Advocating for #DeafSafeAI Regulations - ACCESS 2024 - 3Play Media

[00:00:00.17] KELLY MAHONEY: Thank you, everyone, for joining us for another session of ACCESS 2024. This is day one of the Amplify track. My name is Kelly Mahoney, and I'm on the marketing team here at 3Play Media.

[00:00:11.54] Just as a brief self-description, I'm a young white woman with long red hair wearing a white top today. I'm happy to welcome you all to the session advocating for #DeafSafeAIRegulations. And that's all that I have to take care of, so I'd like to introduce today's speakers.

[00:00:27.29] We're joined by some wonderful panelists today, including AnnMarie Killian, the CEO of TDI Telecommunications for the Deaf and Hard of Hearing, Incorporated; Star Grieser, CEO of RID, Registry of Interpreters for the Deaf; Tim Riker, senior lecturer in American Sign Language at Brown University; and Jeff Shaul, the co-founder of GoSign.AI. Thank you all very much for being here today. And with that, I'll pass it off to AnnMarie, who will be facilitating today's session.

[00:01:02.41] ANNMARIE KILLIAN (INTERPRETED): Thank you so much. This is AnnMarie. And I'm going to describe myself right now. I'm wearing a black jacket with a blue turtleneck underneath. My hair is long and brown. I'm middle-aged, but people say I look younger than I am. And I have a gray background. There's a picture of my husband on my desk. I'm very happy to be here today. Star?

[00:01:38.98] STAR GRIESER (INTERPRETED): Hi, there. I'm Star Grieser. I'm a white woman in my 40s. I have dark brown hair in a ponytail. I'm wearing glasses. I have earrings-- dangling earrings, and I'm wearing a black turtleneck. My background is also gray. Very happy to be here, such a pleasure. Jeff?

[00:02:02.36] JEFF SHAUL (INTERPRETED): Yes, hello. My name is Jeff Shaul. And I'm the co-founder of GoSign.AI. And I'm also the head of technology for IT. My image description is that I have a dark gray shirt on with pinstripes, short hair. I'm a white male with blue eyes. And common home office behind me. Tim?

[00:02:32.91] TIM RIKER (INTERPRETED): Hi, I'm Tim Riker. I teach-- I'm a senior lecturer at Brown University. And my visual description is that I am a white male with a little bit of facial hair, strawberry blonde hair. I've got my hair combed over. I've got blue eyes. And I'm wearing a dark blue shirt, a button-down shirt, with a darker blue jacket over it, a blazer.

[00:03:04.40] So yes, thank you, everybody. We're excited to be here. I'm excited to participate and present today.

[00:03:13.95] ANNMARIE KILLIAN (INTERPRETED): Thank you all. First of all, I am so impressed with the company, 3Play, that has hosted us today and invited this panel. It's critically

important that we talk about this issue of Deaf Safe AI. We are an advisory group, and what we're advocating for is SAFE AI. And what that stands for is Stakeholders Advocating For Safe AI.

[00:03:52.17] And the whole process is extremely important to us. We want transparency, and we want intersectionality. It's very important to be inclusive and support this process. So we're here to protect the deaf community. We want to make sure that there is no harm created by AI.

[00:04:24.12] Our panel today will be discussing four elements. Firstly, our method, our findings, our discussion, and our conclusion. You'll see in the next slide, if we could advance that, these are the members of our group. Next slide, please. You can see the QR code here. And this will show you an in-depth summary of our report and our website. So now, we'll go ahead and transition to Star Grieser.

[00:05:08.66] STAR GRIESER (INTERPRETED): Thank you all so much for attending this and listening to our panel. I want to give you a little bit of background about why we're here and having this conversation, and why it's so critical. About 20 to 25 years ago, when new technologies were introduced to break down barriers to communication access for deaf people, we had things called video remote interpreting that was introduced to our community. It sounded great, but we realized quite soon after it was launched that that technology did not become established with any input from deaf people, especially high-risk situations and high-consequence situations, for example, in hospitals.

[00:06:00.19] So the video relay services were used readily by hospitals. And we saw a lot of disruption in terms of our community. There's an issue with understanding technology and the appropriate use of technology. We have nothing against technology. It's wonderful. We accept it readily.

[00:06:27.00] However-- and it can be a great equalizer. It can allow us to have conversations we wouldn't have otherwise had. That's excellent. At the same time, it has to be used ethically and appropriately. It cannot be imposed on us without our collective involvement. And it can be very disruptive, especially in hospital settings.

[00:06:54.46] The use of video remote interpreting is widely used in hospital settings without the input or oversight of the deaf community, and it's been extremely harmful. Many of us have had disruptive experiences based on technology. And this was 20 to 25 years ago.

