Mapping the Disability Tech Market - ACCESS 2024 - 3Play Media

[00:00:00.17] JENA WALLACE: OK, I think that counts as slowing a little. So we will go ahead and get started. Welcome, everyone, and thank you for joining us here at Access 2024 on day two. My name is Jena Wallace. I'm on the marketing team here at 3Play Media. I use she/her pronouns, and I am a white woman in my 30s with light brown hair and green cat-eye glasses.

[00:00:23.87] Before we dive into the discussion, just want to touch on a few housekeeping items. This presentation is being live-captioned, and you can view those captions by clicking the CC icon in your control panel. The session also features ASL interpretation, courtesy of Deaf Services Unlimited. Please feel free to ask questions throughout the presentation using the Q&A window or the chat.

[00:00:48.38] I'm happy to welcome you all to this session, Mapping the Disability Tech Market. We're joined today by Sandy Lacey, executive director of the Howe Innovation Center. Thank you so much, Sandy, for being here today. And I will pass it off to you for this wonderful presentation.

[00:01:05.25] SANDY LACEY: Wonderful. Thank you so much, Jena. And thank you to 3Play Media for having me here today at Access 2024. My name is Sandy Lacey, and like Jena said, I'm the executive director of the Howe Innovation Center at the Perkins School for the Blind. And we are all about connecting the community of people with disabilities with innovators so that better co-designed products make it to market.

[00:01:30.48] A bit about me before we get started, I'm a white woman in my early 40s. I have fairly long now brownish-blonde hair, brown eyes, and I'm wearing a purple sweater. So let's dive in and learn a little bit more about the disability tech market.

[00:01:52.68] Before we dive into that, I just want to give a quick background as to who I am and to level-set with everyone a little bit. So I'm pretty new to the disability and accessibility space. I come from tech and ecosystem building. I've been at Perkins for just over two years. But prior to joining Perkins, I'm a three-time early-startup operator, so usually one of the first five hires at a venture-backed startup. Two of those three companies I was in a research role, and that's why you'll see research play a very important part in our Howe Innovation Center strategy.

[00:02:32.31] I'm also an intrapreneur. I spent six years building and leading the innovation labs at John Hancock Manulife, which is a large global Fortune 100 company in the financial services sector. And in that role, I was really tasked with understanding how cutting-edge technologies, like blockchain and artificial intelligence, would impact our line of business in life insurance and wealth and asset management.

[00:03:02.63] I'm an educator. I've been teaching entrepreneurship for the last eight years. Six years I had the pleasure of teaching undergraduates at Tufts University. And for the prior two years I've been teaching MBA students at MIT Sloan. And most relevant to my role at Perkins

now is I spent a handful of years working for the state government, the Commonwealth of Massachusetts, under former Governor Deval Patrick, where I was tasked with supporting the growing climate and clean energy entrepreneurial ecosystem in Massachusetts without directly investing in startups.

[00:03:43.59] So what kind of programming did we need to scale in order to remove friction points in the innovation process so that more climate tech companies could be successful? And I'm taking that innovation ecosystem development recipe, and we're applying it to the disability tech sector at the Howe Innovation Center at Perkins.

[00:04:06.38] So what is an innovation ecosystem? On the screen right now is a circle with six different icons around it. And in the center of that circle is an icon representing the community of people with disabilities and their allies. The communities that surround the community of people with disabilities are the main stakeholders in the ecosystem that we at Howe Innovation Center are activating and partnering with each other around a variety of programming.

[00:04:37.17] So you have startups, right? These are student groups that are starting an initial company. Maybe a company has already been formed by established entrepreneurs and some capital has been raised. But these are companies that are building products and services specifically for people with disabilities. We have investors, everything from an angel investor. That's a wealthy individual who writes capital investments into startups in exchange for equity, as well as venture capital firms that also help accelerate the growth of a company.

[00:05:15.51] Physical test beds, so these are places out in the world that are open to deploying disability tech products for entrepreneurial testing so that the startup gets feedback on how the product is working in the real world. A great example here could be my favorite ballpark in the country, Fenway Park. What an exceptional test bed that would be to deploy accessibility products to make the whole experience of going to the ballgame more accessible.

