

DEMYSTIFYING INCLUSIVE DESIGN

What We've Learned About Designing More Equitable and Accessible Products

for Social Impact World | Oct 26, 2022



Exygy

WELCOME!

Today's Agenda

Here's what we'll cover today.



- 11:00 Welcome & Introductions
- 11:10 About Exygy
- 11:15 The State of Things
- 11:20 Principles of Inclusive Design
- 11:30 Addressing Common Misconceptions
- 11:45 Questions from the Audience
- 11:55 Wrap Up

Pattern
recognizer

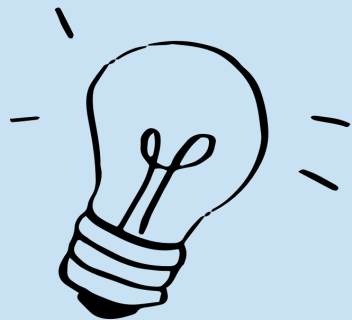


Jesse James (he/him)
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Human behavior
sleuth



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About Exygy

DISCLAIMER

**We're on this
learning journey
together.**

Exygy



ABOUT EXYGY

Exygy partners with
social impact organizations to
design and build **technology**
that improves lives.

For 19 years,

Our diverse team of designers and technologists have created digital products that put the needs of communities at the center.

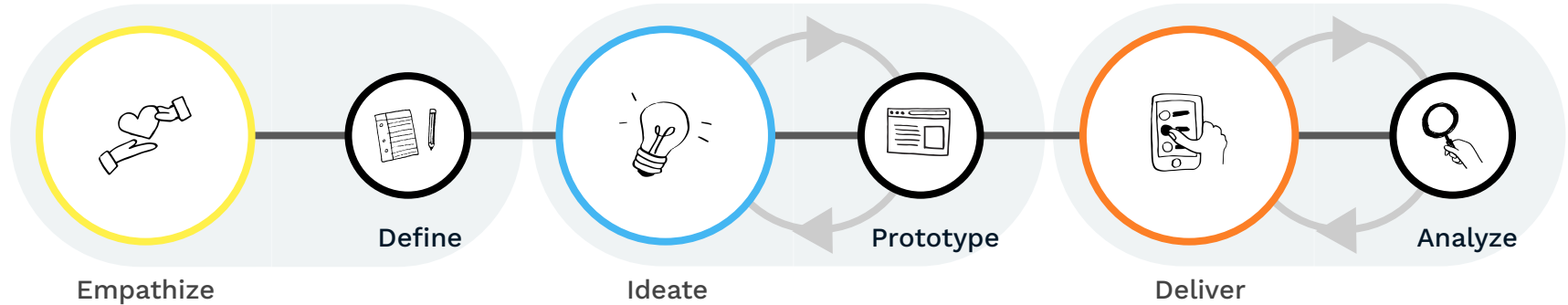
We believe **more inclusive innovation is possible**. We want to do better and trust the potential to grow through inclusive design practices.