[00:07:15.47] Now we're looking at AI, artificial interpreting and automatic interpreting. And this is scary. We want to get involved in the beginning. We've learned our lesson. We need to be part of the conversation.

[00:07:32.27] Again, there's nothing wrong with AI, but it's very important to have the appropriate individuals involved in advising AI, especially in terms of its applications. So we've been involved in a group, the one that AnnMarie just mentioned, SAFE AI, for the fair and ethical practice of artificial interpreting or automated interpreting.

[00:08:03.42] And we want to make sure that we have the buy-in and the view of agencies and users. So we've surveyed the community and the companies that have provided language interpreters. And it's very important to continue to do that, include the voices of the ultimate consumer. This affects interpreters. This affects the development of changing languages, like ESL, for example, teaching languages. Sign language at this point, you know, how do you collect the sign language so that AI can read it?

[00:08:45.99] So the task force is working very hard. And we want to make sure that our input is included in all of the research because we're concerned that our findings, if they're not shared or read, that would be a terrible thing to overlook. So that information that we're collecting is important to the surveys and to the research.

[00:09:10.93] We're trying to develop our own surveys as well in American Sign Language, but time did not permit. Last fall, we hosted three webinars. And we had a variety of people talking about their perspectives, their concerns, their appreciation of AI, and how it might impact in the field of ASL interpreting. And the issue keeps coming back to the same things. You know, it's not the same as written language. You cannot apply those standards.

[00:09:50.31] So we're going to talk about the findings and the method, discussion, and so forth. Next slide, please. Thank you.

[00:10:04.99] OK, we're going to talk about a partnership, co-designing accountable AI by AI. Deaf consumers who have experience with technology and the people who set up technology, devise technologies need to work in partnerships and understand one another's goals. This will help us create safe and effective and ethical AI using artificial intelligence. Next slide, please.

[00:10:45.20] We all know that technology is transformational, and it can transform the interpreting industry. It can transform access for deaf, hard of hearing, and deafblind individuals. We want to make sure that it's used appropriately and beneficial to the community and do no harm. Next slide, please.

[00:11:11.34] So we've done a lot of analysis from our webinars over the fall and winter, and a number of issues came up. And you can see that, first of all, the task force, in a short amount of time, immediately identified the potential problems. Next slide, please.

[00:11:41.11] So this slide talks about what we call the sociotechnical aspect of AI, how we all interact with each other and communicate with each other, and how technology could influence the way we interact, the speed of interaction, and the use of technology. So it's very important that we look at this through a sociological lens to optimize both the technology as well as the sociological lens and also to reduce barriers. We want to use the best available technology out there, of course. Next slide, please.

[00:12:31.23] There we go. That's the right slide. Thank you. Deaf Wisdom. The point of this is that deaf people have lived collective life experiences that reflects on both dimensions of the sociotechnical issues and have stories to tell. We have wisdom to share. Our experiences of harm and with automatic interpreting, which is used more and more with spoken languages, has been a

major shift in their industry. We see that, and we want to have input on how that will affect our industry.

[00:13:08.19] So we want to guide some of the-- set up some guideposts for sign language interpreting for that field, not only for deaf people but for spoken language interpreters as well. Protection of the consumer is primary. And we are all vulnerable. It's high-risk and high-consequence. Also, to provide interpreting services in an ethical way, in a way that's appropriate and fair to everyone so that there's open communication from every perspective.

[00:13:44.77] It's essential to attend to different sociological behaviors-- body language and different shapes and structures that influence the message. Thank you. And now, I'll pass this on to Jeff.

[00:14:02.84] JEFF SHAUL (INTERPRETED): Yeah, and if you wouldn't mind going to the next slide, please. Thank you, Star, for the introduction and explaining how important and critical it is to have deaf wisdom involved. So I'll go into talking a little bit about the study that we conducted. We did a thematic analysis of the system.

[00:14:21.17] There were three-- we hosted three workshops and pointed out some of the issues with the study and approaches that we did. So, again, we only did three research. So the data isn't representative of the entire signing or deaf community at large. So, again, it's not a full sample size. So do please keep that in mind.

[00:14:42.59] Second, the thematic analysis that we did do can be fault by situation. So for example, if there was to be a situation where everybody had a complete understanding and an agreement, then you wouldn't get that much attention from those workshops because everybody was on the same page and had complete understanding. So the two things that we wanted everybody to keep in mind as we go through this is that these are not detailed findings.