[00:05:53.61] Then we have an icon representing the government. So the government really cares about job creation, regulation, and economic development. And so there's a variety of different government entities that like to engage in innovation and entrepreneurial ecosystem building. Large corporations is the fifth icon on the screen. These are any medium and large enterprise that cares about disability inclusion or accessibility. We are hoping to activate partnerships with them. And we'll talk a little bit more about some of those later to help accelerate the journey of accessible products and services.

[00:06:37.69] And finally, academia, so these are large universities that have students that are going to grow up, right? And they're going to become entrepreneurs, or they're going to join the workforce. And we want to reach those students with the story about the importance of accessibility and disability inclusion. Also, a lot of cutting edge research and technologies come out of academic research institutions. So having all six of these different types of stakeholders better engaged and collaborating around disability technologies can really unlock and accelerate getting better co-designed products into market.

[00:07:17.52] So a bit about Perkins School for the Blind, and why did we start the Howe Innovation Center? Perkins is almost 200 years old. We're turning 200 in the year 2029. And that's an exceptional statistic. That's an exceptional story, I believe. I believe there's only one Fortune 100 company that's been around as long as us. And you don't exist for 200 years unless you've been innovating and iterating on the journey.

[00:07:49.67] We are a leading institution for educating children with multiple complex disabilities. We were founded in 1829, and innovation is just-- it's really embedded within our DNA. We were the first school for the Blind in the United States. Today, we're an international NGO operating in over 18 countries globally. And our goal is to reach the 240 million children worldwide who are living with a disability.

[00:08:24.16] We serve around 200 children with complex disabilities on our campus in Watertown, Massachusetts, which is right outside of Boston. But we have traveling teachers of the visually impaired who go to schools and work with students to make sure their materials are accessible across the Commonwealth. I think we serve around 1,400 children there. Our library serves over 25,000 adults who are blind and low vision in our area. And we have national programs that are leading the charge on some of the most pressing issues in disability and education.

[00:09:04.54] So like I said, innovation is in our DNA. And on the screen right now there's three images that exemplify this. On the left is a drawing of a gentleman in like an old-timey blazer. And he is pointing at a book. And there is a woman wearing glasses, a younger woman next to him with her hands on the book. So she's reading a tactile language. And this gentleman is Samuel Gridley Howe. So that's spelled H-O-W-E. And that's who our Innovation Center is named after.

[00:09:42.55] Samuel Gridley Howe was the founding executive director of Perkins. He secured the funding to get the school off the ground. He found the first teachers. He found the first students. He went to France and learned from a school for the blind over there about what he liked in teaching methodologies, what he didn't. He was an entrepreneur, and he really got the school from 0 to 1, as we say in the startup world.

[00:10:09.59] He was also an innovator and a tinkerer. He invented deaf blindness teaching methodology, and that's what this image shows. A second image on the screen on the lower right is a raised tactile language called Boston Line Type. And this is a precursor to Braille that Howe invented.

[00:10:29.72] And finally, the only photograph on this page is a young boy using what looks like a typewriter. And this is actually the Perkins Brailler. It's a mechanical typewriter that we invented in 1951. And it's the leading tool globally that helps people who are blind learn and produce Braille writing. We make and manufacture and distribute this technology still today to over 130 countries across the globe.

[00:11:03.35] And we continue to innovate at Perkins in the present day in the digital era. So on the screen right now again are our three icons and one photo. The first icon is of a group on

campus called Perkins access, and this is our accessible consulting firm that we have. We do everything from the accessible brand to accessible employee experience to digital compliance to unboxing of a product and seeing if that's accessible.

[00:11:34.35] We have an exceptional team of highly-skilled accessibility consultants. And they have just been incredibly phenomenal in building out some really impactful partnerships. And they are really trying to move the needle on the fact that 96% of the internet still is not accessible even 20 years after the internet went mainstream.

[00:11:58.64] In addition to Perkins Access, we've built a mobile app for folks who are blind and low vision to help find the bus stop. That was funded through a grant from Google.org. That product is called BlindWays. We're building and developing the CVI protocol, which is the third icon on the screen. CVI stands for cortical visual impairment. It's the leading cause of childhood blindness in the United States today.

