My name is Elizabeth Wynn. I'm the Equality and Diversity Manager at the Babraham Institute. And today I'm going to be giving a quick talk about disability inclusion. And I'd like to thank Sheikh Mukhtar for suggesting this topic. So the content in this talk is aimed at everyone. I'm not assuming that you are a civil engineer or something. The information and suggestions in this should be valuable for everyone, I hope. I'm going to be covering some definitions, some models of disability, identifying and removing barriers, and just touching on inclusive language at the end.

Starting with definitions. So the relevant legislation in the UK for disability, the main piece of legislation, is the Equality Act of 2010. And it defines a disability as a “Physical or mental impairment, which has a substantial and long term effect, adverse effects on a person's ability to carry out normal day to day activities.”

And when we're talking about disabilities, I think it's important to talk about invisible or hidden disabilities as well. So when you think about disability, the first thing you think about might be a person using a wheelchair, but that accounts for a really small percentage of disabled people. And in fact, the physical visible disabilities are a much smaller percentage than invisible or hidden disabilities. So these can cover a range of categories. For example, mental disabilities like schizophrenia or chronic depression, cognitive disabilities such as learning disabilities, autism or dyslexia, and also invisible physical disabilities like sickle cell anaemia, diabetes, cancer or HIV/AIDS. And this isn't exhaustive at all. These are just a couple of examples.

Another thing I'd like to define is ableism, which is discrimination against disabled people. But it really relies on an underlying root cause, which is practices and dominate dominant attitudes in society that assume there is an ideal body and mind that's better than all others. So that's the root of most discrimination against disabled people.

Now, I'm going to talk about models of disability. The medical model is probably the one that you're most familiar with. In the medical model, it states that a disability is caused by the health condition a person has. And it's the nature of this condition that determines what they can and cannot do. Depending on the disability, it might be able to be fixed or ameliorated with medical treatment.

The social model of disability is one that was created by disabled people themselves, disabled activists. And the idea started coming together in the 60s and the term social model of disability was first used in the 1980s. And the social model of disability, importantly, distinguishes between an impairment and a disability. So the impairment is the physical thing, but the disability is not caused by the medical condition, but by the structures and attitudes of society, according to the social model. And in the social model, depending on the disability, it can be fixed or ameliorated with changes to society.

So let's look at an example of this now. Here's a person using a wheelchair at the bottom of a set of stairs. In the medical model, the impairment is the problem. The person isn't able to walk up the stairs. In the social model, the stairs are the problem. Only certain people are able to use them.

With this, it's important to remember that the stairs are designed. Stairs aren't a natural obstacle that everyone needs to cope with to the best of their ability. These stairs, their width, depth, height, material were all designed. There were all choices that someone made and they were made so that these sort of average, quote unquote, normal person would be able to use them comfortably. And when they were designed, either inadvertently or consciously, they weren't designed for everyone to be able to use, for example, people in wheelchairs. And so the social model says that's why this person using a wheelchair is disabled.

So I have a quote now from a civil rights activist. As I said, the social model was developed by disabled people, by disabled civil rights activists. So “Doing disability all day long can be an exhausting process. I don't mean having an impairment in my own case, not being able to walk. Like most disabled people. I deal with this. I mean, having to spend a significant part of each day dealing with the physical world, which is historically designed to exclude me. And even more tiring, dealing with other people's preconceptions and misconceptions about me.” So not all people with disabilities will feel like this. If a disability causes significant chronic pain or fatigue or a great deal of anguish, that person probably would want medical treatment in addition to social change.

So this definition from the Equality Act, which I stated at the beginning, you can identify now that it's really an example of the medical model. And as I said, disabled people on the whole and disabled charities, for example, Scope, which is the main UK charity for disabled people, don't like the medical model. They prefer the social model. So what kind of definition of disability would those charities and people use? Here's an example. “A disability is the loss or limitation of opportunities for people with impairments to take part in society on an equal level with others due to social and environmental barriers.”

So this talk about models of disability might seem rather abstract, but I think it's important to frame our understanding of disability in this way because it takes the onus away from the person with disabilities. We're not trying to fix the person or even, you know, make special accommodations on their behalf. What we're trying to focus on is creating a society which includes everyone.

So now I'm going to talk about barriers. So social and environmental barriers. I have a few categories here, this list isn't going to be complete, but these are just some examples.

Environmental barriers. This might be the first thing you think about when you think about barriers to accessibility. For example, no lifts or ramps or no accessible toilets means that a building is inaccessible to people who use wheelchairs. Poor lighting might be another example of an environmental barrier that could be difficult for people with visual impairments or someone who uses lip reading. Have a couple of images here from Disabled Access Denied with some very poor design choices for accessibility. Like on the right here, this incredibly steep and narrow ramp for wheelchair users. I wouldn't like to try getting up and down that something with wheels.

Attitudinal. So this is social attitudes towards people with disabilities. For example, stigma, discrimination, perceptions, assumptions. This could cover a range of things. For example, talking to a person with a disability’s support person instead of the person with disabilities themself. So talking about them as if they weren't there. Avoiding speaking to a person with disability because you feel awkward or uncomfortable or you're worried about saying the wrong thing or doing the wrong thing. Offering help, as in without asking. So just assuming that a disabled person isn't going to be able to do something and going and doing it for them. Those could all be examples of attitudinal barriers.

So here are a couple of comics from The Disabled Life. Personal space. Some strangers treating this woman's wheelchair as a piece of public property. And the other one Spectators is a man using a wheelchair, looking rather disgruntled. He's going about his normal day and loads of people being, “Oh, my goodness. So inspiring. I got to post this hashtag no excuses.”

