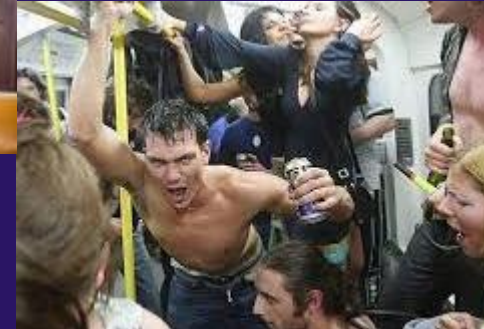


Le bonheur est dans la ville !

Dans quelle mesure la mobilité urbaine contribue-t-elle au bien-être ?



Dr. Claire PAPAIX

Senior Lecturer in Transport & Business Logistics
Systems Management & Strategy Department
Faculty of Business, University of Greenwich, London

1. Pourquoi s'intéresser au bien-être des voyageurs?
2. Quels sont les liens entre transport et bien-être?
3. Incitations économiques
4. Projets actuels et collaborations



Justification #1: changement climatique & opinion publique

Vers une société altruiste

OECD, 2014

Les découvertes récentes des neurosciences sociales montrent non seulement que l'empathie, la compassion et le souci de l'autre sont des capacités humaines innées, mais aussi qu'elles peuvent être développées avec de l'entraînement. L'économie pourrait-elle aussi apprendre la solidarité ?

L'humanité n'est pas à la hauteur des défis mondiaux auxquels elle est confrontée – du changement climatique à l'épuisement des ressources, des crises bancaires à celles des dettes souveraines, du manque d'instruction à la pauvreté au milieu de l'abondance, de la sécurité énergétique à la sécurité alimentaire, des États fragiles à la prolifération des armes. Nos économies n'ont pas réussi à vaincre le fléau de la pauvreté ni à garantir l'offre de biens collectifs (enseignement public, services environnementaux, stocks de poissons et forêts tropicales). Nos sociétés sont de plus en plus fragmentées, le sentiment de solitude et les effets pathologiques du stress augmentent, et nos structures de gouvernance sont inopérantes. Dans ces conditions, il est difficile pour beaucoup de s'adapter au progrès technologique rapide qui bouleverse les conditions de travail et les modes de vie.



Tania Singer,
Directrice, Neurosciences
sociales, Institut Max
Planck de neurologie et de
sciences cognitives



Justification #2: d'autres aspects plus décisifs que l'intérêt collectif?



disadvantages, including local air pollution, greenhouse gas emissions, road congestion, noise, mortality and morbidity from accidents, and loss of open space to roads, parking lots and urban sprawl. Many people are aware of the disadvantages but see no comparable substitutes to the automobile. The di-

Source: Vergragt and Brown 2007



Psychological Contributions to the Development of Car Use Reduction Interventions

Sebastian Bamberg
University of Applied Science Bielefeld, Germany

The problems associated with car use have increasingly been recognized. Although currently the main focus is on the problem of CO₂ emissions, there are also other issues as noise, congestion and time loss, traffic accidents, and encroachment on land. While car

In the context of public transport, Stradling et al. (2007) found that satisfaction with bus services depends on a variety of non-instrumental factors such as cleanliness, privacy, safety, convenience, stress, social interaction, and scenery. It was also found that pedestrians evaluated their walking trips in terms of many non-instrumental criteria, such as crowdedness, air quality, presence of trees and flowers, presence of beggars, and type of pavement. Friman et al. (1998, 2001), and Friman

- Prioriser l'analyse *transport & bien-être* (plutôt que transport & changement climatique)
- Pour une même fin: inciter les individus à avoir des comportements plus respectueux de l'environnement, de la société (et d'eux-mêmes!)



1. Pourquoi s'intéresser au bien-être?
2. Quels sont les liens entre transport et bien-être?
3. Incitations économiques
4. Projets actuels et collaborations

Transport & Bien-être, Claire Papaix, 5 juillet 2018 - Les
MATINÉES de la Transition Énergétique



Qu'est ce qui rend heureux?



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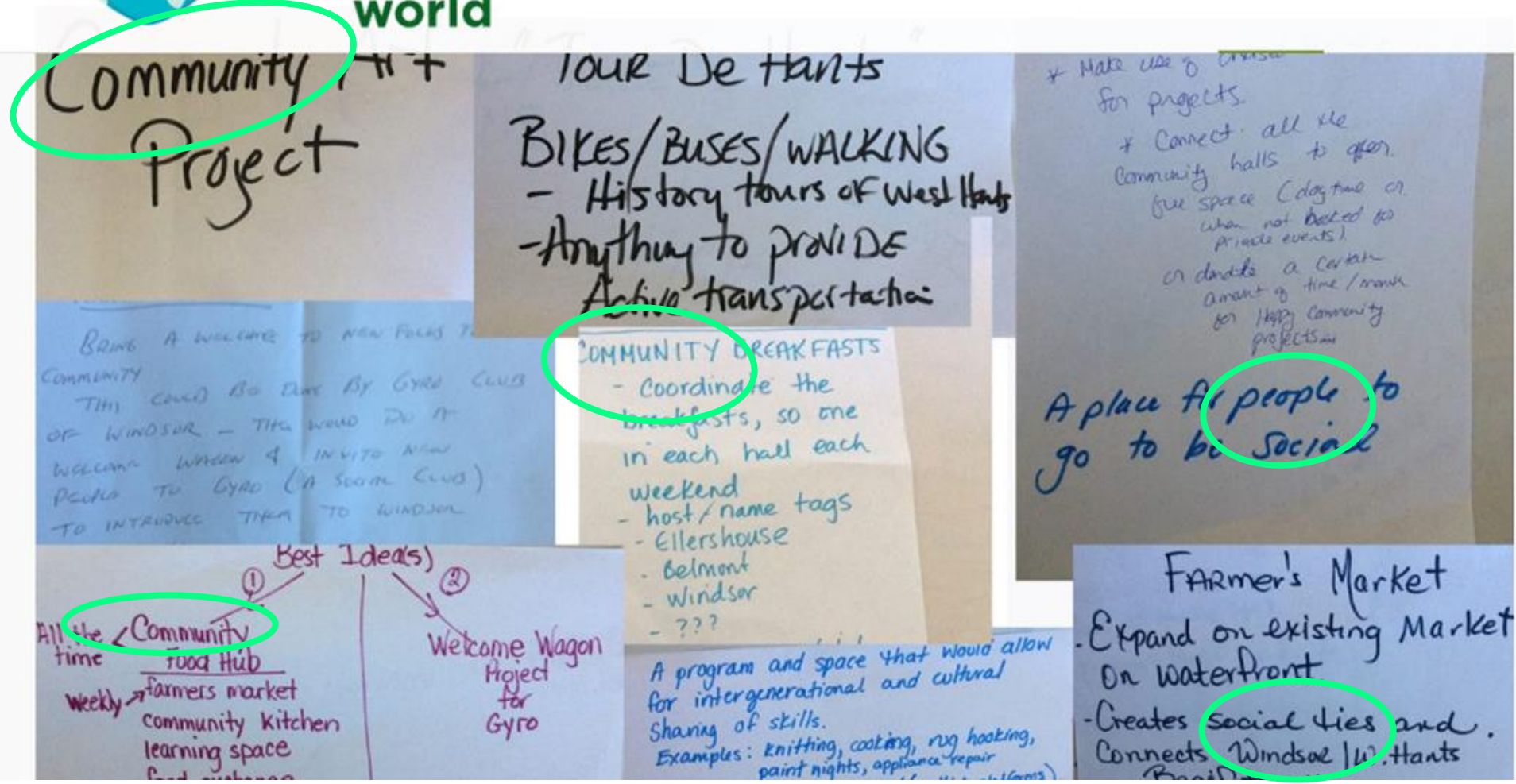
July 23, 2014