[00:15:06.46] So now, we did do the thematic analysis. We were able to come up with three major findings or three major categories. The first was readiness. The next one was results and outcomes. And the last one was technological quality. So those were the three major themes that came out of the workshop discussions that we held.

[00:15:30.84] And then, we broke that down into two systems-- one being social. The second being technical. We will take a look at more of an understanding of how those two systems interact with each other using the sociotechnical system. Next slide.

[00:15:50.87] So we will go into detail for each of those groups. Thank you. So now, the results and outcomes. The results and outcomes are short-term results, while the outcomes are longer term, meaning ongoing events. And as technology is distributed, these outcomes will be as a result of those.

[00:16:19.45] So these points are really critical strong themes that kept coming up throughout the workshops. The first is control of the level of cultural groups. And that means a level of the deaf community at the level of the signing community what they needed to have in order to process--

for the community to come together and make the decision. Do we have that technical understanding to make those decisions?

[00:16:53.22] Being able to make the choice of that system or which system we're going to use, that already matters-- that matters to making sure that we have a choice. So, yes. Yes, at an individual level, we want to make sure that each individual member of the deaf community has the ability to opt in or opt out, to be able to choose which system they want to use.

[00:17:20.24] And a lot of these results are very detailed. But if you wanted to get more information about that, please do read that #DeafSafeAI report. And that has a lot more detailed information in it. Next slide, please.

[00:17:39.08] Moving to the next major topic that people were discussing had to do with the quality of technology, the technology itself, and different subtopics that resulted from those discussions. One of the major concerns that the community shared was their data. So the data, basically, is what powers the AI. Without the data, it won't be effective. But AI is only as good as the data and the inputs that it's trained on.

[00:18:14.61] So a lot of times, hearing scientists and there's hearing engineers that are putting in the garbage. And so if you put in garbage-- garbage in, garbage out. So the automated interpreting training isn't complete. The data set isn't a true representation of the population. And that was what came out of that discussion.

[00:18:38.28] So there are some concerns about what data is being used-- the data security, data understanding, data consent, and then also informed consent. It's really important for people to be able to have an understanding of what potential outcomes and results can lead to them using AI or result from them using AI. So, again, that's where that opt in and opt out option comes in. For signers whose data is used, they will be in that data population.

[00:19:14.83] So making sure there's no harm done by having misinformation spread, by having technical-- there was another sub-topic about safeguarding and security. So we needed to have some policy in place to ensure that the quality of technology, ensuring that there's no errors so that it doesn't lead to further harm or interruption. Next slide, please.

[00:19:52.88] Now, the third topic, the third main theme that came up from these discussions out of these workshops is actually a really critical piece. Where are we at? Are we ready as a community for AI? Are we able to give access? People that provide language access, are they ready to provide this? Is the technology providers, are they ready for this?

[00:20:14.43] And so several concepts came out of this discussion. So, first, is the technology ready? Can it meet the needs of the deaf community? Can it meet the needs of the providers?

[00:20:31.12] Second, is it ready for the American deaf community? Are they ready to integrate it? Are they ready to use the new technology? And, actually, will it transform how we sign or change how we sign? Will it change our language?

[00:20:46.69] So maybe AI-- maybe they only have one specific type of sign and might cause another type or variation of that same sign, like, for example, regional signs. Will that reduce the use of those regional signs? And that chilling effect on how that sign diversity that we currently have in our community.

[00:21:12.35] Third, accountability. There has to be accountability. Who is accountable for this technology? What happens if AI goes awry? What happens if the AI model isn't correct? Does it impact the individual user? So there's varying levels of accountability that will be involved in AI. Next slide.

[00:21:40.67] So now, this brings me back to the big picture-- the sociotechnical system at play. So, again, it breaks down to these different sections-- the social aspect, if we're ready, and the results and outcomes, and then the technical aspect, the technology quality. And keep in mind, again, these all interplay and interact with each other within these two systems. So the social aspect has a greater impact on the members of the community.

[00:22:21.68] So now, I'll go into more details about the case study. And for that, I will turn it over to Tim. Next slide, please. Thank you.

[00:22:34.43] TIM RIKER (INTERPRETED): Thanks, Jeff. So I will begin with the research that was conducted by Chen. This identifies what health care systems traditionally provide in order to develop the technology. So you'll notice here that there are five different steps or processes in this model development.

[00:23:03.47] They identify a problem. They select the data. They have outcome definition. Then there's the algorithm development. They come up with what algorithms they're going to use for the program. And then there's post-deployment consideration-- basically, identifying any concerns or results from that. In the next slides, I will discuss more information about each step. Next slide, please.

[00:23:39.88] So this first step-- usually individuals who identify-- they find a problem. They identify what the problem is. It's not usually done by the people who provide the services. It's usually by the people who have access to funds to make those decisions. Those are the ones who are identifying the problems.

