Why Self-Driving Cars? Upgrade Bus Networks Instead

WASHINGTON – The ongoing buzz about the marvel of "driverless cars" soon hitting the roads is a bit too optimistic. A great deal of money and effort is devoted to perfecting this futuristic technology. We know that Google and other high-tech companies are involved in this research. General Motors has entered a $ 500 million partnership with Lyft to produce a robot vehicle that will drive itself. Eventually driverless cars will be managed by Uber or similar services and used for ride-sharing.

The advantages

I see the point of getting into a car that can safely take you anywhere. Instead of focusing on driving, while in the car, you are just a passenger. You can read, do work. You can safely make phone calls, or rest.

I can also understand how older or disabled people who can no longer drive but need to go places would find a self-driving vehicle to be the perfect solution to their daily mobility needs.

I can also see how it may possible within a realistic time frame to match car services like Uber and driverless cars. If this formula worked, many people would simply not buy cars anymore. And this would help alleviate traffic congestion. (More on this in a moment).

You are still stuck in traffic

That said, this is not necessarily the best way to invest precious funds. And here is why. Suppose we get there. Suppose that there is some kind of breakthrough. Consumers will soon be able to buy an affordable, safe, intelligent car that they

do not need to drive. Or we shall let Uber do the driving, so that some of us will not feel the need to own private cars anymore. Fine.

Now imagine yourself in your new robot-vehicle that drives you. You are in the middle of Los Angeles, or Cairo, or Paris, or Nairobi, at rush hour. Guess what, the car may drive you, but both the futuristic vehicle and you are still stuck in horrible traffic. Sure, you are not as stressed as you used to be by bumper to bumper congestion, because the car does the driving. But you are still stuck in an endless traffic jam. True enough, if many cars will be owned and operated by Uber or equivalent services, most definitely there will be fewer cars on the road. Still, there will be plenty of cars. Not to mention delivery vehicles, trucks, ambulances, police cars, buses, you name it. Which is to say that your daily commute will continue to be long and unpleasant. Your driverless car will help alleviate congestion. But it will not eliminate it.

So, here is my point. All this focus on making cars smart is a poor allocation of scarce resources. The problem is not that cars are not smart enough. The fact is that in large urban areas the car, private or Uber managed, is a poor choice to address the issues of easy, affordable, dependable personal mobility.

Let me say it again. There are just too many cars on our roads! And too many cars means shared discomfort for all users.

The car is a bad solution to mobility needs

The fact is that we are way past the point of diminishing returns when it comes to the usefulness of the automobile in all large urban areas, anywhere in the world. In most big cities the car is the wrong answer to our need to move around at leisure, in comfort, and reasonably fast. There are just too many people with too many cars sharing limited road

surfaces.

The answer to epic traffic jams and slow-moving traffic, often 24/7, is not to make cars more intelligent. ***The answer is to get rid of cars altogether in large urban settings, and opt for smart mass transit solutions.***

(PLEASE NOTE: This general rule applies only to large cities. People living in rural areas, in isolated communities, or remote farms need cars. And, of course, cars are may still be necessary for road trips, long and short).

Bus Rapid Transit systems

While there may be several options available, at the moment the most cost-effective –and proven– solution seems to be **Bus Rapid Transit, BRT,** systems.

"Come again? We are working on high-tech, intelligent cars and you are proposing clunky old buses? "Yes, I recognize that this does not sound terribly sophisticated. And in fact it is not. And, yes, in the roll-out phase this BRT option can be very disruptive.

But let me tell what you get with Bus Rapid Transit. You get all the advantages –in terms of speed and reliability– of an underground subway system, minus the often prohibitive cost of digging tunnels which make subways systems always inadequate from the perspective of the average would-be user. Walking 30 minutes in order to get to the subway station and then another 20 to get from the closest station to your final destination is not appealing. And in some large metropolitan areas there is no subway, because of cost. Period.

Dedicated lanes, fast buses

Here is the issue when it comes to buses operating like subway trains. In most large cities, in order to create a BRT system you would have to ban or at least severely restrict private

cars. The new seamless bus network becomes fast and efficient only if buses can have complete right of way via “buses only” dedicated lanes, not shared with other vehicles. And this means large areas within cities where cars cannot travel.

Once we know that buses will be able to move freely without being stuck in traffic created by private vehicles, then BRT planners will be able to create a seamless network, with bus stops that become interchanges working just like subway stations. Passengers will buy their tickets before boarding. They will ride on a bus, exit at a stop that will also be an interchange, quickly board another bus, if they need to, and get to their destination within the estimated time.

Just like a subway, minus the construction cost

In other words, you get all the advantages of an underground subway system, in terms of easy access and speed, minus the cost of digging tunnels and building underground stations. *In most countries, these upfront costs are prohibitive*. And this is why most cities do not have subways systems. Or, if they have them, they are not large enough to serve the entire population. Hence the continued reliance on private cars.

“So, are you telling us that the old-fashioned, humble bus can take care of all urban transportation needs?” Yes, it can. But this new (in fact not so new, as you will see in a moment) model assumes vision on the part of municipal leaders.

They have to be able to sell to their citizens the unfamiliar notion of people moving around quickly and efficiently using surface public transportation that works exactly like a subway system, minus the cost of construction. They have to convince them that the bus network will be user-friendly, affordable and efficient.

It works

Well, here are the key question. Does this work? Has it been

tried before? The answer is yes, and yes. It works and there is plenty of evidence to demonstrate this.

It all started back in 1974 in the city of Curitiba, Brazil. The very first BRT system was the result of years of experimentation by urban planners who finally came up with the model of “bus just like the subway”. And then the model spread throughout Latin America. in 2000 Bogotá, the capital of Colombia, launched its own TransMilenio BRT system.

And now you have similar mass transit solutions in Brisbane, Australia; Stockholm, Sweden; Cape Town, South Africa; Ottawa, Canada; and many more cities around the world.

Political impediments

The only reason why BRT systems have not be adopted more widely by other large cities across the world is that municipal leaders are afraid of voters’ backlash. Mayors and Municipal Councils do not want to deal with the unavoidable skepticism and probable resistance of millions of voters-drivers who may not believe that the new BRT system will work as advertised.

Oddly enough, faced with abrupt changes, most city dwellers would rather endure the misery they know –monstrous traffic jams– rather than try something new.

So, this is mostly a psychological/political impediment, rather than a technical issue. Meanwhile, however, millions of people spend hours and hours in traffic jams created by the shared, but totally mistaken, belief that the private vehicle is still the most cost-effective and most efficient way to address personal mobility needs.

Getting there, fast

So, back to driverless cars. Would you rather have a high-tech car that drives you, but can do nothing to avoid traffic

congestion and an endless daily commute; or would you rather get where you need to go by low tech bus that gets you there fast, thanks to a seamless and efficient network?

Think about it.