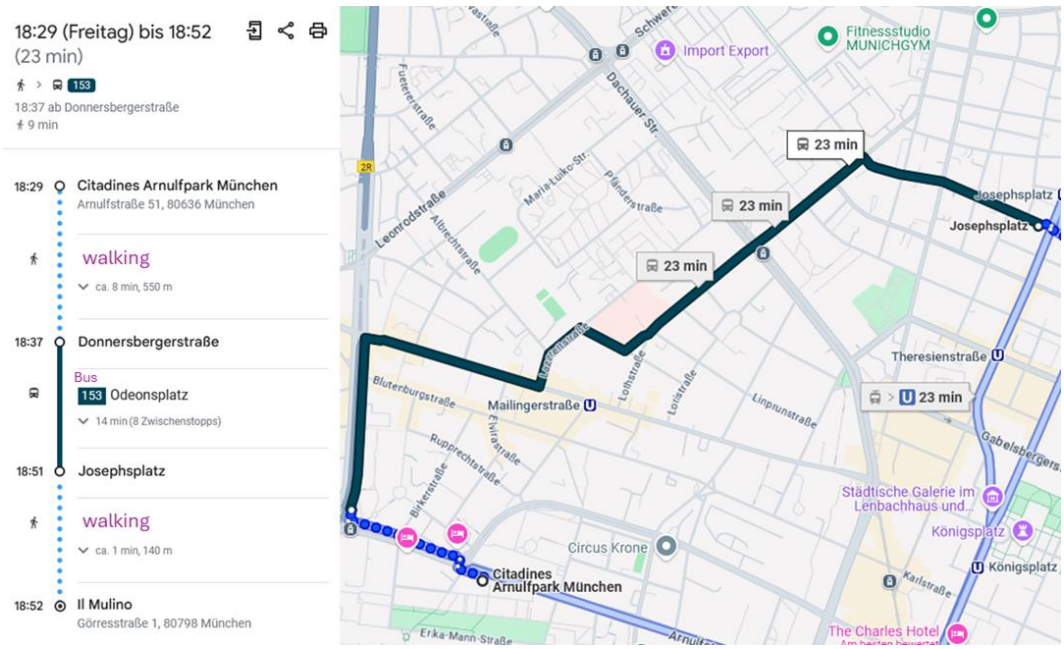
Time: 4:30 PM on Thursday, December 12th

1. At 4:00 PM, we meet for a group photo and have a short coffee break.
2. At 4:30 PM, our bus driver will bring us to Altötting.
3. 5:00 PM meeting at town hall, 45 minute walking tour
4. Option to stroll over the Christmas market
5. Dinner 7:00 PM – Hotel zur Post, Altötting
6. Travel back by bus at 9:00 PM

Dinner on Friday Evening (optional)

Time: 6:30 PM on Friday, December 13th
Location: [Il Mulino](), Görresstraße 1, 80798 München

1. If guests are staying at **Citadines Hotel**, please meet in the lobby of the motel at **6:30 PM**. Find **Matthias and Joanna**, who will be leading everyone to the dinner location
2. Follow public transport instructions from **Citadines Hotel** to **Il Mulino** below – **23 MIN**



Departure directions

Same travel options as for the arrival, see page 8. Recommended transportation:

- S-Bahn from Donnersbergerbrücke
- Lufthansa Airport Bus from Hauptbahnhof

For more details on which terminal your flight is, check the Munich International Airport website: [https://www.munich-airport.com/airlines-260674]()

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Abstracts

Keynote

Peter Jones (University College London) – From Equilibrium to Evolution. Do we need an evolutionary model of travel behaviour?
The presentation will address this question, at a conceptual level, drawing on the presenters' decades of experience.

Travel behaviour models typically forecast travel demand at a fixed future date, by estimating equations based on one day's behaviour, and apply this to the anticipated input conditions at that date. This is unlike most land use models, that simulate the evolution of land use patterns and actor decision making, over time.
Equilibrium transport models assume an instantaneous adjustment between changes in transport supply and demand, but there is plenty of evidence that this is not always the case:

- Habitual behaviour and decision points: having made a choice (of mode, route, timing..) for a routine trip, then that decision is only re-evaluated when there is a substantial interruption to that routine (e.g. due to an extended transport strike, or a change in personal circumstances, such as changing job)
- Impacts of disruptions: mode and route choice decisions may be based on extreme experiences (e.g. waiting an hour in the rain for a bus) than average conditions.
- Leads and lags: travellers may base decisions on anticipated changes in supply or personal circumstances (leads), such as the opening of a new bridge or an intention to retire in the near future; or sometime after an external change has occurred (lags), such as buying an annual rail ticket just before a price rise postpones its impact for 12 months
- Asymmetrical behaviour: for example, there is evidence that the income level at which a person buys their first car is higher than the income level at which they would forgo car ownership.

The presentation will highlight these issues, along with two missing factors in choice modelling: 'image' in mode choice modelling and the 'choice set' in destination choice modelling.
In each case, it will consider how we might adapt our models to better incorporate these factors.
It is intended that this presentation will stimulate a discussion about developing a more evolutionary model of travel behaviour – and is it worth the effort to build one?

The world has changed!

