

Rigal Alexandre (CEAT), Kaufmann Vincent (LASUR), Chenal Jérôme (CEAT)

## ***Towards a Post-Car World, How (not) to experience the future of car mobility***

### 1. Mobilities Futures – Theoretical approaches

In the face of the depletion of oil reserves in the near future, the considerable damages wrought by the automobile assemblage to urban life, and the threat of global warming, it is crucial to imagine a future without the car in order to preserve the quality of urban life and to ensure sustainable mobility in general.

#### ***Dead-end attitudes***

Regarding the negative impacts of car usage, we identified three basic attitudes of (non-) preparation for the future, based on a review of the literature and interviews with urban design and mobility experts in Switzerland. The first attitude towards a car-less future centers not on exploring, but denying the need for change. Fatalism in the face of a global challenge is the second attitude towards the near future. The third is an avant-garde attitude: looking at past car uses to anticipate future trends.

#### ***Testing urban mobility futures***

Thanks to specially-designed methods for exploring urban mobility, alternative ways of inquiring into the future exist. This does not consist of predicting, but in acting to make the future emerge. We can explore mobility futures by gathering the ideas and desires of urban inhabitants through projection and simulation, and with the help of actors already sensitive to changes that have impacted their mobility. Sensitization, attraction, projection, simulation enable researchers and urban designers to experience and propose potential futures with words, images, models, feelings and other kinds of perceptions. Using such empowering experiences of the future, it becomes easier to feel the need for more sustainable versions of urban mobility.

#### **Keywords**

FUTURES, POST-CAR WORLD, MODERN ATTITUDES, EXPERIENCES

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*“All action is an invasion of the future, of the unknown.” (Dewey, 1961, p. 12)*

Let us begin with a hypothesis: the car, that ubiquitous mode of transport, is in danger of extinction due to lack of oil reserves (Urry, 2013). Moreover, young people in wealthy countries are losing interest in them (Armoogum et al. 2012). Behavior in Switzerland, our research field, confirms this trend: the 2010 mobility and transport micro-census shows a decrease in the number of cars owned by households and in the number of driver's licenses obtained by young adults. In 1994, 71% of young people aged 18 to 24 had a driver's license, whereas only 59% did in 2010. Yet, present this hypothesis to a dozen Swiss mobility experts, share with them the idea of the imminent end of the automobile as a means of transport, and they may laugh at you (Rigal & Rudler, 2014). Following this initial reaction, they will most likely consider solutions, then admit defeat and advocate for the necessary evil of car mobility. Who would not feel helpless against the overwhelming network of drivers, manufacturers, governments, international firms, chemists, geologists, engineers and infrastructure aimed at promoting use of the car and oil on a planetary scale (Mitchell, 2011)?

This *feeling of powerlessness* is one of the most common experiences in our relationship with the future, particularly with regard to global warming (Szerszynski, 2014, p. 1). Thus are we trapped in an entirely modern double contradiction (Latour, 1991): the automobile's future seems impossible (Kingsley, Urry, 2009), and yet there seems to be no other option, as it serves an essential purpose and gives rise to one of the most shared imaginaries. Yet, we still have alternative tools for imagining a car-less future.

How then to imagine building a world without cars? To bring about a car-less world - the goal of the [Post Car World](#)<sup>1</sup> research project led by Jacques Lévy at the EPFL - it seems crucial to think about new ways of

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<sup>1</sup><http://postcarworld.epfl.ch/>

getting around and designing urban spaces. In other words, we must explore other possible futures than the unilateral futures of two antagonistic but complementary catastrophes, which are:

- the end of the car and thus, to a great extent, individual mobility,
- its continued, widespread use as a way to move.

Paralyzing alternatives! We, however, would prefer to imagine mobility development that values the specific nature of urbanity: the *compossibility*<sup>2</sup> of mobility, i.e. the harmonious existence of mobilities that do not prevent other mobilities from existing.

