Maker Series: Derek Featherstone

Accessibility: Diversity, Equality, and Inclusion
June 13, 2019

Hello, Maker Series Attendees!

First, BE NICE! Let's use this document for collaborative notes, announcements, comments—whatever!

On Twitter: @brworkshop, #brworkshop, @hearsparkbox, @feather

Heads up—Build Right events have a code of conduct that will be *strictly* enforced. Please read it. If you experience or observe harassment of any kind, please contact the Build Right team (937-401-0915).

Lunch is Bibibop! Amazing!

Questions for the Speaker

- How do we keep ourselves accountable when designing for accessibility? How might we get better at being conscious about the work that we do?
- Do you have any tips for creating buy-in for accessibility/inclusiveness improvements when stakeholders (the people with the money) don't want to prioritize changes?
- How can we balance designing for accessibility with visual design? Do you believe that these can be/are in conflict?
    - Are there some examples you can show based on the above question? 👆
- How do we *actually* design for all and how do we include all as much as possible?
- What other tips do you have for inclusive (and/or remote) collaboration sessions?
- The idea of doing inclusive design and usability testing with people who have disabilities throughout development really resonated with me. It seems like there isn't really a better way to empathize with users and usability. I would love to work more like that. What are the "barriers" preventing this from being adopted more as a central part of the development process at a team/organization level?

Notes

Digital Diversity Days at Sparkbox:
https://bureauofdigital.com/event/digital-diversity-days-sparkbox

Better Allies

Resources

- Level Access - Derek's company
- https://betterallies.com/ (for the next event: https://bureauofdigital.com/event/digital-diversity-days-sparkbox)
- Real-time Board (digital whiteboard too: https://miro.com/

Accidental Accessibility

- Orange Tweet
- An orange already peeled and sold in a plastic container is scrutinized on twitter but reveals the accessible problems it solves. This was **accidentally accessible**.
- Accessibility design ≠ Inclusive design. Accessibility is an outcome. Inclusive design is a process.

Accessibility: The ability to be accessed or readily used by people with disabilities.

Inclusive User Experience Design: The intentional facilitation and crafting of interactions within an ecosystem that incorporates inclusion as a core value.

When Accessibility is the only requirement, it does not achieve inclusive design. There are multiple requirements that need to be considered when solving accessibility problems. When accessibility is an afterthought/only requirement, it may not create the best outcome/solution. Inclusive design leads to better solutions.

When we design *with* people with disabilities in mind, we create a more inclusive design for everyone.

By the age of 70-79, 50% of the population has a disability

There are lots of different lens (ways of looking at things) involved in inclusion, and each one comes into play.

Think about the "why" to create inclusive design, as opposed to thinking "how can we make this component accessible." Why did we build this thing? Why will people be using it?

Inclusion in the product

Principle of Proximity
Things that are related in action and instruction should be in close proximity to one another.

Straw exercise to simulate low vision -- create *empathy* not sympathy. Does not replace working with people with low vision.

> **Straw Test:** Make your hand into a loose fist, as if you are holding a straw. Look through your fist like an eyeglass / telescope. Close your other eye.

Try zooming this doc into 500%. *The Google Doc zoom tools top out at 200%, so you'll have to zoom with your browser.*

Food for thought: At 1200% magnification, a person is only seeing 1/144th of the screen! Consider proximity and pattern of use in layout for those with low-vision. Use layout to create the right content chunks.

Observation	**Who does it impact the most?**	**What action next? What questions?**
e.g. Multi-column layouts can be challenging	People with low vision	● Incorporate the straw test into all design reviews ● Review error message placement

Meridian & Equator Tests
Cut the screen in half (vertically, then horizontally), and if you have to cross over that threshold more than twice, it's likely going to be a challenge for someone with low vision or relies on a keyboard

I Forget Test (Design for Dory)
Choose an important piece of info in the interface. Assume someone forgets it.
How might we help people remember to "🐠🎵 *Just keep swimming?"* 🎵

The André (or Fezzik) Test
Imagine you have larger finger pads, how would you change the interface to accommodate André the Giant
Average human finger pad 10-14mm, André's 25 mm (1 inch)

Mismatch by Kat Holmes

Master chef test:

What if someone is *only* able to interact using the form fields?

Headings only:
Can we make this work for people who only scans headings?

- How will people make decisions? What info is most important?

Models of Disability
An Overview of the Models of Disability
Medical model of disability vs. social model.
Social = not trying to "fix" medical conditions but meeting people where they are and making the product work for them.