[00:12:26.58] CVI is incredibly underdiagnosed because it's not really well understood by the medical establishment. It's highly correlated with premature birth. The eye functions, but the brain can't interpret what the eye is seeing. And we are leading the charge on helping teachers, parents, and the medical establishment better understand how to assess visual behaviors to understand if a child has CVI. It's estimated that 1 out of every 40 kids in a classroom has CVI, but the National diagnosis rate is only 14%. And if anybody has any questions about CVI, I'm happy to connect offline about that. And we are running that program nationally.

[00:13:13.05] And then finally, the fourth image on the screen right now is of a young child in a light blue chair reading a book. And this is a device that we make on campus. We make bespoke furniture for children with disabilities to help augment physical capabilities. If a child is using all of their energy to try to sit up, how do we expect them to learn how to hold a spoon to feed themselves or to learn how to play?

[00:13:46.50] So we make these very, very low-tech innovations, not just chairs, tables, types of toys, out of corrugated cardboard, handsaws, and glue. And I put this in here to exemplify that innovation doesn't always have to be an artificial intelligence, high-tech product. It can be something really low tech. And this is something that we're working to scale across the country to bring our knowhow of building these exceptional devices to more children with disabilities.

[00:14:22.21] And why does this really matter? Well, the stakes, they're incredibly high. On the screen right now are three statistics. The first is that 16% of the global population has a disability. This is actually under-reported. In the United States, it's 25% of our population. People with disabilities are the world's largest minority, the world's most diverse minority, and the only minority group anyone can join at any moment in their lives.

[00:14:53.29] I think historically people have really thought about disability as other. But the reality is if we all grow into old age, we will grow into the population of people with disabilities. And it's time we start shifting our societal lens to realize how interconnected we all are.

[00:15:12.37] In addition to just the size and impact of the community, there's a lot of money on the table. $13 trillion worth of annual disposable income is controlled by people with disabilities and their allies. And this statistic one would think, oh, well, for every person with a disability, they counted 10 allies. Actually, no, the statistic is less than two allies per person with disability. And so again, I believe that this number is also under-reported.

[00:15:43.00] If you're not taking accessibility and disability inclusion into mind with your business development roadmap, you are not only excluding a huge component of the population, you are also leaving money on the table. We at the Howe Innovation Center, we've actually identified now over 1,500 companies that are innovating within this space. And I will talk a little bit more about that later in the presentation.

[00:16:13.45] So when we say the term disability tech, what does that really mean? Well, when I joined Perkins two years ago, I knew that there were innovations out there that were leveraging technology to improve the lives of people with disabilities. But I couldn't find a single market research report on this, not one. And I was an analyst very early in my career at two different companies.

[00:16:39.22] So I was looking, and I found really analog market research on, like, What is the forecast for walkers and wheelchairs and canes in the year 2030? But nothing about, What does augmented reality mean for accessibility? Or how is computer vision changing the lives of people with disabilities with technology companies? I couldn't find anything like that. But we knew they existed. Why did we know? Because these companies call Perkins.

[00:17:12.78] Every week we get calls from entrepreneurs who are building products and services for our community using advanced technologies. And we decided we would step in and try to bring some analytical rigor and insight into the sector. What you're not measuring, you're not tracking, right? You don't know if you can improve it or not. So we figured we should start tracking this so that we can see if there's an impact with regards to our work.

[00:17:44.48] So disability tech was a term people were using, but I actually couldn't find a definition for it. So we worked across interviews with 30 different stakeholders to narrow in on the definition that disability tech is really products and services that improve accessibility for all, for people with and without disabilities. You can think of your traditional assistive technologies and adaptive technologies. I think that's what most people tend to think about when they think about disability tech. But we've included inclusive tech within our disability tech definition.

[00:18:18.55] An example of this would be if there is a startup that's using artificial intelligence to remove the bias in the hiring process, now they might be trying to diversify the gender pipeline in a specific field like software engineering. But if that company is successful and their algorithm and their product actually does remove the bias in the hiring process, it will absolutely benefit people with disabilities as well. So we include them as a disability tech company.

[00:18:56.65] Inclusive technologies tend to shift the way systems work. So they shift the way employment works. They shift the way education works. They shift the way entertainment works, for example. So that's what we mean when we talk about disability tech. And our

database shows that over $4 billion went into early-stage investments in this sector in 2022 alone. Early-stage would be seed and series A deals. That is twice the size of the money that went into the climate tech sector in the same year. So this is a real sector with real value and real momentum.