The goal here is not to demonize motorists to raise their awareness of the dangers they face and pose. What better way to make them feel powerless and strengthen their denial (Hamilton, 2010)? Instead, proposing alternatives must occur through experimentation and testing (Dewey, 1927), far from the doom and gloom that is causing us to lose ground — in other words, through the empirical investigation of alternative futures. Such investigation would allow for the initiation of action in view of an alternative future and, at the same time, raise the sensitivities of both investigators and drivers in such a way as to not reinforce denial by overdramatizing the situation.

The objective is to bring about acceptance of a pragmatic future that enables its questioning through empirical research methods, to enhance our capacities for producing scenarios outside of the “car rut.” We must first rule out certain stances when it comes to considering the future of mobility, which will act as repellents as regards the future of the automobile. Once this has been achieved, we can turn to different ways of enriching the possibilities and, hence, raising awareness and projecting alternative futures using empirical methods. To proceed head on and comfortably in the development of futures and mobility, our motto will be: *the future is to be made and it is multiple*. Moreover, the possibilities must be infinite *in order to fight against the finiteness of mobility itself*.

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<sup>2</sup> See "[Leibniz's Modal Metaphysics](#)" in *Stanford Encyclopedia of Philosophy*, 2008

## ***How not to experience the future of urban mobility***

The first attitude towards the car-less future is not about exploring, but rather denying the need for change. The second is an avant-garde attitude: looking at car uses in the past to anticipate future trends (Wells, 1913, p. 5-6). Fatalism with regard to an overall challenge is a third attitude.

These three attitudes, which reflect attitudes regarding the future of mobility, act as foils in this argument.

- Why deny the need to explore alternatives to automobile mobility? Because of an attitude we call progressivism (i.e. does the car really pose such a problem?). Progressive and pro-automobile attitudes do not encourage experimentation and openness, but rather close the horizon of possibilities by extolling a unilateral future (Popper, 1957, 1995) — that of an urban world as an automotive paradise. However, this way of being sensitive as regards the future is limited to extending curves and proposing simplistic, abstract scenarios (Taleb, 2010). They are caught in a contradiction regarding the future: they base exploring the possibilities on the autonomous creation of alternatives using an abstract arrow of time and, as such, they do not fully engage in the experimentation of alternatives.

“People always find a reason to use the car: if it’s cold, if you’re feeling tired, if it’s evening; there are lots of reasons.” (DC)<sup>3</sup>

“You go where you want, when you want. The primary purpose of a car is to be a vector of freedom, the most efficient means to go everywhere; you’re free, and you can do what you want.” (EC)

- Why do some people overlook the damage caused by the automobile, hopeful for oil-less cars? Whether electric-, ethanol-, water- or hydrogen-powered, the threat posed to inhabitants of and to the urban environment itself has been proven. Their relationship to the future is based on a kind of outdated of the past: by rejecting the past, they create the present (Latour, Ganachaud, 2013). Crying “disaster” has very little positive effect on the avant-garde, as its goal is to go faster and further, driven by yet another unilateral future built in opposition to the present (Williams,

<sup>3</sup>Mobility experts questioned during the exploratory interviews shared their remarks, opinions and intuitions as to the place of the car in Swiss society, and it still seems to be an obvious one. Their observations allow us to affirm the quasi-omnipresence of the ‘car’ object in Switzerland.

Srnicek, 2013). They are seeking alternatives by promoting acceleration and innovation in line with the first unilateral future: faster and stronger. They too are caught in a contradiction: they limit the exploration of possibilities by rejecting the “slow” future of progressives, which strongly shapes their exploration of alternatives to car mobility and limits the possibilities based solely on criticism. As such, they engage little in the development of car alternatives.