Acceptance Letter

Dear Margaret Simpson, Kim Jong Fun, Edna Krabappel,

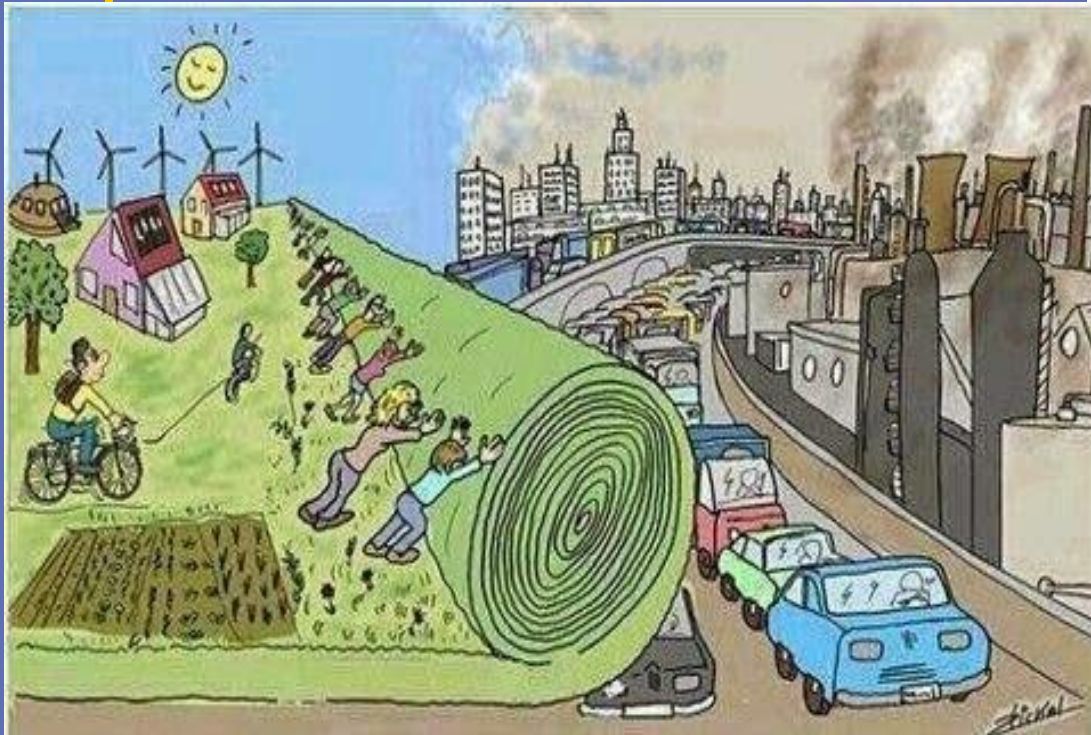
Congratulations! As a result of the reviews and revisions, we are pleased to inform you that your following paper has been formally accepted for publication in Journal of Computational Intelligence and Electronic Systems (<http://www.aspls.com/jcie/>).





...Le rôle déterminant du capital social dans la satisfaction de vie des individus

Les principaux déterminants du bien-être



Source: Brown et al 2017



Personal wellbeing

- Autonomy
- Happiness
- Life satisfaction
- Worthwhile
- Anxiety



Economy

- Unemployment
- Job quality
- Material deprivation



Education and childhood

- Child learning
- Adult learning
- Children's wellbeing



Equality

- WB inequality



Health

- Health behaviour
- Overall health
- Mental health



Place

- Green space
- Housing
- Democracy
- Local environment
- Crime & security
- Culture

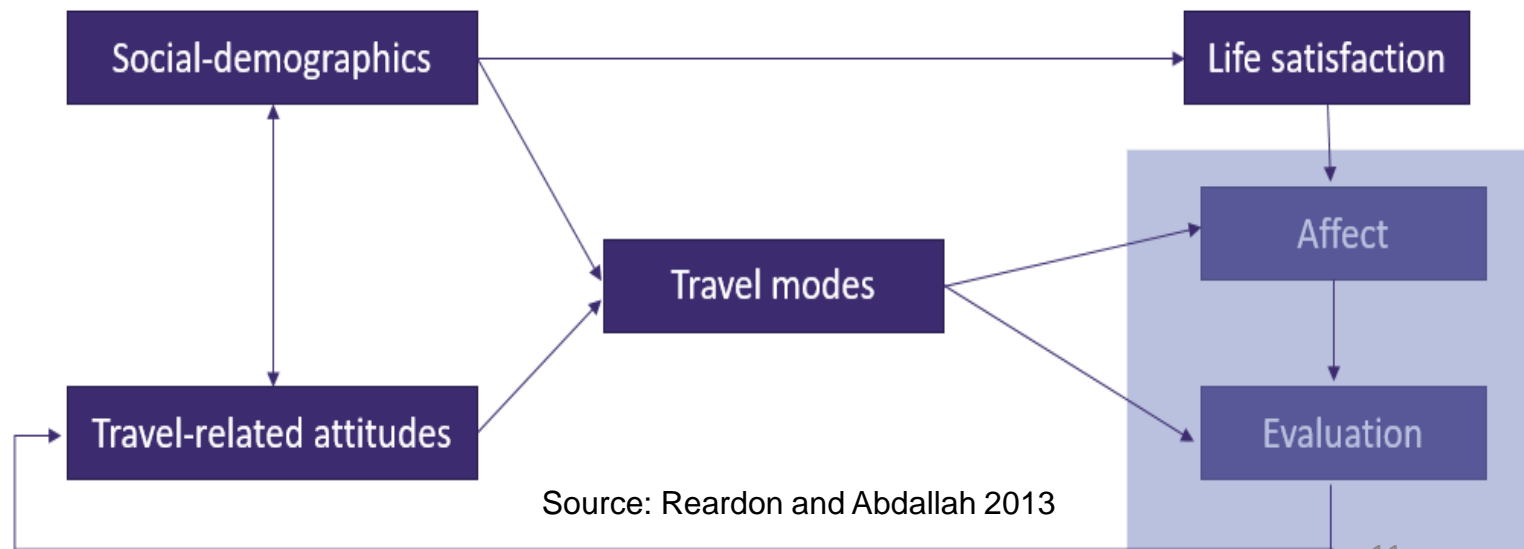


Social relationships

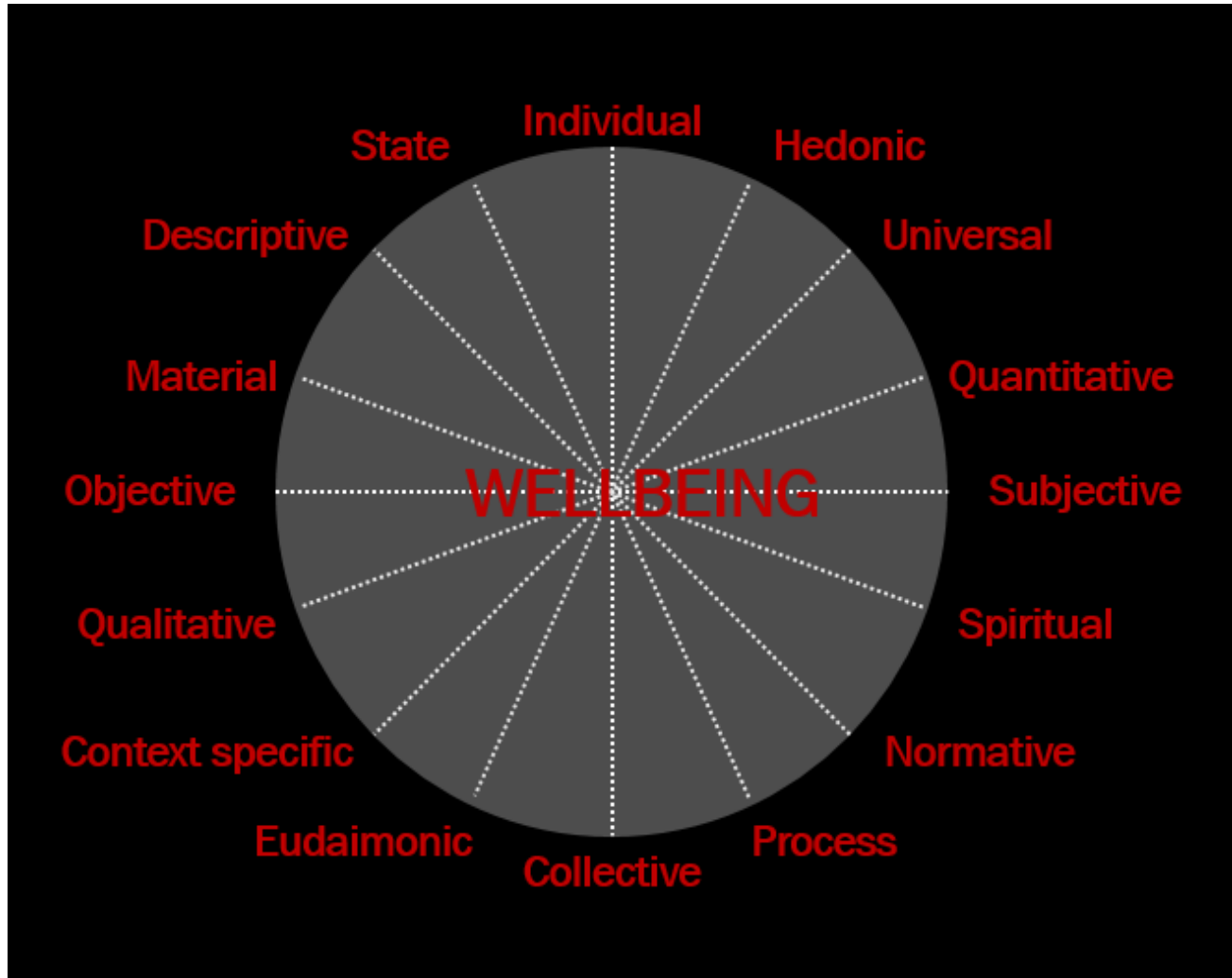
- Close support
- Generalised trust
- Personal relationships
- Community cohesion
- Volunteering

