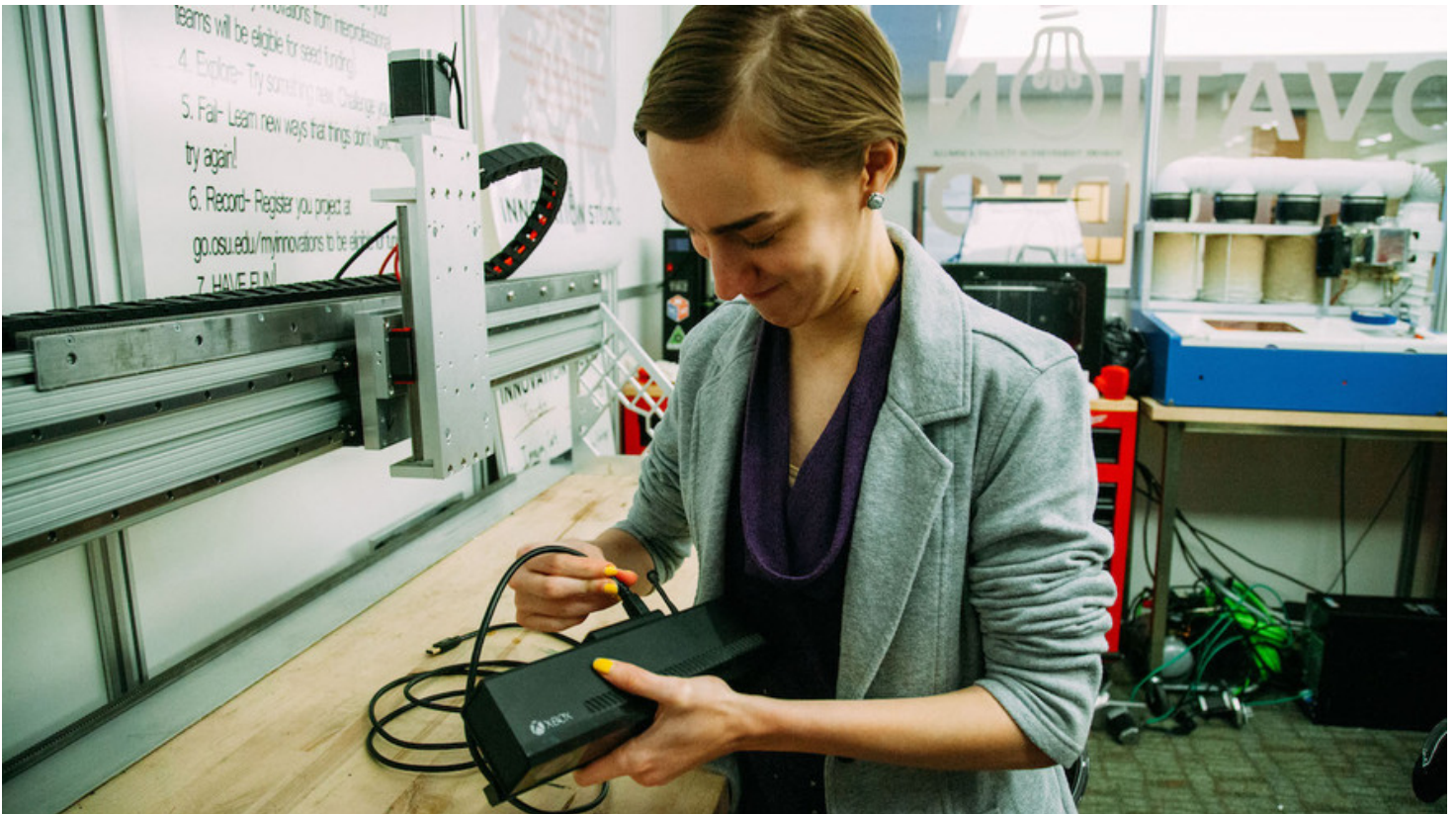


Engineering student helps envision self-driving future for people with disabilities

By Washington Post, adapted by Newsela staff on 04.21.20

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"You learn to adapt and accommodate to the world," says Jen Schlegel, a senior at Ohio State University. "You start to realize the world is not likely to accommodate for you." Photo: Ohio State University

Jen Schlegel is an Ohio State University engineering student. One weekend, she had to make a presentation. Her plan makes transportation accessible to people with disabilities using self-driving cars. Schlegel, though, was late. She had her own troubles getting around.

