

It's time for a fresh look at the future

Flying cars, drones and downloadable human consciousness – just some of the things we can expect of the automotive world of tomorrow, according to futurologist Aric Dromi. By **Megan Lampinen**

The vehicle of the future needs to be designed with a view to how future society copes with reality - and that is a reality dramatically different from anything today. Every OEM thinks it is capable of designing the car of the future - but it's likely that none of the OEMs are looking at the future in the right way.

That's the view of Aric Dromi, a man who describes himself as a speaker, futurologist, digital philosopher and professional troublemaker.

So where do we start?

That's the question *Megatrends* put to Dromi at the start of an interview about the future – an interview that covered autonomous driving, drones, flying cars, the human consciousness and the death of brand loyalty as we attempted to identify where the automotive world is likely to end up 30 years from now.

We should start, suggests Dromi, by looking at the future in a different way.

"Everyone understands the things they know and some people are aware of the things that they don't know, but most of the people I encounter are clueless about the things they don't know that they

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don't know. This is where the major impact is going to come," Dromi tells *Megatrends*. "What we can do in order to plan for that is to think in a much more holistic view."

Autonomous driving and alpha cities

30 years down the line, the industry could be unrecognisable. Autonomous drive technology is advancing quickly, but requires supporting infrastructure.

Those cities that can put this in place the quickest will be the cities of the future - and they are not necessarily the centres of power today.

"We're stepping very fast into robotic mobility. It's cool that we're focusing on engineering the technology that can enable a car to drive itself but we don't have any infrastructure that can support that. There aren't many cities in the West

that are capable of producing an infrastructure that supports autonomous driving cars," cautions Dromi.

In the West, Dromi views self-driving cars as "nothing but a promise". On the other hand, he adds, "that promise can be easily realised in the Philippines, in Africa, in China, because they can build an infrastructure that doesn't have legacy. For example, outside Manila they are actually building a new connected city - the entire city is based on connectivity."

He refers to such regions as 'Alpha cities'. They will most likely emerge from those regions with no legacy infrastructure to hold back developments. "Where there is no infrastructure it is easier to implement. Just look at Africa, where there are more mobile phones than sanitary toilet services," Dromi observes. "Can you introduce digital currency there? Yes, automatically. If London is not

careful it will still have manual driving cars 30 years from now; it will become a third world city. It's simple, because you cannot disconnect that future from what artificial intelligence (AI) and robotics will do to society around us."

Ownership gives way to usership

A big problem with many cities today is congestion, and it doesn't look promising if these places don't get connected. "Most OEMs today are pushing units for the markets, but how many more cars can you have in the streets of London, or Los Angeles or Beijing? You need to rethink how you move people and things from one place to another," suggests Dromi.

He expects dramatic changes in the concept of car ownership within such cities. "In 30 years, I expect London to say that if you live in the city you are not allowed to own a car. If you want to own a car you can live in a village. Changes in local politics are going to affect ownership in order to create more space," he predicts.

Flying cars

Perhaps OEMs need to spread their wings - literally. Dromi points to the development of the first flying cars - hybrids of cars and aeroplanes that can be driven to the nearest airfield, take off, land and be driven to their final destination. "Suddenly somebody

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will start to realise that having four wheels spinning on a road is not the only way of moving people from one place to another. There is more space in the air than on the roads." He notes the opportunities for commercial ownership that are already appearing, and adds: "It's not science fiction anymore. Chitty Chitty Bang just became reality."

He may not be impressed with the aesthetics of certain current offerings, but this approach represents a pivotal new way of thinking. "It's an ugly looking car but, hey, it's reality," he adds.

Are OEMs really about to rush out and start developing aeroplane/car hybrids? Dromi doesn't think that's the answer: "Solving the questions of mobility cannot be handled by OEMs; they need to be handled by the city."

From brand loyalty to experience-based loyalty

OEMs will still be around 30 years from now, but not all of them. In fact, just about half, in Dromi's view. This will be the result of a loyalty shift away from products to experiences, a trend that is already manifesting itself today.