[00:24:01.60] So they figure out whatever the problem may be. And their problem might be different than the users of the problem or people who are experiencing the problem. So there is an ethical dilemma from the get-go. People who want to save money on interpreting costs, what their motivation is might be different than the community at large, the people who want higher quality, better access to interpreting services. So there is the conflict. Next slide, please.

[00:24:38.53] So for the data collection aspect, if you're only collecting data from a limited sample group, for example, if you're only collecting from white users or standard ASL users, or if you're only talking to a specific group of Spanish speakers, that sample size that is collected isn't inclusive of the variety and diversity of the end user group. So the deaf community has varying levels of variety. There's deafblind. There's deaf of color. There's people who come from

other countries who you might use a different sign language system. And so if you're only collecting data from one sample group, that really limits-- or like, for example, white ASL users, you are dismissing the rest of the population. Next slide.

[00:25:46.17] So the outcome definition. How do you determine what a good outcome is? And how do you know what the outcome that people want to have? In order to do that, you have to be able to identify disparities in the health system. And like, for example, coding it to making sure that the program uses the technology correctly so it doesn't cause more disparity or larger gaps in disparity.

[00:26:17.57] So you want to make sure that you're talking to people who want to have technology that is successful in continuing. Like, for example, if you want to make sure people have an appointment booked on time, or arrive in time for their appointments, coding that technology will be for efficiency, but you're leaving out the group of people that might need more time. So if you're booking appointments back-to-back, maybe a specific patient wants more time to talk about their health issues.

[00:26:52.05] So another example is a deafblind user. They do require more time. So if you're booking these appointments back-to-back to be efficient, you are, in turn, disregarding their needs. Next slide, please.

[00:27:12.87] So as far as the algorithm development-- so you come up with an algorithm. You design the program. How are those metrics measured? How are these processed? Because if that's successful for 85% to 90% of the individuals, but you're excluding the other 10% of the population, is that successful? Is that equitable?

[00:27:44.55] Because if those people who made the algorithm, who designed the program, and they are setting up an algorithm to be run to be successful for 85% of the population, those under-served populations, their needs aren't being understood. So, again, incorporating and including those people into the process to ensure that their needs are met in the technology that's being used. And then, it's also it could be a violation of the equity policy. Next slide.

[00:28:27.27] This is the post-deployment considerations. So after the technology has been deployed, how do you go back and ensure that the system is operating efficiently, effectively, making sure that it's meeting people's needs? Maybe there's a couple of people who continually or always have an issue using the product, but the overall population seem to be using it just fine. So that means the system works for, again, 90% of the population. So is that sufficient?

[00:29:02.29] What about the rest of the population that continually have these issues? And these people usually have past trauma from the system from not being heard. And, again, another example of this are the deafblind population or individuals who have different signing needs. They're often under-served populations. And often, they have trauma from these past experiences. So how do you incorporate their input to make sure that they are getting served equally and benefiting from the technology as well? Next slide, please.

[00:29:47.47] So our analysis, we did have different webinars. And we did identify solutions to create a report. And it was called the Deaf-Safe AI Report. And it was a legal organization-- or it has a legal foundation to be used on automated interpreting for AI. And what this has become, these become our recommendations. And I can expound upon that in the next slide. Next slide, please.

[00:30:22.35] So what was brought up, one of the questions that came out about this is if we designed a system, where is the deaf community's input? Where is their involvement? Making sure that it's possible for justice, for design justice-- is it possible? Next slide.

[00:30:44.93] And this brought up that deaf individuals need to be involved from the inception through the pipeline and at every step along the way. Deaf perspectives have to be considered from design through to make sure that it's ethical, equitable justice. And in the pipeline, if you disregard individuals who will be using it, who will be the end users of the technology, then it will cause harm, and it will cause disparities in the technology.

[00:31:17.34] So we want to make sure that we are included, we have a voice at the table, and we're part of leading and making the decisions for AI. Next slide.

[00:31:30.48] So going back, again, to the sociotechnical system and what our findings were, the report findings. Again, there's the social aspect and the technical aspect, and how those interplay with each other. Without people, the users' input, and you're just making the technical aspect of it, you think that it's a high quality technical piece or program. But the end users haven't been involved. So you're missing a link to-- you're missing its better half, essentially. You have to have both halves to make a whole.

[00:32:01.92] So again, that's the point of this. The sociotechnical system really is a helpful model for framing this conversation and why it's important. Next slide.

[00:32:18.24] Jeff, I think this is your slide? OK, well, I'll turn it over to Jeff for this part.