[00:19:41.99] And why is there this momentum? Well, the ecosystem is really underdeveloped. When you think about start-up entrepreneurial clusters that support financial services innovations or that support climate and clean energy innovations, there's a lot of incubators, accelerators. There are venture capital funds who have said, I only invest in fintech startups, for example. In disability tech, it's pretty underdeveloped. And what this means is that customers, people with disabilities, are usually very late to benefit from advances in technology. And innovators face many challenges.

[00:20:23.96] Innovators, entrepreneurs, they tend to face challenges anyways. Like, how do I hire people? How do I fire people? How do I raise money? How do I find product market fit? All of these things are very typical in the entrepreneurial journey. But in the disability sector, there's actually specific challenges that innovators face.

[00:20:45.51] The first is a barrier to innovation that has to do with finding your customer for primary market research and user testing. On the screen right now is an image of seven individuals with and without disabilities. And what this means to exemplify is let's say I'm an entrepreneur and I'm building a product for millennials with student loan debt. Well, guess what. It is not going to be hard for me to find a thousand millennials to be able to answer my survey on student loan debt. And the reason why is because there are a lot of millennials out there with student loans.

[00:21:32.05] If you are an entrepreneur in the disability sector, it is very hard to find your customer for primary market research and user testing. Now, if you are building a product for people with disabilities, you will find a way-- you will absolutely find a way to reach your audience. A lot of the times you'll call a organization that's focused on serving that community of people with disabilities, for example, Perkins.

[00:22:04.83] If you're building something for people who are blind or low vision, you reach out to Perkins to try to find the customer. But if you're building a product or a service for people within the general population, you're not going to spend the time trying to find people with disabilities to test your product with because it's too hard. At Perkins, we are actively working to solve this problem by making it easier for innovators to find people with disabilities for primary market research and user testing.

[00:22:36.17] The second challenge to innovation that's very unique in the disability tech sector is that daily challenges of our community across all disabilities are largely misunderstood and unaddressed. So what I mean by this is on the screen right now there's a clustering of company logos on one side. And then on the right side there's just an image of one product.

[00:23:00.22] Now, the company logos on the left represent the 106 companies that we've identified at the Howe Innovation Center that are building products and services specifically for

people with visual impairments in the space of navigation and object identification, so 106 companies, a lot of activity and a lot of clustering there. And it makes sense as to why if you can unlock navigation and visual interpretation for people with visual impairments, you are going to unlock access to education and employment opportunities as well. So there's a need for this.

[00:23:38.44] However, we've only been able to find one accessible pregnancy test under development. So if you're a woman today in the United States and you're blind and you think you might be pregnant, you cannot find out in private if you're pregnant. You rely on someone to interpret that test for you. And that's a major issue, and it's a major design flaw from all of the products that have been built for the general population. Because it just shows that these companies who have built products to address the pain point of identifying if somebody is pregnant or not haven't considered the blind customer in their product journey.

[00:24:19.06] And this is something that we really, really believe we can solve. There are a lot of thorny, persistent problems in daily living, education, and employment that people with disabilities deeply understand but innovators just are not aware of. And we believe we can really help amplify that lived experience so that more well-intentioned entrepreneurial energy goes to problems that the community actually wants to see solved.

[00:24:48.65] And if we're successful in our journey, we will see innovations that benefit many, many people. So on the screen right now are six different images representing innovations that originated in the disability community but that are ubiquitous today. If you've used a curb cut, these were developed for folks who are using a wheelchair. But guess what. Pushing a stroller, it helps. Riding your bike, it helps.

[00:25:18.65] A bendy straw, also developed for the disability community. But if you have ever gone out to a meal with a toddler you will know how useful a bendy straw could be. Electric toothbrushes, text messaging, voice-to-text technology, and closed captioning, all of these were invented to solve a pain within the disability community. But they are widely used by everybody today. And we believe that if you can bake accessibility earlier into the product journey, we will see more products like this become mainstreamed.

