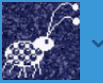




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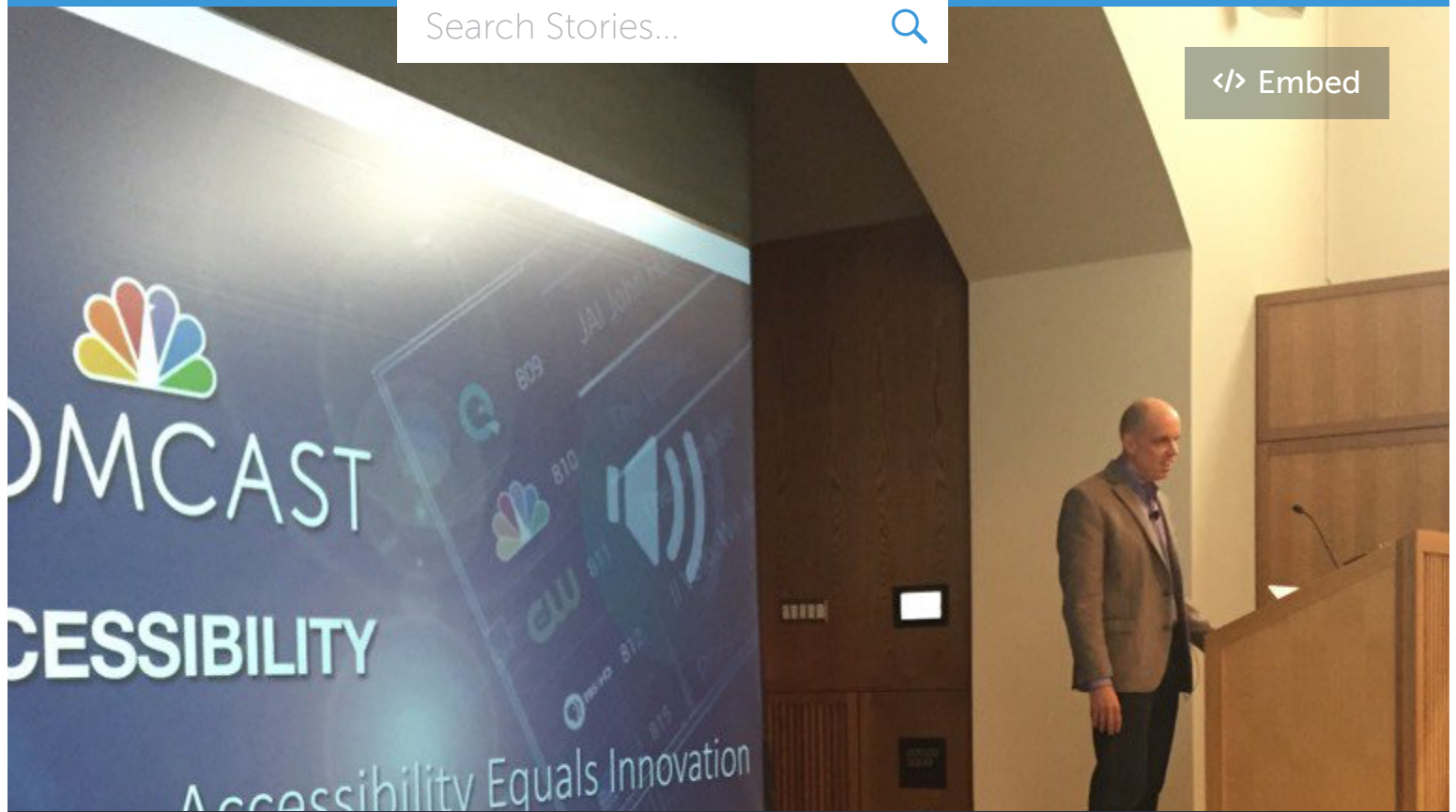
New Story





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# Accessibility Equals Innovation by Tom Wlodkowski

by  Anne Gibson 6 months ago 32 Views 



**Joel M**

@JoelMoffatt

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@twlod talks about #InclusiveDesign at #forgeconf #a11y

11:26 AM - 26 Sep 2016

   2



**Anne Gibson**

@perpendicularme

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Next up is @twlod from Comcast on accessibility - or #a11y if you don't know the hashtag #ForgeConf

11:15 AM - 26 Sep 2016

   1

No, the accessibility hashtag isn't particularly accessible.



