Mobility technology: Will transport revolution live up to the hype?
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Promised solutions, emerging problems

Much of the interest in mobility technology is coming from individuals outside the transport arena. Startups are attracting investors by claiming their technology will solve many of our transport problems.

Micromobility companies believe their e-scooters and e-bikes will solve the "first-mile last-mile" problem by enabling people to move quickly and easily between their homes or workplaces and a bus or rail station. While this might work in theory, it depends on having safe and segregated bicycle networks and frequent and widely accessible public transport services.

Ride-hailing services might relieve people of the need to own a car. But there is evidence to suggest these services are adding to traffic congestion. That's because, unlike taxis, more of their time on the road involves travelling without any passengers.

Navigation tools (Google Maps, Apple Maps, Waze) have been around longer than most other mobility technologies and are meant make it easier to find the least-congested route for any given trip. However, research suggests these tools might not be working as intended. The backlash against them is growing in some cities because traffic is being directed onto neighbourhood streets rather than arterial roads.

Autonomous vehicles have the goal of reducing injuries and deaths from car crashes. Only a few years ago many bold predictions were being made that these self-driving vehicles would be having positive impacts by now, but this hasn't happened. The enthusiasm for autonomous vehicles has cooled. Some now believe we won't see many of the social benefits for decades.

The final mobility tech area is known as mobility as a service (MAAS). It's basically a platform designed...
to make better use of existing infrastructure and transport modes. MAAS begins with a journey planner that is linked to one-stop payment for a range of mobility services—ride-hailing, e-scooters, e-bikes, taxis, public transport, and so on.

MAAS is the newest entrant in the mobility tech field. It has attracted US$6.8 billion to date, but is expected to grow to over US$100 billion by 2030. This idea is creating great enthusiasm, not only among private entrepreneurs, but also in the public sector. It's too early to know whether it will improve transportation.

3 trends are driving investment

So, why do venture capitalists continue to show so much interest in mobility technology startups despite poor company performance to date? It appears they believe personal mobility will become increasingly important. Three trends support this belief.

First, urban dwellers increasingly value the ability to move around easily. It's thought to be a key ingredient for a liveable city. The problem is public transport is often not very good, particularly in the US and in outer suburbs in Australia.

This is due to historically low funding relative to roads. The prospect of more funding and better public transport services in the future is not good. In part that's because many view public transport as welfare and not an essential public service. Thus, if cities want to become more liveable and competitive, they must look beyond government-funded public transport for other mobility alternatives.

The second trend is declining vehicle ownership. Since 1986 US sales of car and light trucks per capita have dropped by almost 30%. In Australia, new car sales remained relatively constant over the past decade, but a decline since 2017 is expected to continue. These trends are due in part to the cost of owning a vehicle, but also because of a growing view that owning a car may not be necessary.

This brings us to the third trend, which involves demographics and the post-millennial desire for access to mobility services rather than vehicle ownership.

These trends, combined with expectations of an upward trend in prices of these services, suggests there may be good times ahead for ride-hailing and micromobility companies. It also means venture capital funding for these startups will not be diminishing in the near future.

The future of transport isn't simple

Transport systems are multifaceted. No one single app or technology will solve the challenges. And, as we are discovering, some of the purported solutions to problems might actually be making the situation worse.

If the goal is to get people out of their cars (for better health and quality of life and a better environment), this will require more than a technology. Better infrastructure and public policies (including better integration of land uses and transport to reduce the need for transport) will be required—congestion pricing being one of those.

That is not to say technological innovations are not welcome as part of the solution, but they are just that … "part" of the solution.

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