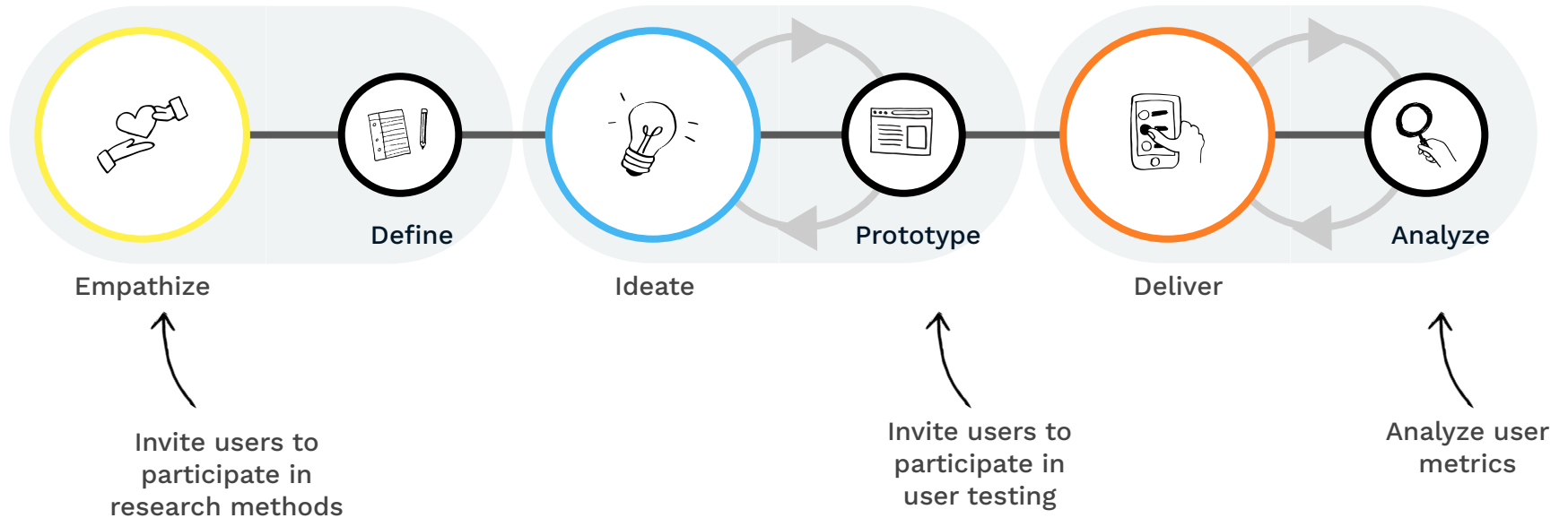


The state of things...

The Human-Centered Design Process



The Human-Centered Design Process



The HCD Mindset



DESIGNER

- Is far removed from the problem
- Needs to empathize
- Holds the expertise to solve the problem



USER

- Experiences the problem
- Needs to share
- Can't solve the problem

Limitations of HCD

- Users are not active in the decision-making process.
- Decisions are made by a specific group of a certain demographic.
- Can reproduce inequitable power relationships.
- Can result in biased digital products.

The **human** impact
of **social** issues
calls for an
intentional process.



Inclusive design

Making design choices that take into account personal identifiers like ability, race, economic status, language, age, and gender.

Inclusive design
enables and draws
on the **full** range of
human **diversity**.

Microsoft

INCLUSION

What is inclusive design?

Recognize
exclusion

Invite people
with lived
experiences to
the table

Design for
the margins

DESIGN PRINCIPLE #1

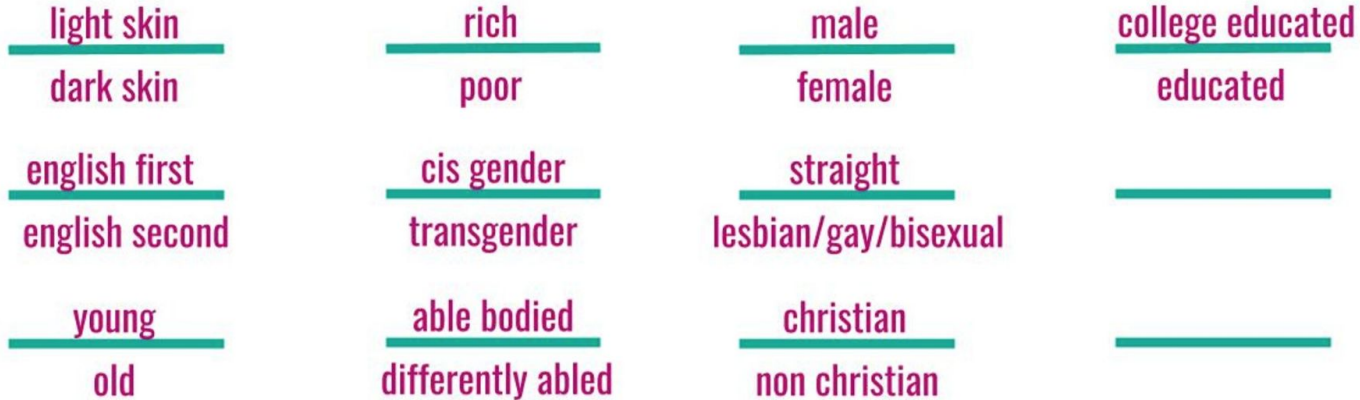
Recognize exclusion

Implicit biases, power dynamics, and invisible structures (like timelines and budgets) all impact how we make decisions about our design processes and who we invite to it.

It's important to pause, reflect, and question:
which voices might you be leaving out of your design process?