Source: Brown et al 2017

...Parmis lesquels figure le transport



Des définitions entremêlées pour identifier ce lien...



Ex. Bien-être objectif vs. subjectif

nature and determinants of wellbeing has grown. Two conceptual approaches to wellbeing research now dominate the field [3–5]. The **objective** approach defines wellbeing in terms of quality of life indicators such as material resources (e.g. income, food, housing) and social attributes (education, health, political voice, social networks and connections). The **subjective** approach emphasises subjective wellbeing, that is people's own evaluations of their lives, especially their life satisfaction (a cognitive evaluation), happiness (a positive emotional state) and unhappiness (a negative emotional state) [1].

Source: Western et al, 2016.

city on decision utility (see Ettema, Garing, Olsson, & Pihman, 2010, for a more elaborate discussion).

As an alternative to experienced utility, **subjective** well-being (SWB) has been proposed as a measure of people's satisfaction with outcomes of choices (Kahneman, 1999). SWB encompasses judgments of availability of material and immaterial resources that are important for being satisfied with one's life as well as enduring feelings of pleasantness (e.g. Diener & Biswas-Diener, 2008; Diener & Suh, 1997). Since SWB refers to satisfaction with life in general, it is assumed to be relatively

Objective list accounts, as Dolan et al. (2006, p. 14) note, "do not provide a formal theory of well-being; rather they offer a list of attributes and characteristics which are taken to constitute well-being". The list of well-being attributes vary but tend to include income, health, education, housing, and community and those items deemed necessary for basic human needs to be met. In turn, well-being is measured in terms of objective outcomes such as literacy rates and life expectancy (Canadian Index of Well-being, 2012; OECD, 2011).

SWB accounts emphasise the principal that well-being is ultimately an individual experience, and therefore that an individual's own opinion is central to its assessment. SWB is defined as; "The personal perception and experience of positive and negative emotional responses and global and specific cognitive evaluations of satisfaction with life. ... Simply, SWB is the individual evaluation of quality of life" (Proctor, in press). The most common measures of SWB are global evaluations of life (evaluative well-being) or assessments of moment-by-moment feelings (**hedonic** well-being). In recent years, there has been mounting

Source: Ettema et al, 2010.

Source: Reardon & Abdallah, 2013

Ex. la mesure hédonique du bien-être

2.1.1 *Measuring Hedonic Well-Being.* Academics commonly assume that hedonic well-being consists of three components (Diener, 2009): the presence of positive feelings, the absence of negative feelings and overall satisfaction with life. The first two components, often referred to as affective components, tend to pertain to shorter time frames; they detect self-reported feelings or emotions during an interval or activity episode. Satisfaction with life is a cognitive evaluation and pertains to the long term. Source: Diener, 2009

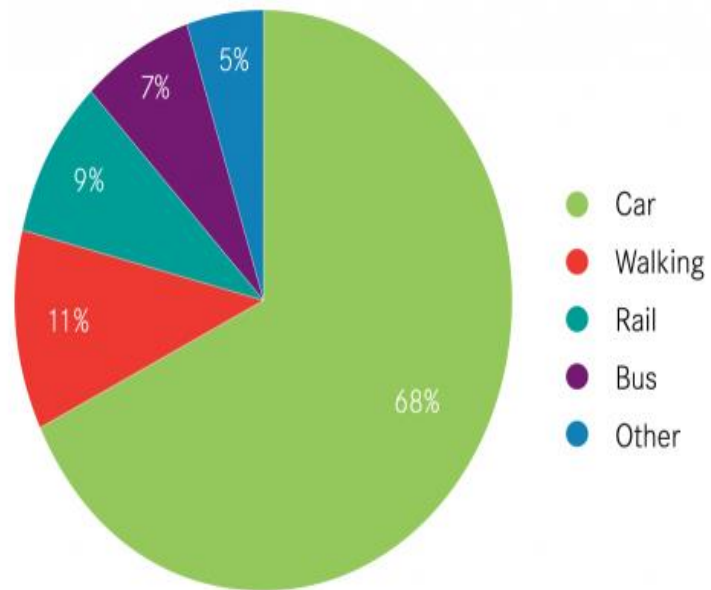
Vs. sa mesure eudaimonique



Source: in McLeod, 2017

Testé sur différents modes de transport:

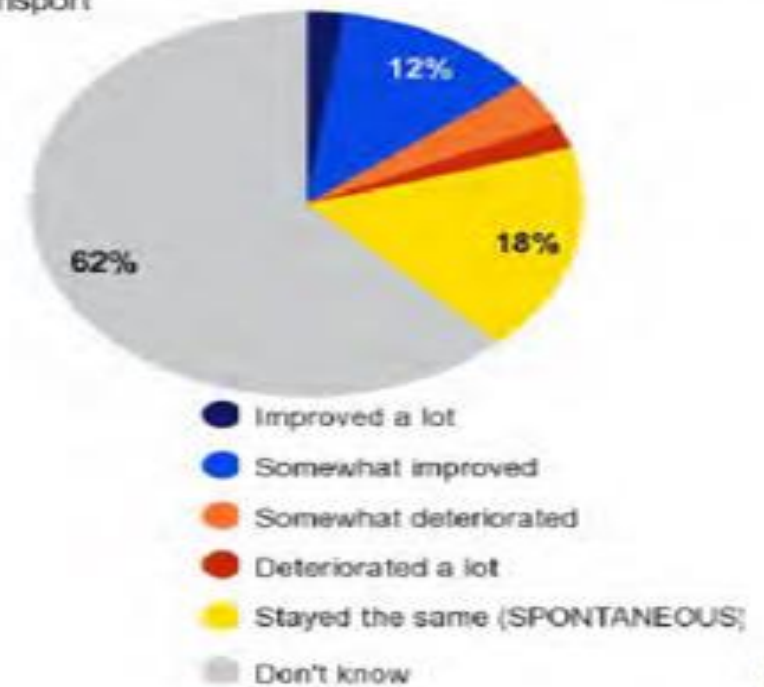
Commuting modes in the UK



Source: Department of
Transport (2012)

