

## The New E's of Transportation Podcast

### Episode 3 – Empathy

#### *Opening (0:00-2:24)*

**Jennifer Toole (00:01):** Empathy is one of the most important skills humans have developed for living and working together. Picturing ourselves in someone else's shoes is a critical part of our evolution. In fact, research shows that there's a part of our brain that's constantly on alert, trying to correct our natural tendency to be egocentric, and make us compassionate to the people around us.

Research also shows that doctors who take an empathetic approach, who take time to understand a patient's needs and concerns before discussing treatments, have a positive impact on health outcomes. Patients with doctors like this actually end up healthier in the long run.

Meanwhile, in our world of engineering and design, there's a concept we call the "design user." Our understanding of the needs and characteristics of that user is the very foundation of our decisions – from the broad strokes of where a new signal is needed, or what the design speed of a road should be, to the tiny details of street geometry and signal timing.

But our "patient" isn't just a single design user. It's a community of travelers who have different needs and capabilities.

**Kristen Lohse (01:16):** Our job is to develop solutions to these problems and issues, but I constantly have to remind myself that my ideas are the ideas of an outsider – and while sometimes that's a good thing, I'm bringing my expertise – it's really important to listen to people who will use these places that we design and to try to put myself in their shoes when I'm coming up with solutions.

**Jennifer Toole (01:37):** As designers responsible for public streets, what is our responsibility when it comes to empathizing with the people who will use those streets? What can we do to better understand their needs, and "walk a mile in their shoes," so to speak, to create a transportation system that gets them from Point A to Point B safely and comfortably?

From Toole Design Group, this is The New E's of Transportation. I'm **Jennifer Toole**.

#### *Conversation (02:04):*

**Jennifer Toole (02:04):** We are joined today by **Peggy Martinez**, founder and owner of Creative Inclusion, which is a company that's focused on improving accessibility for people with sight loss in technology, wayfinding, transit, recreation, travel, and entertainment. Her clients have included Amazon, Sound Transit, which is the transit provider for Seattle and the surrounding region, and the City of Seattle. In fact, she recently worked on Seamless Seattle, which is a project focused on a new wayfinding system for the city, which with Peggy's help will be much more accessible for people who are blind or have low vision, so welcome to the podcast Peggy.

**Peggy Martinez (03:06):** Thank you.

**Jennifer Toole (03:07):** We also have **Kristen Lohse**, she's a senior urban designer here at Toole Design, with a degree in landscape architecture and two decades of experience in trail and landscape design, planning, the public process, streetscape, and urban design. Kristen has specialized in trails, shared use paths, bicycle and pedestrian plans, and has worked extensively with state DOTs and local government agencies. Welcome Kristen.

**Kristen Lohse (03:34):** Thank you.

**Jennifer Toole (03:35):** Peggy, I know your work at Creative Inclusion is around making cities more accessible to people with disabilities in multiple ways, transportation being one of them. I saw a great quote on your website that a lot of the work that you do is around accessibility solutions that promote safety, independence and dignity. And I thought that was such a nice way to describe the type of work you do and how it relates to empathy. So share with us some of your thoughts on how empathy has shaped the things that you work on.

**Peggy Martinez (04:10):** I myself am an active person, and many, many people in my community want to be as active as we can possibly be in a safe and independent way. And how empathy comes into play with regard to how things are planned is that when planners and designers take into account the needs of folks who are blind and have other disabilities that is incredibly helpful, because in some respects we have guidance that sort of states exactly what to do and there are other areas where the guidance doesn't really quite exist. So that is where the conversations with, whether it be community groups or professionals who have experience with accessibility come into play, those listening sessions, being heard, being – you know when planners really make that effort to understand the experience that our communities have, and when they do that, when they listen and really take into account how we're going to approach the situation from basically the design and the inception of something, through to the completion and how something is actually implemented. To me, that is when I feel that I've been heard and that we've got a situation that we can work with, whether it be a sidewalk, or a campus, or a street crossing.

**Jennifer Toole (05:41):** Yeah, and I'm glad you brought up the issue of design guidance, because I often feel like, especially when it comes to accessibility, the design guidance only gets us about 30 percent of the way there, and I want to come back to that, but first I wanted to ask Kristen, in your work as a senior urban designer here at Toole Design, you've really worked on a broad array of different types of projects and different scales, but really all of it focused on helping people navigate through communities. What are some examples of success stories where you feel that empathy has really been used to help better inform your work?

**Kristen Lohse (06:23):** For me, empathy is really about centering my work on the people who will use the transportation facilities I plan and design, as you suggested, but I really try to go beyond the terms driver and bicyclist and pedestrian and try to focus on the actual people and try and think about their needs. And then also as a professional, our job is to develop solutions to these problems and issues, so we call on our expertise, we try and do our best to stay abreast of best practices and learn from other projects, but I constantly have to remind myself that my ideas are the ideas of an outsider – and while sometimes that's a good thing, I'm bringing my expertise – it's really important to listen to people who will use these places that we design and to try to put myself in their shoes when I'm coming up with solutions.

