The MoTiV project: Redefining the value of travel time for all modes and users

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About MoTiV: project figures

• European-wide exploration of “Mobility and Time Value”
  How value of travel time is perceived and experienced across transport modes, generations, genders and cultures

• 30-month project: Nov. 2017 – Apr. 2020
• Overall funding: ~2M EUR
• Small consortium: 7 partners
  • 3 academic institutions/research organisations (UNIZA, SK; Eurecat, ES; INESC-ID, PT)
  • 2 business partners (routeRANK, CH; CoReorient, FI)
  • 1 mobility consultancy organization (TIS.pt, PT)
  • 1 European-wide association (ECF, BE)
  and additional Linked Third Parties affiliated with ECF
Shift of focus ... from quantity to quality

“We need to rethink most or all of our key travel demand models. The present models – understandably enough – focus on the objectively measurable constraints of travel time and monetary cost, to the virtual exclusion of other relevant variables” (Mokhtarian, Patricia L. 2018).

Valuing Mobility: the bigger picture

• “Productive time” vs “Worthwhile time”?
  • Quality of living is not only about “effective” and “productive” use of time
  • Extend “time and cost savings” objective with other relevant dimensions and indicators of value

- What about the quality of travel?
- Shouldn’t travel modes that serve other goals, such as physical and/or mental fitness also be valued?
- Why don’t we value the enjoyment of travel in our models?
Motivation

Value of Travel Time (VTT): shift focus from “what is currently measured” to “what is currently not (sufficiently) measured”

• Are VTT models socially inclusive / fair?
  • Shall VTT models acknowledge what value of mobility means for children (e.g. safety, comfort factors)?
• Gender, age, other demographics

MoTiV hopes to gather data on these questions, setting the ground for further research
Valuing Mobility: individual viewpoint

Did you make the best travel choice today?

Download Woorti and discover your travel time.

DOWNLOAD THE APP

Download the Woorti App: www.worti.com (or Google ‘Woorti’)
**Approach:** smartphone-based data collection of travel experiences

- **Focus on the individual Travel Experience**
  - identifying “satisfiers/dissatisfiers” of worthwhile travel time

- **Smartphone-based data collection via the Woorti app**

- **Continuous collection of mobility choices/journeys**
  - smartphone-based sensing of mobility behaviour
  - traveler’s input on activities while travelling, travel time appreciation and underlying reasons

- **We ask you if your journey was worthwhile**
  - Along several metrics:
Make your journey worthwhile:

Productivity

Taking travel time to get things done, not only for work or study, but also personal things like managing home or family stuff...
Make your journey worthwhile:

**Mind & Pleasure**

Relaxing or having fun, taking travel time to do things like listening to music, resting or meditating, engaging in social media, observing...
Make your journey worthwhile:

**Body & Health**

When you walk, cycle or maybe even run on your travels, you’re contributing to your health and good look.
Key contextual data to collect for the research

**Mobility Data:** Mode and Trip Detection and Validation

**Trip Purpose(s)**

**Travel Experience** (for trip leg, including transfer/waiting locations)

1. **Assessment of Worthwhile Travel Time**
2. **(Valuable) Activities** carried out on the move
3. **Factors contributing** (+/-) to Worthwhile Travel Time Assessment
MoTiV Data Collection Campaigns (DCC)

- **Target**: Minimum 5,000 valid samples (active app use for minimum 2 weeks) from as many users from at least 10 EU countries

- **Obtain a balanced sample** in terms of:
  - **Age**: young adults (16-24 yr), adults group 1 (25-49 yr), adults group 2 (50-64 yr), older population (65+).
  - **Sex (M/F) and Gender Identity**
  - **Transport modes**: walking, cycling, public transport, car use, shared mobility, long-distance train, plane.
  - **Residence**: urban/sub-urban, rural.
  - **Socio-economic and other demographic indicators**

**Release of Open Dataset** at the end of the project
Woorti design challenges

Reference:
Woorti design challenges

Need to Balance:
Technical considerations/limitations
• Users have different hardware and software
• Internet connection cannot be guaranteed
• Battery consumption

Vs
Woorti design challenges

Need to Balance:
User friendliness
• User Interface optimisation
• Easy trip validation
• User incentives
• Translation into 11 languages

Vs
Woorti design challenges

Need to Balance:

Research priorities
• Collect enough & useful data
• Gather data over a (relatively) long period of time
• Ensure demographic representativeness
• Ensure data accuracy

Vs
Conclusions: exploring new approaches

MoTiV expected contribution and limitations

• Holistic conceptual model of VTT
• EU-wide data collection -> open dataset
• Policy and business recommendations
• Exploratory research, without aim of statistical significance
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