Communication. So using complicated language or jargon as an example, that's difficult for people with potentially difficult for people with learning disabilities and also for people for whom English isn't their first language. Not having alt text descriptions of images. So people with visual impairments who use screen readers to read electronic documents or web pages, if there isn't a description of images, then they're not going to be getting any information from them. Lack of sign language interpreter is another example.

I have these panels from Marvel comic. So the man on the right, Hawkeye, is deaf. And in these panels, he's been having a conversation with Spider-Man, who has turned away and dramatically swung away, saying, “Because I have to.” And Hawkeye commenting, “He literally already forgot that I need to read his lips to get anything he says.”

Organisational. Rigid policies or procedures that don't account for people with differences, and not considering the needs of people with disabilities while planning. So, again, from The Disabled Life, this comic where you have two people in wheelchairs sitting in the disabled section at a concert which is behind all the people standing so they can't see the stage. So these are just some examples of barriers to accessibility and a few categories that these might fall into.

And it's important to remember that none of these barriers are inevitable, so neither is exclusion. All of these types of barriers are the result of design choices or attitudes or personal choices, I guess. And so we can make different choices for all of these.

So let's move on to talking about removing barriers. As I said at the beginning, I'm not assuming that anyone here is an architect or government policy maker, so hopefully these suggestions will be something anyone will be able to do. Let's use those same categories.

So environmental. Consider the accessibility of places you plan events. And thinking back to some of those very poor design examples in a previous slide, maybe actually check that they're accessible when they say they are. Think about adaptations you can make. So you might not be able to design the building, but if, for example, you know my office has poor lighting, you can get additional lamps. Advocate for accessible spaces. So this one, you'll probably have fewer opportunities to do. But for example, if there's some construction work going on and there's a, you know, open planning consultation, you can bring up accessible spaces. If someone is campaigning, get in touch with your MP, the local candidate. Ask about accessible spaces. Just a couple of suggestions there.

Attitudinal. So do not make assumptions about what people with disabilities can or cannot do. Ask them in the quote from Lois Keith, the civil rights activist, as she mentioned, it's not dealing with her impairment that's a problem. People who have disabilities often have a lot of strategies for getting around everyday life. So don't make assumptions about what they can or cannot do.

Don't touch a person's mobility aid or distract a service dog. A lot of people who use wheelchairs will have stories about someone moving them without their permission. And if you think about it, that's just like someone coming and picking you up and moving you without asking you. Incredibly rude. And service dogs are working. It can be really dangerous if you distract them by petting them or feeding them a treat. Something like that.

Don't view people with disabilities as objects of pity, charity or inspiration. These sort of attitudes are really dehumanising and demoralising. People with disabilities are real people and unfortunately, society really often can treat them as sort of props or stories as opposed to people.

Communication. Learn about accessible design, for example, font choice, website design, graphic design. So font choice, for example, using san serif fonts as opposed to serif fonts. That makes your text more readable for people with dyslexia or visual impairments. Website design. I have a link that goes more about this at the end of this talk, I'll be tweeting it out. So that talks about things like making sure the layout is clear and accessible, making sure any buttons are links are large enough for someone with visual impairment to access easily. Graphic design. So for scientists, when you're creating graphs or images, I think a lot of people are aware that red green colour-blindness is fairly common. So people avoid using those colours. But there's more beyond that that you can use, for example, other types of colour blindness, thinking about the contrast of images. So those are some useful things. Anyone who is giving presentations, for example, can learn about.

Use clear and uncomplicated language. So that's going back to communicating with people who perhaps have learning disabilities. Make sure electronic documents are accessible to people using screen readers. I mentioned image descriptions earlier, but there are things about formatting that can make it easier or more difficult for screen readers to interpret. And again, I've got a link more about this later on.

Organisational. So you can advocate for organisations to consider people with disabilities. For example, reviewing policies to ensure accessibility. At the Babraham Institute, we're currently undergoing a major policy review and one part of that is performing equality impact assessments on all policies to ensure that they are fair, that they don't have differential impacts, not only on people with disabilities, but all people.

You can encourage conferences to have inclusive practices like captioning on talks or providing a quiet space which is useful for people with autism. So, for example, if the website doesn't mention anything about it, you can get in contact and ask them what their inclusive practices are. Or if you go to a conference which has fantastic inclusive practices, you know, tweet about that later. Highlighted it, really encourage it.

So those are just a few examples of ways you can remove these types of barriers. And now, finally, I'm going to touch on inclusive language guidelines. So inclusive language is something that there can't necessarily be hard and fast rules about. People have different opinions. It varies across cultures. It changes as society changes, as our understanding changes. So these are just guidelines.

Say people with disabilities or disabled people as opposed to the disabled. So some people have very strong feelings about whether they want to say people with disabilities or disabled people. Go with whatever the person wants, if you're talking about a specific individual. But everyone agrees that saying be disabled is not good.

Avoid phrases that suggest victimhood, for example, afflicted by, victim of, suffers from. Instead, say, person with condition. And an important one for this is wheelchairs. So saying confined to a wheelchair or wheelchair bound again really implies victimhood. And a lot of people who use wheelchairs don't see them as a prison. They're actually a mobility aid. It's something really important to them which allows them to interact with the world in ways they wouldn't be able to otherwise. So wheelchair user is the preferred term for that.

Avoid euphemisms like differently abled or special needs, or I think we saw earlier in one of the comics someone holding up a sign saying handicapable. Disabilities aren't taboo. We don't need to use euphemisms for them. We can be straightforward.

Don't use phrases or terms that make light of disabilities like saying blind or deaf to something, lame or crazy. That's associating disabilities or impairments with negative states. And mental health diagnoses like bipolar or OCD are conditions with serious impacts. So don't use them to describe everyday behaviours, that really minimises the impact of them.