Steven E. Polzin (Arizona State University) – Time use, changing time use due to ICT, demographics and preferences
Over the past two decades, the transportation landscape has undergone a significant transformation, driven by a confluence of factors, including technological innovations, demographic shifts, and evolving socio-cultural norms and preferences. The advent and proliferation of Information and Communication Technology (ICT) has revolutionized how, when, and where individuals undertake and perform daily activities, increasingly substituting and complementing physical travel with virtual alternatives and reshaping the nature of work through the rise of telework. With the accelerated adoption of ICT during and post-COVID, and the work

schedule and location flexibility provided to employees, long standing concepts that traffic patterns are characterized by the existence of morning and evening peak periods dominated by commute travel are being challenged and redefined. Concurrently, demographic changes, population heterogeneity in tastes, beliefs, and preferences, and shifts in cultural norms have contributed to a number of emerging phenomena. The population is aging, people are spending extended years in educational systems, marriage and childbirth rates are falling, and labor force participation rates have been declining. Additionally, the increasing diversity in lifestyles, multigenerational households, attitudes, norms, and values has added complexity to the modeling and understanding of travel choices and patterns of activity, mobility, and time use. The proposed presentation aims to shed light on historical and emerging trends and provide insights into the nature of the post-COVID “new normal” in activity-mobility patterns.
The presentation is primarily based on data from the American Time Use Survey (ATUS) series from 2003 to 2023, which serves as a rich source of information to study evolutionary trends in time use and wellbeing associated with activity-travel patterns. The analysis is intended to help identify factors and forces that may be contributing to the establishment of the “new normal”, or perhaps evolving normal, and help reimagine the structure, purpose, and application of transportation models so that transportation planning processes are able to more fully account for the many known and unknown unknowns that may be at play in an era of rapid change.

Chandra Bhat (University of Texas at Austin) – An Evaluation of the Long-Term Effects of the COVID-19 Pandemic on Public transportation Use

Public transportation has experienced rapid changes in ridership over the past several years, driven by the COVID-19 pandemic. Numerous studies have focused on how health concerns and social distancing/lockdown measures during the pandemic resulted in the immediate decline in public transportation usage. For instance, in many cities within the US, transit ridership declined to a low of 10-40% of pre-pandemic levels during the first few months of 2020, closely mirroring office closures and work-from-home periods put into place during the pandemic. However, the long-term impacts of pandemic-era changes in public transportation use are still unclear. Overall transit ridership in 2023 had only rebounded to about 70% of the 2019 levels in the US, revealing the continuing impacts of the pandemic. Thus, it is evident that a broader study is needed to assess the ongoing and long-term effects of the pandemic on mode choice, and public transportation use in particular. Given the clear benefits of the use of public transportation, including its contribution to addressing climate change and ability to provide broader accessibility to vulnerable travelers, it is critical to understand and assess the future of public transportation in the post-pandemic world.
In this context, we explore the changing dynamics of public transportation ridership by examining changes in public transportation usage since the onset of the pandemic, as well as the possible return to pre-pandemic behaviors. In contrast to many recent studies that predominantly examine these trends at an aggregate level or rely on stated intention questions, we use the actual experienced public transportation intensities and changes reported at an individual level. In addition, we consider stated intentions about the p+D5ermanence of these changes in transit use, revealing the extent to which these pandemic-era changes may be temporary. To our knowledge, no other study since the pandemic has explored the transient nature of changes in public transportation use in this way. Using data from the 2022 National Household Travel Survey, we model these outcomes using a joint framework that includes (a) the reported change in public transportation use during the pandemic, (b) expectations about the permanence of this change, and (c) current public transportation use frequency. Together, these results reveal heterogeneity in current public transportation use and differences in the short- and long-term impacts of the pandemic on public transportation use among different demographic groups. The use of a joint modeling framework accounts for the possibility that unobserved factors that cause individuals to adjust their public transportation use during the

pandemic may also impact the permanence of the changes and the current intensity of public transportation. The findings of this study hold significant implications for transportation planners, travel demand modelers, and policymakers, offering important insights into ongoing trends in public transportation behavior and identifying groups of individuals who are more inclined to return to previous levels of public transportation use.

Ziyue Dong & Eric Miller (University of Toronto) – Non-work/school activity participation in a flexible work future: A pre/post-pandemic comparative study

The COVID-19 pandemic has led to significant shifts in work arrangements, specifically, the transition from on-site to remote or hybrid work, which, in turn, have transformed lifestyles and increased the complexity of travel behaviour, particularly for non-work/school (NWS) trips. Due to their flexibility and adaptability, NWS trips, typically planned around higher-priority work/school schedules, are undergoing critical changes as new work and social norms take hold. This research explores the emergent travel behavior of hybrid workers, focusing on differences between commuting and non-commuting days, as well as comparisons with on-site and remote workers. Additionally, this study compares pre- and post-pandemic travel patterns to identify lasting changes induced by the pandemic and to examine the temporal transferability of travel demand models. Using data from the 2016 Toronto Tomorrow Survey and the 2023 Toronto Household Activity Travel Survey, this study employs count data models, including negative binomial model and hurdle models, along with mixed-effects models, to estimate trip generation and frequency. Differences and changes are assessed through statistical tests. The findings of the study inform the pandemic-induced evolving rhythms of NWS activity participation and reveal the heterogeneity of travel behaviour brought by work modality and lifestyle. This study validates the necessity of incorporating day-to-day variations and fundamental behavioural shifts into travel demand models for more accurate forecasting in the post-pandemic context. These insights are also valuable for informing policy formulation and urban planning, ensuring the adaptability and resilience of transportation systems in response to evolving work and travel norms and societal expectations.

Modeling the long-term evolution and stability of travel?