One example is a project that we worked on where we were asked to redesign a plaza that went through an urban hospital campus to accommodate cars and bikes. So we were essentially tasked with converting this quiet little corridor into a street. And the neighborhood stakeholders and the city were

really vocal and insistent about this need for connectivity through the hospital campus, and yet the plaza was this place where people from the hospital would go and have a quiet moment, so, the staff and the visitors and the patients: it's a stressful job and a stressful place to be, so having a real quiet space to sit and talk to people or be by yourself was really an important part of the experience there. So in this case we exercised empathy by honoring the needs of the people who are there every day not just the people who are passing through, and we designed back in those gathering spaces and quiet seating spaces.

**Jennifer Toole (08:11):** That's a great example, and really I think this issue of perspective is so important because almost all transportation professionals drive a car; probably most of them the way that they get to and from work every day is a car trip, at least at some point on that journey and that gives them a sort of baked-in empathy for drivers. They may not have as much experience biking and walking and taking transit, or using a wheelchair, or navigating with vision disabilities, and it makes it difficult for them to empathize with people who get around that way. So for planners, designers and engineers who are trying to serve a demographic or population that they don't themselves represent, what are some practical things, steps that they could take to learn and understand those perspectives? Maybe we'll go first to you Peggy.

**Peggy Martinez (09:01):** I think spending time with the communities that will be using the space that you are designing for is key. Plan to spend time with and understand as best you can the needs of those groups. Not only to do listening sessions and that kind of thing, but also spend time out in the wild, so to speak, with folks with lived experience who can point things out that are either working really well for them or are problematic. The time spent in really understanding at the level where the person is, sort of the rubber meets the road if you will, is crucial, so that you're not just sort of theorizing about what you think people might need or want.

**Kristen Lohse (09:56):** I think kind of at a higher level we really need to dedicate time and budget to doing the homework that's necessary to understand our audience, and as Peggy said it really involves a lot of listening before we even start to think about solutions. And then ideally we can include those people in the development of the solutions and the decision making, testing and the iteration, I think that's really important. I did a walk with Peggy a few years ago where we looked at some innovative street designs like protected bike lanes and floating transit islands, and I learned more in a couple hours with her than I have in years of practice.

One kind of poignant example is we were looking at a place where there was a pedestrian crossing of a bike facility, and the words "LOOK" were stenciled on the pavement there, and here I was standing with someone who was trying to teach me about being blind and low vision and I thought that is the most ableist example ever, you know. Some people can't look. We need to come up with better solutions than just using words. So that was something that from your desk you might not understand but being out in the field you would really get an amazing experience.

**Jennifer Toole (11:10):** Peggy, you're in a really unique position of being a person with a vision disability and also working with people who have vision disabilities, you have a really deep and personal perspective on the benefits of incorporating empathy into our work, and what would be some really practical ways to make a street environment work better for people who like Kristen said, they can't look to see what's coming?

**Peggy Martinez (11:38):** The primary tools that people who are blind and low vision use when navigating anywhere, really, are tactile in nature and high contrast. So when there are edges and borders along sidewalks, let's say between the sidewalk and the curb where – the street furniture line is

– if there is some kind of tactile indicator that keeps people away from that path where all of the poles and fire hydrants are that can be very useful. High contrast striping for crosswalks can be very useful for people who have low vision, properly aligning ramps into crosswalks so that the truncated dome surface is properly aligned directly into the path of travel is another very key way for creating a safe environment for street crossing. Placing cane-detectable barriers around outdoor seating is another really useful tool. So if you have a little fence around an outdoor seating venue, just ensure that you've got a horizontal bar at around 6 inches above the ground so that the cane user can detect it. A lot of times people just put like a rope that is at about waist height around an outdoor café and that is not cane detectable. So basically edges and borders, high contrast, and then some way of learning how to navigate around an obstruction are very useful.

**Jennifer Toole (13:24):** Yeah, absolutely. I think one of the things that was, that I learned from spending time with people who were blind or low vision out in the field was also the way they use sound to navigate, especially when it comes to crossing streets, and the importance of being able to detect when it's a safe time to cross a street.

**Peggy Martinez (13:49):** And that can be useful when we're dealing with just very sort of regular signalized intersections that are four way, in the sort of cross formation, but we have a lot of new intersection types now that are much more difficult to use the tools that we were taught years ago just using sound to know when it's safe to cross.