DESIGN PRINCIPLE #1

Visualize power to recognize exclusion



Source: <https://equitymeetsdesign.com/>

DESIGN PRINCIPLE #2

Invite people with lived experiences to the table

When designers make decisions by themselves, even if they have done proper research, the solutions are biased by the designers' context, characteristics and point of view.

By inviting end users to co-create solutions together, **those with lived experiences can create solutions that work better for themselves.**

Empower users to co-create



DESIGNER

- Don't solve the problem alone if they don't have the lived experience.
- Move from experts and decision-makers to facilitators.



USER

- People are capable of solving their own problems when empowered to.
- Should be invited to make decisions on solutions that impact their lives

DESIGN PRINCIPLE #3

Design for the Margins

In order to design for inclusivity, we must design for the ones who are most at the margins.

If we can create solutions for those who have the biggest barriers to access, who are most proximate to a problem, **we can learn to solve the problem for them and, consequently, for everyone else.**

Source: <https://equitymeetsdesign.com/>

DESIGN PRINCIPLE #3

The curb-cut effect



The **Curb Cut Effect** is a phenomenon of disability-related features or objects that is now *used and appreciated by a larger group of people other than who it was originally designed for*, like the curb cut, which helps wheelchair users and:

- parents with strollers
- delivery drivers
- bicyclists, scooters, skateboarders

Source:

<https://rollingthroughlife.org/2021/04/15/what-is-a-curb-cut-and-the-curb-cut-effect/>

Center for Independent Living director Phil Draper at the corner of Telegraph Avenue and Blake Street in 1984 from *Going Where You Wheel on Telegraph Avenue*

EXAMPLE

Web Accessibility

Designing products, devices, services, or environments for people with disabilities.

What is web accessibility?

Visual



Hearing



Physical



Cognitive





Visual

Visual disabilities can range from mild or moderate vision loss to substantial or complete loss of vision.

Includes blindness, low vision, and color blindness, which affect 28% of the world's population.

Design Principles

Contrast

Text size, text weight, and color combos.

Structure

Predictable layout, clear hierarchy and scalable.



Hearing

Hearing disabilities include mild, moderate, severe, and profound hearing loss in one or both ears.

Includes auditory disabilities from mild to complete hearing loss in one or both ears, which affect 5% of the world's population.

Design Principle

Alternate Feedback for Audio

Always pair audio with another form of feedback.



Physical

Physical disability is defined as when a person's physical functioning, mobility, dexterity, or stamina is limited.

Include any disability that affects a person's physical functions, dexterity or stamina, which affect 16% of adults in the US.

Design Principle

Operability

Should work for users engaging with your product unconventionally.



Cognitive

Cognitive disabilities are defined as a person having a hard time remembering, learning, concentrating, or making decisions that affect their everyday life.

Include people who face more challenges when trying to complete mental tasks, which affects 8 million people in the US.

Design Principles

Organization

Strong hierarchy and highlight the focus of the page.

Clear/Simple Tasks

Break long tasks into steps to reduce cognitive load.