Martin Kagerbauer (Karlsruhe Institute of Technology) – Integration of Longitudinal Data in Agent-Based Travel Demand Models

Travel demand in agent-based models is mapped at an individual level and requires a detailed understanding of people's travel behavior. On the one hand, people do not choose their travel behavior independently, as it depends on framework conditions such as other people in the household or the availability of different modes. On the other hand, people have routines, attitudes and habits that are repeated at certain intervals. These can be recurring activities, such as exercises for sports or preferences for stores for shopping. People also have routines and preferences in their mode choice. Trip makers are more likely to choose modes that they already have used before. However, we only are able to analyze these aspects, which are already integrated in mobiTopp, the agent-based travel demand model developed by KIT, if data exist on people's travel behavior over a longer period, e.g. a week. In Germany, such data is available from the German Mobility Panel or other longitudinal surveys.
mobiTopp is an open-source software. In mobiTopp, a digital twin of an area is created with the corresponding transport supply, the characteristics of the people and possible activity locations. All people are represented as individual agents. During the simulation, the trip makers perform their planned activities in the course of a week. The model results contain all the trips performed and the modes used as well as the trip purposes in a temporal (1 minute) and spatial (geocodes) high resolution.

We are currently working on the following research questions: What do these routines and preferences look like exactly and how stable and/or variable they are? The focus is on the attributes and variables influencing these routines and preferences: What influence do people's environment, their social networks and the spatial structure have?

Rolf Moeckel (Technical University of Munich) – Stability of travel behavior: Longitudinal data analysis

Travel behavior may change fundamentally from one day to the next, but it is rather stable from year to year. While life events (such as birth of a child, divorce, change of employment, change of number of cars, etc.) may change travel behavior substantially, most households do not experience such change from one year to the next. Therefore, our transport models should not recreate travel behavior from scratch every time the model runs, but rather adjust travel behavior incrementally, subject to the occurrence of life events or major changes in travel times or the built environment.

A major challenge for implementing this concept in activity-based models is to understand how travel behavior changes over time. In this presentation, three different methods will be discussed. One is the analysis of panel survey data, which allowed us to analyze the influence of life events on number of trips and mode choice. Secondly, we used machine learning methods with the same panel data. Thirdly, we analyzed several months of mobile phone data. Initial data analyses of panel data showed the challenge to identify the impact of life events on travel behavior. Too many other events add noise from one year to the next, blurring the impact of the life event. At this symposium, we would like to pose the question what kind of data we need to collect to clearly identify the impact of life events on travel behavior.

Giovanni Circella (Ghent University) – Evolution of remote/hybrid work adoption and travel choices: Insights from the analysis of the California Mobility Panel (CMP) data

Tele-activities remain popular arrangements in the post-pandemic era. Despite this, many conceptual and practical questions remain unanswered, in particular about their relationships with in-person activities and travel patterns. We employ the California Mobility Panel (CMP), a multi-wave survey designed with consistent structures and questions, administered before (2018 and 2019), during (2020 and 2021), and after the pandemic (2023), to investigate and discuss these topics. Several types of tele-activities can be studied with CMP data. In our proposed contribution, we suggest to focus on the adoption, frequency, and impacts of various forms of remote/hybrid work, also thanks to the innovative methods of data collection developed in the CMP to capture various combinations (also during the same day) of in-person and remote work activities. We aim to answer the following questions through a combination of descriptive statistics, crosstabs and modeling applications:

1. What does the evolving nature of remote/hybrid work mean for mode-use patterns for commuting and non-commuting trips, among various population groups?
2. What factors account for individuals' adoption and frequency of remote/hybrid work at different times?
3. How do attitudes and behaviors interact dynamically? For example, in what ways does remote/hybrid work adoption affect individuals' attitudes in later wave(s), and vice versa? Do these dynamics take distinct forms across groups? With question #2, we also expect a fruitful discussion regarding the implications of using repeated cross-sections vs. longitudinal data. With question #3, we hope to stimulate a discussion about effective ways to handle the dynamic nature of attitudes and behaviors.

The stability of attitudes and habits

Atiyya Shaw (University of Michigan) – Measuring Latent Psychological Constructs for Travel Behavior

Overview: The foundation for measuring the stability of travel behaviors and attitudes over time hinges on the appropriate measurement of said behaviors and attitudes. In other words, speaking specifically to one primary aim of the symposium, before we can assess the stability of latent constructs like attitudes over time, we must consider what attitudes we are (or should be) measuring and how we are verifying whether the item/s (or question/s) is capturing the intended information.

Over the last several decades, the field of travel behavior and demand has seen growing evidence and thus, consensus, as to the importance of latent psychological constructs like values and attitudes for informing observed travel behavior choices. However, in the transportation literature, the current understanding and application of what constitutes best practices for developing and validating such items and instruments remains unclear. To provide examples of key omissions that illustrate the gap between the science of measurement and current practice within transportation: scale reliability and various measures of validity (e.g., known group validity) are rarely examined or considered, and item wordings are inconsistent within and between researchers aiming to explore the same constructs. In this presentation, we will aim to: (1) synthesize the primary approaches typically applied in transportation for measuring latent constructs thus far; and (2) draw on insights from psychometric theory (e.g., classical test and item response theories) to develop specific methods or avenues forward for improving the current practice.

Open questions: What latent psychological constructs have been shown to and/or might be important for predicting travel behavior? What is the state of practice in transportation for measuring these constructs? How can we validate shortened instruments? How might the development of reliable and valid scales support the evolutionary (or long-term) tracking of behavioral and attitudinal shifts?