*“The driver-less car is close.” (EC)*

*“More and more, companies are looking for ready-made services which spare them the management of their vehicle fleets and free them from the nuisances associated with automobiles, especially parking and space.” (L-MG)*

- Why do people feel helpless when made aware of the need for a change in mobility? Some feel overwhelmed and paralyzed because they have no method for exploring alternative futures (again, the case of some of our experts). They are fatalistic as they are unable to control the power of the car assemblage (De Landa, 2006). They have reduced possible futures to an automotive disaster, and, though blind to any future for mobility, are eager for alternatives: again, a contradiction.

*“I’m far from assuming that the general tendency is to make do without cars.” (DC)*

*“It would be better not to ban cars, because they are a reality.” (MS)*

*“The need to own a car cannot disappear. The same goes for the pleasure associated with driving it. The car will always have its place; it will always fulfill roles other than just mobility.” (EC)*

The future of mobility is in danger because these attitudes render propositions for alternative futures powerless by a double unilateralism and fatalism. How to propose principles for the future other than denial, acceleration and waiting? By becoming curious about other possible mobilities, i.e. by tackling the future through action and experimenting endlessly with possible alternatives before evaluating and sorting them.

*“In Switzerland, it is objectively possible not to use a car.” (MS)*

### ***How to experience the future of urban mobility***

Thanks to methods adapted to exploring urban mobility, alternative ways of inquiring into the future exist. The latter do not consist of predicting but rather of acting and making the future happen.

Investigating first means gathering possibilities through the traces left by actors more sensitive to alternative mobility futures than others, before attempting to create new ones (Bateson, 1972, p. 453), or by mapping out mobility projects in the urban space using the imagination. We can do both by collecting detailed information about current lifestyles without car mobility, by studying desires, as well as through simulation and projection. We already have tools that allow us to test the possible futures that make progressivism, avant-gardism and fatalism all the more nonsensical.

### ***Testing mobility futures with users who are aware to the possibility of a life without a car***

When it comes to fighting against desensitization, we must use collection devices for alternative sensibilities that entertain the multitude of the ways of experiencing the urban space. By adding different actors, we add as many alternative futures. How to do this? The same way we have always done! By interviewing amateurs of non-car mobility, anti-car activists, individuals for whom driving is impossible due to disability, those who have chosen not to get their driver's license, as well as those who would have a hard time existing without a car. In short, with all of those who have developed rich and varied sensitivities to the car, causing them to either part with or become strongly attached to it. We will interview approximately 80 Swiss people over three urban areas, as amateurs of the car or of alternative mobilities, in each of the language areas: Lausanne, Zurich and Lugano.

### ***Experiencing the desires that shape and are shaped by alternative futures***

Considering possible mobility futures can be encouraged through a questioning of the desires that drive actors' mobility. To do this, we shall collect data on the desires and expectations of users. Drawing lines to possible futures that are anticipated and that attract people is another way to sensitize. To better consider these expectations and attractions, we will collect them through focus groups. By proposing images of an imaginary world without cars, which we will co-invent with the architects involved in our project, we will get inhabitants to react. Why? Because proposing non-car possible mobility futures means enhancing and upscaling alternative desires, and even proposing new mobility practices, spaces

and objects that may give rise to new desires. Not doing this amounts to accepting the unilateralism of a car future, unprepared for automobile extinction and accepting of a blasé "no future." Studying desires is a way of surveying existing desires and of stimulating through potential projects outside of the car network.

### ***Experiencing the future of mobility through project sharing***

Which brings us to the projects. All actors make projections. However, some have more weight than others when it comes to verbalizing and balancing our future via their projects. What could be more normal for makers of urban spaces than to project and build according to the future they are trying to create? To multiply the projections and thereby increase originality, we must include as many players affected by the alternative mobilities projection process as possible. Once put into narrative and picture form, these projections help increase players' thinking about their mobility, which results in an initial evaluation of their practices. This gives rise to judgments about alternative futures and a first sorting of possible futures. This pragmatic sorting, based on the possible effects of mobility, is quite foreign to unilateral and fatalistic attitudes towards the future. Sorting made no sense for pro-automobiles progressives, for whom the car was always a necessity, or for avant-garde technicians (it was enough to rival the present), or even for the "jaded," who wonder what to sort.