ACCESSIBILITY

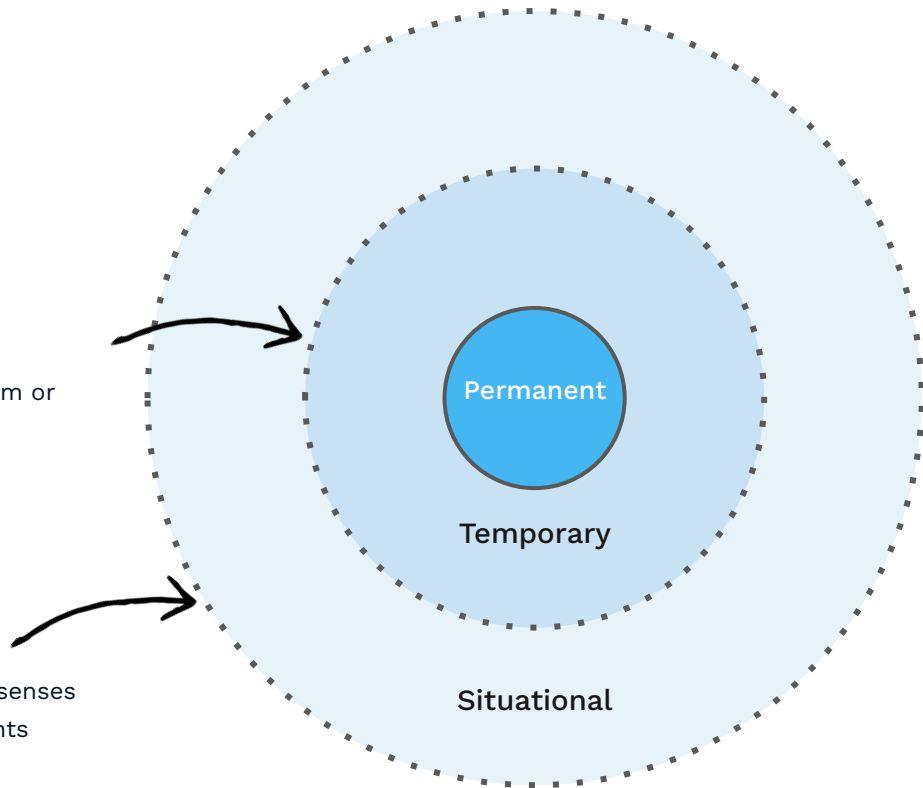
Solve for one, extend to many

Temporary disabilities

People who are recovering from a broken arm or who may have lost their glasses

Situational limitations

People in situations that compromise their senses including bright sunlight or loud environments



What you might be
thinking...

MYTHS

Working through some common misconceptions

01

The problem is
just too big

02

I'm not an expert
at this

03

I can't do this by
myself

We felt the same
way

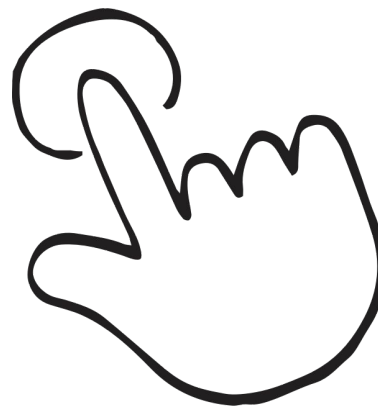
01

The problem is just too big

SOLUTION

Start small

Step one for us was to define the scope of what we are trying to accomplish.



CASE STUDY

Collect all issues in one place

An internal audit conducted by anyone on the team can give you a sense of the size of the effort

Get one click accessibility previews

Wave offers a chrome plugin that anyone can use to get a sense of where you site is passing and failing

Centralize the issues in one place

Keeping a centralized list of all the issues allowed us to assess the work we needed to do

Oakland Accessibility Audit

Default view Board +

Name	Status	Template	Component	URL
Broken Related Pages anchor on Official	In Progress	Official		https://www.oaklandca.gov/officials/foren-taylor#page-relatedpages
Mobile navigation button should have text	In Progress	Homepage	Main Navigation	https://www.oaklandca.gov/
Feedback form does not use unique IDs for each input	In Progress	Services Category	Feedback Form	https://www.oaklandca.gov/services
Filter select inputs are missing labels	In Progress	New Index Calendar		https://www.oaklandca.gov/news
Card background color too light			Card	https://www.oaklandca.gov/services/oak311
Mega menu dropdown should open on Enter rather than focus	In Progress	Homepage	Main Navigation	https://www.oaklandca.gov/
Heading level skipped between title and content	In Progress	Project		https://www.oaklandca.gov/projects/10th-street-bridge
Heading level skipped between title and content	In Progress	Resource Entry		https://www.oaklandca.gov/resources/city-of-oakland-americans-with-disabilities-act-ada-policies
Sidebar could benefit from a region header	In Progress	Search		https://www.oaklandca.gov/search#content
Many meeting videos do not have close captions or captions are so small that are not legible		Meeting Entry		https://www.oaklandca.gov/meetings/bicyclist-and-pedestrian-advisory-commission-bpac-meeting-mar-2021
Site lacks an accessibility statement	In Progress			
Search label css should be updated, uses low contrast and should use screen reader only css	In Progress	Homepage	Site Search	https://www.oaklandca.gov/
Heading level of service cards skips from h1 to h4	In Progress	Services Landing	Card	https://www.oaklandca.gov/services
Sidebar heading should be h2		News Entry		https://www.oaklandca.gov/news/2021/federal-raise-grant-awards-oakland-14-5-million-to-fund-reconnecting-the-town-a-major-infrastructure-project-on-broadway-and-martin-luther-king

