

Headway

Headway refers to the time between transit vehicles traveling in the same direction on a given route, in a fixed route system. In other words it's the greatest amount of time a rider will have to wait to catch the next train, bus, trolley, gondola... Headways in the most humane transportation environments are around 3 to 5 minutes. In some US cities they can be an hour, an hour and a half, or even more. They frequently vary depending on the time of day or day of the week in a given location and are definitely keyed to population size and density in a given market. They are often historically optimized for office worker commuter traffic and not responsive to the many distinct transportation needs of other users.

To retain effective transit function in smaller, more rural locales, using smaller vehicles that run more frequently may be effective or some rural areas have worked with what is called pulse timing (translated from *Taktfahrplan* in German), trading off frequent departures for efficient transfer options. Those one hour or even longer pulse timed headways may be workable/reasonable in remote areas, but they should be avoided in cities.

Remember, transit is a key part of active transportation! The ideal is to have many options for meeting your transportation needs, rather than being just locked into one (or none). If you do have access to motor vehicle travel – but no other options – that is also a non-resilient and limiting situation. What happens when you or your driver are either temporarily or permanently unable to drive?

Woonerf

Woonerf is a Dutch word for “residential yard” or “living space.” It's a technique of redefining the space of a street as shared by all users, including pedestrians and playing children, allowing for vehicle access but not through traffic. Often the divisions between use zones, like curbs or road markings, are eliminated and everyone is given access to the full volume of the street. This may sound like a pedestrian mall, and that is a similar concept, but the woonerf is for neighborhoods and residential areas, not commercial zones. That description, in turn, might make it sound like a cul-de-sac, but the lack of through routes for cars is not on a street-by-street basis, but rather by zone or neighborhood. Meanwhile other non-car modes can move freely with extensive through-connections to the larger network.

Usually the layout of the space is very different from the typology of the road. And pedestrians – including children at play – have priority over cars. There certainly are also roadways that carry through motor vehicle traffic in such communities, but those roads, if they are *in* the community, also still accommodate all modes. The first woonerf took shape in the 1970s and by 1999, there were more than 6000 in the Netherlands.

Micro-mobility

If your community has not yet experienced dockless bikeshare or the arrival of e-scooters, you may think micro-mobility is a new concept. On the one hand, it is new enough that we are still contesting exactly what it refers to, and in the case of the aforementioned e-scooters, deciding whether or not to declare them street legal per the PA Motor Vehicle Code. At the same time, though, it is actually a new term to refer to a broad category of, in many cases, long-extant things.

According to Wikipedia, “micro-mobility refers to a range of small, lightweight vehicles operating at speeds typically below 15 mph and driven by users personally. Micromobility devices include bicycles, e-bikes, electric scooters, electric skateboards, shared bicycles, [wheelchairs] and electric pedal-assisted bicycles. Initial definitions [indicated] a gross vehicle weight of less than 1,100 lbs. However, the definition has evolved to exclude devices with internal combustion engines and those with top speeds above 28 mph.” The wiki entry includes a list of types, though it does not get into the growing subset of cargo bicycles, including pedal-powered delivery vehicles.

Stroad

Stroad? Really? Stroad is a portmanteau that combines the words “street” and “road.” Coined by civil engineer Charles Marohn of Strong Towns, it is intended to be an ugly word. “According to Marohn... it is part street – which he describes as a ‘complex environment where life in the city happens,’ with pedestrians, cars, buildings close to the sidewalk for easy accessibility, with many entrances and exits to and from the street, and with spaces for temporary parking and delivery vehicles – and part road, which he describes as a ‘high-speed connection between two places’ with wide lanes, limited entrances and exits, and which are generally straight or have gentle curves. [He] defines a stroad as a high-speed road with many turnoffs and which lacks safety features... stroads do not function well as either a street or a road.”

Jason Slaughter of NotJustBikes has done an excellent job of illustrating the concept with a video on YouTube called “The Bike Lanes You Can't See — Ontvlechten” which shows how the direct routes for people and indirect routes for cars that are a key feature of woonerfs work. Alternately, you can read about it in one of the multiple posts about it on the Strong Towns website or view their much simpler and shorter video presentation on YouTube (just 5 minutes).

Dutch Reach

The next time you have occasion to drive a car in England, you may have more to acclimate to than just driving on the other side of the road. As of January 29 of 2022, the UK enacted a number of revisions to its Highway Code. Many people who are accustomed to taking on different roles in the transportation system – sometimes driving, sometimes biking, sometimes walking – have lauded the changes and noted that they are not that different from existing best practices. But they have prompted consternation from a subset of drivers who are unaccustomed to paying attention to or being respectful of people outside of motor vehicles.