**Anne Gibson**  
@perpendicularme

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Talking about universal design, accessibility, intersections of the market and how [#a11y](#) is a component of innovation [#ForgeConf](#)

11:17 AM - 26 Sep 2016

   2



**Anne Gibson**  
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One of the things I love about our industry is how often people with [#a11y](#) issues get to speak in their own voices. [#ForgeConf](#)

11:18 AM - 26 Sep 2016

   1

Tom, for example, is blind, and navigated his entire presentation using his laptop, VoiceOver, and the Comcast devices he brought with him. No questioning whether he has the experience to talk about Accessibility needs.



**Anne Gibson**  
@perpendicularme

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Accessibility is the measure of how effectively people with disabilities can interact with a product. [#ForgeConf](#) [#a11y](#)

11:18 AM - 26 Sep 2016

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**Anne Gibson**  
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A disability is any condition that significantly impacts ability to perform daily life functions or perceived that way [#A11y](#)  
[#ForgeConf](#)

11:19 AM - 26 Sep 2016

1 1



**Anne Gibson**  
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Products have to have hooks to work with third party technology — if we can't build something that has products built in [#ForgeConf](#)

11:20 AM - 26 Sep 2016

1

Products can be accessible on their own to a certain extent... but if they're on the web there's a good chance we need them to work with other products that were designed for overcoming accessibility issues.



**Anne Gibson**  
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1/3 of households in US have a disability. 48% of people with disabilities are also heads of households. \$200bil in spending [#ForgeConf](#)

11:20 AM - 26 Sep 2016

1 2

So if somebody asks you why we'd want disabled customers... (\*yes\* someone asked me that once.)



**Anne Gibson**  
@perpendicularme

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Someone who could use a mouse 10 years ago may not be able to anymore. Or read a 7 or 10 point font anymore. #ForgeConf #a11y

11:21 AM - 26 Sep 2016

   2



**Anne Gibson**  
@perpendicularme

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Universal design is also called inclusive design. Ramp at the street corner was build for wheelchair, but we all use them. #a11y #ForgeConf

11:22 AM - 26 Sep 2016

  2  7



**Anne Gibson**  
@perpendicularme

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What are the electronic equivalents of a wheelchair ramp we can put into our products? Alt tags on Images. #ForgeConf #a11y

11:22 AM - 26 Sep 2016

   1

Accessibility needs to be layered into every part of the design and development process.



**Anne Gibson**  
@perpendicularme

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Who's responsible for the content in the alt tag? Need to think from the beginning of the process - multiple audiences

[#ForgeConf](#) [#a11y](#)

11:23 AM - 26 Sep 2016

   1

Accessible technology benefits all of us.



**Anne Gibson**  
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Email was developed so someone could communicate with their deaf wife. The typewriter was built for blind people to write

[#ForgeConf](#) [#a11y](#)

11:24 AM - 26 Sep 2016

   1



**Anne Gibson**  
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The iPhone - who would think a blind person could navigate a flat piece of glass? Apple has solutions for disabilities

[#ForgeConf](#) [#A11y](#)

11:25 AM - 26 Sep 2016

   2



**Anne Gibson**  
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Everyone with a smart device is carrying a powerful accessibility tool in their pocket you can toggle on and off at will [#ForgeConf](#) [#A11y](#)

11:25 AM - 26 Sep 2016

2

Tom brought a voice remote and a set-top box (or at least a set-top box emulator) with him to show us what Comcast's doing to make their hardware and software easier for everyone to use.



**Anne Gibson**  
@perpendicularme

Follow

The voice remote from Comcast allows you to press a button and speak commands - quotes, names, channels [#ForgeConf](#) [#A11y](#)

11:26 AM - 26 Sep 2016

1



**Anne Gibson**  
@perpendicularme

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Voice recognition was originally for people with physical disabilities to work with computers [#ForgeConf](#) [#a11y](#)

11:26 AM - 26 Sep 2016

1



**Anne Gibson**  
@perpendicularme

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A talking set-top box at Comcast is triggered off the remote, its there for everyone. Sign language video content. [#ForgeConf](#) [#A11y](#)