CASE STUDY

Reflect and Plan

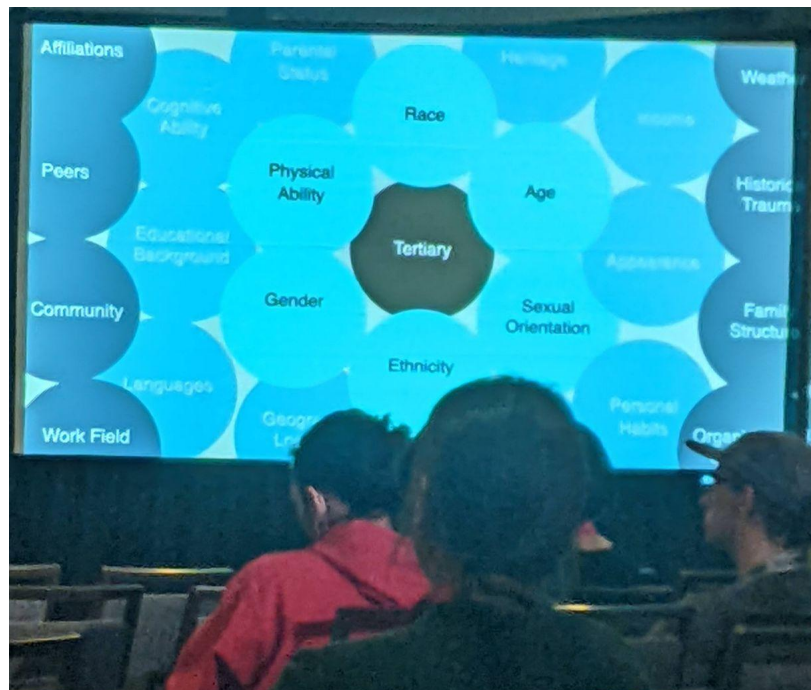
Before conducting research, we reflect and plan to prioritize the people who are the most excluded

Reflect on identity and diversity

Understand all the different characteristics, visible and invisible, that make up identities.

Map out who is more at the margins

What diverse characteristics does your team have?
What about the stakeholders? And the users you have access to? Who is not being included? How might we include them?



Source: Picture from Jennifer Greenhorn's presentation "Who should the designer be in Equitable Design" at SXSW 2022

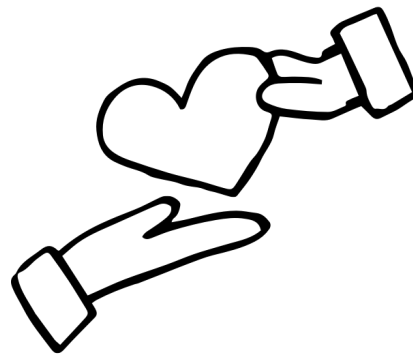
02

I'm not an expert at this

SOLUTION

Invite real people

We needed to invite folks with lived experiences



CASE STUDY

Establish partnerships

We engaged with LightHouse for the Blind on a ongoing basis to ensure we were designing and building as accessible product

Accessibility review

We met with experts to access features as they were being developed before being released to the public.

Usability testing

We worked with user groups from a number of backgrounds to provide feedback to the product.