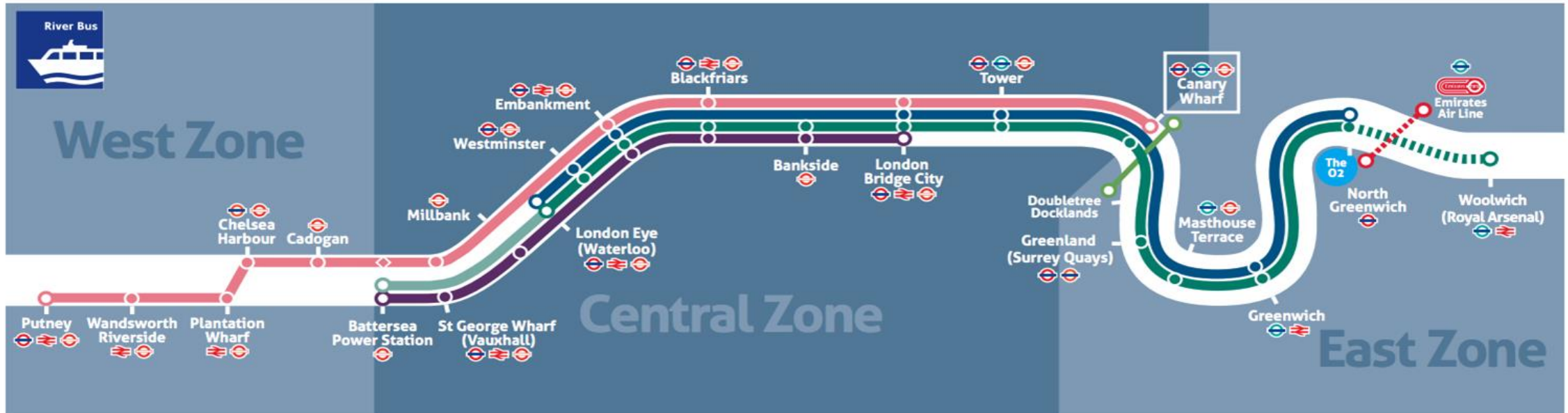
QA8.4. In your opinion, has the quality of the following means of transport (services, connections, infrastructures, etc.) improved or deteriorated in (OUR COUNTRY) in the last 5 years?

Sea or river transport



Source: Eurobarometer (2017)

Ferry, tram (DLR) & train



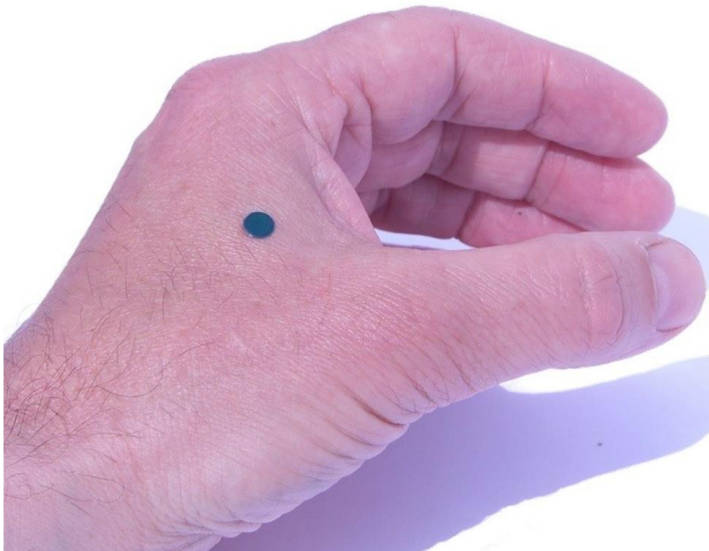
Research design

Subjective

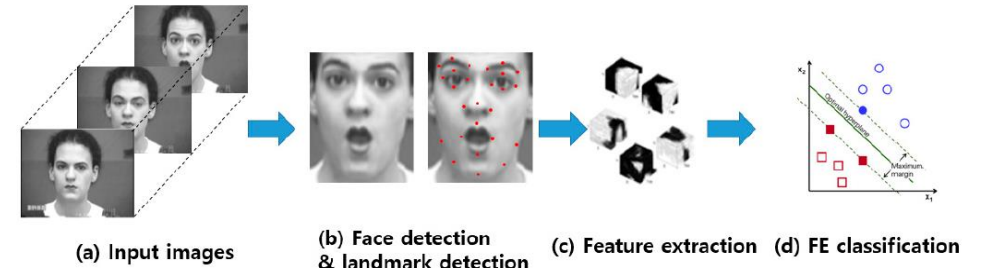
Surveys and interviews

Objective

Stressdots © used to check stress level



Emotional detection



Facial emotion detection.
(Source: Ko, 2018)

Principle of emotional detection

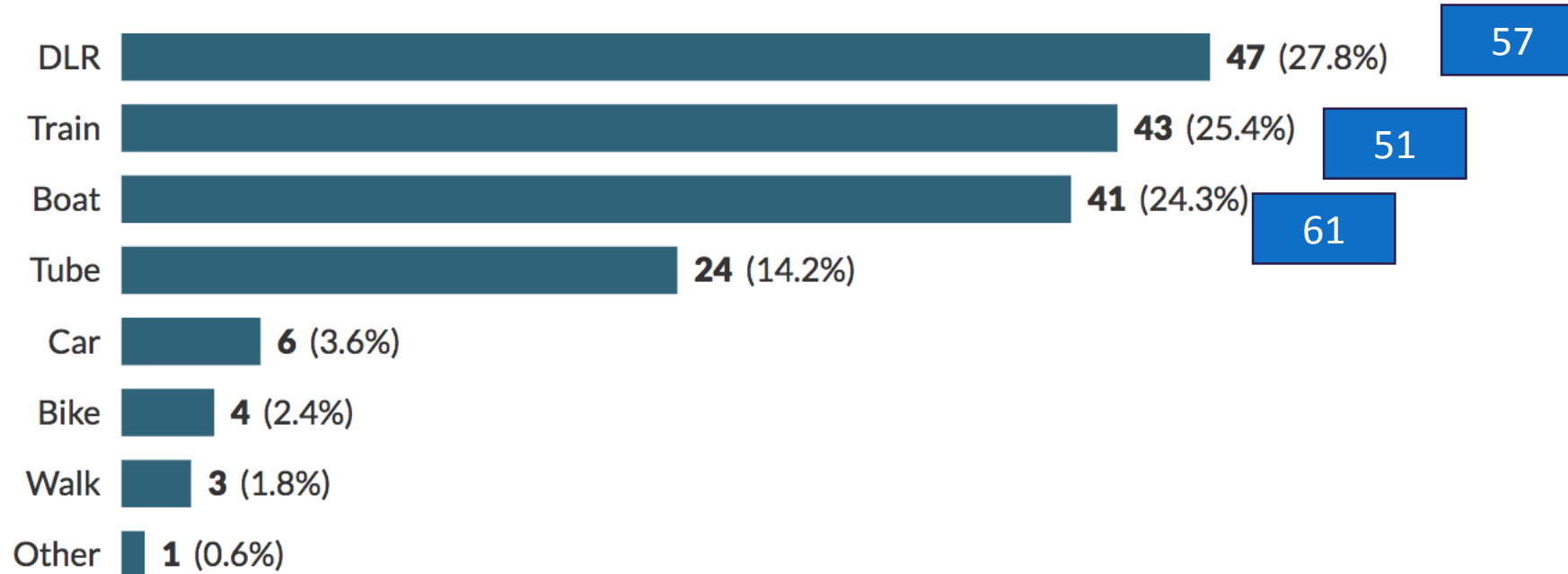


neutral	0.04	0.01	0.03	0.07	0.04	0.02	0.80
surprised	0.03	0.00	0.07	0.06	0.02	0.77	0.06
sad	0.12	0.03	0.10	0.08	0.28	0.00	0.39
happy	0.01	0.00	0.00	0.90	0.00	0.02	0.07
fearful	0.14	0.04	0.37	0.05	0.07	0.11	0.22
disgusted	0.14	0.62	0.05	0.11	0.00	0.00	0.07
angry	0.50	0.06	0.09	0.05	0.07	0.03	0.21
	angry	disgusted	fearful	happy	sad	surprised	neutral

Real Emotion

Predicted Emotion

Early results: Survey data



A total of 169 responses

Results synthesis

- The surveyed population in boat tends to be **older than** in the other two modes
- Males travelled 23% further on average than females (Department for Transport, 2011). males are over represented in the total sample, particularly in boat and train
- **Participants on boat have higher education level (62.3% of postgraduate level or higher on boat, against 47.4% of postgraduate level of higher on DLR, and 41.2% of postgraduate level or higher on train).**
- **Most of respondents are full time employed (82.0% on boat, 70.2% on DLR, and 64.7% on train)**
- **In general, boat users have higher satisfaction (5.11) than users on DLR (4.45) and train (4.11).**
- **Older commuters may be willing to tolerate greater delays and commuting uncertainty than younger commuters (Mahmassani and Liu, 1999).**
- Weather is also an important variable for affecting people's mood, people are happy in sunny days.

