1. **Opinions**

A Proposal for a Post-automobile Future

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It is becoming apparent that widespread diffusion of autonomous vehicles and other innovative mobility technologies is going to take longer than champions have promised. The current pause provides an opportunity to reassess options and consider alternatives that have been relegated to the sidelines by the recent rush to embrace smart-city visions unlikely to enhance capabilities for human flourishing in a carbon-constrained world. This article considers how we might envisage and create urban futures that are substantially less reliant on automobiles.

The last few years have been marked by breathless anticipation about an imminent transport revolution. Elon Musk and other heedless crusaders of autonomous vehicles have been baiting us into thinking that self-driving cars are on the verge of displacing human operators in their multitudes.

It now turns out that the fanatics have hoodwinked us once again. Rather than being just around the corner (Musk declared that the anticipated date was “sometime next year”), we have more recently learned that autonomous vehicles are unlikely to be a realistic option for at least two or three decades [1]. Alas, the engineering challenges are greater than writing a few algorithms and fine-tuning the lasers [2]. In hindsight, we should not be surprised by how this episode has unfolded because it conforms to a familiar pattern outlined by the sociology of expectations, a field that has developed over the past decade and focuses on how anticipations and visions shape innovation pathways [3].

Elaborating on the contours of this conceptual framework, though, is not the current aim. Instead of talking about technology triggers and hype cycles, the intent here is to take advantage of the current “time out” which provides an invaluable occasion to reflect on whether we really want to rely on robotic automobiles. The present moment allows an intermission to consider if in our mad rush to embrace autonomous vehicles we have prematurely closed off other trajectories that ultimately provide humanity with better chances to flourish [4].

Insufficiently considered to date has been whether we might enhance our prospects by largely eliminating cars, whether piloted by actual drivers or their computer-driven simulacra, from our lives. Phrased in somewhat different terms, does a post-automobile future offer a scenario that we should

proactively consider [5]?

How might we embark on such an exercise? Let us start from a perspective that might not be immediately obvious, namely, that there are amidst the vast seas of contemporary motorization notable islands of car-free liberation. These uncolonized enclaves are not merely inadvertent havens but rather emancipated sanctuaries that could offer edifying possibilities of a better future. An informative thought experiment is to scan through one of the online lists of car-free places (a good place to start is the Wikipedia entry on the subject). If this is your first time to peruse such an inventory, you are apt to be surprised by the seeming limitlessness of the roster which scrolls on and on at considerable length. A related diversionary activity is to explore curated catalogues of the most popular tourist destinations that prohibit the use of automobiles.

What accounts for the apparent wonderment conferred by these destinations? Is it not curious that in a car-suffused world some of the most heavily touristed locales are places that have renounced motorized travel? More specifically what is it about these sites that the denizens of automobile society find appealing, and are prepared to spend down their savings account to visit? It is probably true that most ordinary sightseers do not actively attribute their enjoyment of such places to the absence of cars. Regardless, we can at least partly ascribe the popularity of these destinations to the kinds of experiences that planners are able to create when automobiles are written out of the script of daily life. Disneyworld is an especially striking example. While the facility is arguably the most carefully constructed and assiduously managed car-free zone in the world, this achievement is fraught with incongruous contradictions. Visitors celebrate the amusement park as a venerated showcase of consumer culture, but one the sources of its success, ironically, is due to design strategies that purposefully eradicate consumerism's most iconic vestige.

Could we be looking at a situation where there is a latent and insufficiently articulated public desire to overcome automobile reliance and to chart a pathway toward a post-automobile future? It is typically difficult for insurgent practices to emerge because supportive institutional arrangements heavily favor incumbent systems [6]. Novel routines (and let there be no mistake—living car-free meets this description) face profound difficulties because they lack a constellation of vested interests to effectively advocate on their behalf [7]. Established infrastructures and lifeways have built up over decades and enable powerful supportive networks that impede competitors from gaining footholds that would enable them to build out radiating alliances [8]. Given these circumstances, it is not surprising that public desires are frequently frustrated by what appear to be immovable sources of obstruction.

We thus are caught in a kind of trap where we—perhaps even a majority of us—are unable to have what we want. Students of innovation refer to these lamentable outcomes as "lock-in" which highlights how combinations of social and technical factors conspire to maintain suboptimal conditions long past their expiration dates [9]. The most compelling part of this challenge is the Damocles sword that economically powerful companies hold over the political system. By amplifying anxieties about potential job losses, financial risks, and social instability, they are able to extract valuable concessions that are simply not in the toolbox of proponents of untested and still amorphous alternatives.

