Could a public transportation revolution see us bypass cars altogether?

*Competition is coming from outside the automotive industry. That's the kind of thing that makes corporations sit up and take notice, says **Amy Zalman** of the World Future Society, in conversation with Martin Kahl*

In 2030, much of the transportation environment will be shaped not just by regulations but also by values. What products will people want? How will they want them? What constitutes status? And what will be the respective values and business models of the car companies, or whoever it is that produces cars?

It's not clear to me that life in a mere 15 years will look radically different to life today, but there are a few changes that stand out. One will be ubiquitous communications technology with smaller, less visible hardware that will be more necessary for everyday functions, and available to greater numbers of people. Existing friction between driver safety requirements and driver expectations about how and when they can conduct non-driving business is likely to intensify.

Just think of one aspect of our current everyday lives: texting. We know from studies that using voice recognition instead of manually texting to communicate while driving is as distracting and as dangerous as manual texting. How will the automotive industry help either modify our expectations and behaviour in cars, or help find technological fixes for activities that are currently dangerous? We need vehicle manufacturers to help us be good citizens as the technology of transport changes.

In addition, large-scale demographic changes are beginning to make themselves felt, such as the growth of cities and the miniaturisation of other cities whose populations are migrating or failing to reproduce themselves. In terms of demography and population, there are some very big youth bulges in about a third of the world, and some very significantly decreasing populations, too. This will lead to shifts in wealth distribution and could produce noticeable changes in the demographics of car ownership.
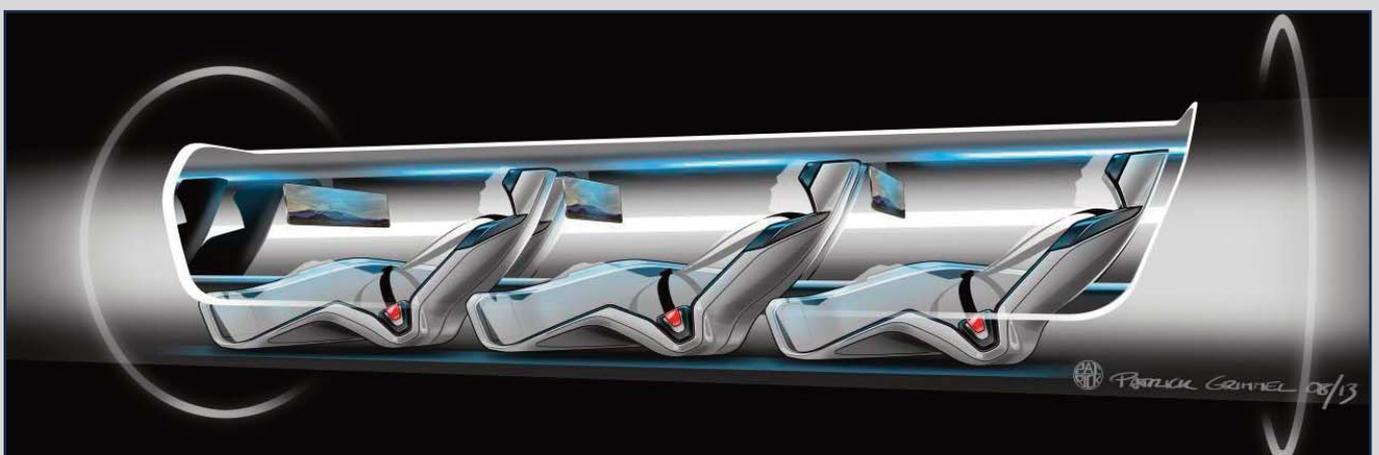
"Some of the most interesting start-ups in transportation are thinking big things about revolutionary public transport and automated seamless mobility, such as vacuum tube supported transportation" - Amy Zalman, World Future Society. Pictured: Elon Musk's Hyperloop

The sharing economy is already gaining considerable traction in many aspects of life, and I think that will grow. And if the way we work changes, due to mobile technology and the reducing need to be somewhere from nine to five, then the way that we shop, consume and want things delivered will change as well. And that engages the sharing economy significantly.

On the other hand, it is not at all beyond the realms of possibility that some items that are delivered now by car could be delivered by drone. When additive manufacturing really takes off, we will see supply chains transformed. Instead of shipping physical goods from place to place, manufacturers will send digital files to the point of local production.