Schlegel, age 27, never planned to become an engineer. But she had to learn to manage her cerebral palsy and other health problems. Cerebral palsy is a disorder. It affects movement and muscle tone.

Engineering came by accident. "You learn to adapt and accommodate to the world," said Schlegel. She is a senior. "You start to realize the world is not likely to accommodate for you."

In college, she turned her attention to transportation. Getting around took up all her time and money. She got an internship at the Ohio Department of Transportation. Her division is getting ready for a driverless future.

Supporters of people with disabilities are concerned. They want a say in developing self-driving cars. They are worried the technology will not meet its promise. Self-driving cars could mean more freedom for people with disabilities.

It Can Be Hard For People With Disabilities To Travel

The advocates' efforts have drawn support from the U.S. Transportation Department and technology companies.

About 25 million Americans have a disability that limits their travel choices. The lack causes wide inequalities in employment rates. One-fifth of people with disabilities have a job. For people without disabilities, the rate is three-quarters.

Schlegel was born three months early. She has health problems that change day to day. Some days, her mobility is not as good. Then her options for getting around town are cut down, she said.

At one point, Schlegel began learning to drive. However, she decided not to get a license. She was not sure she could always safely control a car.

In many places, cars are the only way to get to work. People with disabilities, though, drive at lower rates.

Schlegel started planning an accessible self-driving shuttle. Just making a current vehicle self-driving is not enough.

Many Problems Still Must Be Solved

She has experienced the thoughtlessness and problems of public paratransit services. For example, service has to be booked well in advance. Limited information makes it hard to plan. On board, wheelchair straps are confining.

"Sometimes you can feel very dehumanized," she said.

An on-demand self-driving vehicle is attractive. It could serve people with a range of disabilities. However, a self-driving car has its own problems. They need to be solved for the cars to be accessible.

Experts with mobility challenges could help, said Claire Stanley. They know what problems need to be solved. However, there are not many of them at the big automakers. Stanley works for the American Council of the Blind.

Transportation Law Needs To Be Changed

At the Ohio Department of Transportation, Schlegel works with other students. She tells them to put limitations on themselves. For example, she tells them to use a wheelchair all day. Then they will know what it is like to be in one when you are tired.

Carol Tyson works for a disability rights group. She worries that automakers will not make accessible self-driving cars. Laws may need to change. The Americans With Disabilities Act promises accessible transportation. However, the law does not apply to vehicle designs.

Schlegel is still figuring out what she wants to do after graduating. She dreams of becoming a doctor.

"I'm going off script," she said. "I'm seeing where this all takes me."

Quiz

- 1 Which question is answered in the Introduction [paragraphs 1-5]?
- (A) Who designed the first self-driving car?
 - (B) What makes self-driving cars safe to use?
 - (C) How many people in the United States have disabilities?
 - (D) Why does Jen Schlegel study engineering?
- 2 Read the section "It Can Be Hard For People With Disabilities To Travel."
- Select the paragraph that explains WHY transportation is important for people with disabilities.
- (A) About 25 million Americans have a disability that limits their travel choices. The lack causes wide inequalities in employment rates. One-fifth of people with disabilities have a job. For people without disabilities, the rate is three-quarters.
 - (B) Schlegel was born three months early. She has health problems that change day to day. Some days, her mobility is not as good. Then her options for getting around town are cut down, she said.
 - (C) At one point, Schlegel began learning to drive. However, she decided not to get a license. She was not sure she could always safely control a car.
 - (D) Schlegel started planning an accessible self-driving shuttle. Just making a current vehicle self-driving is not enough.
- 3 How did transportation change because of the Americans With Disabilities Act?
- (A) It became more accessible.
 - (B) Cars were designed differently.
 - (C) People had to use wheelchairs.
 - (D) Self-driving cars were created.
- 4 How did public paratransit affect Jen Schlegel?
- (A) It kept her safe with its wheelchair straps.
 - (B) It helped her plan her day.
 - (C) It made her feel dehumanized.
 - (D) It caused her to use self-driving cars.