11:27 AM - 26 Sep 2016

   1



**Anne Gibson**  
@perpendicularme

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Building [#A11y](#) in from the beginning is part of the cost - much more expensive to retrofit it [#ForgeConf](#) [#A11y](#)

11:28 AM - 26 Sep 2016

   2



**Tracy Kroop**  
@kroooooop

 Follow

Designing to retrofit accessibility is more expensive, more difficult, less elegant than considering it from the beginning [@twlod](#) [#ForgeConf](#)

11:30 AM - 26 Sep 2016

  7  6



**Anne Gibson**  
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Sometimes you need hooks to work with third party technology. A refreshable Braille display instead of sound. [#ForgeConf](#) [#A11y](#)

11:29 AM - 26 Sep 2016

   1



The screen reader isn't the only piece of third-party accessible tech we need to design for.



**Anne Gibson**

@perpendicularme

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Puff and sip switches, one big buttons, etc. all are used.

[#ForgeConf](#) [#A11y](#)

11:29 AM - 26 Sep 2016



**Anne Gibson**

@perpendicularme

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Pay attention to your tab order. It makes you think hard about your screen real estate and your process steps [#ForgeConf](#)

[#a11y](#)

11:30 AM - 26 Sep 2016



**Anne Gibson**

@perpendicularme

 Follow

Xfinity product examples: voice remote, xfinity home w/speaking thermostat, cloud-based computing to evolve features

[#ForgeConf](#) [#A11y](#)

11:31 AM - 26 Sep 2016





**Anne Gibson**  
@perpendicularme

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There are real people using your products. Build a lab to interact with 3rd party tech. Bring in customers to talk [#ForgeConf](#) [#a11y](#)

11:32 AM - 26 Sep 2016

   1



**Anne Gibson**  
@perpendicularme

 Follow

What are the pain points that your customers who have [#a11y](#) issues experiencing? Need to show how they work with everyday tech [#ForgeConf](#)

11:33 AM - 26 Sep 2016

   1



**Anne Gibson**  
@perpendicularme

 Follow

WCAG - web content accessibility guidelines. Also each mobile device owner publishes their own guidelines [#ForgeConf](#) [#a11y](#)

11:35 AM - 26 Sep 2016

   1



**Anne Gibson**  
@perpendicularme

 Follow

Comcast's accessibility office has been running for about 4 years. Achieving compliance with solutions AND innovating [#forgeconf](#) [#a11y](#)

11:35 AM - 26 Sep 2016

   1



**Anne Gibson**  
@perpendicularme

 Follow

Keys for accessibility on the remote are differently shaped - triangle, square, circle, diamond, for A B C or D keys [#ForgeConf](#) [#a11y](#)

11:36 AM - 26 Sep 2016

   1

Things shouldn't be identifiable by vision alone. Can you incorporate touch into your product to make it more accessible?



**Anne Gibson**  
@perpendicularme

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Cancel is the default because if the cat hits the remote we don't want calls to the call center [#ForgeConf](#) [#a11y](#)

11:37 AM - 26 Sep 2016

   1

If your user gets dropped into a random location in your product and can't see the screen, can they still get out?



**Anne Gibson**  
@perpendicularme

 Follow

Assume the audience has never interacted with the set top box - give audio orientation for both the screen and the remote [#forgeconf](#) [#a11y](#)

11:37 AM - 26 Sep 2016

   1



**Anne Gibson**

@perpendicularme

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Provide an expert mode for the experts. Multiple levels of direction for different levels of knowledge [#forgeconf](#) [#a11y](#)

11:38 AM - 26 Sep 2016

   1



**Anne Gibson**

@perpendicularme

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Not affecting the visual design, and at the same time making things accessible, so everyone wins [#forgeconf](#) [#a11y](#)

11:39 AM - 26 Sep 2016

   1

Tom was referring to the fact that the visual design of the Comcast screens weren't changed in order to provide voice descriptions, voice recognition, etc. If you didn't need the accessible options and didn't go looking for them, you could still use the whole system without disruption.

Tom demonstrated some of screen reading software and pointed out that when we write links, it's really useful to have quality semantic link text.