[00:32:22.47] JEFF SHAUL (INTERPRETED): All right, thank you, Tim. Thank you for introducing us to the concept of the design justice concept. That's useful. We'll be using the sociotechnical system as a framework for different concepts of the design justice that we'll be needing to put in place for practice.

[00:32:41.87] So me, I am at work. I am an app developer. That's what I do for work. And as an app developer, I'm always thinking of the technical design to meet the needs of our consumers.

[00:32:57.26] When you start to develop an app, you have to think about the relationship about the technical qualities, as well as the readiness. If the technical part of it isn't good enough, and the community is not ready for it, then it doesn't matter how good the technology is. No one will know how to use it. No one will know what to do with it. They won't be able to figure it out. And it could cause harm to individuals who are forced to use it-- being forced to use it.

[00:33:25.53] So keeping that in mind, if the community isn't ready for it and the quality of technology is good, we'll go to the next slide, please. So I want to introduce two vocabulary words to the group here today.

[00:33:47.33] INTERPRETER: Disaffords.

[00:33:48.44] JEFF SHAUL (INTERPRETED): Disaffords and affords. Thank you, Star, for bringing this up about VRI, the Video Remote Interpreting. That's a really good example of affords and disaffords.

[00:34:07.40] Now, video quality is a great concept in theory. It allows people to get interpreting services anywhere in the world. But it depends on the internet connection. You have to have a high speed internet connection in order to stream the video. And that allows-- because sign language is a visual language. If you have a very small screen, you can barely see the interpreter. You don't have access, like, for example, in a hospital.

[00:34:35.65] You have to think about what the technology by itself will allow some things to be afforded, while it will disafford other things from happening. So I'll give you another example-- stairs versus a ramp. Stairs are affords. It allows us the opportunity to go up stairs or ascend or descend. But for people or individuals who have mobility issues, it does not. It disaffords them. It's a barrier.

[00:35:13.61] However, if we have a ramp in the place of the stairs, both have the opportunity. It affords both sets of people with mobility issues and not to go upstairs or go down stairs. So thinking about what specific technologies affords and disaffords, keeping this in mind when you provide a technology, is an important aspect for the end users. Next slide, please.

[00:35:47.67] Now, thinking about affords and disaffords, what that looks like in readiness. This graphic looks like an egg. It was created by complete or a broken egg.

[00:36:01.10] INTERPRETER: Like an omelet.

[00:36:01.88] JEFF SHAUL (INTERPRETED): Like an omelet. So to make sure that you have easy cleanup and don't make a mess, everything from the beginning, everything in the technology from the experimental phase, it's really important to ensure that the experiments conducted are done in a safe setting, definitely not by disassociating the technology or deploying the technology in high-risk situations. Technology needs to be done gradually, iteratively to ensure that-- and done in situations, in user groups that have high readiness for it. Next slide.

[00:36:50.08] Now, adding the technical experiments, thinking about the specific results and outcomes that will be distracted from those experiments. What results and outcomes are needed? What should we be looking for from these experiments? What does the deaf community really value and find important? And what are their inputs that we need to have in order to see these results and see these specific outcomes?

[00:37:21.52] If you don't incorporate the feedback from the deaf community, then it will never be really able to be measured and evaluated for readiness, even though the technology is intended to be used for the community. Next slide, please.

[00:37:42.88] So now, again, as I mentioned, I'm an app developer. I'm very familiar with the development and design process of apps. And it's never just one word, right? App is never just a one-time development. It's an iterative process where you think about the design, and you think about the design. You gather feedback, and then you make the modifications based on the feedback and evaluate it. And you want to keep that in mind that the results are short-term. Next slide, please.

[00:38:26.53] Another part is the outcomes. Those are the long-term impacts that this technology is going to have. Next slide, please.

[00:38:42.12] And that's it. That is your framework for how to approach the design of new technology with the sociotechnical system and keeping that in mind. So thinking about the technology, thinking about the results and outcomes, what we want to get from the technology. And as a larger scale, on the global picture is the readiness of the community from the providers and the end users of that technology that's being created. And the resultant outcomes will expound upon that. So that is the egg theory for you. Next slide.

[00:39:27.70] This is just the last thing that I wanted to add, in conclusion, is saying that gathering that feedback from the deaf community, why they will be able to influence which results and which outcomes should be measured and which ones should be on the lookout for. The developers may have no idea what specific features because they've never consulted with a deaf community member before. They may not know. So that's where it becomes a very critical step to include the deaf feedback. Next slide.

[00:40:06.43] OK, now, I will turn it over to Tim to wrap up.