"We are loyal to experiences that right now are locked to specific brands," he explains. "The loyalty is

to an experience, not to the brand itself." This has already had an impact on the mobile phone industry. 15 years ago there were a handful of mobile phone hardware providers in the market. Today it is largely down to Samsung and Apple, suggests Dromi. "This fragmented market found a way to defragment itself and narrow it down to basically two experiences that are the same - Android and iOS. It is an experience-based environment," he points out.

Data - it's the new currency

In this new paradigm, it is the data brokers who will emerge as the big money makers, he believes: "It's all about data at the end of the day. It's about the first company that can come to London and promise to reduce congestion." The business rulebooks are being torn up, he says - not just in the automotive industry, but in general. Airbnb, he notes, "is the biggest real estate company in the world, but all of its real estate is virtual. They are outsourcing the maintenance, which is brilliant. Same thing with Uber."

Uber doesn't own the cars in its vast global fleet, but it owns the intelligence - about who needs cars, where and when. At some point, Uber may not even need drivers: "30 years down the road you have a whole new model. If it is smart, Uber will go into drones," says Dromi. "It will partner with Amazon instead of

competing with them. I see huge merger potential within certain industries in order to create turnkey solutions."

Drones to take out drivers

Dromi expects trucking to lead the way in autonomous drive developments but adds that trucks may not be the only way of moving goods into and out of cities. Drones could play a much larger role in transport further down the line, with considerable potential in the movement of freight. "30 years from now, I see drones as another way of moving goods. If the truck OEMs are smart they will take some of their R&D and start looking into drones." A number of companies, including Google, have expressed interest in the potential that droning could offer.

The implications for employment could be worrying. There are not only millions of truck drivers around the world but for every truck there are individuals employed in the loading and unloading process. "Millions of people are going to lose their jobs. When you are automating the trucks, you will automate the factory, you will automate the uploading and downloading from the truck. And we have robots that are capable of doing that today - so what are we going to do with so much unemployment?" he asks.

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Safety – just an illusion?

With all the dramatic improvements in technology that are taking place, some industry players envision a future without road deaths. Is Vision Zero something Dromi expects to see in 30 years? He points to the proverb 'If you want to make God laugh, tell him about your plans.' "I will never be the guy that's promised no-one will ever die on the road. Can we narrow down the errors that are happening today? Yes. Almost none of the friction that causes accidents now will exist in 30 years, but there will be new types of frictions. However, you don't know that before you eliminate the current ones."

A big worry about future safety stems from cyber security and hacking, with several high profile instances demonstrating the potential dangers. In Dromi's view, safety is just "an illusion". As he explains, the current approach is to fix problems with one patch on top of another. "Then we are connecting

all of these patches to the Internet," opening up the car to all the vulnerabilities of the Internet.

"We need to rethink it from scratch. We are still working on the old assumption that everything should be locked, and then looking at what should be open. We should do it the opposite way: make everything open, and then let's figure out what should be locked and secure," he says. "That's the only way of eliminating vulnerabilities."

Human consciousness – available to download now

It's not just the driving that Dromi expects to become automated. He sees a convergence of artificial intelligence, robotics, biotech medicine, neuroscience, energy and computation power. "These fields are merging into an ecology of identities. In this ecology of identities, you will have a mixture of digital and human. I refer to digital alphas. This will redefine national sovereignty, it will give so much

more governance power to corporate giants, it will restructure financial services, and it will fundamentally alter the way we perceive reality. 30 years from now, this is how we're going to be structured," he predicts.

Eventually, Dromi suggests, scientists will be downloading human consciousness into a computer, making the human body redundant. "This is going to be available in 30 years from now. It took us 350 years from the time we invented the telescope until we launched a man into space. It took us only 15 years from the invention of the MRI until we connected the brain to the external world. You have machines today like ECOG that can reconstruct your thoughts into pictures," he observes. "It is not science fiction; this is now all around us today."

Design for the future – a different future

Part of the problem, Dromi says, is the idea that we are just observing the world around us. "By observing it, we are manifesting the world around us. The car industry for ages has isolated itself from the rest of the pack, but it cannot do so anymore because of the technologies that exist right now," he says. "If we fail to look at how future society is going to cope with reality and if we design a car isolated from that, that car will not have a place in that future society."



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