[00:25:54.11] So this is where we are stepping in as the Howe Innovation Center. We are really focused on strengthening this ecosystem by connecting innovators with people with disabilities. And I'm going to move on to talk about how we're doing that. So we have a four pronged approach. We are focusing on research, supporting innovators, amplifying the lived experience, and expanding reach.

[00:26:20.66] What I mean by the three that I spoke of last, supporting innovators, this is around creating programs that make it easier for entrepreneurs to codesign products and services with people with disabilities. And we're doing this through a variety of partnerships. We're in a partnership with MassChallenge right now, which is the world's largest nonequity-taking startup accelerator. We are amplifying the lived experience by both providing a user pool for primary market research and user testing and also centering these lived experiences in a lot of our public-facing engagements.

[00:26:59.91] We hosted a hackathon at MIT in February powered by Amazon, and it was all about what AI could do for-- what artificial intelligence could do for accessibility. But the eight innovation challenges that the students worked on were all sourced from interviews with people with disabilities so that real problems were attempted to be solved and so that the customer was centered in the innovation journey.

[00:27:30.27] And by expanding reach, I've been going through a lot of Tech First conferences, so TechCrunch, Disrupt, CES. I hope to go to South by Southwest next year. I really want to take the disability tech story to the broader tech ecosystem so that the average software engineer, product manager, and designer at a product that's being built for the general population will think about people with disabilities in their product development roadmaps.

[00:28:02.08] But we started with research because we joined, and we really couldn't find any of that market research intelligence. So I sat in a room with an Excel spreadsheet and did a ton of research and built a proprietary database, which actually now has over 1,500 companies in it. On the screen right now is a clustering of logos. This is one of our data outputs from that database. It's something called a perceptual market map, where company logos are clustered around the type of innovation function they provide.

[00:28:37.28] So if you think of a normal 8 by 12 size paper, the full top half of this page is filled with companies that are innovating in the space of navigation for the visually impaired. And it's further broken down by type. So we have medical devices in there, things like wearable glasses, wayfinding apps, so things you could download on your phone, handheld assistive devices, so smart canes, for example, other types of wearables and consumer devices.

[00:29:10.28] The bottom half of the page, the largest cluster is in tactile interpretation, so innovating on the way Braille or tactile images are displayed, employment, communication, and then a clustering of other innovation functions. We took this disability tech database, and we wrote a framework around how to talk about the companies and the taxonomy that we used to catalog all of them. And we released that white paper in September of last year to a standing-room-only crowd at TechCrunch.

[00:29:48.50] That white paper is free and available for download on our website. So at the end of this presentation, I have a QR code that I can pull up. And within that white paper we talk a lot about what disability tech is, what the companies are doing, what the ecosystem needs, and how to catalog each company so that you can understand where the white space might be.

[00:30:15.28] On the subsequent slide, we talk a little bit more about what this proposed framework for talking about the disability tech sector is like. Essentially, in our database we've broken each company into what community does the product try to serve, so who is the end user? What does the product or service help its user do? That's the function of the product or service. What form does the product or service take? So is this a consumer good or a digital product? What technology is the company leveraging to make this product? So is it using sensors or LiDAR or beacons or algorithms?

[00:31:00.19] And this is really fascinating stuff because now, for the first time ever, we can actually query a database and say, show me all of the companies that are innovating for the deaf and hard of hearing in the space of communication using computer vision and in California. You could even get more granular than that, and we could see who they are. We could also ask it, show me which investors have been most active in supporting disability tech companies in New York? And it will spit out all of the investors who have made investments in New York State companies.

[00:31:37.25] We have been able to quantify the market too. So we already talked about the early stage money that went in. But on this slide, what's incredibly interesting is that we see an upward trend that disability tech is really a large and growing sector that will unlock value across the disability spectrum. Our estimates are that in 2023 the sector was valued at $25.8 billion, so the market value of all of those companies that we've identified. And then in 2030 we anticipate that to be a $40 billion sector.

[00:32:16.53] On the screen right now is just a quick takeaway from the white paper. So this is published in there. I won't talk about it very much, but this is what I call our white space heat map. So we have the communities of people with disabilities at the top on the x-axis. And on the y-axis, we have the function of the startups. So what this means is the navigation, communication, interaction broken down into subfunction as well.