[00:40:14.30] TIM RIKER (INTERPRETED): Thanks, Jeff. Great presentation. So I know that there are many different ways to measure things. So we have to think of the results we want and what kind of outcomes we should be looking for. But at the same time, we have to be able to identify which stakes and which we want to measure for-- which one will be successful and which ones will have good outcomes, what the outcomes we're looking for in the long-term. So that means that we need to have the deaf community be a part and not excluding any part of the deaf community for those key metrics to be measured, to make sure that we get what we ultimately need and want in the long-term. Next slide, please.

[00:41:15.20] So how do we identify the problem? What are the real issues at hand? In hospital settings and legal settings, every setting has, and every situation has, different problems. And for the deaf community, the end users of the service, they need to be involved in understanding what those problems are. And the data collection needs to be a variety and a diverse sample group. And not just-- if you're only doing minimal data collection efforts, then it won't be successful. The data in itself has barriers too, so making sure that it's inclusive for full opportunity for participation as well. Next slide.

[00:42:11.36] So barriers and disparities-- these will help to stop discrimination for different underrepresented groups. And that's called the design justice principles. So understanding the social aspect and understanding the technical aspect and how the social impacts the technical, we want to make sure that we are pulling in and creating benchmarks for these different--

[00:42:45.08] INTERPRETER: Intersectional.

[00:42:46.50] TIM RIKER (INTERPRETED): --intersectional benchmarks. We want to make sure that we're including all perspectives. Next slide, please.

[00:43:02.28] So, again, those intersectionality benchmarks, what is included in that? What are the underlying assumptions? How will we make that equitable and beneficial for a diverse user group?

[00:43:26.98] One-size-fits-all model is the symmetrical treatment-- one-size-fits-all, meaning this one technology is created to solve everybody's problem. And everybody has to learn how to fit the technology. And that's really not just.

[00:43:48.01] Instead, we need technology or a system that can accommodate the user. Each individual user, each individual person who comes in to use that system must be able to benefit. That is what justice is and equitability is.

[00:44:04.89] If you're looking at the algorithm and if one algorithm is made by one group and only that one group has access to tweak the algorithm, then it doesn't serve the-- you don't get the feedback from the user group to ultimately improve the algorithm to make sure that it's equitable for everybody, and making sure that everybody can benefit from that technology. So that's what it means to be inclusive and intersectional with those benchmarks. Next slide, please.

[00:44:45.83] For the intersectional benchmarks, it isn't a one-time thing either. Once you set it up and you have a system with those benchmarks, it doesn't mean it's good forever. You want to make sure that you're including deaf individuals along in every aspect of the pipeline, making sure that you have and decide what the outcomes are that you're looking for and what priorities you need to have for those outcomes.

[00:45:07.27] You want to make sure that maybe the access is high quality. You want to make sure that it's efficient. You want to make sure that there's a lot of things-- What is important to the deaf community? and finding a way to integrate those different priorities in the system. And what are the system requirements need to have? and then integrating those both together.

[00:45:27.58] And that is, again, as I mentioned, not a one-time thing. It needs to be reviewed over and over again to making sure that once these outcomes have been met, are they sufficient? Do they feel like they're able to lead independent lives? Are they seeking the benefits, or are they gaining the benefits from this technology?

[00:45:47.04] And then what are the problems? And asking them again, what is the data? Making sure you're evaluating those measures and those benchmarks and making sure that the

technology keeps up and continually improves. And, again, this is an iterative loop to prevent disparities and discrimination and making sure that everybody is satisfied with the technology that they're receiving. Until that deployment of that system, you won't cause as much harm. You won't cause favoritism on one group, where one group benefits more than other groups to ensure that everyone has equal access to the technology.

[00:46:34.87] And, again, going back and reviewing those metrics until the system is perfect. Practice makes perfect. Practice makes perfect. Practice makes progress, for sure. Next slide.

[00:46:53.56] So on this slide is the call to action. So what do you really think needs to happen going forward? So this opens up the group to feedback, getting contributions and ideas from the community, and adjusting as you go. Making sure that people are learning what we have already done, meaning-- so that's where I suggest you go ahead and look at all of the webinars and the reports that have been made. You can look at the #DeafSafeAI Report. That's where we got a lot of the information from.

[00:47:31.98] And then learning more about the design justice--

[00:47:37.74] INTERPRETER: System.

[00:47:38.37] TIM RIKER (INTERPRETED): --system. And understanding the values and making sure you're including the deaf communities in your decisions. And then thinking about the community-- what the community's needs are, what their values are, ensuring you're incorporating those values into the decision making process.

