Opinion

Are we ready for the end of individual car ownership?

By Tony Seba and James Arbib | July 10, 2017 | Updated: July 10, 2017 4:13pm

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A historic photo taken on Easter Sunday, 1900, shows a street filled with horse-drawn carriages. If you look very carefully, you can pick out a solitary automobile. A photo of Easter 1913 shows the same New York Fifth Avenue scene packed with cars. If you look very carefully, you can pick out a solitary horse.

That's disruption: New technologies create a new market and transform existing industries in the blink of an eye.

We face a rapid disruption of transportation today that could end more than a century of individual ownership of the gas-powered vehicle that disrupted the horse. This disruption will reshape the urban landscape and the world's energy economy and bring huge benefits — economically, socially and environmentally — if policy decisions are well-informed.

"Rethinking Transportation," the first report from independent think tank RethinkX, finds that within 10 years of widespread regulatory approval of driverless vehicles — which we anticipate in 2021 — 95 percent of U.S. passenger miles traveled will be served by on-demand, autonomous electric vehicles owned by companies providing transport as a service. That transportation will be four to 10 times cheaper per mile than operating a new or existing vehicle.

This will reshape the economy. Economics will drive this disruption, but how these changes play out depends on the decisions we make today.

Transportation disruption will mean:

Cost per mile will become the key metric in transportation. The biggest saving comes from the extended life of an electric vehicle, which can easily travel more than 500,000 miles, and will cost 70 percent less to fuel and 80 percent less to maintain.

Savings of a minimum of $5,600 per year per average American household will add $1 trillion to the annual disposable income of U.S. households, the single largest economic boost in U.S. history. We foresee another $1 trillion in productivity gains as people work, study or shop instead of wasting time behind the wheel. There will be 80 percent fewer passenger vehicles on U.S. roads by 2030, freeing up enormous space in cities.

Unprecedented levels of mobility will be enjoyed by the disabled, the elderly, the young and low-income people.

But just as new fortunes will be made, others will be lost:

Car dealers, garages and auto insurance companies will suffer.

Driving jobs will disappear.

Automakers will have to morph into low-margin, high-volume assemblers of autonomous electric vehicles, or get into the business of selling the transportation service directly.

Oil demand will collapse and high-cost oilfields and infrastructure projects won't survive.

In preparing for this future, it is vital that we redirect investments away from infrastructure that assumes business as usual — and on this taxpayers must be vigilant.

Because job loss due to automation has fueled powerful populist anger throughout history, incumbent industries could take advantage of this anger to pressure policymakers into raising barriers to this technology. Such policies would make everyone poorer and the economy uncompetitive as a result.

California should consider alternatives to gas-tax funding for transportation infrastructure. Planners should stop spending taxpayer money building parking infrastructure and eliminate minimum parking requirements for residential and commercial developments.

City planners, community leaders and citizens should plan for what our cities will become in 10 years and work to reduce barriers to transport as a service. This includes enabling autonomous pilot programs, requiring transport companies to provide open data about traffic and safety, and educating the public about the financial, social and health benefits that will accrue to every resident, including underserved communities. Policymakers can mitigate the fall-out from job losses by providing safety nets, including job-retraining programs and income and health care insurance support.

In San Francisco, 63.4 million square feet of parking space will become vacant. What portion should we allocate to green parks, affordable housing or new businesses? If we make the right decisions today, then we have a once-in-a-lifetime opportunity to turn visions for our city's future into reality.

It may seem improbable that these vast changes will occur in a decade — but technology disruptions with such overwhelming cost savings to both individuals and society happen very quickly. With proper planning, we can harness the enormous potential of this disruption in a manner that creates wealth, health and stability for society. The future is upon us and the time to choose is now.

Entrepreneur Tony Seba of San Francisco and investor James Arbib of London are co-founders of RethinkX, an independent think tank that analyzes and forecasts the speed and scale of technology-driven disruption and its implications across society.