[00:32:49.36] And what we can see here is wherever there's a dark square on the slide within the heat map, that's where there's over 50 companies building and innovating in this space. So at the intersection of the visual community and wayfinding, the visual community and visual interpretation, audio interpretation, and tactile interpretation, and medical treatment, those are the areas where there's the most activity. But there's a significant amount of white space where the disability community is not being served. And we are hoping to be able to provide more insights into this as the Howe Innovation Center continues to grow.

[00:33:30.25] What was also really interesting about this is that hardware-centric startups actually make up about 50% of the market, which is huge. I did not anticipate that, but that was a really great takeaway that our research showed. And we hope to continue to be able to augment and power our research moving forward because this is powerful for entrepreneurs who want to go raise funding. It's powerful for investors to actually understand what's happening out in the sector. And it's powerful for us as a community because this is the language the tech ecosystem talks. And if we want the tech ecosystem to pay attention to the needs of our community, we got to talk the same language.

[00:34:16.33] We're sharing the database too. So on the screen right now is a video that shows the visualizations that we've created of the underlying data. We partnered with Olin College of Engineering and Perkins Access to create accessible visions of the database, where we define the data at the top. We've also sonified some of the data, which we'll experience right now as it goes through companies founded over time.

[00:34:45.01] [ASCENDING MUSICAL SCALE]

[00:34:51.75] And so that was the cumulative total. And now we'll--

[00:34:54.93] [VARYING MUSICAL SCALE]

[00:35:01.23] So that just goes to show that when we went through our accessibility testing, we received feedback from people who are blind and low vision, that not just getting a summary of what's happening in the data up top is helpful, but also having some sort of sonification feature for the charts and graphs could be interesting as well. And this is just something that we've been playing around with. But it's our way of empowering folks who are out there to be able to understand all of the activity that's happening within this sector.

[00:35:40.50] On the screen right now is a timeline of the Howe Innovation Center's growth. So we officially started in March of 2023 when I gave a first public-facing engagement at the A11Y meetup group in New York City hosted at Asana. Thank you for having us. Since then, we've grown to a community now of over 700 folks who care about bringing together the community of innovators and tech with people with disabilities so that better products can make it-- more accessible products can make it to market.

[00:36:12.24] We've received support from Amazon and Honda. We've been quoted in Forbes around four times, The Boston Globe twice. We've spoken at some major tech conferences, and we're really just getting started. So I've been very excited to see the exceptional momentum we've been able to get.

[00:36:32.28] On the screen right now are three photos of news articles. The photo on the left, that's actually me writing out a big check. And that's an article that was in The Boston Globe called How Hard Is It To Make Mobile Apps More Accessible? This was coverage of the hackathon that we hosted on AI for accessibility at MIT powered by Amazon.

[00:36:53.47] On the right, we have my favorite headline of all time, "Disability Tech Startups Kill the Cynic in Me." And this was Anaheim's coverage of us at TechCrunch Disrupt in September. And then we have another Globe article by Hiawatha Bray For Visually Impaired, A Path-opening AI assistant. My goal is to really be that resource at the intersection of technology and people with disabilities. That's really what we want the Howe Innovation Center to be able to do.

[00:37:23.75] And finally, I just wanted to show a quick video because I really believe-- oh, I'm going to pause that for one second. I really believe that a lot of the time we talk about accessibility in the sense of function, and that's accurate. A lot of the time accessibility is about function. But I also believe accessibility can put the fun in function. And this is a video that shows our partnership with Honda that we just completed last month around something called Scenic Audio. So I'm going to press play, and we'll go from there.

[00:37:57.99] [VIDEO PLAYBACK]

[00:37:58.28] - --technology on the road.

[00:38:00.04] - Cars these days see all around them, other cars, the edge of the road, traffic signs, even the chance of collision before it happens. But somehow, amidst all this technology, we haven't figured out how to help every human in that same car see what's out there too.

[00:38:20.71] - Visually impaired people share their experiences.

[00:38:23.59] - People that are sighted have constant input. I don't know what I'm missing until I know what I'm missing. I don't ask. I don't-- I knew I was missing out, but I didn't want to inconvenience other people.

[00:38:33.52] - I feel the movement of the car, but I certainly don't get much about what's outside the car. So I'm sort of a captive there.

