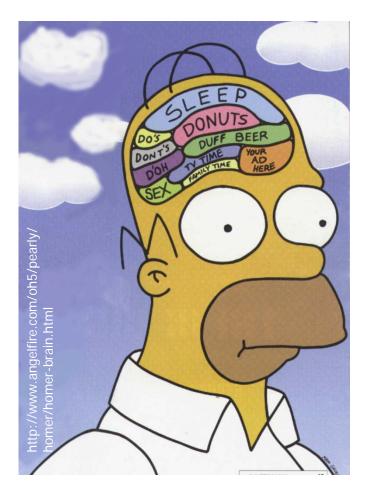
Symposium on travel information for environmentally sustainable urban transport 21 November 2013, Stockholm



Human traits and technological possibilities in the advancement of travel information

**Professor Glenn Lyons** Centre for Transport & Society UWE Bristol

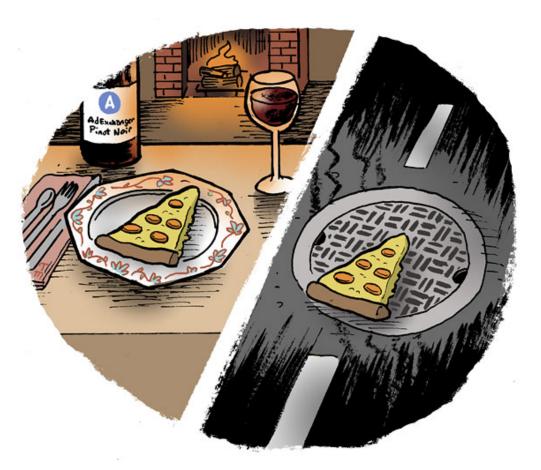




Demand for information *derives from* wishing to consider travel options

http://www.kcci.com/image/view/-/154280/highRes/1/-/maxh/480/maxw/640/-/g5hqm4z/-/Field-of-Dreams-movie-site-jpg.jpg

# In assessing the role of and demand for information, **context matters**



http://www.adexchanger.com/wpcontent/uploads/2012/05/context-matters.jpg



http://www.theaa.com/resources/images/newsroom/traffic-queue.jpg

### Death, taxes and congestion – is there a problem needing to be solved?



http://newsimg.bbc.co.uk/media/images/411

# **Change is gradual** – but technological possibilities have already brought us a long way

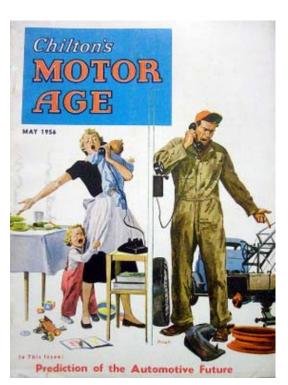




http://theforeigner.no/images/pages/2009/ 05/19/Phoneandphonebook-large.jpg



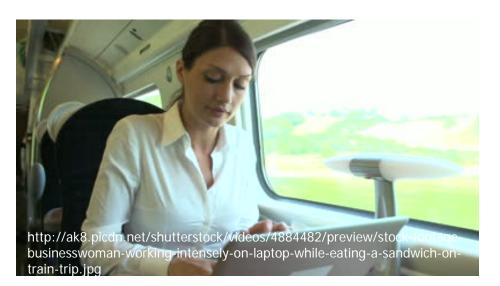
http://www.swissinfo.ch/media/cms/images/key stone/2013/08/101041049-36661690.jpg



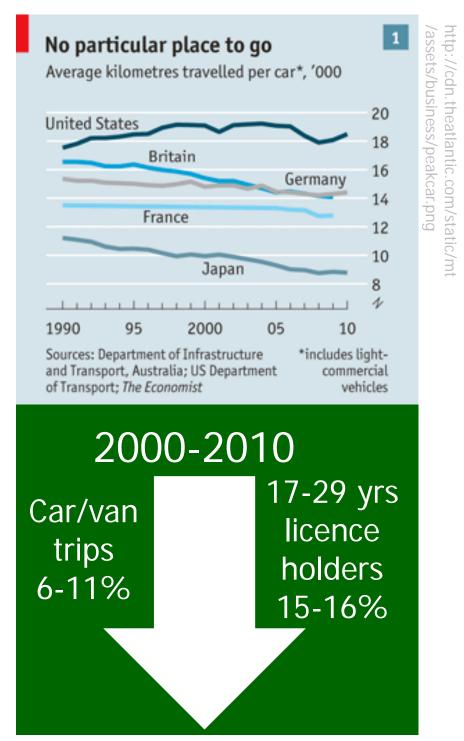
### Spatio-temporal flexibility

The digital age is **relaxing constraints** and shaping whether, where, when and how we travel

Travel time use



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In **transition** from automobility to environmentally sustainable urban transport?



http://www.car2cover.co.uk/wpcontent/uploads/2012/05/tyre-transparent1.png

# **Out** of the ordinary

#### Departures

Due Destination Pla 10:48 Crayford 10:54 Hayes (Kent) via 11:00 Slade Green 11:04 Plumstead 11:10 Dartford via Greenwich 11:14 Ashford Interni via 11:18 Crayford

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Plat Expected Cancelled Cancelled Cancelled Cancelled Cancelled Cancelled Cancelled