Attitudes towards transportation

and security (e.g., CCTV, professional staff)

(e.g., online/machine/Oyster card/contactless payment card/App)

(e.g., ease of reaching terminal/pier)

ing time (e.g., reliability, punctuality, travel information)

friendly environment (e.g., WIFI, guaranteed seat)

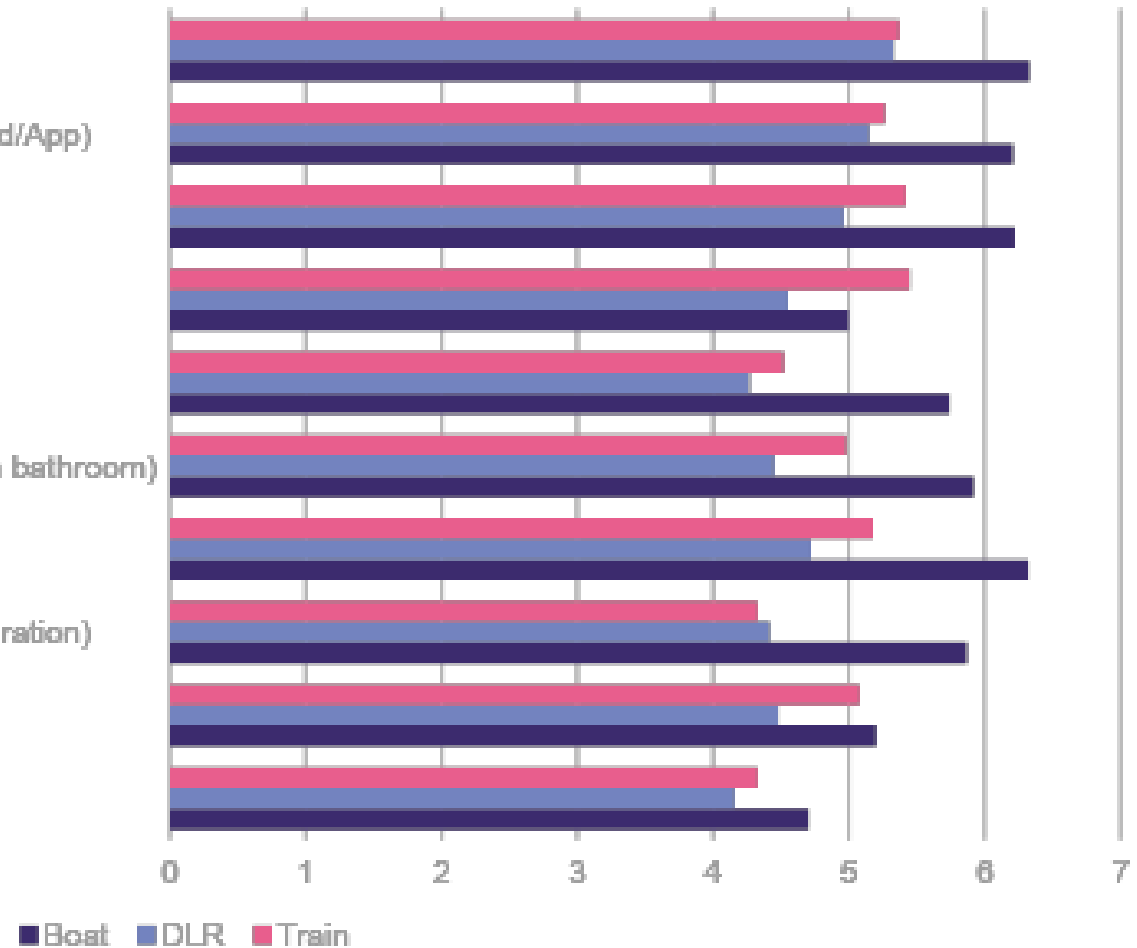
service (e.g., climate-controlled cabin, refreshment, clean bathroom)

re aspects (e.g., enjoyable landscape, wider space)

fulfilment/achievement (e.g., new perspective on life, inspiration)

fully brand (e.g., low-carbon emission, noise reduction)

on towards travel cost



Attitudes towards travel cost

Attitudes towards working environment (e.g., WIFI, guaranteed seats)

Attitudes towards fulfilment/achievement (e.g., new perspective on life, inspiration)

Attitudes towards r brand (e.g., low-carbon emission, noise reduction)

Attitudes towards time (e.g., reliability, punctuality, travel information)

Attitudes towards service (e.g., climate-controlled cabin, refreshment, clean bathroom)

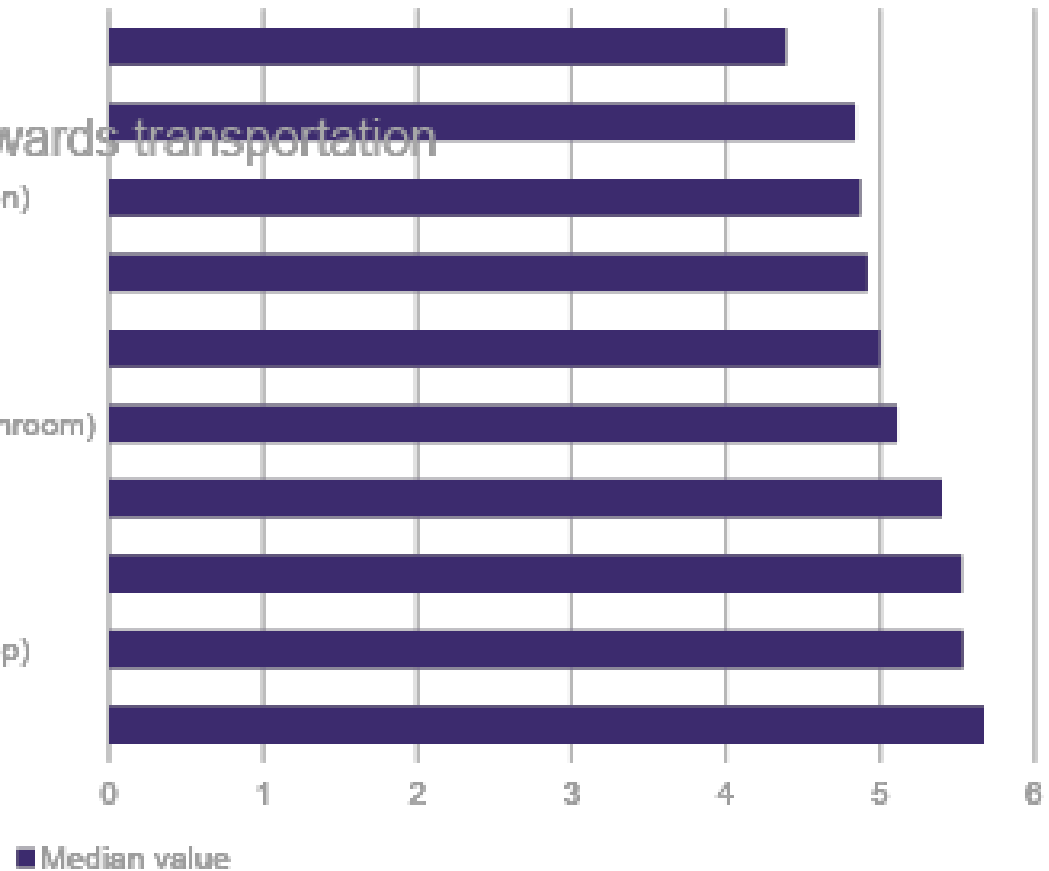
Attitudes towards aspects (e.g., enjoyable landscape, wider space)

Attitudes towards j., ease of reaching terminal/pier)

Attitudes towards g., online/machine/Oyster card/contactless payment card/App)

Attitudes towards security (e.g., CCTV, professional staff)

Attitudes towards transportation



...Un premier pas vers la mesure des liens transport & bien-être



Cablecar in Caracas. Photo: author unknown

Transportation
DOI 10.1007/s11116-014-9521-x

Mood and mode: does how we travel affect how we feel?