One way the automotive industry can prepare for the future is by borrowing conceptually from the rapid prototyping movement and applying it to the way software services are provided in cars. Originally meant to describe a way of producing

machine parts for manufacturing, the idea of rapid prototyping has expanded to describe a process model of quick innovation, and implies a faster rate of producing new products and processes. The question is, can car manufacturers create models intended for shorter tenure on the market, and create new models at a faster pace to fulfil changing software capabilities and consumer expectations, the way that software makers update software on a regular basis?

The biggest change in transportation may be a turn away from cars altogether. Some of the most interesting start-ups in transportation are thinking big things about revolutionary public transport and automated seamless mobility – such as suspended trams in cities and vacuum tube supported transportation.

It would be remiss not to mention the fact that autonomous or

driverless cars are coming. Current studies reveal some cultural resistance to the idea of giving up control of one's car to the car itself, especially among older drivers. Car manufacturers should know that they will have to cross that resistance, in order to capture a market.

The industry's willingness to prepare for an unknown future depends on where political interests lie. Those who see the future as one of limitless fossil fuels - given the discoveries of the last few years - may dig in to support the status quo, and fail to support further fuel efficiency or even fuel elimination. On the other hand, competition to traditional car manufacturers is now coming from outside the automotive industry – and that's the kind of thing that makes corporations sit up and take notice.

Amy Zalman is Chief Executive and President of the World Future Society
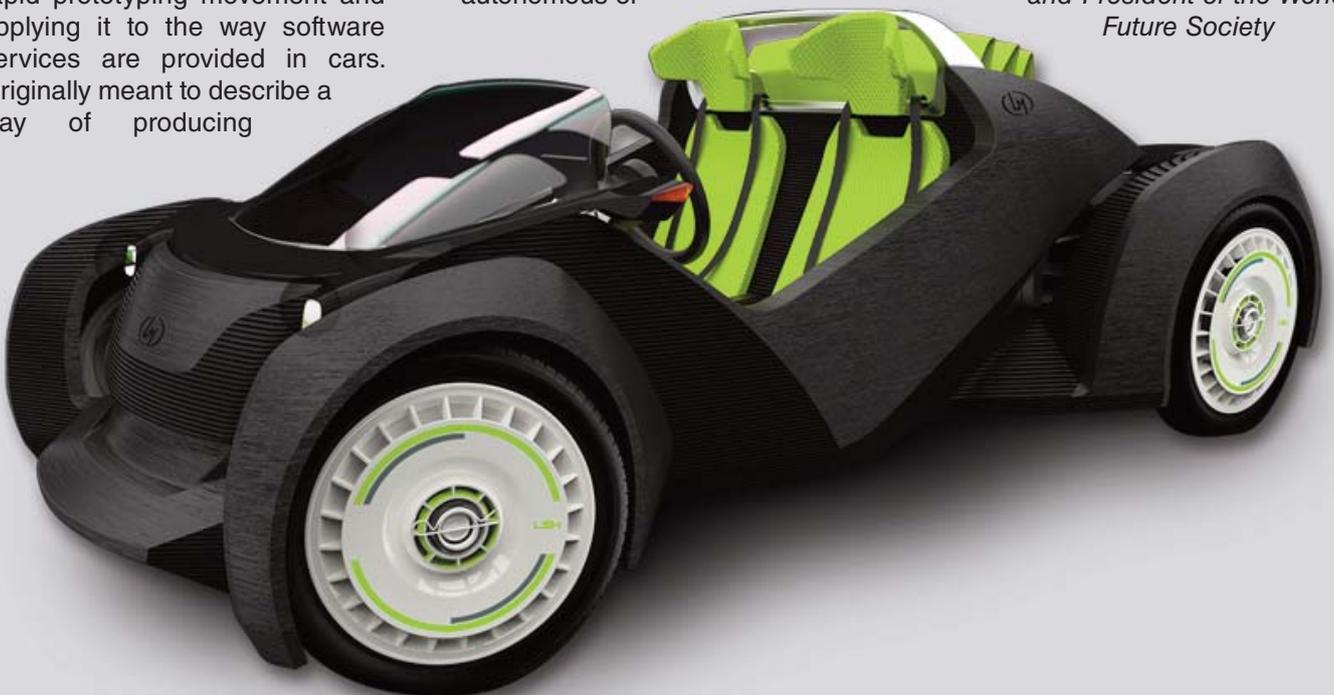
Could the Local Motors 3D printed car indicate a viable direction for the automotive industry to explore?