

## THE SUSTAINABLE LIGHTNESS OF THE CAB

**Jacques Lévy** (professeur ordinaire de géographie et d'aménagement de l'espace, Ecole polytechnique fédérale de Lausanne, directeur du Laboratoire Chôros, Lausanne)

[jacques.levy@epfl.ch](mailto:jacques.levy@epfl.ch)

I am not a 'taxi expert' at all. This is perhaps the reason why I am here. Taxi issues have long been secluded in various, separate technical discussions. The great pleasure I have to be here is precisely related to the fact that the organisers of this conference have, probably for the first time, designed a comprehensive approach of taxi issues. 'We don't do god', used to say Tony Blair's 'spin-doctor' because he knew this topic was a dangerous trap. Let's do 'taxi' because we hold here a good leading thread to address transportation, mobility and finally, the overall spatiality of the city.

Not Always at the Same Place:

Taxi in the Contemporary Urban World

One of the difficulties we meet when we try to transform taxi empirical realities into a scientific problem is that 'taxi' or 'cab' [*ou 'carro' em português*] means different things through time and space. We can identify at least three distinct practical significations.

Taxi can be I the basic web of a given space's transportation network, II a complementary facility, and III an interstitial service.

I Taxis activate that 'basic web' mostly in underdeveloped world. What is called 'taxi' or various comparable names in these areas is actually not always a real taxi, given that the vehicle may accept more than one group of customers, grasp some other passengers on its way or even follow a fixed route. 'Taxi' then means a partially or completely unregulated, sometimes chaotic way of providing a transportation service.

II In developed countries, taxi offers a complementary service when it allows for displacements in areas where public transportation system is not effective or not efficient, like low-density areas of urban spaces. Remote suburban, peri-urban and exurban townships are typically places where taxi can be useful.

III In the same countries, taxi can match a social as interstitial service. This is true also in context where public space is effective and efficient. Taxi brings an extra functionality in late nights, to bring infants or disabled people more comfort, or to carry bulky items.

I would like to focus on the meanings II and III and try to show taxis can take their place in a contemporary way to conceive and design urbanity.

## Sometimes Not Where Expected: Taxi-Metrics

In her remarkable film *Xia Ri Nuan Yangyang* (2000 ; *I Love Beijing, Eu amo Pequim, Un taxi à Pékin*), Nin Ying eloquently showed how strangely a city can be seen from a taxi driver's point of view. Besides, observing a taximeter at work is a worthwhile experiment to address the particular way an economic-political rationality is present in defining and measuring a certain category of distances... a concept that is called *metrics* in social sciences of space.

The following table aims to make visible the relationship between the intrinsic features of a given mean of transportation and the territory in which this mean of transportation operates.

The first group of lines describes the capacity to match the territorial reality through the size ('stretching') and the exhaustiveness ('cover') of its network extension, as well as its nominal, non-contextual speed ('velocity') and the density of its interface spots (stops) with this territory ('grip'). The second group of lines addresses, conversely, the possibility for the territory to enter transportation networks: 'porosity' means the sensorial availability for the passenger of the outside landscape, 'interactivity' is the potentiality for social relations similar as it might occur in an ordinary territory to emerge in this space, as 'pervasiveness' measures the level of osmosis between social realities and the transportation space and, consequently, the positive feedback that can be expected from the latter onto the former.

The measurement is quite, certainly too much, simple: it is nothing but a reverse ranking of each feature. The number one gets 10 points, the second one, 9, and so on.

**Figure 1.** Transportation Metrics, Networks and Territories

			Metrics										
			Walking	Taxi	Bus	Tram	Under-ground	Bicycle	Motor-bike	Personal Car	Train	Plane	
<b>Territory/ Network Relation</b>	N→	Stretching	9	4	3	1	2	6	7	8	5	10	
	T	Cover	10	9	4	2	5	8	7	6	3	1	
		Velocity	1	7	2	4	5	3	8	6	9	10	
		Grip	10	7	3	4	5	9	8	6	2	1	
	T→	Porosity	10	2	7	8	9	6	5	1	4	3	
	N	Interactivity	10	2	6	7	9	4	3	1	8	5	
		Pervasiveness	10	6	8	9	5	7	2	1	4	3	
	<b>TOTAL</b>			<b>60</b>	<b>37</b>	<b>33</b>	<b>35</b>	<b>40</b>	<b>41</b>	<b>40</b>	<b>29</b>	<b>35</b>	<b>33</b>

The table shows taxi appears in the same group as other public transportations services. It clearly stands out in comparison with the private car. Taxis offer an interesting compromise between speed and territoriality, between door-to-door service and ‘spatial restraint’. It serves places swiftly but discreetly. If we took into account a contextual approach to speed, that is related to the mass of social realities (people and objects) reachable in a certain lapse of time, taxi would have an even better score.