Eric A. Morris · Erick Guerra

© Springer Science+Business Media New York 2014

Abstract How do emotions like happiness, pain, stress, sadness and fatigue vary during travel and by travel mode? Understanding the relationship between how we travel and how we feel offers insight into ways of improving existing transportation services, prioritizing investments and theorizing and modeling the costs and benefits of travel. Drawing on the American Time Use Survey's well-being module, which surveyed over 13,000 respondents about mood during randomly selected activities, we address these questions using pooled ordinary least squares and fixed-effects panel regression. Controlling for demographics and other individual-specific attributes, we find that, contrary to the common perception that travel is an onerous, derived demand, mood is generally no worse during travel than on

...Un premier pas vers la mesure des liens transport & bien-être



Transport and child well-being : an integrative review

Corpus^{UL} Home /Dépôt institutionnel /Articles publiés dans des revues avec comité de lecture /Transport and child well-being : an integrative review

Authors: [Waygood, Edward Owen Douglas](#); [Fríman, Margareta](#); [Olsson, Lars E.](#); [Taniguchi, Ayako](#)

Abstract: Understanding children's travel is an important part of drawing a complete picture of over-all well-being in society. Children's active travel to school, independent travel, transport and physical activity, and crashes have been reviewed, yet it may not be a complete picture. If research on children's travel has the ultimate goal of improving children's well-being, there is currently no general synthesis on the research linking transport and child well-being. This integrative review asks, "what evidence is there that transport affects child well-being?" It organizes the findings by two key measures: the domain of well-being and the transport means-of-influence. The five main domains of child well-being are: physical, psychological, cognitive, social, and economic. The three means of transport influence are: as access, intrinsic, or external. Findings are identified as being consistent, inconsistent, or one-off (e.g. only one study). The results show that transport plays a role in all domains of children's well-being. Most benefits identified are associated with active travel and independent travel. Most negative impacts are associated with traffic. While numerous one-off results exist which suggest that there may be many other impacts, research that repeats prior work is needed to support or refute these such results. Finally, potential relationships between transport and well-being are suggested.

INTRODUCING FLAMENCO

There is a high societal demand for citizen observatories but the development of such observatories is labour-intensive and requires significant technical expertise.

A partnership of five academic partners led by the Software Languages Lab (SOFT), share the insight that there is on the one hand a high societal demand for citizen observatories, and on the other that the developments of such observatories is labour-intensive, lengthy and requiring of technical expertise. The idea of building and deploying an end-user reconfigurable citizen observatory platform for Flanders. Through this platform, stakeholders can set up their own citizen observatory instantiations targeting a variety of parameters: sensorial parameters (noise, air quality, humidity, ...) or behavioural parameters (the flux of people in a public transport system, the tolerance of people w.r.t. traffic delays, contextual assessment such as "I'm sitting on an empty bus", "It's not safe here", ...). The FLAMENCO platform shall integrate tools, techniques and socio-economic insights that allow stakeholders to work around the complexity of such a design.

The objective of FLAMENCO is to create an open cloud-based software platform designed to allow citizens to create and participate in citizen observatory campaigns.

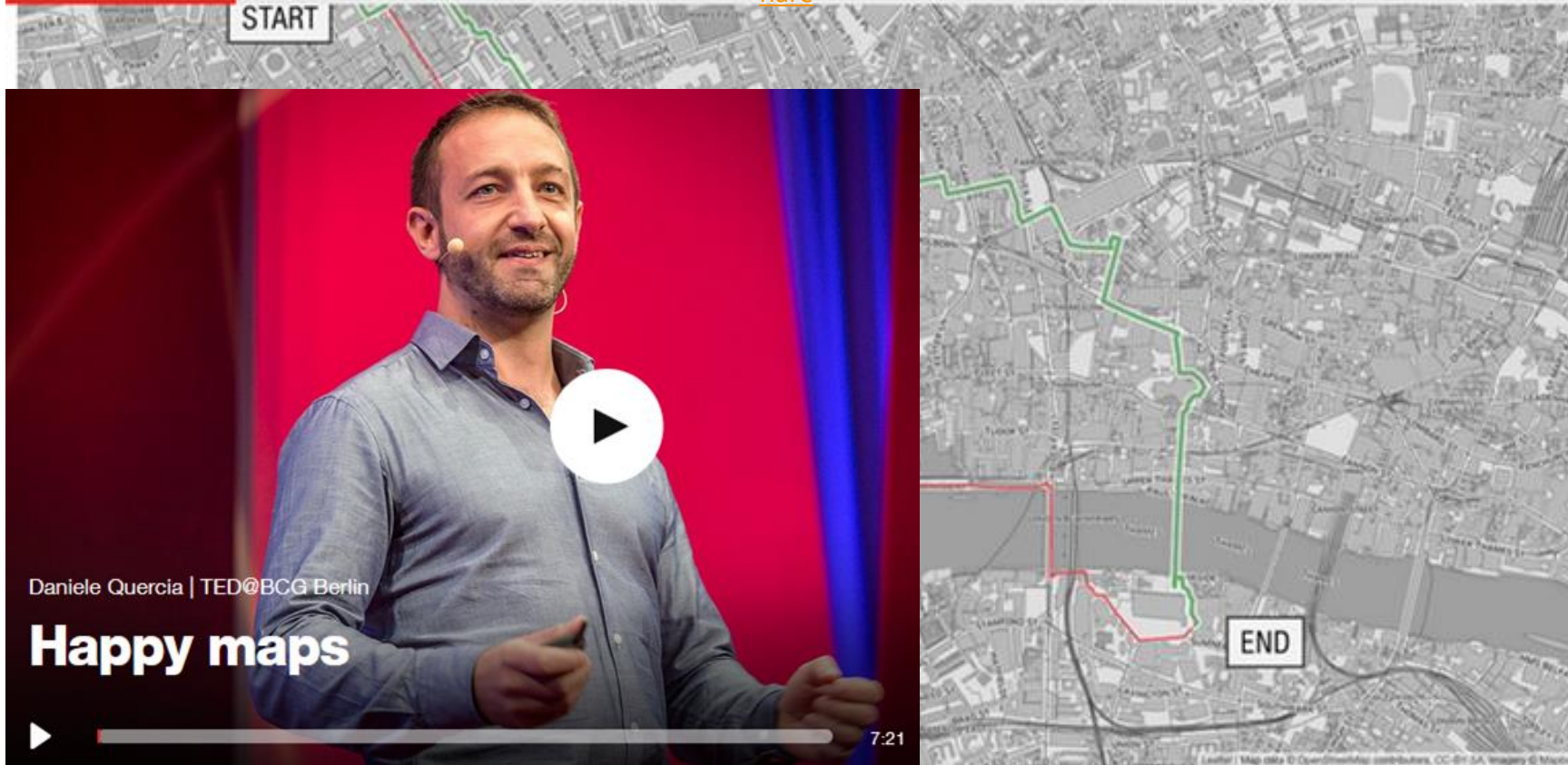
The main objective of the 4-year Flamenco project is to create an open cloud-based software platform specifically designed for citizens to create and participate in so-called citizen observatory campaigns. A campaign is defined by stakeholders by specifying what data needs to be collected in order to address a specific concern (A in the figure above). Subsequently, the campaign is enacted through the stakeholder's citizen observatory (B in the figure above), which also monitors campaign progress in terms of incoming data, and orchestrates activities in case progress is not as expected.