[00:47:55.18] The third thing is being informed. If there's a new technology being developed, if there's new regulations that have come out, share it with us. Keep us in the loop. Keep us informed as well. Keep the deaf community up to speed with what-- maybe there's a way to report something better. If there's a way we can give feedback, and if we can be a part of that process more.

[00:48:26.97] Case studies as well. Making sure-- oh, this caused harm. Taking that back, learning from that mistake, learning from that experience, and then adjusting.

[00:48:37.62] And the last thing is conversations-- maintaining and making sure you're keeping that dialogue and keeping the deaf perspective at the table. We want to make sure this applies to professional interpreters. This applies to tech developers. And making sure that everybody in the system is ready for these outcomes so we don't cause harm.

[00:49:01.41] INTERPRETER: Governance.

[00:49:02.26] TIM RIKER (INTERPRETED): So the governance is the oversight of the AI technology. AI is quickly developing. And we want to make sure that as it takes off, it doesn't take off without us and cause harm to the community.

[00:49:17.73] We did develop some sort of--

[00:49:20.10] INTERPRETER: Accreditation.

[00:49:21.24] TIM RIKER (INTERPRETED): --accreditation processes as well to ensure that we have that technology is accredited before it's used within the system. So, again, this is an open call to action. Next slide, and I think that's regarding-- I think that's the Q&A section. Yes, perfect. OK, so you can take a look at this QR code. It's a survey. And thank you, again, for watching our presentation. I think we have a little bit of time left, about 10 minutes. Am I right?

[00:49:51.57] INTERPRETER: Nine minutes. Yes.

[00:49:54.30] KELLY MAHONEY: Yes, we do. So I will go ahead and stop screen sharing. We will share that link in the chat that you saw on the last slide there. We have received a couple of questions live, so I'm going to go ahead and narrate those. And then our panelists here will raise their hand to answer the question, whoever may be the most appropriate person.

[00:50:12.49] So we got two questions here that I think are fairly similar to one another. So I'm going to lump them in. Hopefully, I do them justice. One comes from Paul. Thank you, Paul. And another from an anonymous attendee.

[00:50:24.28] So Paul noticed that everyone on this panel uses ASL, speaks ASL, and he's curious about how to reach out to other parts of the deaf community. You know, especially when we're thinking about the development and the regulation of AI, how can we make sure that we're reaching those parts of the community?

[00:50:43.36] And our anonymous attendee asks a similar thing, I think just more detailed. How specifically would you reach out to those parts of the community and invite them to participate?

[00:51:00.56] ANNMARIE KILLIAN (INTERPRETED): And this is AnnMarie. Who would like to answer that question? I'll go ahead and take a stab.

[00:51:07.13] First of all, excellent question. That's really an awesome question. We have talked about this amongst ourselves. And we started to study our goals and the whole community at large. And we were working under a time limit, of course. We wanted to be prepared and do our homework.

[00:51:29.63] We don't have a conclusion yet. It's ongoing. We're still researching. We're still working on this in terms of diversity. We want to work with different groups and organizations so that we show a reflective balance of the community.

[00:51:43.24] For example, NAD, in the summertime, there'll be a presentation. And at other deaf gatherings and conferences, we plan to make an appearance. But what a great question. Really, there's no limit to the community of signers.

[00:52:06.68] Our intention is to have a task force that focuses on language-- spoken language, American Sign Language, and then all the things that need to be studied accordingly. And there's a wide range of issues along the way. We do recognize that. Our community is so diverse.

Everyone-- some may use signs. Some may prefer lip reading and speaking. It's very important to have accountability and fair representation of the entire deaf community and the impact of AI, first, on sign language, on lip reading and speaking, and other communication methods.

[00:52:47.84] So we want to make sure everyone has a seat at the table. And I'm curious if anyone else would like to answer this question.

[00:52:55.58] JEFF SHAUL (INTERPRETED): Yeah, I would like to add, as far as American Sign Language being a language, there's a wide variety of signing in the deaf community. People might not be as fluent, while others may be more novice signers. People may be fluent. So it's not one-size-fits-all.

[00:53:14.93] Same thing with captions and language, British Sign Language, and other sign systems all over the world. There's over 300 different sign languages all over the world. But we have to consider that the domain is-- we're the experts. We are the ones who know and use ASL to ensure that we capture other organizations who might be more familiar with that specific language or that specific system in the world.

[00:53:48.42] TIM RIKER (INTERPRETED): This is Tim. I'll answer that as well. I want to recognize that English came up with AI based on English spoken language to written language. That's been going on for years. Sign language is brand new in terms of its development and its relationship to AI. So we're catching up now.