CASE STUDY

Invite the community

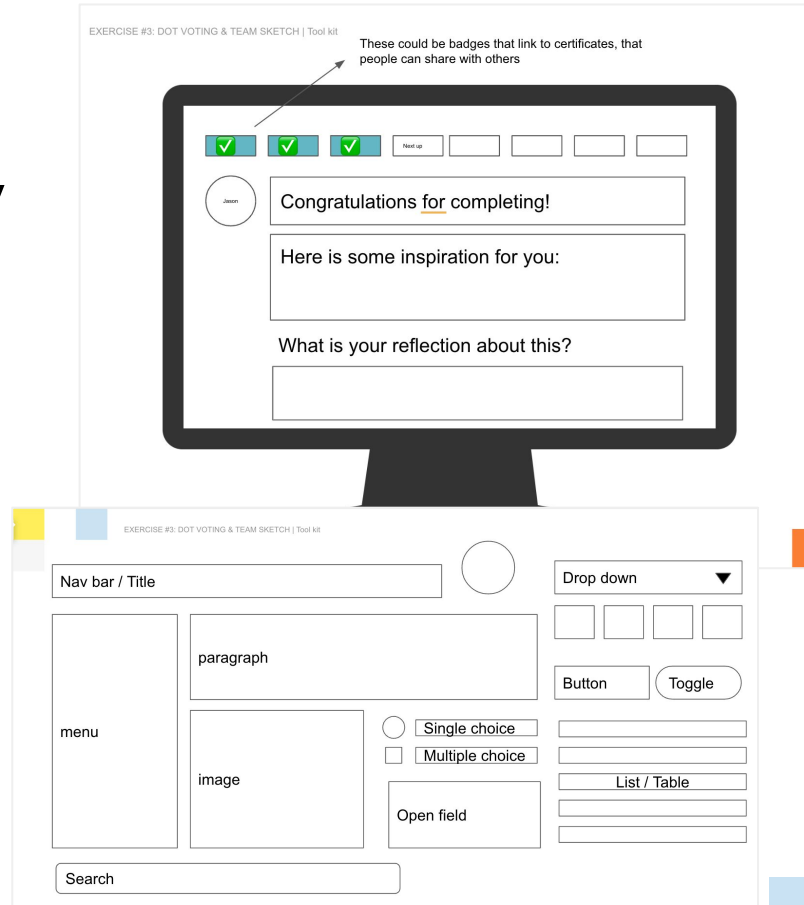
We invited formerly incarcerated people to co-design a portal for a reentry program.

Find a liaison between you and the community

We chose someone from the community to help us design the workshop and make sure we were being as inclusive and respectful as possible.

Create a co-design session to share the power

In order to transfer the power from the designer to the community (who might not know how to design), we used a toolkit to put together their ideas in real time.



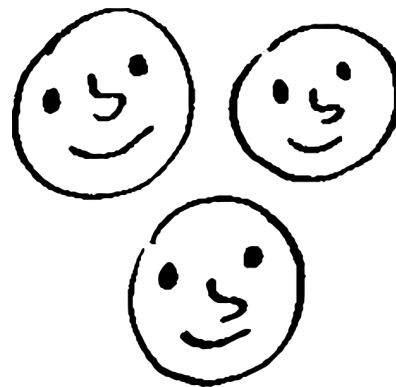
03

I can't do this by myself

SOLUTION

Enroll everyone

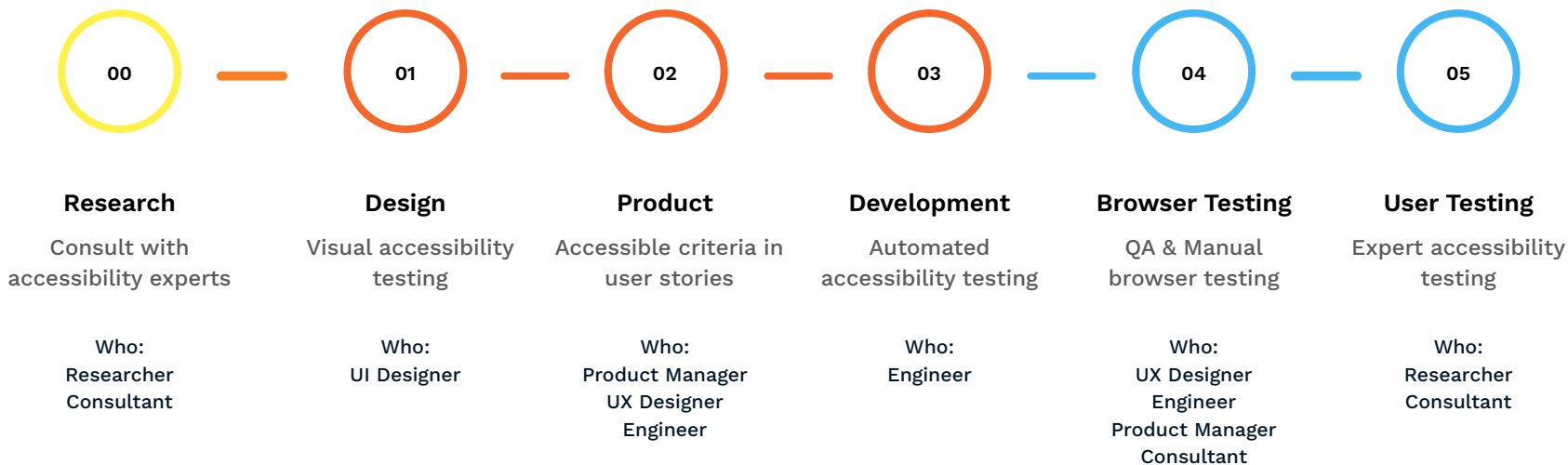
Finally, we realized that this would take participation from everyone on the team in order to be successful.