Charisma Choudhury & Eeshan Bhaduri (University of Leeds) – Modelling the changes in attitudes towards self driving cars in different parts of the world over time using Twitter (X) data

Understanding public's opinions, aLtudes and percepHons towards new modes is of vital importance to plan, design, develop and prepare for the transport systems of the future. In particular, the heterogeneity in the public's percepHon and preferences in different parts of the world and over Hme can lead to different willingness to pay, adoption rate, and in general, different behaviour towards the new unseen modes around the globe. Traditionally, aLtudinal statements in revealed and stated preference surveys have been used to collect data on the altitudes and percepHons towards innovaHons and new technologies. These, however, can be limiting in terms of sample size and response rate. The growth of social media platforms in the past decade, on the other hand, has allowed billions of users around the world to express their opinions and emoHons about various events or topics or log their daily activities or feelings. This has provided a massive source of data on different behavioural aspects of users, which can be tracked over time to understand the aLtudes and perceptions of users toward certain events, topics or concepts. Furthermore, the global usage of social media platforms has made it possible to access data from users with different backgrounds in different countries, which is of particular interest when the heterogeneity among users might play a role in their aLtudes and preferences.

This study utilizes data from social media, in particular Twitter (X) feeds, to explore the geographical heterogeneity in the preferences and percepHons of potential Automated Vehicle (AV) users. By extracting tweets related to AVs from English-speaking users located in

Australia, Canada, the United Kingdom and the United States, we attempt to analyze the general sentiments of the public in these countries towards AVs, and provide insights into their similarities and differences. To prepare a dataset for training supervised machine learning algorithms, part of the data is selected to be manually labelled. To ensure the quality of the annotaHon process and to reduce the risk of annotator bias, in the first step a batch of 30 tweets were randomly selected and was annotated by three annotators separately. Annotators were asked to label each tweet with the senHment they perceived from them: Positive, Negative, Neutral or off-topic, as some of the tweets appeared to be not relevant to the topic. To measure the agreement between the three annotators, Fleiss' kappa Fleiss (1971) is calculated to account for agreement by chance. Three different algorithms are then deployed to label the rest of the tweets: Lexicon-based (VADER), Support Vector Machines and Transformer-based (BERT). Initial results show the presence of 5 clusters of countries based on sentiments towards AV (Fig 1). In terms of temporal variation, the sentiments are found to change based on trigger events (e.g. news about AV malfunctions) regardless of the location (Fig 2).

Patricia Mokhtarian & Choi Seung Eun (Georgia Institute of Technology) – How temporally stable are attitudes? It depends

1. Introduction

This study begins from the premise that attitudes are important to explaining travel behavior, and therefore that it would be desirable to incorporate them into regional travel demand forecasting
models. An immediate objection to doing so, however, is, "how can we predict what numerical values attitudes will take on in the future, as we need to do with all the input variables in our models when using them to forecast travel in a future year?" Looking at the issue from the opposite side, we can ask, "how temporally stable are attitudes?" If they change little over a number of years, the task of predicting them obviously simplifies. The literature has much to say on this subject, and the purpose of this paper is to explore that literature. Specifically, we want to examine whether we can identify any patterns to the temporal stability, or lack thereof, of attitudes: under what circumstances are they stable? The paper is organized as follows. In the next section, we present a number of conjectures regarding factors associated with how stable attitudes are. In Section 3, we investigate what the literature has to say on the subject. We first describe some sources of longitudinal data on attitudes, then outline some methodologies that have been used to analyze stability, and finally review some key findings with respect to any patterns that may be visible. Section 4 provides some concluding reflections.

2. Conjectures

How stable are attitudes? It depends: on...

• the individual (some people are more flexible than others – "resistance to change" construct; Oreg 2003),
• the time frame (the longer the time frame, the less stable the attitude),
• the attitude (some attitudes are more persistent than others),
• the content and precision of measurement (e.g. if the content of items used to measure an attitude changes, or if the items used do not capture the attitude very precisely, the attitude may apparently change when in fact the difference is due to the content change or to random variation),
• congruence with behavior (cognitive dissonance theory posits that if attitudes and behavior are in opposition, one or the other or both tend(s) to change to reduce the dissonance), and
• external events (major shocks such as a pandemic will likely change attitudes more quickly and dramatically than business as usual), among other things, probably.

3. What does the literature say?

-summary table-

4. Conclusions

There is certainly a need for more research on the question of how stable attitudes are, but definitive answers are likely to prove elusive, even in the long term, let alone the short term.

Data collection to support evolutionary models

Brian Lee (Puget Sound Regional Council) – Household Travel Survey Data Collection: Meeting the needs of planning practice and research

High quality survey data is a cornerstone of travel behavior research and activity-based modeling, but it is expensive and has outstanding methodological issues. The Puget Sound Regional Council (PSRC) is working with academics and consultants to explore improvement options.

PSRC shifted from conducting household travel surveys (HTS) irregularly and infrequently to a biennial schedule, partly, because of evolving behaviors in a fast-growing region with significant land use-transportation system changes and increasing technological adoptions. Regular and frequent survey snapshots can provide evidence of behavioral modifications and support timely updates of forecast models. Analyses of 2023 data, in comparison to information from earlier waves during and before the pandemic, suggest that behaviors are evolving in diverse ways and differently for various populations. More questions, however, remain on the complexities of these changing behaviors and how HTS could be improved to better capture them. PSRC is exploring improvement options for data collection and better ways to incorporate uncertainty and behavioral variations in planning analyses, including land use and travel demand modeling. They include:

• Mixing random address-based sampling with non-probabilistic sampling to get better representation of hard-to-reach populations. A key question is whether there are optimal proportions for the different sampling approaches?