[00:54:12.09] We want to make sure, if we are talking about equity, that we need to focus more on how we support that. And there are various ways. It has to be ethical in order to catch up with what's already there, with the fact that it's already English-based and technologically-based toward English.

[00:54:34.88] STAR GRIESER (INTERPRETED): This is Star. We have to include people who are impacted by this. Bring them to the table, and include them in the conversation. You're right, Tim. There are so many variations in sign language as there are in languages in general.

[00:54:48.27] So individual's background, their education, whether or not their parents used ASL, these things matter. What school they attended, whether it was a public school, a residential school. Whether they're deaf and have a vision impairment. Are they deaf and blind? Are they deaf and use ASL but a different form of ASL?

[00:55:10.36] There are people who are deafblind who use what's called protactile communication. So these need to be recognized. We are an intersectional community, just like any, and I really think our presenters did a good job of emphasizing that. The intersectionality is key. There is no one-size-fits-all. There is no standard when you're talking about the deaf community.

[00:55:32.62] And it's very important to reach out to organizations who serve these communities and understand those individuals and invite them into the conversation. There's the National Association of the Deaf. There's the Rhode Island Registry of Interpreters for the Deaf. We have

all sorts of access-based organizations. I'm sure there's an association for deafblind Americans as well as many others. So, yes, we need to focus on working with those specific groups and make sure to be in contact with them throughout this process.

[00:56:10.95] ANNMARIE KILLIAN (INTERPRETED): We have time for one more question that just came through. I believe we have about two minutes left. Is there another question you want to read to us, Kelly?

[00:56:23.14] KELLY MAHONEY: Yes. I'm glad, actually, that Tim seemed to tiptoe his way towards this question. Michael has asked us about the large language models that are usually required to interpret AI. And he mentioned the fact that ASL, or specifically in his case, he's more familiar with BSL, it's not a written language. So it's hard to translate it from text to sign or vice versa.

[00:56:50.24] So curious what the panel's thoughts or responses to the idea that AI may not be able to work for this sort of visual information to textual information conversion. I'll open it up to anyone.

[00:57:08.03] ANNMARIE KILLIAN (INTERPRETED): Well, Jeff, I think maybe you'd have a good answer.

[00:57:11.39] JEFF SHAUL (INTERPRETED): Yeah, sure. I can answer that question. Could you rephrase that question? From my understanding, you're asking if-- because AI isn't able to understand visual language, is that what I'm understanding, if I'm understanding your question correctly?

[00:57:25.70] KELLY MAHONEY: Yes, I'm going to read it more explicitly to make sure that I'm communicating Michael's idea. He says the problem with BSL or ASL is that they do not have a text form and the corpus of text to sign translation is far too small. So what would be your response to the idea that AI may never work successfully for general deployment in text to sign translation? I hope that helps. Perfect.

[00:57:47.54] JEFF SHAUL (INTERPRETED): Yes. Got it. Yeah, I understand. Thank you for clarifying. Yes.

[00:57:51.47] So actually, there are a few written systems for signing like SI50 and sign writing, but those systems are all lousy for that text conversion. So they are created by a written system. It's really cool in theory, but in practice, it doesn't really accommodate the visual aspect, the input for deaf and signing communities. It does not integrate well.

[00:58:21.34] So there are some efforts being made to tokenize the inputs-- so to be able to describe at least some humanistic qualities, from my understanding, which might be one sign speed per minute. So the speed will be very slow. But being able to modify that into that format will be difficult.

[00:58:48.70] But as far as getting an understanding of deaf signers that we've already had-- that they're being able to read-- the deaf community that can read English because there are varying levels of fluency in reading. Bilingualism has to be respected in those situations where individuals don't have the English literacy, or their reading ability is less than first grade.

[00:59:20.66] KELLY MAHONEY: That's great. Thank you all so much. I just wanted to jump in here and say that is all the time we have today for this session. This has been wonderful. Thank you all so much. To AnnMarie, Tim, Star, and Jeff, this has been a wonderful discussion.

[00:59:34.10] We will be posting these recordings to our site as a reminder for everyone watching in case you missed anything, or you'd like to share this with colleagues Thank you again, everyone, for joining us. I hope you enjoy the rest of the conference. And I'm going to wait just a minute to end the session for captions to catch up what I'm saying. Thank you all so much for joining us.

[00:59:55.56] STAR GRIESER (INTERPRETED): Bye-bye everyone.

[00:59:56.74] ANNMARIE KILLIAN (INTERPRETED): Thank you.

[00:59:57.66] JEFF SHAUL (INTERPRETED): Thank you all for watching.

[01:00:00.39] TIM RIKER (INTERPRETED): Bye-bye.