The changes clarify things like the importance of yielding to people walking or biking in order to keep everyone safe. This often boils down simply to not hitting or otherwise hurting people. To that end, it introduces the concept of the Dutch Reach, which is a habit of using your inside arm to unlatch the car door when you get out. Doing so has the effect of turning your body in the direction of the door and your head such that you are able to see and be aware of cyclists or pedestrians that might be coming up alongside your vehicle. It's a nice habit. It is common practice in the Netherlands, as the name implies, and is a super simple way to increase safety through behavioral change. It doesn't solve all road safety problems, but it does its part – or can, if we do ours. Our motor vehicle code may not mention it, but there's nothing stopping you from starting to do it today!

Induced Demand

In discussing new infrastructure funding opportunities, we may at times betray some ambivalence about the changes ahead. That is in part owing to some less-than-visionary aspects to the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL). We are definitely in danger of building a lot more highways. “Woohoo! New highways!” you may be thinking. Not so fast! Literally. Too often we build lots of new lanes and after a brief honeymoon of reduced congestion and free-flowing traffic, suddenly we find ourselves back to square one, just on a wider, super-congested roadway. The wider roads basically invite more people to drive, returning things to a congestion equilibrium. This is thanks to a phenomenon called Induced Demand or Induced Travel.

Wikipedia explains it with reference to economics: “after supply increases, price declines and more of a good is consumed. This is entirely consistent with the economic theory of supply and demand; however, this idea has become important in the debate over the expansion of transportation systems, and is often used as an argument against increasing roadway traffic capacity as a cure for congestion... City planner Jeff Speck has called induced demand ‘the great intellectual black hole in city planning, the one professional certainty that everyone thoughtful seems to acknowledge, yet almost no one is willing to act upon.’” The opposite of Induced Demand is Traffic Evaporation, which happens when less roadway is made available to private motor vehicles and other modes are safe and encouraged.

Adaptive Cycling

You may have heard people use this term in discussing the accessibility of active transportation. What is Adaptive Cycling anyway? Adaptive devices are physical equipment/mechanical devices that permit people with disabilities to engage in the activities they want to do but can't achieve without assistance. Cycling is a healthy, fun, and useful activity that may not be an option for some. But with a little ingenuity, it can be available to many more people. Adaptive cycles are designed to permit people to play to their strengths, whether that means hand propulsion, balance assist from a third wheel, a variety of seating and support options, or a way to co-ride. These sorts of adjustments (adaptations, if you will) can make cycling available to people who are partially paralyzed, those who are blind or low vision, or those who have vertigo, developmental issues, or different limb strength. For some, adaptive cycling is more accessible than driving.

Adaptive devices can be unusual, hard to come by, and expensive, but there are increasingly organizations working to make them available, whether on a trial/sharing economy basis like Twin Cities Adaptive Cycling or as a custom design engineering challenge like the Adaptive Cycling Foundation for veteran athletes.

Quaxing

This lexicon compiles some words and phrases of great moment, like Vision Zero and Complete Streets, but there should also be room in your growing vocabulary of Active-Transportation-related terms for other more whimsical words you didn't even know you needed. In fact, this word is one no one knew they needed until a couple years ago when it was invented. Introducing “quaxing.”

Quaxing refers to the practice of riding one's bike, walking, or taking transit to accomplish errands – why, it's the very essence of Active Transportation! It is all about human-scaled locomotion to everyday destinations in the course of one's daily routine. It is derived from the name of a city councilor in Auckland, New Zealand, who scoffed at the idea of going grocery shopping without a car in January of 2015. Twitter soon disabused him of that misconception and a new word was born. People have been doing it for years all over the world of course, but in many cases, lacking a word, it was invisible, especially to people like Dick Quax! It didn't fit the stereotype of people on bikes being all in lycra and unwilling to carry an extra ounce of cargo. Check out #quaxing on social media and consider documenting examples of it in your community. Maybe it will help people in your area think about active transportation in a new way. Look for a mix of kids, groceries, furniture, and garden supplies... Thus far it's not in Webster's, but other dictionaries have started to include it.

Climate change has significant equity dimensions, captured in the term climate justice. At its core, climate justice refers to the fact that those most likely, most severely, and most imminently to be impacted by climate change are least responsible for the global predicament we are all in. This is particularly true of the "global south" countries with emerging economies and low-lying or already extremely hot areas. While not uniformly the case, it is also generally true of the most exposed communities within the US — those most likely to be subject to flooding and/or fire and/or drought. Being both in the bullseye of extreme weather and less equipped to adapt or flee makes for even worse outcomes when a crisis hits.

This same pattern of displacement or mismatch between causes and consequences also plays out in transportation infrastructure. The populations most likely to be beset by noxious emissions, deadly traffic, and destructive highway siting are, and have historically been, least likely to be the cause of any of those ills themselves. Recognizing and naming this dynamic is key to addressing it.

Climate Justice

According to the Vision Zero Network, Vision Zero is "a multi-national road traffic safety project that aims to achieve a highway system with no fatalities or serious injuries involving road traffic." The philosophy includes acknowledging that people involved in a crash are not solely responsible for the event, but that the designers of the infrastructure they are using also share responsibility. Vision Zero started in Sweden in the mid-1990s and has been pursued in various parts of the US in the past decade. Complete Streets and Vision Zero have a great deal in common, but you may want to think of Complete Streets as coming more from an urban design and community advocacy perspective and Vision Zero arising more from engineering design and policy assessment.

