

Boeing engineer Vicki Curtis stands next to a mannequin wearing a "suit" that researchers wear to experience the limitations felt by many older individuals. Curtis' job—and passion—is making the traveling experience more accessible for everyone.

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Accessible solutions

Meet Vicki Curtis, a Boeing engineer who seeks ways to make air travel easier for everyone

By DAN IVANIS

Sometimes Vicki Curtis is a 20-something parent traveling with a toddler. Other times, she's middle-aged with creaky knees and too many extra pounds around the middle. Sometimes, she's a paraplegic who is totally dependent on a wheelchair and the help of others.

In real life, Curtis is an engineer in TheConceptCenter at Boeing in Everett, Wash., who spends her time looking through other people's eyes, touching with their hands and feeling with their emotions in an effort to make air travel more accommodating for everyone. Formed in 1999, TheConceptCenter (formerly known as the Payloads Concept Center) generates forward-looking concepts for passengers and flight crew, flight decks, and airplane structures and systems. The Payloads Studio at TheConceptCenter focuses on the needs of people, developing ideas that bring benefits to Boeing's customers and the traveling public.

Whether it is airport signage, an airline Web site or the process of transferring a passenger from wheelchair to airplane seat, Curtis watches to see how different people react. She explores whether something can be made more accessible or, if it is already accessible, adapted to other situations.

"It started out as a job, but it's become a major part of my life," said Curtis, a 30-year Boeing employee. "It's a passion—something I think about constantly. Can everybody use it easily? Does it put someone at a disadvantage?"

Her quest recently led her to host a two-day workshop at TheConceptCenter that was attended by representatives of airlines, seat manufacturers, disability advocacy groups and Boeing employees. Representatives of The Walt Disney Company, renowned for its accessibility policies and service, also took part.

"Sometimes you feel like you've gone as far as you can and you need to get a bunch of people with different perspectives together so that we can look at the problems from different points of view," she said. "There were many 'Aha!' moments. The Boeing people who were there came up with some new ideas."

When people with disabilities travel, they're often told how they will be boarded, and the process is often conspicuous and inconvenient, Curtis said. "We're looking for ways to make it possible for someone with a disability to fly and not have to go through the indignity that is often associated with the process," she added.

Curtis' overarching goal is not to fix what now exists, but to find a breakthrough that can be designed into the next generation of aircraft.

"We came up with a couple ideas that the seat suppliers are willing to work with us on," she said. "It's a different way of making seats that uses existing technology. It does more than make the airplane more accessible. It makes it more marketable."

More than a proponent for people with disabilities, Curtis sees herself as a champion for the masses.

"We are all disabled at one time or another," she said. "A parent trying to board a plane with a toddler—their arms full of car seats, diaper bags and carry-ons—for all intents and purposes, that person has no hands. What have we done to help them travel?"

More central to Curtis' passion is an issue that will affect everyone: aging, and the various physical changes that go with it. Curtis was introduced to the problem shortly after joining TheConceptCenter about five years ago.

A 2002 report by the United Nations details the issue of the aging global population. By 2050, experts expect the number of people age 60 and up to be greater than the number of people under age 14 for the first time in history.

"This is an enormous issue for airlines, and therefore for Boeing," Curtis said. "Reduced vision, reduced hearing, reduced mobility and dexterity—the list goes on. The good news is that most of us will be healthy enough to live independently and do things we like to do, like travel."

And Vicki Curtis is determined to make it more accessible for all of us. ■

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