CITIZENS AND NEIGHBOURHOODS

FACILITATING BEHAVIOUR CHANGE

KEY ISSUES

Behaviour change can be facilitated through multiple techniques, such as gamification or nudging. Gamification means adding elements of competition or game to an action and rewarding the individual for its step-by-step completion. For example, school pupils can have bookmarks that get stamped whenever they complete a journey using active travel.

Nudging is a concept stemming from behavioural economics that furthers traditional economic models of human decision-making processes integrating the 'irrationality' factor of that behaviour. Through a simple renewed framing of information, it aims to achieve a change 'for the better' in people's behaviour. In the case of mobility, that means orienting people towards more sustainable choices in their travel habits. That can be through small physical or social interventions often coupled with gamification processes, which reward an individual showing a particular behaviour. Whilst being nudged, the individual does keep full freedom of choice and is not constrained. There are no associated penalties if nudging does not have an influence on behaviour. Nudging is often a relatively cheap solution that can act as a complement to providing infrastructure, putting in place a communications campaign or any other policies.

LONDON CONTEXT

Developed by Intelligent Health, the Beat the Street game aims at increasing active mobility. It was trialled in four boroughs between 2015 and 2017: Waltham Forest, Newham, Tower Hamlets and Hackney. The game connects individuals to their environment: as people walk, cycle or run in the borough, they can collect points by tapping a card on readers installed on lamp posts. Beyond the positive health and mobility benefits for residents, the game allows authorities to collect data on health and activity levels among residents. The 'game' was also introduced in Hounslow in September 2019.

Gamification and nudging can also be tools at a more institutional level. Accreditation schemes for schools are a key example in sustainable mobility. In London, the STARS scheme managed by Transport for London delivers medals based on modal shift of pupils and school efforts in promoting alternative sustainable mobility. Schools that sign up work with a designated borough officer who helps them identify targeted measures for their school. More than 1,500 schools are accredited. This type of initiative is not directly a nudge for users but can be one for schools: being accredited adds to the value they can offer their pupils, and the measures themselves comprise elements of nudging.

For road safety, nudging is often used through signs or announcements, such as dynamic signage showing drivers their speed associated with frowning or smiling faces. Although no punishment is expected that type of framed speed information can lead to speed reduction.

INSPIRATION FROM ELSEWHERE

In 2017, British Cycling and HSBC published insights into cycling enabling incentives called the 'The Bike Shed report'. They found that to promote cycling, appealing to nostalgia or fun can bring a 15% increase in interest. Promoting bike-related events with very tangible information (workshops, talks) can increase participation by 75%. The report also underlined the importance of support from friends or family when deciding to put a cycle plan in place.

The Horizon 2020 funded project Optimum looks into the potential of ICT to improve transport connectivity. The project experimented with nudging through mobile phones, generating personalised mobility

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advice to thirty participants after having tracked their mobility habits. The advice was integrated into an itinerary planning app on participants' phones. After six weeks, results showed fairly high levels of acceptance as well as instances of positive behaviour change thanks to highly personalised advice.

For the moment, few studies have been put together on the use of apps to promote more sustainable choices, apart from this state-of-the-art paper published in 2018 by Bothos et al. They find that when developing an app to motivate a behavioural change, the most used tools are challenge and goal setting, self-monitoring and feedback (e.g. Notification with net carbon impact when using a transport mode), tailoring (specific advice), social comparison and gamification and rewards. These can all be coupled.

Handshake, a CIVITAS initiative that aims to promote cycling, is also looking into nudging. In Copenhagen, their approach is based on a mix of deep data (anthropological approach to people's relationship to transportation means) and big data (analysis of mobility choices according to profile). Results of this experimentation will be published in 2022 when the project comes to an end.

Nudging is a concept that can be key when looking into route planning. Small changes in information display can influence behaviours. The city of Antwerp recently developed a platform for route planning (Smart Ways to Antwerp in English), integrating all types of options – public transport, private or hired bikes/cars. It does not stop individuals from using private cars if they plan a trip to the city, but as the option is displayed, a small warning sign will appear to let them know that there will be access restrictions in place, meaning, they will either have to pay extra or park before reaching their destination. Similarly, the carbon footprint of the trip can be displayed next to each proposed option. In those cases, as in most, nudging appears as a good complement to other policies and can help make them more efficient.

What applies in route planning applications applies to Mobility as a Service (MaaS) platforms. One of the stakes of MaaS is the fact that route planning might orient you a certain way, which might be a way that enables the platform to monetise your trip – for example not promoting walking. From a public sector perspective, it would make sense to nudge users towards the walking or cycling routes. That could be achieved by using gamification methods and rewarding them, displaying congratulation messages or simply by making the route appear as the first option.

Beyond sustainable mobility, nudging can also do a lot for road safety, improved health and sustainable behaviours overall. Published in August 2019, this newsletter by the European Platform on Mobility Management introduces those.

Two aspects of applying behaviour change techniques to public policy can raise concerns. Firstly, for some critics, nudging can be criticised as it takes away part of an individual's decision-making power by correcting citizens' behaviours, sometimes without their knowledge. Yet it is ultimately quite a light concern. The second, which the study mentioned earlier on apps by Bothos et al. touches upon, is the efficiency of such measures. As these are small light-touch interventions, proving they are effective and make a difference in behaviour patterns is not easily achievable. Designing the nudging or gamification policies needs to be in a co-creation process with citizens and different stakeholders such as researchers. Understanding their needs and travel habits is key for successful policies in the city, but also allows for the acceptance of the tools to be established.

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