Why is Accessibility Important?



Jennison Asuncion @Jennison · Jan 16

client to make accessible products.

Because shipping accessible code should be part of what you do naturally if you care about your craft as a front-end engineering pro #webdev #webdeveloper #appdev #iosdev #androiddev

Neha Sharma @hellonehha - Jan 16 Gentle reminder: You don't need approval from your project manager, or

It is you not them who will write the code and design the product.

All you need to do is understand your area very well.

"Write right code & test"

#a11y

17 25

7 45

### Importance of Accessible Thinking

"I'm very sorry to hear about your community's experience with our customer care. I can assure you we take all support tickets, twitter requests, and general emails with the utmost consideration. With that said, unfortunately at the moment **most of our app is not setup for screenreaders**, but it is something that **we want to do in the future**."

#### **EDIT**

"I'm going to explore this topic with our development and design team. I'm afraid I can't guarantee anything at this point. Two things to remember are that A) building things is **generally harder than it seems**, especially since we never want to implement something hastily or half-assed and B) we have to **prioritize** our small engineering teams work extremely aggressively -- which means we lean towards building things that affect the most amount of people. If we could **wave a magic wand** we'd absolutely implement this yesterday, though."

https://www.reddit.com/r/discordapp/comments/69dsbt/a\_community\_closed\_off\_from\_discord/

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Everyone should be able to access and enjoy the web. We're committed to making that a reality.



#### Find Guides and Resources

#### **Developers and Publishers**

Information and resources to help you develop accessible products and

#### **Enterprise and Business**

Guides and resources for implementing and managing accessibility tools and practices in

your company.

#### Initiati

Google

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News

Microsoft accessibility There are no limits to what people can achieve when technology reflects the diversity of everyone who uses it.

iPhone Watch Accessibility Mac iPad iPhone Watch TV Stories

#### We believe that technology should be accessible to everyone.

ne most powerful technology in the world is technology that everyone, including eople with disabilities, can use. To work, create, communicate, stay in shape, and entertained. So we don't design products for some people or even most people. We design them for every single person.

> Play the film (>) Get the video transcript >



# Looking to the Future

Xiaoyi Zhang, Anne Spencer Ross, Anat Caspi, James Fogarty, and Jacob O. Wobbrock. 2017. Interaction Proxies for Runtime Repair and Enhancement of Mobile Application Accessibility. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (CHI '17). ACM, New York, NY, USA, 6024-6037. DOI: <a href="https://doi.org/10.1145/3025453.3025846">https://doi.org/10.1145/3025453.3025846</a>

reader to provide meaningful feedback to a person using the screen reader to interact with the app. Unfortunately, many apps fail to implement accessibility guidelines, including flagship corporate apps (e.g., as of August 2016, this paper finds missing metadata in current Android apps for Wells Fargo and Yelp that makes key functionality inaccessible). The problem is analogous to developer failure to provide alternative text for images on the web [6] or to implement accessibility guidelines in desktop applications [28].

## Looking to the Future



Figure 1: Image tweeted by Hillary Clinton used as a probe. The tweet text reads, "Some on the other side may say our best days are behind us. Let's prove them wrong." The computer generated caption says, "I am not really confident, but I think it's a man is doing a trick on a skateboard at night." The image is actually a black and white photo of Hillary Clinton walking onto a stage with a crowd of people in the background.



Figure 2: Image tweeted by the New York Times used as a probe. The tweet text reads, "Why isn't Italy kinder to gays?" The computer generated caption says, "I'm not really confident, but I think it's a person holding a tennis racquet and she seems neutral face." The image is actually of two copies of the statue of David digitally altered so one has his arm around the other and they are looking at each other.

MacLeod, H., Bennett, C. L., Morris, M. R., & Cutrell, E. (2017, May). Understanding Blind People's Experiences with Computer-Generated Captions of Social Media Images. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (pp. 5988-5999). ACM.

## Accessibility > Disability

Ultimately, accessibility is about more than just serving the disability community.

Accessibility is about access for anyone, anywhere, through any medium or device.

From this perspective, accessible thinking can drive innovation...

- Closed Captioning was invented for deaf people
- Text messaging evolved from TTY devices built to support deaf telephone use
- OCR and Speech Synthesis invented to allow blind people to read books

# Your Role in a11y

Organizational Stakeholders

User Research
User Experience → C
Software Engineering

Customers

## Inclusive Design Methods

### Universal Design

R. L. Mace, G. J. Hardie, and J. P. Plaice. 1991. Accessible environments: Toward universal design. In Design Intervention: Toward a More Human Architecture, W. Preiser, J. Vischer, and E. White (eds.). Reinhold, NY, 155–176.

### User-Sensitive Inclusive Design

Alan Newell, P. Gregor, M. Morgan, Graham Pullin, and C. Macaulay. 2011. User-sensitive inclusive design. Univ. Access Info. Soc. 10, 3, 235–243.

### Design for User Empowerment

Richard E. Ladner. 2015. Design for user empowerment. Interactions 22, 2, 24–29.

### Ability Based Design

Wobbrock, Jacob O., et al. "Ability-based design: Concept, principles and examples." ACM Transactions on Accessible Computing (TACCESS) 3.3 (2011): 9.

## Making Software Accessible

- Web Content Accessibility Guidelines (<a href="https://www.w3.org/WAI/intro/WCAG">https://www.w3.org/WAI/intro/WCAG</a>)
- Accessible Rich Internet Applications (<a href="https://www.w3.org/WAI/intro/aria">https://www.w3.org/WAI/intro/aria</a>)

# RJ De Rama