SP-2003-15

MANAGING MODERN URBAN MOBILITY SYSTEMS (MUMS)

MARIE THYNELL

DEPARTMENT OF PEACE AND DEVELOPMENT RESEARCH, SCHOOL OF GLOBAL STUDIES, UNIVERSITY OF GOTHENBURG (MARIE.THYNELL@GLOBALSTUDIES.GU.SE)

ABSTRACT

PURPOSE

In order to explore the diversity of local features of transport development this project turned its back to the common or universal perceptions about the economic role of the sector of transport in supporting growth orientated modernisation. Instead the overall issue to be handled in this study is: What can we learn from studying unique ways of handling the complexity of urban transport development in four different cities? And, is it feasible that studies of local strategies can produce an analytical instrument that will be useful also in other kinds of cities? Which of the methods, concepts and analytical tools are showed to be valid in this inquiry? As to explore this topic some local and non-universal ways of handling transport conundrum will be addressed by means of the theory of Large Technological Systems (LTS) elaborated by the historian of technology T. P. Hughes (1987) with theories of Development Research (represented by Haynes ed., 2005, Hettne 1990, Schuurman 1993).

In order to go beyond the common economic views, focus is laid on political and social issues in relation to the momentum of car use. This is motivated by the perceived need of transport research to explore social change as to provide for safe, efficient, and environmentally sound transport facilities and to opt for equal and individual access as well as social development. The notions of diversity and specificity (in contrast the frequently discussed universal or generic conditions) in the cities of Santiago, Copenhagen and New Delhi are used as examples highlighting the development at three different levels of society: the national, city level and user level.

Other relevant aspects to be considered are (in case they have been documented): the vision of the future of the city and the present tendency to stress the local city-branding, the existing political system, the character of the current government, the local transport city planning, the integration of the idea of sustainability together with information related to urban size, urban population, trends in history, income per capita, general levels of education, socio-economics groups and their residential features.

MAIN FINDINGS

A comprehensive understanding of the dynamics involved in physical and motorised mobility lends itself well to an analysis based on the theoretical foundation mentioned above and concepts such as seamless web, interpretative flexibility, system builders, momentum and reverse salients. In this respect it is adequate to refer to the various systems of transport. Investments in non-motorised systems instead of car and road systems might attract a new group of system builders.

The contribution from Development Research offers a missing link in that it makes it possible to study social change as an outcome of new transport technology. Development Research and the focus on integration of

SP 2003-15
MANAGING MODERN URBAN MOBILITY SYSTEMS (MUMS)
MARIE THYNELL
UNIVERSITY OF GOTHENBURG,
(MARIE.THYNELL@GLOBALSTUDIES.GU.SE)

1/3

experiences of the various social groups into transport planning are highly relevant to open up the black box of development issues and to emphasize social aspects. In order to follow up the social and societal changes related to a new transport system or large technological system the socio-economic effects need to be stressed. In this way the influence of the car culture (and the car- and road system) can be said to have been important in transforming a number of aspects of the cities (economic, urban shape etc.). By means of exploring local social aspects, knowledge about transport demand and how to develop transport facilities that match travel demand is gained. In this way initiative in line with social inclusion and poverty reduction as outlined by the Millennium Development Goals can be tailored out. The final outcome would be increasing the quality of life of the citizens.

The influential 'system builders' (of the entire transport system) typically stress the powerful momentum of mass motorisation and underline the inertia involved in shifting the transport system. For instance, in some countries the tax system and/or fuel subsidies give priority to car ownership and car industry, whereas this is not the case in Denmark. Besides, car use favours the growth of capital-intensive technological systems in market-orientated societies (India). Associated with this, are the vested interests in developing countries in land and sinking costs of established infrastructure (Hughes 1989:75). By looking into the development of land use, the costs of land, the real estate business and infrastructure the feasibility of non-motorised transport policies can be surveyed. This example of strategy of economic development is brought up to highlight the needs for a long-term perspective and to stress the potential of the theoretical perspective of societal development and social change as well as with technological advancement.