• Moving from centering on “an average weekday” to better represent both uncertainty and behavioral variations. A high-level question is how could uncertainty and variations be best communicated/used to guide transportation investments?

• Incorporating attitudinal questions to help understand and explain behaviors. A central question is how do attitudes and behaviors interact with each other?

Greg Erhardt (University of Kentucky) – The Potential for Linked Longitudinal Data in Transportation Research

Planners are usually concerned with understanding the effect of changes to the transportation system, but our data typically do not observe those changes, and models estimated from cross-sectional data may be biased due to residential self-selection. Longitudinal surveys of travel behavior can overcome these limitations but remain rare in the United States (US), largely due to the cost and difficulty of reaching the same respondents repeatedly.

Here, we explore the potential for creating longitudinal “panels of convenience” from recurring cross-sectional surveys. In any repeated cross-section, there is a possibility of the same respondent being sampled in two or more waves of a survey. If the sampling rates are high enough, linking the records across waves may result in a viable longitudinal sample. For example, the sampling rates in the American Community Survey (ACS) suggest that over the first 16 years of the ACS, about 3 million households likely responded in more than one year. In this ongoing research, we are working with restricted-use ACS data in the Kentucky Research Data Center to create these linkages. In this presentation and subsequent discussion, we will explore the possible uses of these data in travel behavior research, and the potential to create other linked longitudinal samples from recurring travel surveys, such as those ongoing in the Seattle, San Francisco and Minneapolis regions.

Modeling day-to-day variability and time use

Corin Staves & Qin Zhang (University of Cambridge) – Incorporating day-to-day stability into operational simulations

Simulating time frames beyond one day is useful in many transport modelling applications. For example, health impact assessments require an understanding of 'habitual' activity-travel patterns instead of behaviour on a single day. However, the statistical methods implemented in many agent-based simulations assume independence among decisions made by the same agent. In a multi-day simulation, this causes unrealistically large variations in people's day-to-day behviour.

Empirical researchers are increasingly exploring habits and day-to-day stability in activitytravel behaviour. They generally use multi-day diaries and advanced statistical structures such as random coefficients and latent classes. However, their application within operational simulations is underexplored. This presentation investigates how the latest empirical research can be translated into operational transport models to improve the realism of multi-day simulations.

We begin with a review of existing multi-day simulation models and describe their mechanisms (or lack thereof) for dealing with habits and stability. We then implement and compare multiple strategies for incorporating stability into a week-long implementation of the agent-based transport model MITO1. The strategies include fixed error components, latent classes, and restricted mode availability. Our research finds that generalised logistic structures like latent classes are more mathematically elegant but present significant challenges in operationalization due to difficulties in estimation, stochasticity, and calibration. Simpler approaches can effectively reproduce day-to-day stability for some applications including health.

We conclude by discussing the relevance of multi-day simulations and the feasibility of a standard approach for incorporating person-level stability into activity-based and evolutionary models, focusing on data requirements and statistical challenges.

Michel Bierlaire & Marija Kukic (Ecole Polytechnique Fédérale de Lausanne) – Synthetic populations and activity-based models: a multi-day perspective

This paper discusses the work of our research group on optimizationbased models to understand individual activity and travel behavior. We divide our approach into long-term and short-term decision-making strategies. For long-term decisions, we use existing data to create synthetic populations of individuals and households. For short-term decisions, we develop optimal schedules based on utility-based preferences, taking into account the numerous constraints involved in this process. This research extends our methodology to include multi-day scenarios. In particular, it looks at how to generate sequences of synthetic populations that are consistent with each other and with multiple cross-sectional data sets of the same group. Additionally, in the area of activity and travel behavior modeling, we expand our optimization-based approach to cover multiple days, incorporating constraints related to the frequency of activities and multi-day utility evaluations. The talk will present these methodological developments and initial results to demonstrate the effectiveness of the extended models.

Baiba Pudāne (Delft University of Technology) – Time use, increasing time flexibility, multitasking

While Hägerstrand in his era could reasonably describe daily schedules as determined by time and space constraints, the decades since his seminal work have seen increasing time and space flexibility. This change has been brought by continued technological developments (information and communication technologies, household appliances) and by culture shifts (e.g., new ways of working following the COVID-19 pandemic).

This work considers that a natural byproduct of the increasing flexibility are several ‘emerging time-use styles’: irregularity of activity patterns, activity fragmentation, multitasking, and procrastination.
In the recent years, psychologists and managers have started to recognise that these time-use styles can be detrimental for individuals’ well-being and mental health – irregularity is, by definition, not aligning with our biological clock, fragmenting activities and multitasking is associated with mental ‘switching costs’, distraction and absent-mindedness, and procrastination can lead to regret about lost time. Several tools and policies have been designed to limit those negative effects – e.g., switching off e-mail notifications, encouragement to disconnect digitally from time to time.
In this presentation, I will demonstrate, using a time-use model, how the ‘emerging time-use styles’ indeed emerge from the increasing flexibility, and how their prevalence depends on the used objective functions in the optimisation task (e.g., productivity and well-being). I would like to start a dialogue about how we as transport and ABM researchers can incorporate these time-use styles in our models and how our models can inform policies that address them.