The different propositions contained in this table can of course can be discussed or challenged. Nevertheless, all of us could probably agree on the idea that metrics of the taxi are substantially different from both classic public transport’s and private car’s ones.

### Not Easy to Catch : Private Ownership, Public Service

The comparative advantage of an efficient taxi facility has long been masked by the two distinct biases: and the sociology of its users and, as a result, the peculiar socio-economic environment of this industry.

1. In many cities, taxis have experienced a social ‘default definition’: taxi users were viewed as those who could afford not using the public, collective transportation system. This is true for aristocratic, then bourgeois strollers (everybody keeps in memory that Sherlock Holmes does not have his own vehicle but hails a cab several times a day), then for tourists, who are supposed to be well-off enough, if they could cross the seas or the airs, to neglect their interests as a consumer. Being ripped off by a taxi driver can be seen as a sort of sport, or even as a first step of a participating observation, all the more if this experience is made in a supposedly society less urbane than the traveller’s one.

2. For these reasons, the public authorities have been more akin to protect the independent drivers and the small cab companies than the consumers, supposed to be rich and/or idle, and not entitled to protest if they were overcharged. In most poor or emerging countries, the ‘taxi culture’ is a mafia-like milieu. And it is the same in many developed cities simply because the local government does make a priority of clearing up this area.

The result is, in many cases, an unbalanced situation between the taxi-service’s seller and buyer, at the benefit of the former. First, some abuses are very commonly committed, often illegally or not, by the driver: extra-fares, dangerous driving, rudeness, offhandedness towards customer’s wishes, determined objection to the enforcement of the official rules, and even acts of violence.

Second, the organisation remains in many cases typically a pre-competition, corporatist one. the players of the sector use different ways to control and curb the entry in the profession. On the

other hand, drivers conserve an extended liberty to ignore the demand, ever since they find it better for their interest. As we can observe in many public transportation system operated by various private companies, it is highly probable that a strong concentration of supply will appear in few axes at peak hours, while many other needs will be purely and simply neglected. This phenomenon is even more visible in the case of taxis, because of the total absence of spatial and temporal constraints public authorities. At odds with general practice doctors or chemists, who are commonly forced to collectively organise night or weekend duties, taxi operators have no clear obligation towards. Taxis have solid rights. They have inconsistent duties.

In spite of these enduring realities, the taxi service can be seen as a contribution to the public service of motion. A contemporary public policy of mobility should look beyond these archaisms and get rid of them to use taxi as a facility and a utility.

Available When I'm Not:

Taxis in a Comprehensive Approach to Space of Public Mobility

In order to take the taxi seriously within an overall mobility framework, let's make a short detour in the concept of urbanity – what makes a city a city. A city, and a large city even more, is characterised by the importance of its *virtuality* and *serendipity*.

Firstly, there are so many things to do, you have to choose, which means to eliminate. When you are *not* in a movie theatre, you are not the same person whether there are 1 or 300 films to see in the same area. This is *virtuality*, which should not be confused with simulation or approximation. The more you live in an urbanity-rich environment, the larger the gap between what you could do and what you actually do: the golden burden of urbanity. In this context, chance offers a partial solution. The non-actualised part of the potentials offered by the city is made available by random encounters. *The Three Princes of Serendip* is a medieval Persian tale, popularised by Horace Walpole in the 18<sup>th</sup> century. Princes in the story use two alternative strategies to get through difficult situations. The first is to take advantage of unexpected things they meet along the way, while the second is to employ a capacity to arrange 'accidents' (an expression of their 'sagacity', to use Walpole's words). Robert Merton and Umberto Eco have both taken this phenomenon seriously.

We can even go beyond mere observation and consider how to arrange serendipity. Transforming chance into productivity is what John Udell, a blog specialist, calls 'manufactured serendipity'.

In an urban context, we can then identify the conditions to be met for efficient serendipity:

1. The activation and involvement of all our perceptive captors, indeed our complete sensorial

apparatus, in order not to miss information. Pedestrian metrics are the most suitable for that purpose, although they are challenged by physical or digital libraries, and even more so by research engines.