It may be added that well educated and relatively affluent citizens have access to information about climate change and other problems of the entire transport system, the so called reverse salients (congestion, possible shortage of affordable fuels, and negative impact on terrestrial and maritime ecosystems). They may – both as citizens and as transport users – contribute to the possibilities to switch from one path of development to another one by means of regulations and steering measures. They represent probably a valuable resource for path breaking strategies. This has been shown by ecological modernisation in Copenhagen. The political and economic support to the soft modes of mobility has succeeded in this city. Perhaps the same awareness will also emerge in New Delhi within a couple of year's time but today the majority of its population is struggling with coping with daily needs and to improve their standard of living. Modern lifestyles leading to increasing speed in cities by means of motorized transport are a huge challenge for public deliberation processes and for democracy in general. The perception about sustainability held by leading politicians and Mayors in the three cities is very different. In poorer developing cities the need for 'cleaning up' and new transport systems is more urgent than to make a shift towards urban sustainability of existing infrastructure.

CONCLUSIONS

The focus of this study is on the question how to manage modern urban mobility systems and the main question: how can we deal with this complex issue in order to identify initiatives able to break path dependency?

At the city level true path breakers were not found. But it is not without hope and it can be sought for in two directions: Firstly, mainstream development strategies are based on technological modernisation, economic development together with conscious urban planning. These strategies may open for some formative moments characterised by soft determinism and muddle through policies. Secondly, strategies aiming at a more fundamental change of the urban transport systems are able to fulfil a number of seemingly contradictory goals including a reduction of the socio-economic divide. So far, there are no

examples of such strategies in the real world but the incorporation of demands and experiences of the various social groups will enrich future planning and design of transport system. Such approach will also stress local and different ways of solving transport demands and highlight the possibilities to build on a human transport development.

Finally: how to manage modern urban mobility systems or - put in another way - how to cope with the complexity of urban transport development? In terms of the theory of large technological systems as developed by Thomas P. Hughes it is reasonable to claim that some of the measures realised in Copenhagen have implied a breaking with soft determinism and the usual political way of muddling through. It is also correct to state that - so far - the automobile system has been the winning system. In 2006, the momentum of mass motorisation is, however, still prevailing and a strong force in societal development as well as a driver for social change. At the same time, from the point of view of the load factor there is however – on many roads – no room for more cars. This fact is in favour of a fundamental change of the entire transport system in bigger cities within one or two decades. There are several other critical issues such as future oil supplies. Such 'weaknesses' can be discussed in terms of 'reverse salients' that was coined by Hughes to describe threats. Eventually when there are too many and to serious 'reverse salient' further expansion of mass auto mobility will be threatened.

The research framework presented above and its different concepts seem to have a potential to contribute with further understandings about the complex relations involved in urban transport as well as modes of gathering information and knowledge about the effects of a limited transport intervention. So far this research framework is fit to identify technological 'break troughs' or formative moments and in a long term perspective make conclusions about societal as well as social change that relate to them. This combined method of studying urban transport also stresses the demands of a vast number of stakeholders to be reflected in transport planning as well as the potential to find local solutions to universal problems.

See also:

2008, Thynell Marie, "Political Actors and Urban Development" in *Journal of Regional Development Studies (RDS) 2007 Volume 11*, p.127-154. ISSN 1020-3060

2005, Thynell Marie, "Modernidad en movimiento: Cómo enfrentarse a la movilidad motorizada en Teherán, Santiago y Copenhague", published in *Journal of Latin American Urban and Regional Studies, Volume 31*, p.55-77. ISSN 0250-7161

SP 2003-15
MANAGING MODERN URBAN MOBILITY SYSTEMS (MUMS)
MARIE THYNELL
UNIVERSITY OF GOTHENBURG,
(MARIE.THYNELL@GLOBALSTUDIES.GU.SE)

3/3