Disaggregate behavior and aggregate outcomes

Marlin Arnz (Forschungszentrum Jülich) – Desire-based activity simulation and aggregated traffic assignment
Activity-based modelling allows for detailed simulation of mobility behaviour, especially for the interaction between (heterogenic) agents in tra<ic. However, it is computationally expensive for large regions and time frames, even with increasing computational power. At the same time, necessity for large-scale transport system transformation becomes ever more evident, but it lacks
methods and tools for macroscopic long-term analysis. We aim to couple agent-based activity generation with aggregated passenger and freight transport simulation for long-term transition scenarios. The structural transition of the Rhenish lignite mining area will serve as case study. Our approach shall allow for spatially explicit tracking of agents (to simulate energy demand and derive corresponding infrastructure), while being comprehensive for Germany and abroad with reasonable computational expense. This has di<erent, partly contradicting implications for trafficflow simulation/assignment, and consequently, for the time horizon of activity planning. We propose a weekly plan, estimated with corresponding data, that reduces the temporal resolution to a level that is compatible with aggregated approaches. Given the structural change scenarios and their time horizon (2030 and 2045), we argue that currently observable mobility preferences might well change in the future, especially through target-oriented infrastructure design. Following this argument, we would like to discuss with other participants: Is demand-supply equilibration necessary for long-term studies? Does this method imply growth dependency, and is it appropriate for human centred mobility planning?

Patrick Singleton (Utah State University) – Extracting travel behavioral sensitivities to time-varying influences using aggregate data sources
Problem statement:
• Most activity-based models of travel demand focus on urban areas, and assume that travel demand is derived from activity demand at destinations. Parks and protected areas (PPAs) are natural (usually rural) landscapes managed for multiple uses, such as human recreation involving travel (e.g., sightseeing, hiking, biking, camping, hunting). But for many of these recreational activities (scenic drives, hikes, etc.), the travel IS the activity. (This is closely related to the topics of undirected travel and the positive utility of travel.)

• Record visitation to many PPAs in the US (including National Parks like Arches, Glacier, Rocky Mountain, and Zion) is straining resources and degrading visitor experiences. In response, PPA managers are implementing strict visitor use (travel demand) management strategies: timed entry permits, lotteries for specific experiences, shuttles/transit systems, etc. Selecting strategies and evaluating their impacts requires modeling recreational travel behavior in PPAs.
• Unfortunately, existing travel models may or may not be able to easily represent such behaviors: (a) Journeying within PPAs is part of or the primary motivation for traveling. (b) Certain natural recreational experiences are non-substitutable. (c) PPA travelers exhibit heterogeneities of familiarity, pre-planning, and schedule flexibility. (d) PPA destinations have multiple attractions and facilitate multiple recreational activities with varying durations. (e) PPA activity experiences are (usually) negatively affected by perceived crowding. (f) Travel demand is highly seasonally-dependent and evolving (increasing each year) in popular PPAs.
Method and results:
• This concept-heavy, data-light discussion will highlight the behaviors and sensitivities that are important for PPA recreational travel, and consider how travel models could represent these. Some travel survey/tracking data from a US PPA (e.g., Rocky Mountain National Park) may be used to illustrate the issues.
Open questions:
• How do we define destinations, activities, trip purposes, and attraction factors for recreational travel or travel within PPAs?
• How do we model (recreational or other) travel when the journey itself is the activity?
• What PPA travel demand management strategies should travel models be able to represent?

Amanda Stathopoulos (Northwestern University) – Evolving views of transportation equity: Plurality and subjective judgement on resource distribution
Problem statement: Interest in transportation equity and community perspectives has grown in recent years. However, with the varied and sometimes vague normative interpretations and definitions of equity, there remains a lack of clarity on how to model, measure, and promote equity for different stakeholders. Subjective viewpoints of equity within the public remain largely unexplored, leaving a critical gap in the understanding of societal expectations of transportation equity.
The goal of this research is to examine varied user perceptions of equity standards informed by distributive justice theories, describing how society should distribute transit benefits among users. First, we investigate user perceptions and plurality of ideals for equity standards in transit. Second, we investigate how equity priorities are related to user profiles, service levels, and land-use variables. Third, we investigate the connections between equity preferences and transit policy actions.
Methodology: We examine four well-established philosophies of equity, namely market, utilitarian, egalitarian, and redistributive principles. Latent class cluster analysis is applied to identify equity norm preference groups and to explore the effects of socio-demographic, vehicle ownership, and rider-behaviors on the probability of belonging to each of four identified classes. We use survey data from the Regional Transportation Authority (RTA) administered in the Chicago region in 2022 including 2,640 valid responses. Figure 1 shows the ladder of the equity ideals, along with the statements presented to transit users to assess their preferences.
Results: The study highlights that transit patrons have diverse perspectives on equity, with four latent classes of equity standards emerging (Non-intervention exurban, Pragmatic Utilitarians, Egalitarians and Advocacy Group). However, the results are not crisp, and we note that respondents bundle different equity ideals together, despite them being conceptually distinct. Each of the latent classes has some tendency towards norm plurality, with one norm being the central one. Moreover, while some classes have distinct sociodemographic profiles, the

advocacy and egalitarian classes have a stronger overlap and appear to be tied to the level of service personally enjoyed.
Open Questions and Research Needs: In this research, we examine transportation equity with an understanding that what constitutes a “fair” transportation system depends on the individual’s underlying moral philosophy and sets of values which are described in distributive justice theory literature. Future work needs to investigate the stability and dynamics of equity norms given their recognized importance in transportation policy.
• This work highlights the plurality of equity beliefs. Will the contrast between population segments become more polarized over time, and what societal and internal factors drive changes in equity norms?
• This work shows evidence that the public has ideals and preferences over, not just their own experience, but also how transit service ought to be distributed among all users. How will self-interest versus other-regarding preferences evolve over time and shape behavior? How will trade-offs among varied goals such as efficiency, fairness, safety to self and others evolve?
• This work stresses the importance of subjective equity beliefs, to complement the current prevalence of measurable objective metrics. This begs the question of how actual “objective” fairness shapes perceived fairness, and how transportation policy should account for this in design of equity metrics and data-collection.
• The analysis shows that the latent classes have a degree of fuzziness, where several equity ideals are grouped together. Further work is needed on methodological innovation to account for indeterminacy when people express their norms, and how they may be shaped by context, experiences, and the choice situation.