**Anne Gibson**

@perpendicularme

 Follow

Clear link text: users can take them out of context into a list. 'Click here' doesn't really help there. [#forgeconf](#) [#a11y](#)

11:39 AM - 26 Sep 2016

   1



**Anne Gibson**  
@perpendicularme

Follow

Tell people where they are for orientation purposes. Refresh the content? Make sure you tell them of new items [#forgeconf](#) [#a11y](#)

11:40 AM - 26 Sep 2016

1



**Anne Gibson**  
@perpendicularme

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([@twlod](#) is kindly running the voice guidance at a speed slow enough for us to understand — he probably uses it much faster) [#ForgeConf](#) [#a11y](#)

11:42 AM - 26 Sep 2016

1

For more examples of how people using screen readers use them, check out Heydon Pickering's survey results

["Responses to the screen reader strategy survey"](#)



**Anne Gibson**  
@perpendicularme

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People with reading disabilities or kids, or English as a second language, or just tired adults after work - audio works [#forgeconf](#) [#a11y](#)

11:43 AM - 26 Sep 2016

1



**Anne Gibson**

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 Follow

Holding a button down to speak a command doesn't work for all people with disabilities. Working on always-listening remote  
[#forgeconf](#) [#a11y](#)

11:43 AM - 26 Sep 2016

   1



**Anne Gibson**

@perpendicularme

 Follow

Remote can change channels with "watch NBC". Can be combined with "Favorites guide" to read where I am & what I'm watching  
[#forgeconf](#) [#a11y](#)

11:45 AM - 26 Sep 2016

   1



**Jessica Warhus**

@warhus18



There are great things happening in the accessibility lab

@comcast. #ForgeConf

11:45 AM - 26 Sep 2016





**Anne Gibson**

@perpendicularme

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The more options you provide, the easier things are for people.  
Multiple ways to reach content. [#forgeconf](#) [#a11y](#)

11:45 AM - 26 Sep 2016

   1



**Anne Gibson**

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Video description: blind people watch tv. Visual content can be  
easy to follow if dialog is good, but sometimes not so much  
[#ForgeConf](#) [#a11y](#)

11:46 AM - 26 Sep 2016

   1



**Anne Gibson**

@perpendicularme

 Follow

When the mystery is solved with a visual cue visual descriptions  
are key [#ForgeConf](#) [#A11y](#)

11:47 AM - 26 Sep 2016

   1



**Anne Gibson**

@perpendicularme

 Follow

Can filter Comcast for video descriptions, pick a tv show that has  
it, and watch tv even if you can't see [#ForgeConf](#) [#a11y](#)

11:48 AM - 26 Sep 2016

   1





**Anne Gibson**

@perpendicularme

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A piece from The Wiz live - describes were trained to do it in the theater, describing the content. [#a11y](#) [#forgeconf](#)

11:50 AM - 26 Sep 2016

1

Listening to the describer/narrator describe the opening to The Wiz was really cool.



**Anne Gibson**

@perpendicularme

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Usually I'm not a fan of companies doing live demos of their products at conferences but this [@comcast](#) [#a11y](#) demo is fantastic [#forgeconf](#)

11:51 AM - 26 Sep 2016

1



**Anne Gibson**

@perpendicularme

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Q: How do you deal with assumptions that a user base doesn't have disabilities? [#forgeconf](#) [#a11y](#)

11:51 AM - 26 Sep 2016

1



**Anne Gibson**

@perpendicularme

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Roll out the features anyway and see how frequently they're being used. You'll probably be surprised [#ForgeConf](#) [#a11y](#)

11:52 AM - 26 Sep 2016

1



**Anne Gibson**

@perpendicularme

 Follow

How are you training people to deliver more relevant content?  
Some AI in aggregate to know what's trending [#forgeconf](#) [#a11y](#)

11:53 AM - 26 Sep 2016

   1



**Anne Gibson**

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 Follow

Voice recognition, voice use, intent piece all important to get info  
[#forgeconf](#) [#a11y](#)