One other thing that interferes a lot in sort of the outdoor environment is just the decibel level. That can be greatly problematic for people who are reliant on sound cues which is why a lot of us rely much more on tactile cues and also on accessible pedestrian signals. Some of the new signals have rapid tick vibration that invokes when it's time to cross the street, and also directional arrows that basically point the direction of travel are useful, and then the locator tones on the newer accessible pedestrian signals emit a tone so that when you're crossing the street and you're sort of seeking the other side of the street you can utilize that locator tone to basically find the other side of the street as you're crossing over.

**Jennifer Toole (15:18):** I'm glad that you brought up those strategies for making signals more accessible. When you do that for people who are blind or low vision, or deaf-blind, it really has a benefit to everyone. I have a son who, an adult son with severe learning disabilities who benefits greatly from those cues, the arrow, knowing which button to push becomes a lot easier for him because he can see that arrow and he know that means that's the crosswalk that he should cross at. Even those sound cues help him know when to cross.

I think part of the challenge in engaging the empathetic side of transportation professionals is that they're taught to follow standards and to not design things based on assumptions that may be incorrect and that's a particular problem when it comes to accessibility standards. There are a lot of gaps in our standards when it comes to meeting the needs of people with vision disabilities. Peggy, what's your take on the situation of not having good enough standards. Is it getting any better?

**Peggy Martinez (16:29):** Yes. It's definitely getting better more slowly than we would like. Basically the governing body or the standards body that handles disability guidelines in this area is the United States Access Board. And right now they're in a position where they can not actually develop new rules. The Public Rights of Way Accessibility Guidelines is the document that will be reviewed and hopefully revised to include more guidelines specifically pertaining to people with blindness and sight impairment.

**Kristen Lohse (17:12):** I would add that I think that my brief with the blind and low-vision communities have been so revealing to me because as a designer I had the great benefit of having a colleague in my class when I was in grad school who was in a wheelchair, so I learned firsthand what it was like for people with physical disabilities to get around, but I don't think we learn very much about how people with vision disabilities navigate, and that's obviously a big gap in the guidelines, and so I think that we have to work harder to learn more about how we can design well for that community, and it's different and challenging because there are so many different kinds of vision disabilities, and deaf-blind people, obviously you can't use sound with them, so it's a really challenging design conundrum to be able to incorporate all these different elements to make a transportation facility intuitive and easy to use.

**Peggy Martinez (18:11):** So, folks with disabilities being out in the world, in the very grand scheme, is still pretty new, so we are in a position where we are... well, the word scrambling does come to mind, where we are sort of trying to make the best decisions we can to determine these guidelines when they will finally emerge, and there is controversy and there is not always agreement, so we're just in a state of creation and further development at this time.

**Jennifer Toole (18:50):** I think actually scrambling is a good word for it, because there's not a lot out there that explains this dynamic of how to help someone navigate who has low vision. We recently developed a guide for Federal Highway Administration – we'll make sure there's a link to this in our podcast notes – but we were shocked at how little there was on street design that helps people navigate who are blind or low vision. And it's really just the barest beginning of some guidance, especially for new street types. Like streets that have separated bike lanes, which can make it infinitely more complicated for a blind person to navigate, and streets that are shared streets, for example, where you're really not defining a sidewalk area, you're having all different users use the same space, that can be incredibly complicated and difficult for a person with low vision.

**Peggy Martinez (19:53):** That document, though, is really useful, it does state clearly the types of features if you will that are necessary, like a separation between, some kind of a border, between the walking path and the place where the street furniture goes. It may not specifically say every type of contrast level, color-wise, but it is a really great beginning for guidance on the newer street designs that are being basically implemented all over the country, so the document is, I think, very useful and I share it regularly.

**Jennifer Toole (20:35):** Great, I'm glad to hear that. So I want to get back to how we help designers empathize with the users and the people that are going to be experiencing the environments that they create, and I want to ask you Peggy, about how we can bring these users into the design community in a professional way, and get their perspectives in a way that's useful and informative on both sides.

**Peggy Martinez (21:06):** Well, there are a few things. First, I think that the community needs to honestly rethink how it thinks about disability. To not think of people as so different from ourselves. To sort of open the mind a little bit, and try to remove some of the fear that does exist in some people's minds about certain aspects of living with a disability, so just sort of relaxing a little bit and reaching out to communities is absolutely crucial. There are agencies all over the U.S., there are blindness agencies, there's the ADA national network, there are different conferences that people can attend, like the national ADA symposium, and others that I will basically post as links so that people can review them. So basically getting to know communities, and really if we look around in our families, if we look around in our communities, we have people very close to us that we can ask. They may not be specialists in the field of street design, but just asking people what they would prefer and like and how

they use space and how they get around in their lives, is one of the best and most interesting ways of learning about how people live and how people problem solve. So that's a really organic way.