Changing commercial and goods travel

Alison Conway (City College of New York) – The Effects of Changing Commutes on Home Delivery Activity

The goal of this research project is to investigate the post-COVID 19 relationship between commuting - specifically work-from-home - activity and online and in-store shopping for specific types of goods. This study will utilize results from the New York City Department of Transportation’s 2022 Citywide Mobility Survey (CMS). The first step of this project is to conduct a comprehensive literature review to identify (1) critical variables of interest and (2) modeling approaches to characterize both shopping and commuting behavior. Next, basic shopping- and work-related travel trends in NYC will be explored. Then we will determine the feasible set of variables from the 2022 CMS for inclusion in the final data structure(s) for modeling. Finally, we will investigate both traditional choice modeling and machine learning approaches to model shopping choices (general frequency of online shopping as well as propensity for ordering groceries, prepared food, and other goods) as a function of commute characteristics, while controlling for household, socioeconomic, and built environment factors.
Results from this study are expected to enhance understanding of how changing work patterns influence shopping and home delivery activity, and to inform the design of city logistics and building management strategies that support residential goods movements while mitigating local externalities.
Question for discussion: When examining the relationship between travel for work and shopping activity, what other household, socio-economic, and built environment factors will be important to control for?

Monique Stinson (US Bureau of Transportation Statistics) – Assessing the Stability of Company Strategies over Time

The proposed research explores the stability of business strategies over time. Business strategies, which are analogous to passenger attitudes, help a company align its various decisions with the company's values and goals. For example, companies have strategies regarding globalization, which has significantly altered worldwide global freight trends in the last 30 years. Longitudinal data on strategies could help evaluate the impacts of trends such as globalization on freight transportation behavior. A novel method to measure strategies, called W2VPCA (Stinson & Mohammadian, 2024), integrates a Natural Language Processing method with Principal Component Analysis. The method does not require surveys; instead, it can be applied to existing text. Previous work applied W2VPCA to year 2017 annual reports of companies, generating strategy data and studying strategy's impact on fleet and warehouse decisions. But the
feasibility of generating longitudinal strategy measurement data using W2VPCA is unknown. Moreover, it is not clear whether company strategies are stable over time. This research will examine these two questions by applying W2VPCA to the annual reports of a select set of companies dating back to the 1990s. The results will confirm whether W2VPCA can generate longitudinal data, identifying any issues. The results will also evaluate the stability of strategies for the selected companies with factor analysis. Looking ahead, as countries institute protectionist policies and climate change disrupts long-distance freight transportation, can the described framework, which is based on past behavior, predict the future evolution of companies' trade strategies?

A toolbox for collaborative development

Joan Walker (UC Berkeley) – Towards a Benchmarking Sandbox for Advancing Mode Choice and Beyond

The stability of travel behavior and attitudes over time has been an ongoing question in transportation research for decades. However, we still lack concrete answers as the current system of disparate studies has not resulted in collective wisdom. The pandemic has further highlighted this issue, with numerous papers discussing potential changes in travel behavior, yet as a community we have struggled to draw definitive insights. The lack of a consistent benchmarking infrastructure makes it challenging to even define the state-of-the-art in modeling tasks. To progress, we need infrastructure and processes that enable the synthesis of research findings and facilitates answering important questions around travel behavior. Without this, we end up with myriad bespoke research with little collective wisdom.

Progress requires evolving our field towards the regular use of shared, collaborative spaces in which different approaches are directly and consistently compared. To work towards this direction, in this paper we tackle the most classic of travel behavior problems: mode choice. We propose an open-source benchmarking sandbox for systematically testing modeling approaches to mode choice. By implementing different model specifications within ActivitySim (an open-source activity-based model), we aim to define metrics of comparison so as to streamline model assessment.

We expect to develop an infrastructure and processes that facilitates cooperative benchmarking and advances our ability to answer fundamental questions about mode choice. The benchmarking sandbox will yield insights into the validity of mode choice modeling approaches in an open, reproducible, and policy-relevant context. The structure of the sandbox and proposed metrics will be adaptable and extensible, allowing for its application to evolutionary travel behavior and other aspects of travel demand.

The primary open question is: How can we ensure that we have infrastructure and processes that leads to answers to the travel behavior research agenda? And, to this end, What

mechanisms could facilitate the definition of state of the art and its systematic comparison and improvement? How can the proposed sandbox be extended beyond mode choice to support the development and evaluation of evolutionary travel behavior models? It's time to change our processes so that we effectively and efficiently work towards answering questions we've asked for decades. Imagine what we would know about mode choice modeling if the 1000s of disparate efforts were developed on a common (or set of common) platforms designed for comparison. Then maybe we'd be able to counter David Ory's statement that "We don't even know how to do Mode Choice."