[00:38:42.16] - Sometimes when I'm in the car with friends I do feel lonely. It's a very isolating experience.

[00:38:49.99] - Sandy Lacey, Howe Innovation Center.

[00:38:52.69] - People with disabilities are the world's largest minority, the only minority group anybody can join at any moment in their lives, and the reality is, if we're all lucky enough to grow into old age, we're all going to join the community at some point.

[00:39:06.79] - Honda introduces Scenic Audio with Perkins School for the Blind and the Howe Innovation Center.

[00:39:12.44] - The app is really a combination of a number of different artificial intelligences working together and then a number of different data sets working together.

[00:39:19.67] - Jason Carmel, creative technologist.

[00:39:21.92] - We use things like computer vision to actually see what's out there, and then generative AI to then describe it in a way that's meaningful.

[00:39:29.57] - A list of data sets appears.

[00:39:31.31] - Added to that are all of these data sets that provide much more context, so things like the weather that's outside, the traffic, what direction that you're going, and then points of interest along the way that might help us describe things in a much more interesting way.

[00:39:44.18] - When I first heard about it, I was like, OK, well, that's a cool story, bro, but why? And then the more I thought about it I'm like, wait, I can get in a car and get the same information as a sighted person. That's a really cool idea.

[00:40:00.11] - The app interprets the world outside for visually impaired passengers.

[00:40:04.07] - As we cruise down Pine Street, our gaze falls upon a sandy shore. Peaceful waves ripple gently, and distant figures stroll along the water's edge, enjoying the serene maritime vibe of Vineyard Haven, while ahead of us the partly cloudy sky melds with the ocean's edge, leaving us eager for the views that await. Struck by the iconic green and white facade, the towering red brick walls adorned with banners of legendary ballplayers. It's an overcast day, and the rain adds a slick sheen to the brick sidewalk. A rainbow arches faintly, giving a splash of magic to this quaint town tableau.

[00:40:37.79] - Ooh, love rainbows.

[00:40:40.70] - It's not about wayfinding. It's not about telling somebody when the next exit is on the road. It's about sharing the experience of being on the road.

[00:40:48.77] - Natalie Anderson, Perkins School for the Blind.

[00:40:51.50] - Any time we can create an equitable experience and foster independence it's a good day here at Perkins.

[00:40:59.39] - Phil Hruska, Honda.

[00:41:01.10] - This app really is more about storytelling and about this narrative versus just making it about functional. And that's really the inspiration of the power of dreams.

[00:41:14.00] - The idea of being able to sit in a car and enjoy the scenery around me is novel.

[00:41:19.46] - Cassandra arrives at the lighthouse.

[00:41:21.68] - Weathered shingles tell tales of salty air and sea sprays, their presence in homage to New England charm. As we approach the ferry at Woods Hole, it's white lighthouse stands sentinel against the gray sky.

[00:41:33.17] - It's a lot to pull together. But when it's all together it's like, holy crap.

[00:41:38.24] - --giving the impression of a space in transition waiting for its next purpose.

[00:41:42.38] - That's cool.

[00:41:43.04] - We catch glimpses of greenery--

[00:41:45.35] - Honda, the power of dreams.

[00:41:47.00] [INSPIRATIONAL MUSIC]

[00:41:52.05] SANDY LACEY: So thank you all so much for enjoying that video with me. It goes to show the power of partnerships and that accessibility can be fun. We are fundraising $2 and 1/2 million to grow the Howe Innovation Center over the next three years. We are a

nonprofit. We're philanthropically supported, and we are an ecosystem support mechanism. We want to see disability tech grow. So I welcome any and all introductions in this space. I'm on this trajectory here.

[00:42:26.56] And I'd just encourage everyone here-- thank you so much. Please join our community. There's a QR code on the screen right now, which would bring you to our signup page. The community is free, and our goal is to create programming and to provide organization and insight. I also put an email address on here that goes directly to my inbox. So it's innovation@perkins.org. Please feel free to reach out. And if we have a minute or two, I'd be happy to take any questions.

[00:42:57.20] JENA WALLACE: Thank you, Sandy, so much for that great presentation. Unfortunately, we are at time at this session. So we don't have any additional time for questions.