Finally, the campaign is analysed by producing the requested output (maps, reports)(C in the figure below). Despite the fact that campaigns constitute a fairly obvious notion, there currently exists only limited support for them. In this project they are essential in bridging the gap between stakeholder usability, data quality, and the well-known intricacies of engineering reconfigurable software.

Digitalisation (rôle majeur avant la mise en place des projects)





Digitalisation (rôle majeur après la mise en place des projects)



Fast route: 4.0 kilometers (46 minutes)

Happy route: 4.5 kilometers (53 minutes)

Why this'll make you happy: The shortest path from the Euston Square Underground station to the Tate Modern gallery starts by taking you along busy Gower Street. But add six minutes to your route, and you can wend your way to the modern art on a quieter path: Saunter along the parallel, less busy Gordon Street and walk past Gordon and Russell Squares. Instead of taking the Strand, full of people and cars, walk along historic and beautiful Fleet Street, the storied former home of

Finally, let me try and address the suspicion that all this is a bit airy-fairy and a bit impractical. Now, of course, you cannot capture happiness on a spreadsheet any more than you can bottle it. If anyone was trying to reduce the whole spectrum of human happiness into one snapshot statistic I would be the first to roll my eyes and write about it in newspapers. But that's not what this is all about. Just as the GDP figures don't give a full story of our economy's growth, but give us a useful indicator of where we're heading. So, I believe a new measure won't give the full story of our nation's wellbeing, or our happiness or contentment or the rest of it - of course it won't - but it could give us a general picture of whether life is improving, and that does have a really practical purpose. First, it will open up a national debate about what really matters, not just in government but amongst people who influence our lives: in the media; in business; the people who develop the products we use, who build the towns we live in, who shape the culture we enjoy. And second, this information will help government work out, with evidence, the best ways of trying to help to improve people's wellbeing.

WHO European Healthy Cities Network Summit of Mayors

12-13 February 2018, Copenhagen, Denmark

<http://www.euro.who.int/en/media-centre/events/events/2018/02/who-european-healthy-cities-network-summit-of-mayors>



Le bien-être urbain, un argument qui croit sur la scène politique

Abstract of the speech of D. Cameron 25 Nov. 2010

Et qui donne lieu a des répertoires statistiques

ec.europa.eu/eurostat/web/income-and-living-conditions/data/database

Commission européenne > Eurostat > Revenu et conditions de vie > Données > Base de données

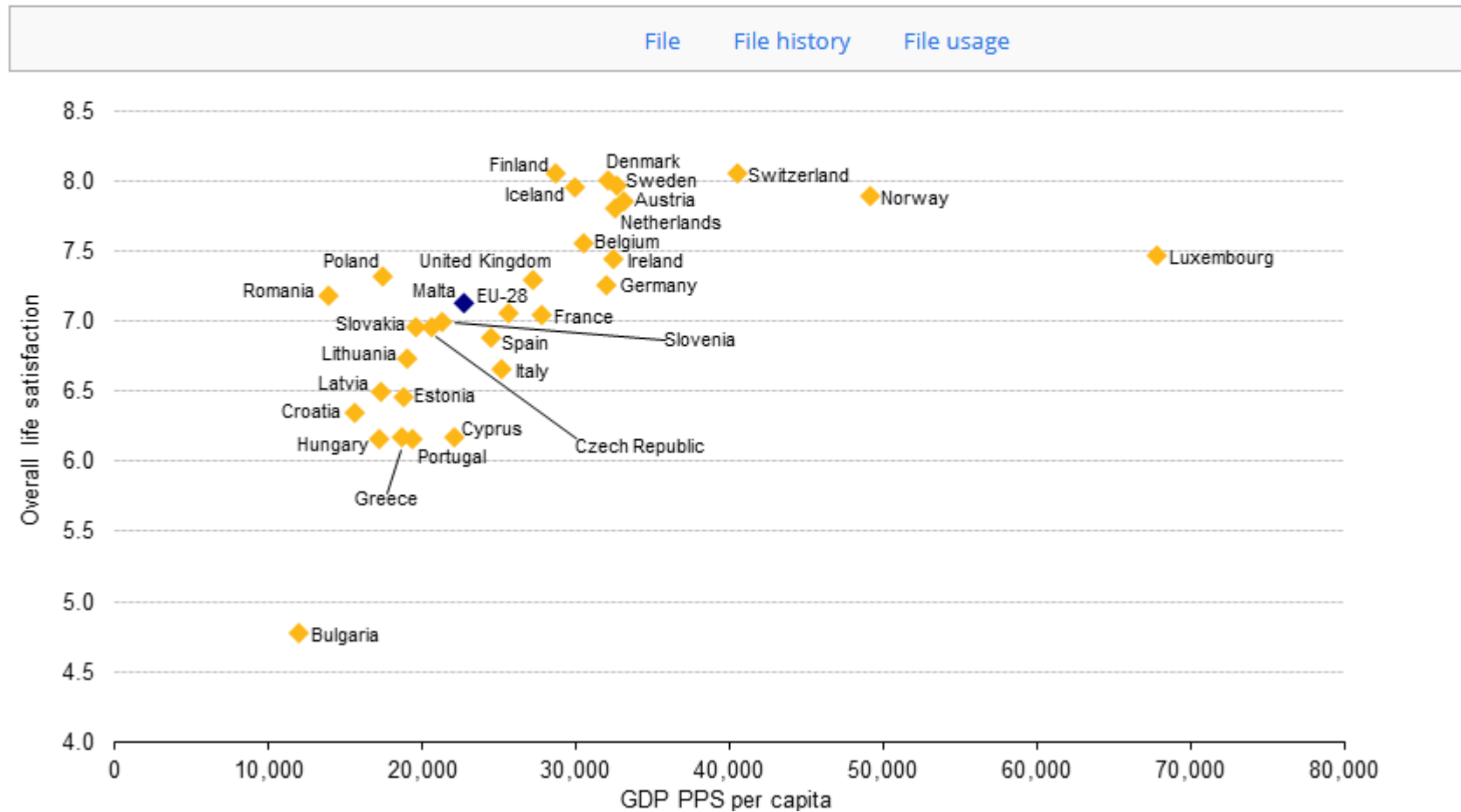
BASE DE DONNEES

- Modules ad-hoc
- ▲ Méthodologie
 - Principaux concepts et définitions
 - Nomenclatures
 - Liste de variables
- Législation
- ▲ Qualité
 - Rapports de qualité UE et nationaux
 - Questionnaires
- ▲ Publications
 - Livres statistiques
 - Statistiques en bref
 - Communiqués de presse
 - Documents de travail statistiques / Manuels et instructions
 - Statistiques illustrées
 - Liens

Conditions de vie (ilc_lv)

- Ménages privés (ilc_lvph)
- Structure de la population (ilc_lvps)
- Conditions de santé et de travail (ilc_lvhl)
- Conditions de logement (ilc_lvho)
- Structures de garde d'enfants (ilc_ca) M
- Privation matérielle (ilc_md)
- EU-SILC modules ad-hoc (ilc_ahm)
 - 2016 - Accès aux services (ilc_ats)
 - 2015 - Participation sociale et culturelle (ilc_scp)
 - 2014 - Privation matérielle (ilc_mdm)
 - 2013 - Indicateurs de bien-être personnel (ilc_pwb) M
 - Note moyenne de satisfaction par domaine, sexe, âge et niveau d'éducation atteint (ilc_pw01) ⓘ
 - Note moyenne de satisfaction par domaine, quintile de revenu, type de ménage et degré d'urbanisation (ilc_pw02) ⓘ
 - Note moyenne de confiance par domaine, sexe, âge et niveau d'éducation atteint (ilc_pw03) ⓘ
 - Note moyenne de confiance par domaine, quintile de revenu, type de ménage et degré d'urbanisation (ilc_pw04) ⓘ
 - Pourcentage de la population se considérant non satisfaite comme grande, moyenne ou faible par domaine, sexe, âge et niveau d'éducation atteint (ilc_pw05) ⓘ
 - Personnes ayant quelqu'un sur qui compter en cas de besoin par sexe, âge et niveau d'éducation atteint (ilc_pw06) ⓘ
 - Personnes ayant quelqu'un sur qui compter en cas de besoin par quintile de revenu, degré d'urbanisation et type de ménage (ilc_pw07) ⓘ
 - Fréquence du sentiment de bonheur au cours des 4 dernières semaines par âge, sexe et niveau d'éducation atteint (ilc_pw08) ⓘ
 - Fréquence du sentiment de bonheur au cours des 4 dernières semaines par quintile de revenu, degré d'urbanisation et type de ménage (ilc_pw09) ⓘ
- 2012 - Conditions de logement (ilc_hcm)
- 2011 - Transmission intergénérationnelle de désavantages sociaux (ilc_igt)