> Social Model:
> *"Based on a human rights paradigm, these models emphasize that disability-related problems stem from an inaccessible social structure, as opposed to the disability itself. These models focus on environmental and attitudinal barriers that prevent people with disabilities from having equal opportunities in their societies. Many disability rights activists today embrace social and/or human rights models to inform their work."*
>
> Medical Model:
> *" [...] the medical model where people with disabilities were treated as sick and needing to be cured, fixed and cared for through medical intervention and therapy. Under the medical model, the experts on disability were considered medical professionals, such as doctors, nurses, therapists."*

Where do we start when designing for accessibility?
Start with keyboard, Text equivalence (image, audio, visuals), and Forms

Design *with* not *for* people with disabilities.

Inclusive Game Controller: http://markbb.co.uk/
Xbox Adaptive Controller (XAC)
https://www.xbox.com/en-US/xbox-one/accessories/controllers/xbox-adaptive-controller
XAC Packaging ("a teeth-free experience"):
https://www.wired.com/story/xbox-adaptive-controller-packaging/

Microsoft Inclusive Design

Proloquo2Go - Augmentative and Alternative Communication (AAC) app for iOS

I CAN Fly YVR Accessibility Autism uses the pictogram system to support passengers with autism with guide cards and a sticker on their boarding for staffers to identify those passengers.

Lessons:

- Start earlier
- We know less than we think
- Other people know more than we think

Activity: Accessible Twister Game

- Textures (Color Blindness)
- Use shapes, not just colors, thicker mat that's embossed
- 2 cubes instead of spinner
- Huge floor game, teams of multiple people with (or without) mobility disabilities, connected with bungee cords
- Adaptable Led screen twister that adjusts to personal limitations
- Reconfigurable mat by allowing customized positions of the spots (using stickers) so it can also be on the wall. Stickers for the spots that you could put on floor/wall/anywhere
- Using small figure models on a smaller mat to represent real people's bodies on a life-size mat
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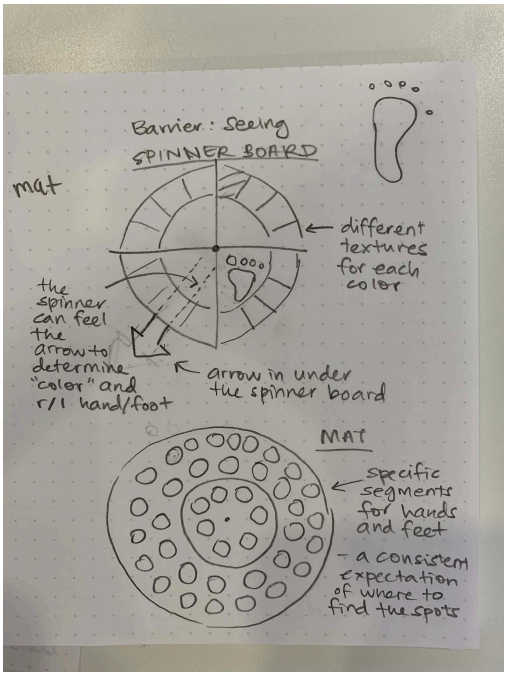
	Barrier: Seeing For the spinner board: • Different textures (patterns?) for each color • The spinner arrow in *under* the board for easier spinning of the arrow • The spinner can feel the arrow to determine "color" and body part For the mat: • Circular mat with specific segments so a visually-impaired person understands the expectations of where the spots are

Inclusive Design thinking

Take action: Work with *people (plural)* with disabilities as **co-designers/creators.**

"Nothing about us, without us" - Michael Masutha

“But, Derek, we’re not excluding people intentionally.”

“Exactly, and you’re not including people intentionally either.”

When implementing inclusion in our process, are our tools accessible? Who determines these tools — were there people with disabilities involved in those choices? The tools that we use are *exclusive by default*, so how might we ensure that we are intentionally inclusive with our tools? **Choose to enable** participation of people with disabilities in the process, and not only to validate the choices we’ve made without them. Invite them to contribute in their own way. Have them participating earlier, and on their own terms. We have power in our designs — give that power away to people who don’t have them.

Question to consider: Could people with disabilities be on your team?

- Look at every tool, every method, every step in your process to consider how folks with potential disabilities would participate
- If you’re prepared for them to be on your team, they can participate in your process...

Process & Methods Inventory
How might we include everyone in our process?

e.g

	Journey Mapping activities	**Discussion & Interviews**	**Design prototypes**	**Functional prototypes**
Mobility & dexterity	May need more time	Whiteboard? Scooter, wheelchair? Singled out?		
Blind	Enable tactile and/or digital participation	Talking with our hands? Describing visuals needed	How do we capture results? Photos?	
Low-vision	Provide materials far in advance		Does the color palette have enough contrast?	
Deaf and hard-of-hearing	How to eliminate “background buzz” in discussions?			Are all videos captioned/transcribed?
Memory, language, attention (Neurodiversity)	Working to schedule/predictable	Enable asynchronous contribution	Chaos vs order	

The Tool Inventory
Can everyone use the tools we've chosen?

