

It is perfectly okay, though, to touch other parts of your face while listening. Resting your chin on your hand while listening or touching your cheek send the message that you are listening carefully and trying to understand.

Powerful planning

Power is a real part of the world of planning and politics. Neighbors who feel pushed around feel resentful and angry, while commissioners who appear weak, ineffective, or lacking in confidence may be unable to achieve important civic goals.

Hands communicate power in several ways. Powerful people speak with their hands and point with their index fingers while speaking. People who engage in hand-washing motions, clutch their fingers, rub the back of their necks, put their hands in their pocket, or touch their body or face are sending signals of nervousness or insecurity, so be aware of what you are doing to ensure you are sending appropriate signals of confidence and authority.

It is important to keep in mind that everyone has a sphere of personal space. When you inadvertently invade someone's private bubble, an individual feels threatened. So when you see someone moving closer or farther away from you, don't automatically adjust the distance to your own comfort level. Consider whether the individual has moved in order to minimize his or her discomfort.

Sending the right signals

While it is always important to pick one's words carefully in the high-profile world of planning, it is equally important to monitor and control one's nonverbal communication signals. By using nonverbal communication skills planning commissioners can enhance their statements, better communicate with the public, and help make the planning process more inclusive.

—Debra Stein

Stein, who died in 2009, was president of CGA Strategies and a nationally recognized land-use expert, public affairs professional, and published author. This article first appeared in the Fall 2006 issue of The Commissioner.



New technologies are being introduced into autonomous vehicles continuously, but it could be decades before completely driverless cars are widely adopted.

Driverless Vehicles and Your Community

BEST PRACTICES

MUCH HAS BEEN written about what might happen, what will happen, and even what should happen as a result of autonomous vehicles.

But not enough attention has been given to how we get there, and more precisely, where it is exactly that we want to end up. Identifying our community's goals and plotting the "how" is what we, as planners and planning commissioners, do. We may be in the best position to facilitate consensus around the desirable outcomes of AV technology, and to create the policies that ensure those outcomes. (For more on new federal action, see "Feds Issue Policy on Autonomous Vehicles" on page 10 in News.)

Let's start with what we know. In 2013, the National Highway Traffic Safety Administration released its *Preliminary Statement of Policy Concerning Autonomous Vehicles*, which identified five levels of automation ranging from Level 0 (no automation, like conventional cars you are used to) to Level 4 (full automation, in which the "vehicle is designed to perform all safety-critical driving functions and monitor roadway conditions for an entire trip"). Fast forward to 2016 and we have Level 2 technology available on the

market today; this technology allows a driver to temporarily relinquish control of the vehicle, meaning both hands and feet can disengage until the driver's attention is needed. Today, some vehicles traveling on highways use Level 2 technology for adaptive cruise control in combination with lane centering.

There is a lot of speculation about when we can expect commercially available Level 4 technology—the holy grail of AVs and the level at which many of the technology's purported benefits could begin to accrue. Some automakers claim they will have figured out full automation in the next few years, while others are less aggressive in their timeline. The best guess for wide adoption currently hovers around 2025 to 2050—there are still many details to work out.

Although widespread adoption of full automation is likely many years, and perhaps decades away, we—as planners and commissioners—should be drivers and managers of change.

A 2015 study by the National League of Cities found that only six percent of municipalities had considered the potential impacts of autonomous vehicles within their long-range transportation plans, while 50 percent suggest new highway construction is necessary. A handful

WHICH MODEL SHOWS PROMISE?

Shared ownership of autonomous vehicles can lead to the most benefits.

BENEFIT	INDIVIDUAL OWNERSHIP	SHARED OWNERSHIP
Traffic safety	Yes	Yes
Time for productivity or leisure	Yes	Yes
Expanded mobility for those unable to drive	Yes	Yes
Fluidity of traffic flow	Possibly	Possibly
Reduced emissions	Possibly	Enhanced
Reduced vehicle congestion	Possibly	Enhanced
Increased availability of land	Possibly	Enhanced

SOURCE: NELSON\NYGAARD

of states (Nevada, California, Florida, Michigan, along with Washington, D.C.) have adopted policies allowing for the testing of autonomous vehicles within their borders, though experts disagree on whether these policies were necessary to allow the testing to occur. The policies' primary purpose—whether intended or not—may have been simply to encourage industry investment in those states, rather than to steer industry toward any particular applications of the technology.

Policy opportunities

So while there has been some policy activity to harness the potential economic benefits of a new industry, the vast majority of cities still have a huge opportunity and responsibility to act. The potential benefits are too great not to. These benefits could include increased traffic safety, reduced vehicle congestion, and fluidity of traffic flow on highways (reduction of human response time); more time for productivity or leisure (while AVs drive); expanded mobility for seniors, people with disabilities, and those under the legal driving age (all driven by AVs); and increased availability of urban land for uses other than parking (as AVs do not need to park near their users). None of these benefits, however, is a foregone conclusion, and some could be enhanced if the predominant ownership model is centralized rather than individualized. This is why it is so critical for planning leaders to act today.

The benefits of shared fleets of autonomous vehicles start with the ability to combine trips across a much broader critical mass of travelers, generating more high-occupancy vehicle trips. If mobility can be as readily available through a shared service-based model as it is today in a personal ownership model, parking demand at residences, workplaces, and businesses could decrease. In this way, shared AV mobility services could reduce the need for land, so denser development is possible by removing the space dedicated to transportation. And with modest increases in density, higher quality mass transit becomes much more viable. In this world, congestion is not a barrier to growth; instead, mobility and urban growth support each other's success.

As AV technology emerges, we should be cognizant of the benefits we stand to gain during early adoption, but also of the increased opportunities provided by a shared-use model in a more mature market. There are things we can start today—most of them known policy approaches—to increase the positive outcomes for our communities tomorrow.

LEVERAGE THE LAND USE CODE.

Allow developers to anticipate (and in doing so, partially help to create) a world in which pick-up and drop-off zones are much more highly valued than individual parking spaces. This starts by removing parking minimums and replacing them with maximums; allowing shared parking

agreements; and incentivizing developers to provide comprehensive and innovative travel demand management programs.

PRICE HIGH-DEMAND PARKING AND DRIVING CORRIDORS according to their true value. To enhance incentives toward a mobility-as-a-service model, allow individuals to internalize the true cost of driving in urban areas. Communicate to service providers that your city values high-capacity, shared mobility options.

RETHINK TRANSPORTATION METRICS.

We get what we measure. Level of Service—the status quo of transportation metrics—values one vehicle with one traveler nearly the same as a shared vehicle with four travelers. If we want to increase non-single-occupant vehicle travel, we need a metric that communicates that value; vehicle miles traveled is one such metric.

IMPLEMENT VISION ZERO, WALKABILITY, AND BIKEABILITY PLANS to require that safe and comfortable travel for all people is the primary objective. Motorized vehicles, regardless of how operated, are subject to this requirement.

These policies create the basic building blocks for cities that put people first and encourage a world in which AV technology supports, rather than works against, the highest and best uses of scarce resources.

With these policies in place, planners are free to develop partnerships or new service delivery models. Some questions to consider include how to transition current transit operator employees to new professional tracks; potential taxation approaches to encourage the most efficient transportation system; designating specific mobility hubs as AV-based service labs; and leasing publicly owned land to shared AV fleet operators for temporary storage.

—David Fields, AICP, and Terra Curtis

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