11:53 AM - 26 Sep 2016

   1



**Anne Gibson**

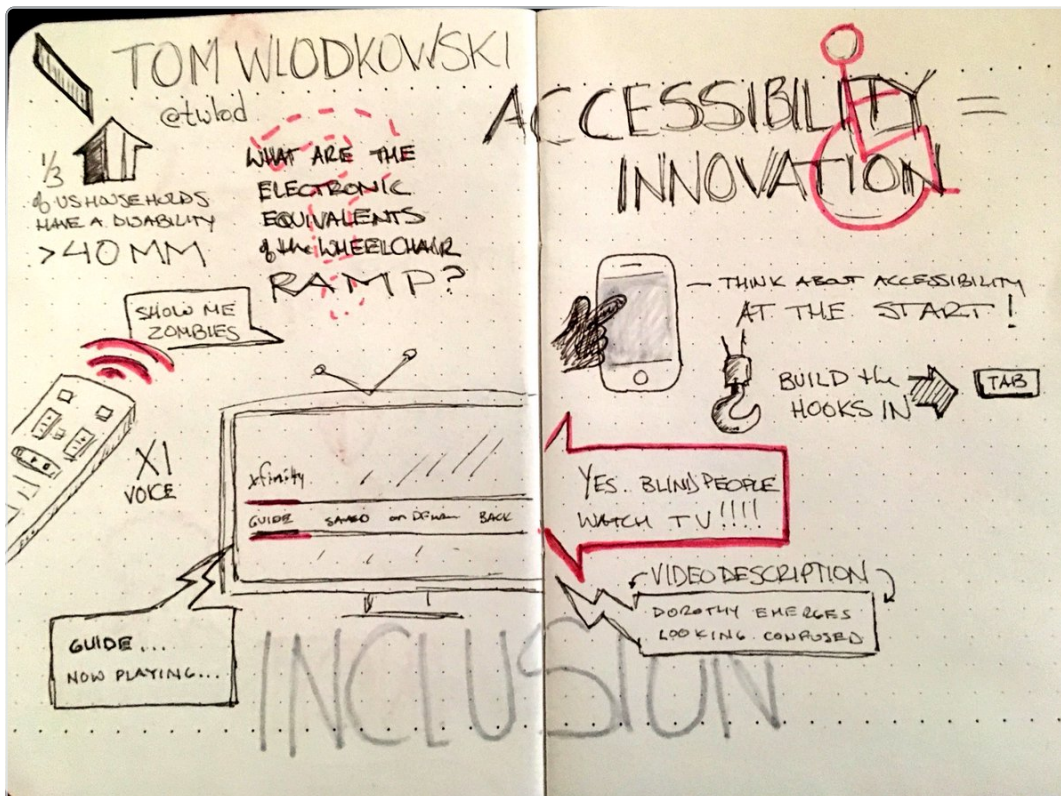
@perpendicularme

 Follow

Inglis House, trade shows like CSUN, local orgs, are good  
places to work with to gain empathy for people with disabilities  
[#forgeconf](#) [#a11y](#)

11:54 AM - 26 Sep 2016

   1



**C Todd Lombardo**

@iamctodd

[Follow](#)

Sadly, these [#forgeconf](#) [#sketchnotes](#) of [@twlod](#) 's talk on accessible design are not so [#accessible](#)

11:55 AM - 26 Sep 2016

[←](#) [↻](#) 1 [♥](#) 10



**Anne Gibson**

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Universities may also have labs and organizations to work with [#forgeconf](#) [#a11](#). Easter seals is a national partner. The Ark.

11:55 AM - 26 Sep 2016

[←](#) [↻](#) [♥](#) 1



**Anne Gibson**  
@perpendicularme

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The set top box for Comcast only has one speed right now but you will be able to significantly accelerate the pace [#forgeconf](#) [#a11y](#)

11:56 AM - 26 Sep 2016

1



**Anne Gibson**  
@perpendicularme

Follow

95% of people who can benefit by [#a11y](#) tech don't identify as being disabled. (Louder for the people in the back!) [#forgeconf](#) [#a11y](#)

11:57 AM - 26 Sep 2016

1 2

This is REALLY REALLY IMPORTANT and aligns with other education/experiences I've gotten.

If you ask people if they're disabled, they're going to tell you they're not unless they're profoundly disabled. Even if their eyesight is failing. Even if their hands shake a bit. Even if they've got a broken arm or no voice or they're having trouble hearing.

But if you ask them whether they want the text size to be bigger or the buttons to be easier to use or the ability to use voice to change the channel on the TV, they're going to say yes.

It doesn't really matter how many people fit the "this person is disabled" stereotype your company or product has. It matters how many people your change can help, and that's a much bigger number.