Another way is, I think the urban design and planning and street design community needs to add students with disability recruitment as you're considering who should really be in the field. We need everybody to participate in every field, and developing young people to enter into the field of planning and urban design is going to be as we move forward one of the most crucial ways.

And then lastly, there is a small but growing professional community of consultants that work with planners and share advice and expertise. So there are ways to engage people with disabilities from very basic and anecdotal to much more formalized means. But I just think the design community needs to relax a little bit and reach out and be more inclusive within itself.

**Jennifer Toole (23:56):** So I'm glad you brought that up, Peggy. You talked about recruiting people with a range of abilities, and I know here at Toole Design we have a person who has worked here for many years who has low vision and we have all learned a lot about the way he navigates through environments and his experiences, and I think as employers we really need to make sure our workplaces are inclusive and welcoming of a range of abilities. I know there's a lot of concern about the etiquette, of the way we describe people with disabilities and the words we use. Can you speak to that a little bit, and give us some guidance there?

**Peggy Martinez (24:38):** You know, you're always going to get a range of opinions on anything, so I'm just going to give you my opinion, that is be as clear as you would be in any situation. So, if you've got some jobs that you think that folks with disabilities might be particularly good for, or if you've got places where you think folks would just fit in well, just say, "people with disabilities please apply, we're looking specifically for your expertise." You might say "'qualified' people with disabilities," that's pretty important. So I think just being super clear, and then when people do apply, well, welcome them. Don't be surprised, you know what I mean? A lot of times things happen at interviews that can be really challenging where you submit a resume and then you go to the interview and then the folks are just shocked because you're blind or something. Just expect that. And I really think that relaxing and just being yourself, and just knowing that, people are people. People get disabilities, they then recover from them, they are born with them, it's very fluid actually. And it does not need to be a big deal.

**Jennifer Toole (25:51):** Yeah, I think that is so important. There are a lot of designers that don't understand the issues and are a little afraid to open themselves up to what they might find from those interactions, especially when they don't have design guidance that nails down exactly what they need to do to help those people navigate through a street environment.

**Kristen Lohse (26:17):** It's kind of a modest example but one of the engineers in our office is color blind, and whereas maybe in his normal life people might see that as a drawback for him, we love it, because we run every map by him to see if he can understand the color sequence, so we're able to use his so-called disability to our advantage to make better work

**Jennifer Toole (26:40):** Oh yeah, that's a great example.

**Peggy Martinez (26:42):** Taa-daa!

**ALL:** (laughter)

**Kristen Lohse (26:46):** In the news there's been some great articles recently about how cities could be designed to accommodate a wider range of people. There's been great articles about if cities were

designed for moms and by moms, if cities were designed for and by women, and also older adults are a segment of the population that we often don't think about, and those people have different needs than able-bodied young people, and I think it's important as designers to think about the full range of people who use transportation and address those needs.

**Peggy Martinez (27:23):** That type of article shows that many of the design ideas that folks have for one group really applies to many, many other groups. With respect to folks with disabilities, we never know when we might acquire a disability, and we want things to be effective and useful. As communication is so much better now, with all of the various means we have, we can learn more about what other folks want and as the design community is incorporating more and more voices, then the design is going to show and is going to be a lot more inclusive, just because of the people in the room creating those elements. And obviously when we have the guidance that's going to help a lot too, but I just wanted to say that a lot of times ideas that are good for one group are often really, really, really great for others, so things can be shared.

**Jennifer Toole (28:30):** I think that is an excellent note to end on. Really great points about how one group can benefit from something you might have designed for another group, and how empathy really plays a role in making sure that we understand those needs. I just want to thank our two guests for coming on the podcast today and sharing their experiences. **Peggy Martinez**, founder and owner of Creative Inclusion, and **Kristen Lohse**, a senior urban designer here at Toole Design. Both of you are doing work that is so important and I really appreciate the insights that you brought to this topic of empathy and our work.

**Peggy Martinez (29:09):** Thank you for the opportunity

**Kristen Lohse (29:11):** Thanks for the opportunity to have this conversation.

*Closing (29:15):*

**Jennifer Toole (29:15):** You'll find more information about **Peggy Martinez** and Creative Inclusion on her website at [CreativeInclusion.us](http://CreativeInclusion.us), and in the show notes for this episode, where we've also added links to the resources and guidelines we discussed.

At Toole Design Group, our goal is to change the core values of our profession and focus on the needs of the people and communities we serve. We want you to be part of the discussion of the new E's of our industry. For more perspective on Empathy and the other New E's, visit our website at [tooledesign.com/TheNewEs](http://tooledesign.com/TheNewEs).

Join the conversation on social media by searching for Toole Design, and using the hashtag #TheNewEs

The New E's of Transportation podcast is produced by Andy Clarke with help from Christine Lee, and edited by K.O. Myers. I'm Jennifer Toole. Thank you for listening.