II. An exposure to otherness that supposes that otherness exists (diversity) and is accessible (density), and of course that one accepts such exposure.

III. The cognitive skill to usefully interpret the information you receive.

Thus, reciprocal reinforcement takes place between urbanity and serendipity: serendipity is all the more necessary because urban space generates a rich set of virtual resources; at the same time, serendipity is all the more possible because urban space is dense and diverse. This is a clear case of virtuous positive feedback. Conversely, if we diminish the level of urbanity, we weaken the efficiency of serendipity as well as its usefulness.

The second basic proposition would be that the importance of public space is a major indicator of urbanity. Public space should occupy a core function in any urban theory. As a full-societal, easily accessible place within an inhabited area, public space is strongly linked to density. It is a case both in public places as well as in transportation space.

Public space entertains a strong relationship to mobility and, especially, to the metrics of mobility. Pedestrian metrics are typically public metrics. When used, public transit allows a pedestrian to remain a pedestrian. Users of the transport system essentially maintain their exposure to otherness as well as a multi-sensory sensibility to random interaction. That is why mobility should never be addressed separately from the overall urban realm.

In this context, the role of an efficient taxi service can therefore be threefold: I it contributes to assure a permanent interaccessibility between places that make up a city together; II it gives a touch of 'manufactured serendipity' thanks and its responsiveness and fluidity; and III finally, because of its availability in any circumstance, it helps handling the actual/virtual relation into 'motility' as Vincent Kaufmann called the potentiality of movement, be it actualised or not.

A 'taxi strategy' is beyond any doubt a public transport, public metrics and public space strategy although a taxi has the appearance of privately run private vehicle. The strength and modernity of the taxi concept lies in the fact that it is both omnipresent and stealthy. In sharp contrast with private cars, which kidnap and devastate public space by privatising it and dramatically reducing its functional diversity, taxis just use it. Their rationale leads them to respect it because public places provide them a simple picking-up device, that is the necessary interface with their customers' space. And this is good news for density in diversity, that is: for social cohesion, efficient urban government as well as for the natural environment.

Taxi's lightness is not only bearable: it is sustainable. Complementary and interstitial mission of the taxi service clearly bring more efficiency and more attractiveness to the model of the 'gathered city' (which is an accepted city, too), based on public metrics and public space.

This comparative advantage is increasingly in tune with the overall societal trends. The role of the car ownership which has been central in Western, then global standards of a successful individualised life is getting out of the picture. Japan is probably at the vanguard of this change with a dramatic collapse of car desire, especially among young men, who used to be the carmakers' core target. Europe and North America are following this path. And all what we can know about the catch-up process patterns in emerging countries lets us think that the car fever in China and India will be intense but brief. The golden age of car is behind us. This is part of a general evolution whereby dematerialising everything than can be is becoming a strong legitimate horizon. Using and above all owning a car is becoming corny, a has-been habit of a fading-out industrial age. In contrast, other modes of displacement, including walking, which have been first presented as 'slow' but often are practically faster, turn to be *the* alternative because they are boosted by a convergence between the new stage of individuation (confident and open-minded individuals don't need car any more) and seriously-taken care of both our natures, our body (obese population has a massive intersection with the group of 'car-hooked' persons) and our environment (car civilisation kills people and the planet). Car renting, car sharing, and, of course, taxis are some of the beneficiaries of this probably irreversible switch.

Like bicycle, but in a more dynamic way than car renting, taxi can also be seen as a possible *transitional object* (in the meaning Donald Winnicott gave to this expression), in order to help people that used to be reluctant to the exposure to otherness in the city to reconcile themselves with density and diversity. Non-New-Yorker Americans see Manhattan as a strange zone where a dangerous underground life flourishes and where cars are yellow. Why not, after all?



Figure 2. 32 Cabs



In a Conference devoted to 'motion' in Cerisy, France, I suggested to the Peugeot's CEO that he could usefully have his company's acronym PSA be decoded as '*Pour Sortir de l'Automobile*', '*Para Sair do Automóvel*', 'To go out of automobile', just as BP's communication designers had coined the motto 'Beyond Petroleum'. Taxi rationale is a good opportunity for the automotive industry to fit the requirements of sustainable development if, of course, they do accept the challenge of building more cabs and less personal vehicles. I am confident they will soon realise where their long-term interest resides.

Jacques Lévy is a geographer, professor at the Swiss Federal Institute of Technology, Lausanne (EPFL).