### Inside the mind of the traveller

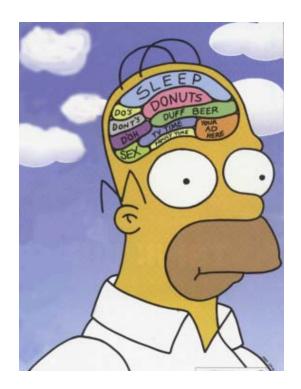


#### Homo economicus

For every trip the individual wishes to have as full a knowledge as possible about all the options and to make a set of decisions which maximises the utility (attractiveness) of the trip

#### Homo psychologicus

Many trips are 'no big deal' and so long as they work out there are plenty of other things to occupy the mind



## The decision making process

#### Effort-accuracy trade-off

- current perceived accuracy versus effort of acquiring a more accurate picture
- Satisficing behaviour
  - meeting minimum requirements ('good enough')
- Bounded rationality
  - Short-cut decision making requiring less information



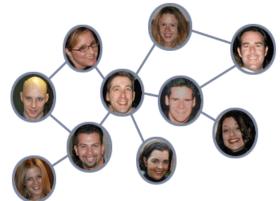
## The decision making process

#### Anticipated regret

 If level of anticipated regret exceeds threshold then more information sought before decision is made

#### Habit

- The preclusion of any conscious consideration of choice
- Social interactions
  - Social learning/imitation





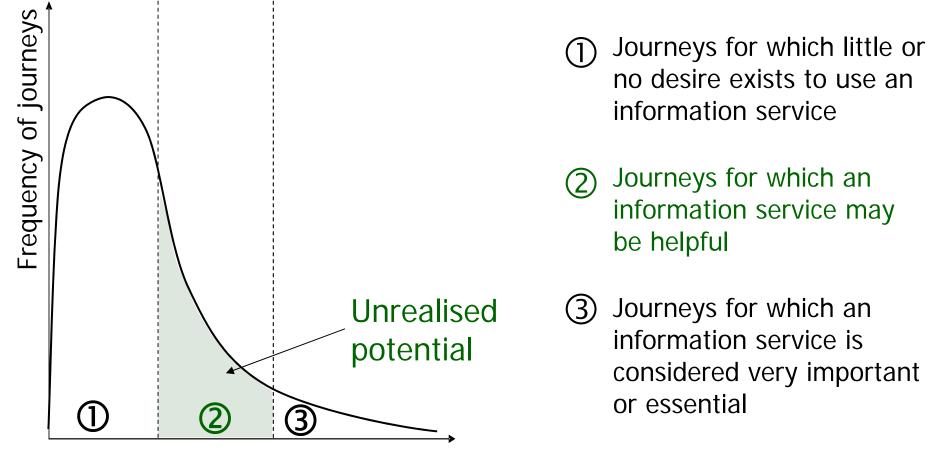
http://ccit300f06.wikispaces.com/file/view/friendster.gif/30279486/friendster.gif

## The decision making process

journey	familiar & predictable	familiar & unpredictable	unfamiliar
decision mechanism	irrationality	bounded rationality	unbounded rationality
decision making	unconscious	confirmatory	options & planning
information source	past experience/instinct	significant others	information services

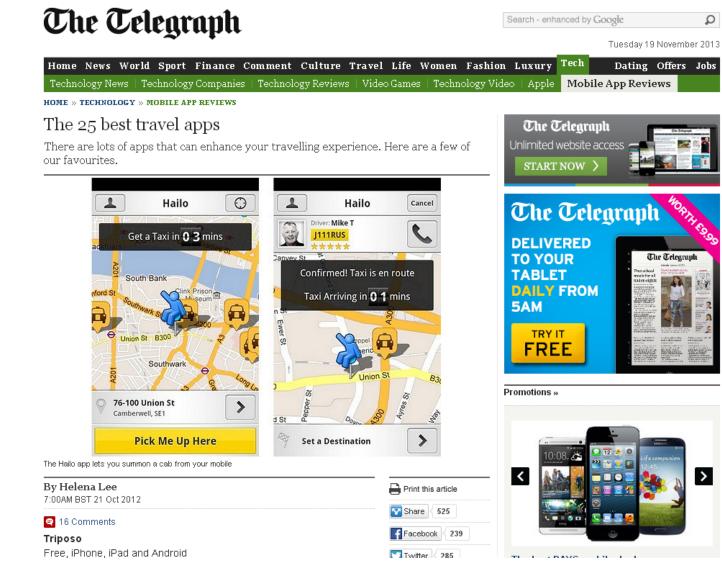
increasing information demand

# Information's future role hinges upon extent of **familiarity**, **stability** and **cost**



Desire for information

### Technological possibilities of mobile internet, open data,



# **Overcoming barriers** to changing behaviour – enabled through technological possibilities

- Prompt to (re)consider travel options
- Low 'cost' information that is useful and useable
- Viable travel alternatives that travel information can help render useful and useable





## Concluding messages

- Inventive new developments in information provision are not a guarantee of greater use or effectiveness
- Informing travellers is moving *further* away from 'official' providers of information services into 'the crowd'
- The ultimate achievement of information provision would be to reduce the cognitive and affective effort of unfamiliar travel to zero
- Context is central to the demand for and use of information