How then do we overcome lock-in as it pertains to the current transport system? We are unfortunately caught on the horns of a vexing dilemma. Climate scientists contend that we must annually reduce greenhouse-gas emissions by 13 percent if we are to avoid exceeding a 1.5° increase in average global temperature. Yet we must overcome three obstacles: extremely weak institutional capacity, lack of political enthusiasm for required investments in new infrastructural systems, and apparent absence of public willingness to embrace requisite behavioral changes. What is the likelihood of a seismic shift that impels sufficient movement across all three domains? Some observers contend that we can mobilize ourselves for a rapid transition—and indeed to work on sustainability problems effectively demands maintaining confidence that such a future is within reach [10]. Perhaps it is just a temporary lapse of faith (a symptom of Trump Affective Disorder?), but these days I am not holding my breath. Unsatisfactory and impolitic though it may be, the best that we may be able to do for the time being is to

plan for incrementally achievable transformation and to engage simultaneously in numerous experiments while trying to retain a measure of strategic focus. Such a muddling along strategy has a long pedigree [11], though it will surely mean that we will be forced to make very accelerated progress making emissions reductions once we manage to transcend the current political morass. Improving non-automotive options—from safer cycling routes to more comfortable and reliable public transport—is clearly essential, but an equally important step is to vitalize the public imagination [12]. We must begin by envisaging alternative futures before we can bring them into practice. This task is more difficult than it may initially seem. People do not have a prefigured desire ("demand-pull" in the language of technology diffusion) for innovations. In the case of, say, the telephone or the television enthusiasts had to work arduously in the early days to demonstrate the value of these devices. And even then, no small number of putative consumers wondered why on earth they might need such a contraption.

The smartphone is a more recent example. Though it may seem bewildering from the vantage point of today, Apple devoted immense promotional effort to convince incredulous customers to fork over a small fortune back in 2007 for a handheld, Internet-enabled communications gadget. It was yet another case where marketing ingenuity paved the way to eventual necessity. It is further instructive to recognize that every year hundreds of other product designers are far less fortunate and their ostensibly transformational ideas fail because they lack sufficient persuasive vigor or fail to harmonize with the prevailing Zeitgeist.

The lesson for devotees of post-automobility is to create liminal moments where, however fleeting, people can catch a glimpse of a different future. We must also maintain the belief that small successes can progressively lead to larger victories [13]. Both authorized and guerilla-led road closures are excellent occasions for people to experience the benefits of car-free mobility. The creation of so-called parklets that involves appropriating existing automobile infrastructure and turning it into passive recreational spaces is a civic declaration of new public priorities. More dramatic measures, such as decommissioning highways and bridges, are not only unequivocal expressions of intentionality but may become unavoidable because of the need to soon begin to retire facilities that perpetuate use of fossil fuels [14]. And let us not forget about prosaic policies like congestion charges and stepped-up parking fees (or altogether removal of parking facilities). We can also be more attentive in how we use language. Rather than refer to it as "parking" let us start to call it what it really is—"storage" [15]. Such a shift can become part of a powerful wave of activist-oriented "car shaming" that starts to change deeply established norms [16].

But there is no time for delay. The smart-city warriors continue to control the high ground and municipal officials have been smitten not just by autonomous vehicles but by all manner of plans to install thick arrays of data-collecting sensors and related technologies. To be sure, we should not put our heads in the sand, but seek to complement these systems with a drive to nurture "smart people" who can deploy a discerning eye when told they need to rely on high-tech apparatus to cross the street [17].

It is also necessary to be aware of the organizational challenges inherent in the quest for post-automobility [18]. Despite notable achievements in recent years, campaigners for car-free futures are a diffuse assemblage of cycling and walking enthusiasts, public health officials, progressive urban planners, and numerous others. A dispiriting inadequacy is that as a social movement this group does not have—like the automobile industry and its allies—the clout that comes from devoting more than a century to creating advocacy organizations, finessing politicians, massaging media, refining communications, and building complementary infrastructure. However, by identifying critical leverage points and applying deft and creative pressure, dismantling and transforming the car-based mobility system during the middle decades of the twenty-first century is an achievable objective [19] Let's roll!

Notes

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16 https://www.dw.com/en/german-activists-start-shaming-irresponsible-car-parkers-with-yellow-cards/a-43964219 and https://medium.com/@StephenCorwin/why-people-expect-me-to-justify-living-car-free-in-los-angeles-and-why-i-shouldnt-have-to-86c1668253f

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Movement

Movement is the crossing of space by people, objects, capital, ideas and other information. It is either oriented, and therefore occurs between an origin and one or more destinations, or it is more akin to the idea of simply wandering, with no real origin or destination.

En savoir plus x

Mobility

For the Mobile Lives Forum, mobility is understood as the process of how individuals travel across distances in order to deploy through time and space the activities that make up their lifestyles. These travel practices are embedded in socio-technical systems, produced by transport and communication industries and techniques, and by normative discourses on these practices, with considerable social, environmental and spatial impacts.

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