	RealTime Board (Miro)	Post-it Notes	Phone interviews	In-person interviews
Mobility & dexterity				
Blind				
Low-vision				
Deaf and hard-of-hearing				
Memory, language, attention				

How do we recruit people with disabilities to test?

- Level Access has a panel of 400 individuals
- Universities have offices for people with disabilities
    - Sometimes/often mandate for finding jobs
- National disability associations
    - 15-20 organizations
    - Might have local chapters
- Pay with digital gift cards
    - Amazon or Visa — more accessible than physical cards
    - $75-$100 for a 60-95 minute session
    - $1500 for JAWS screen reader - you get WAY more value if you usability test 15 people

Ask "based on the last project, how can we improve our inclusion?"

- Can a person with a disability maintain their independence
    - Another person should not have to help the disabled user
    - Can they maintain their dignity
- Value
    - Your participation in a process is valued rather than tolerated or accommodated.
- Participation
    - People should have the ability and opportunity to participate in solutions that they will use and that will impact their life
- Belonging/Othering

    - Your participation should be predicated on using the same tools, at the same time, in the same space, using the same process as anyone, to the greatest extent possible

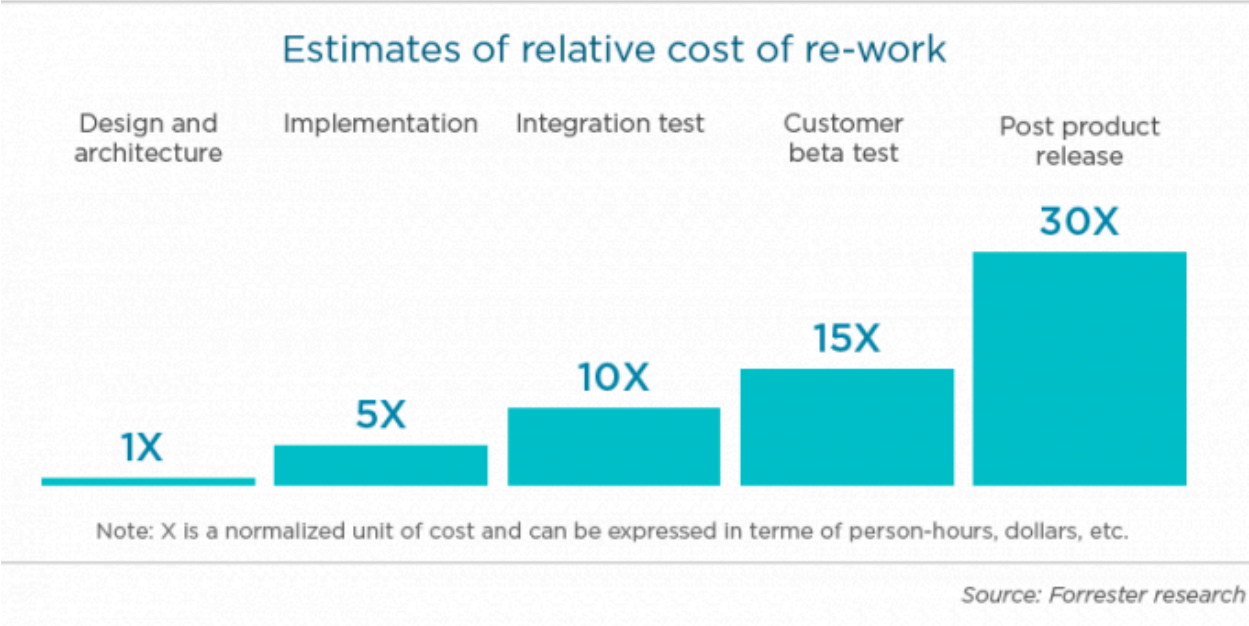
How can we measure inclusion?

Internal tools and employees with disabilities:

- https://www.levelaccess.com/lawsuit-claims-marriott-discriminates-against-blind-employees/
- Jared Spool: http://centercentre.com/about/jared-spool

When trying to convince the business, focus on Business Strategic Priorities, which are likely:

- Increase revenue
- Decrease costs
- Increase new business
- Increase existing business
- Increase shareholder value



It gets increasingly more expensive to re-work something the further it progresses to getting closer to completion. It's much more cost effective to rework in design than after release. https://konceptapp.com/blog/2015/12/03/how-much-would-you-pay-to-save-a-product-with-bad-ux/

https://simplyaccessible.com/

Better inclusive remote collaboration:

- When people are connected remotely- include them first
- Want some more tips for working with remote teammates?
- Design for remote-first collaboration
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