### ***Simulating a car-less world***

To finish with this short list of methods for investigating alternative futures, different forms of simulation should be mentioned. Simulations allow us to create new, car-less mobility scenarios, to test and explore this possibility, and to potentially speculate on a desirable future. The imagination is a catalyst for exploring and perceiving a world in creation (Janowski, Ingold, 2012). But simulations of transport systems that transport engineers develop, while quite useful, are not the only models that will be used for the survey.

Based on observations of rare and/or unusual uses, or by proposing innovative mobility solutions, other creators of urban life are simulating new mobilities. Among them, designers who fill urban spaces with objects. Starting from these objects, they explore possible futures simulations. Most notably, we will look at the Near Future Laboratory designers. How do they work? Using ethnographies of urban

routines, they try to imagine and test new ones, especially in public spaces (Nova, Miyake, Walton, Nancy, 2012). The rigorousness of this approach comes from the integration of these new objects into a world similar to the existing one. This allows to test the compatibility of alternative futures and do the sorting involved in projection. By simulating through the creation and testing of actual uses, issues can be investigated and the simplifications of laboratory and computer modeling - though sometimes necessary – can largely be avoided.

Here is a quick methodological outline for commitment to the future and the production of alternative mobility: the sorting of alternative futures is a trial by the creation of multiple alternatives.

Let us recap the points we have discussed in order to test alternative mobility futures:

- become sensitized by sharing alternative mobility experiences,
- embark on the road to other possible futures by studying desires, i.e. becoming aware of new areas of possibility,
- plan alternative mobility futures by maximizing projections and promoting their originality,
- sort these futures by simulating these new mobilities in the urban setting, testing their viability.

### ***Alternative experiences, alternative pathways for mobility***

The multiplication of mobility futures and sorting of the most viable by testing, i.e. of the most compossible, is a very different approach from progressivism, avant-gardism or fatalism. Rather than supposing the unilaterality of the future, it raises awareness of other practices and desires for the setting in motion of new mobilities. For those who doubt a non-automobile future, the multiplying of possible futures is scathing proof. For those who do not doubt the technical improvement of the car, the exploration of other desires and sensitization to alternative mobilities are perhaps convincing. For fatalists, it restores hope and a range of possibilities in which to invest. Eliminating guilt and denial seems possible with the sensitization/experimentation duo. The only thing left to do is to sort through the possibilities, because it is not the future that determines the sorting, but rather the sorting that determines the future: *test before sorting so as to have the greatest possible mobilities in the urban space*. It is not only a question of making the car sustainable; above all, it is a question of multiplying the possibilities for mobility exponentially to address the risk of car extinction and hence our mobility –



infinite, like the alternatives for exploring and discovering ways to combat mobility's finiteness. But it is also experimentation without relativism in evaluating the possibilities in a relative way, because they have been rendered finite by sorting the most viable possibilities for an arrangement of the most compossible for mobility. Let us call this slightly different way of envisioning the future *in-finitism*: a quest for infinite alternatives which closes (or becomes finite) for a time due to the sorting. In-finitism is therefore a rejecting of unilaterality and fatalism through the diversification of avenues of investigation, as well as a response to the latter through sensitization to alternatives. Far from unilaterality, utopia or dystopia, we want to imagine multiple experimental futures for mobility to create car-free futures and avoid the extinction of mobility. The future is to be made and it is multiple. The abundance of possibilities should thus aim towards infinity to combat the finiteness of car mobility.

### **Initials of the experts cited in the text / Professions in relation to mobility**

MS /Engineer and Urban Designer

EC /Engineer and Ergonomist at a large automobile manufactory

DC /ATE Activist

L-MG / Responsible for Company Contracts for a car-sharing company

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