Greg Macfarlane (Brigham Young University) – A multiple modeling sandbox

Despite the importance of transport demand models in assisting transportation decisionmaking, the present approach to improving travel models is unscientific. Regions develop their own models, using different data, econometric methods, analysis tools, computational environments, and commercial software packages. Improvement efforts occur on different timelines in different regions based on regional priorities, and the mutual incompatibility of travel model methods and software makes comparative analysis of methodologies extremely difficult. A researcher who develops a new technique for joint household destination choice — for example — probably used data they collected for a single metropolitan area, and cannot share for privacy and disclosure reasons. Peer reviewers of the research cannot independently validate its conclusions, and introspective research is stymied. Other regions interested in the technique might ask questions such as: how much more sensitive is this model to existing methods? how much will this technique increase model run time? None of these questions has an easy answer, because the technique has been applied only in a singlespecial location. As a result, travel models have developed slowly, calling into question the relevance of the decisions they inform.

Commonly shared and open datasets have served as important benchmarks in machine learning, biological sciences, digital humanities, and many other fields where adjudicating between competing methods requires rigorous scientific assessment. This is particularly true in cases where there are inevitable tradeoffs between model accuracy, sensitivity, and efficient performance. A researcher with a new method promising more accuracy demonstrates this accuracy against known datasets, and shows through scientific tests that the model is more accurate, more highly sensitive, or arrives at a satisfactory prediction more quickly than status quo methods.

In this presentation, I will discuss initial efforts to construct a modeling sandbox from public, open, or synthetic data sources in Logan, Utah. The data sources include

- Topologically robust and connected networks for vehicles, bicycles, transit, and pedestrians with detailed facility-level observed counts in multiple years
- Zonal socioeconomic data (locations of households and jobs) for multiple years matching the highway counts
- A (synthetic or permuted) household travel survey matched to the zones of the socioeconomic data and the years of the data.

The discussion will focus on necessary elements of the sandbox, the potential for additional regions to be added as comparison cases, and preliminary performance-based application of the sandbox in a template trip-based microsimulation model and ActivitySim.

Venue

The ABM Symposium will take place at the historic and beautifully restored **TUM Science & Study Center Raitenhaslach**, located in the serene surroundings of Burghausen, near the Austrian border. This venue combines centuries of history with modern academic functionality,

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offering a tranquil and inspiring setting for intellectual exchange.

The building, situated along the banks of the Salzach River, is part of a former Cistercian monastery founded in **1146 AD**. After its secularization in **1803**, the monastery fell into private hands for over 200 years before undergoing an extensive restoration led by the Technical University of Munich (TUM). Opened as a study and seminar center in **2016**, the prelate's wing of the monastery preserves its historic character while seamlessly integrating modern amenities.

Find more information here: https://www.raitenhaslach.tum.de/en/raitenhaslach/home/

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Hotels

Citadines Apart'hotel Arnulfpark, Munich

Tuesday, December 10 & Friday, December 13

Arnulfstraße 51, 80636 München
+49 89 9400800
https://citadines-apartment-munich-80636.hotel-dir.com/de/
Google Maps

Citadines Hotel is situated in the center of Munich, thus providing an ideal starting point for leisure and business activities in and around Munich. It is conveniently located within easy reach of the central station and public transportation.

Hotel Burgblick, Ach (Burghausen)

Wednesday, December 11–13

Ach 31, 5122 Ach, Österreich
+49 8677 965-0
https://www.altstadthotels.net/
Google Maps

Hotel Burgblick, located on the Austrian panoramic side of Burghausen's old town, offers a stunning view of the world's longest castle. Guests can enjoy modern, comfortable rooms and breathtaking vistas from the rooftop terrace. With its rich breakfast buffet, proximity to cultural attractions, and serene riverside location, the hotel provides an ideal retreat for relaxation and exploration.

Social events

Dinner at Augustiner Keller (optional)

Tuesday, December 10th, 6:00 PM (*Meeting point: Hotel Lobby at 5:45 PM*)
After everyone's arrival in Munich, we welcome you with traditional Bavarian dinner at Augustiner Keller. We will walk together to the historic venue, which takes 10 minutes.

© Augustiner Keller

Dinner in Burghausen at Restaurant Bichl

Wednesday, December 11th, 7:00 PM (*Meeting point: Hotel Lobby)*
Our dinner venue offers delicious international cuisine in a modern setting, nestled within the charming old town of Burghausen.

Trip to Altötting – City tour, Christmas market

Thursday, December 12th, 4:30 PM (Meeting point: Bus)
The old town of Altötting is a picturesque and historic destination, known as the spiritual heart of Bavaria with its centuries-old chapels and vibrant traditions. During the Christmas season, the charming market fills the streets with festive lights, handcrafted goods, and the warm aroma of mulled wine and seasonal treats, creating a magical holiday atmosphere.

Dinner in Altötting – Zur Post

Thursday, December 12th, 7:00 PM
The restaurant "Zur Post" in Altötting offers a unique culinary experience, blending regional ingredients with Mediterranean influences to craft inventive dishes that delight both the palate and the eye. With its charming décor and three distinct dining areas—Kapellplatz, Kaminzimmer, and Wintergarten—it provides the perfect setting to savor creative flavors and escape the everyday.

© Zur Post Altötting

Dinner at „Il Mulino“ (optional)

Friday, December 13th at 7:00 PM
Il Mulino offers authentic Italian cuisine in a cozy and welcoming atmosphere, featuring a seasonal menu that highlights fresh, high-quality ingredients. With its delicious pasta, wood-fired pizzas, and carefully curated wine selection, it’s the perfect spot for a taste of Italy in Munich.

© Il Mulino

Notes