File:GDP per capita and average overall life satisfaction, EU-28 and countries, 2013.png



1. Pourquoi s'intéresser au bien-être?
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Les outils traditionnels visant directement la baisse des émissions liées aux transports jouent de façon homogène sur les territoires

LesEchos.fr

Diesel, je t'aime, moi non plus

BOURSE | MONDE | TECH-MÉDIAS | INDUSTRIE-SERVICES | FINANCE - MARCHÉS | PME-RÉ



par la mesure du tribunal, on peut considérer que (en négligeant les motorisations alternatives alors peu vendues) 40 % du parc était alors en diesel, soit 40 % des 56 % qui restaient, soit 22,4 % du parc roulant.

4. **Tout le monde ne réside pas en ville**, et toutes les villes n'ont pas encore annoncé la mise en oeuvre de mesures anti-diesel. Ainsi, en 2016, **24,5 %** des Allemands vivaient en zone rurale. La mesure concernerait donc potentiellement 17 % du parc auto allemand, et cela, si toutes les villes prenaient des mesures anti-diesel au 1er septembre 2019, ce qui semble peu probable.

Dans un pays où l'industrie automobile occupe un rang majeur, des finances saines et une volonté d'avancer sur le sujet environnemental, il est probable que comme en 2009, le gouvernement allemand crée une prime à la casse pour accompagner cette transition vers l'essence. Un risque pourrait sortir un effet d'aubaine pour les constructeurs qui auront les gammes essence, hybrides et électriques les plus





Cette *efficacité limitée* des instruments traditionnels

est renforcée par le fait que les individus ont des *réactions très différentes* à ces “*chocs de la demande*”: ex. à une *variation du temps de trajet*



« Teleportation test »
(Mokhtarian & Salomon, 2001)

Non seulement ces variables mais la perception de celles-ci est également à prendre en compte...

SAFETY AND SECURITY IMPROVEMENT IN PUBLIC TRANSPORTATION BASED ON PUBLIC PERCEPTION IN DEVELOPING COUNTRIES

Tri Basuki JOEWONO

*Department of Civil & Environmental Engineering
Graduate School of Science and Engineering
Saitama University
Saitama, Japan*

Hisashi KUBOTA

*Professor
Department of Civil & Environmental Engineering
Graduate School of Science and Engineering
Saitama University
Saitama, Japan*

(Received November 9, 2005)

Public transportation poses a higher risk of safety and security since there happen to be more passengers in one car. The problem becomes worse in developing countries, because of the lack of suitable and integrated approaches.

The aim of this research is to explore the perception of safety and security problems on the part of those parties involved in the operation of public transportation. This perception is used as a base to develop an improvement agenda for the particular context of developing countries. The research employs a questionnaire survey to collect the perception data. This paper explains the perception

A thematic analysis of children and young adults' perceptions of roadway risk

Geoffrey Underwood

2005

One way to understand pedestrian behaviour is to investigate users' perceptions of the traffic senses and specifically their perception of danger in the judgement of such a scene. The perception of road risk utilises cognitive schemata to represent features, functions and operations of the traffic system. Department of Environment, Transport and the Regions in the UK highlighted the importance of improved road safety for all road users. However, traveling in the river is always comfortable and safe compared with road transportation. This is also the reason why more people choose to travel by boat commuting.



D'où l'intérêt de les combiner aux nouveaux instruments dits cognitifs (ex. 'gamification', 'nudging')



Could A Nudge Improve Safety At Railway Platforms?

by Kasper Hulgaard

3
Shares

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<http://inudgeyou.com/en/could-a-nudge-improve-safety-at-railway-platforms/>

1. Pourquoi s'intéresser au bien-être?
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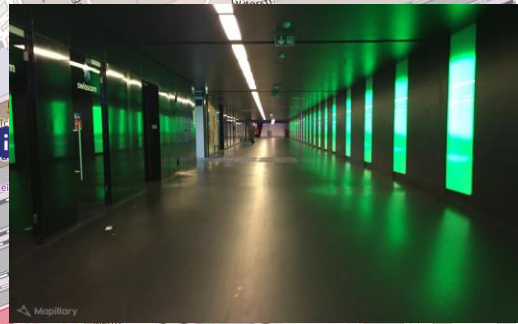
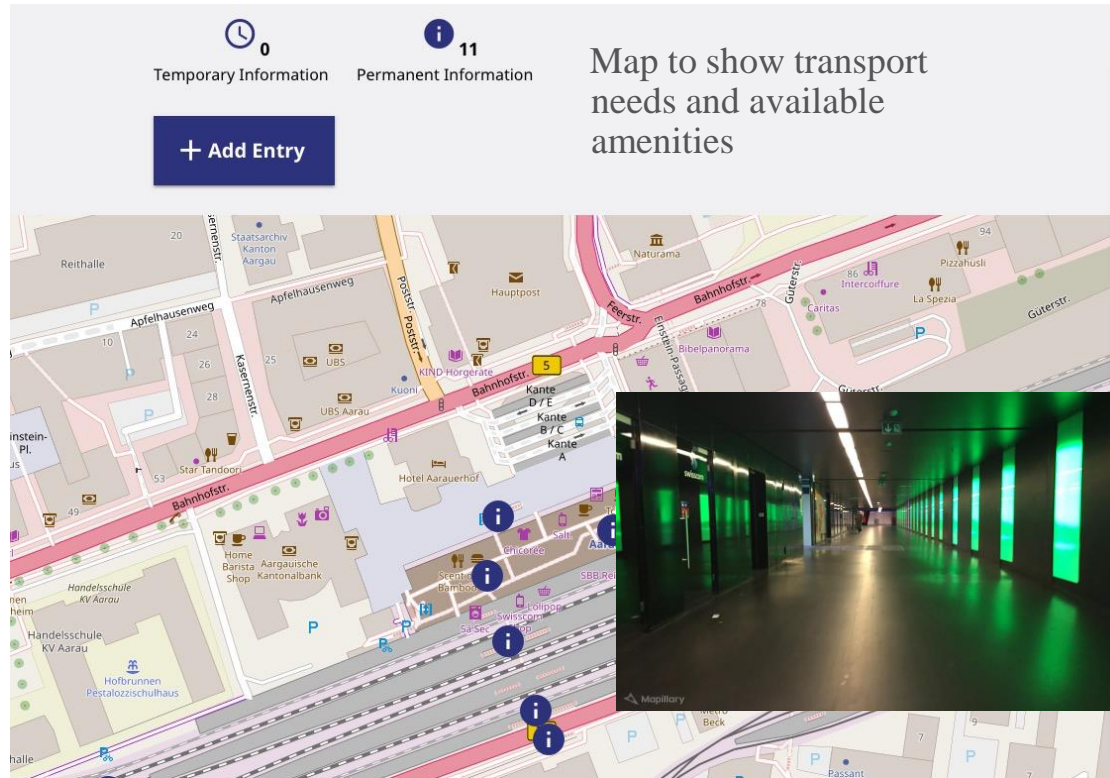




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Source: Healthy Streets for London 2018. Available at: <https://content.tfl.gov.uk/healthy-streets-for-london.pdf>



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