In late January 2022, the federal Department of Transportation announced a new National Roadway Safety Strategy which cited statistics about road safety disparities for vulnerable road users and proposed Vision Zero as a national goal. The Strategy proposes to end preventable deaths and injuries from crashes by applying the Safe System approach, which recognizes that safety is a shared responsibility not simply on the part of road users, whether in motor vehicles, walking, or biking, but also on the part of designers (whether of cities, roads, or vehicles), regulators, and legislators/decision-makers.

Vision Zero

"Vulnerable Road User" is a term for anyone on a roadway who isn't inside a motor vehicle. It captures in a single phrase a wide range of people: pedestrians, construction workers in a work zone, cyclists (whatever the frame design or number of wheels), people using wheelchairs, children in strollers or trailers, people on e-bikes, people in buggies, wagons, or on horseback, motorcyclists, police or first responders on the scene, people on mopeds, people on skateboards or scooters, etc.

People who aren't protected by the metal shell of a large vehicle are literally more exposed on the road and therefore more at risk of injury and death from collisions. Drivers often focus only on their own safety when selecting or operating a vehicle, but this term helps emphasize the need to focus on safety for all and make sure one group's health and wellbeing is not being sacrificed for another's convenience.

Vulnerable Road User

The National Complete Streets Coalition says "Complete Streets are streets for everyone. They are designed and operated to prioritize safety, comfort, and access to destinations for all people who use the street... Complete Streets make it easy to cross the street, walk to shops, jobs, and schools, bicycle to work, and move actively with assistive devices..."

"Creating Complete Streets means transportation agencies must change their approach to community roads... to prioritize safer slower speeds for all people who use the road, over high speeds for motor vehicles."

Complete Streets are not a prescription for one set of amenities or design topology to be applied everywhere. What constitutes a Complete Street can vary in different contexts, from a safe shared street without sidewalks in a low traffic neighborhood to a rural road with a separated shared use path paralleling or shadowing it to a fully re-envisioned more urban roadway with wide accessible sidewalks, separated bike facilities, ready transit access, safe crossings, calmed traffic, and reconfigured parking.

Complete Streets

Where?

Communities in Pennsylvania have extensive and connected infrastructure networks for motor vehicles, but incomplete and unsafe Active Transportation networks. Arguably, we should all be able to get to the places we need to go using transportation options other than just personal motor vehicles. Recreational trails are nice, but they in isolation are not the comprehensive network we really need. We don't just need regional amenities and tourism draws but also neighborhood connections and safe routes to local services of all kinds.

Who?

Not everyone can drive — in fact, depending on the local demographics, often as many as 33 to 40% of the population does not drive, whether because they are too young or too old, lack access to a vehicle or a license, have a disability that prevents them from doing so, or choose not to. In effect our current road networks are designed for the subset of the population who can drive.

When?

As soon as possible! We need safe, accessible, and inviting Active Transportation networks facilitating our movement to our daily destinations. Often when we travel, we visit places that have this type of infrastructure in place — think of your favorite beach town or a city (or even some place outside the country!) and we never get in a vehicle other than a train, subway, or gondola the whole time we're there. "Where we're going, we don't need no roads," just protected bike lanes and continuous sidewalks and fast, frequent, and dependable transit service going throughout our communities!

Keep expanding your Active Transportation knowledge!



Stay in the know about Active Transportation. Expand your horizons. Track key developments and dates.

SCAN THE QR CODE TO SIGN UP FOR OUR BI-MONTHLY NEWSLETTER AND TO READ THE FULL ARTICLE WITH LIVE LINKS



Questions? Contact Samantha Pearson, Healthy Communities Program Manager, at sampearson@padowntown.org

What's in a Word?



Your Starter Lexicon of Active-Transportation Words and Phrases

by WalkWorks, a collaboration between the Pennsylvania Department of Health and the Pennsylvania Downtown Center

Active Transportation. What's That?

What?

Put simply: Active Transportation refers to using active modes of travel to get to everyday destinations. Active modes include walking, biking, using a wheelchair, connecting to transit, and otherwise using transportation means that are primarily human-powered, low-speed, and human-scaled.

Why?

Active Transportation can make it easier for people to incorporate more physical activity into their daily routines and reduce adverse health outcomes. Safe, accessible, and inviting transportation networks reduce and even eliminate acute injuries and fatalities from motor vehicle crashes in the short term and using them regularly reduces the risk of a wide range of long term health issues including obesity/overweight, depression, dementia, heart disease, stroke, high blood pressure, Alzheimer's, and asthma.

How?

Can we just tell people to start walking or biking everywhere and thereby solve our chronic disease problems? No, because we have built ourselves into a bit of a corner and our streets and roads are not safe, inviting, or accessible enough for everyone to be able to walk and wheel along them with confidence. We need to undertake some planning, design, construction, and general re-thinking to make the healthy transportation choice, the easy choice.