CASE STUDY

Sharing the responsibility

We are experimenting with a collaborative process that engages everyone on the team to share the responsibility of improving the user experience.



CASE STUDY

Make bias visible to everyone

We are building a habit of sharing more often how day-to-day decisions might be biasing the designs.

Allow time for reflection

Create intentional pauses to reflect on how decisions might be biasing the designs.

Come up with mitigation plans

Are there ways to mitigate the biases? Or do we have to rethink the direction?

Share with stakeholders

Make sure everyone is aware of the potential bias and the mitigation strategies.

POTENTIAL ISSUES

Biasing the design

We might be leaving out applicants who:

- **Don't have emails**
- **Have lower digital literacy** (not adept email use, having to navigate back and forth between screens and tabs)
 - Includes those incarcerated for a significant amount of time

people

WHAT WE CAN DO NOW

Mitigation Strategies (continued)

For phase 1, we will implement the following mitigation strategies:

Add a one-question survey to collect data on top of analytics:

- Q: Why are you downloading the app?
 - It's easier for me / I prefer physical copy
 - I don't have an email
 - I wasn't able to verify my email
 - I wasn't able to create an account
 - Other (fill in blank)

Thank you for your question survey

Which factor led you to download the application instead of applying online?

I don't have an email

I wasn't able to verify my email

I wasn't able to create an account

Preferred the app to other application methods

Other



Learnings

INCLUSIVE

Lessons learned



Start small

Take a step back to define and reflect.

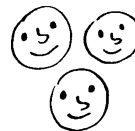
As a team there are steps you can take to centralize what you know and determine who you need to serve.



Invite real people

Reach out into the communities you serve.

Enroll people with lived experiences to codesign and test your products.



Enroll everyone

Make it part of your workflow.

Inclusive design should be everyone's responsibility on your team.



The real experts



INCLUSIVE

Inclusive Design Orgs and Resources

[Create Reaction Lab](#)

Creative Reaction Lab is a youth-led, community-centered movement of a new type of Civic Leader: Redesigners for Justice.

[EquityXDesign](#)

A free, online introductory course by Equity Meets Design.

[Equity Design Collaborative](#)

The Equity Design Collaborative was formed in 2017 by organizations and individuals from across the U.S. practicing Equity Design.

[Inclusive Design Framework](#)

A set of toolkits and resources about inclusive design created by Microsoft

[Equity-Centered Design Framework](#)

Stanford d.school out together a framework that captures the design thinking process re-imagined to promote equity.

[Equity-Centered Community Design Field Guide](#)

A Method for Co-Creating Equitable Outcomes.

INCLUSIVE

Accessibility Orgs and Resources

[LightHouse for the Blind and Visually Impaired](#)

Education, training and community for people who are blind or have changing vision.

[Center for Accessible Technology](#)

CforAT's focus is on access to computers and technology for people with disabilities.

[Independent Living Resource Center](#)

Disability rights advocacy and support organization.

[A11Y Project Accessibility Checklist](#)

This checklist uses The Web Content Accessibility Guidelines (WCAG) as a reference point.

[WAVE Web Accessibility Evaluation Tool](#)

WAVE® is a suite of evaluation tools that helps authors make their web content more accessible to individuals with disabilities.

[Color Contrast Checker](#)

Check the contrast between different colour combinations against WCAG standards

Thank you!

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Exygy

bit.ly/exygyinclusive



5 More Ways to Foster Inclusive Design

Leverage tools and resources to provide experiences to a broader community

Keyboard Access

All interactions can be accessed with a keyboard because assistive technology uses keyboard like inputs.

Including component-specific guidance will help ensure that accessibility is top of mind when implementing the experience and its components of every project.

Resource: [WebAIM](#)



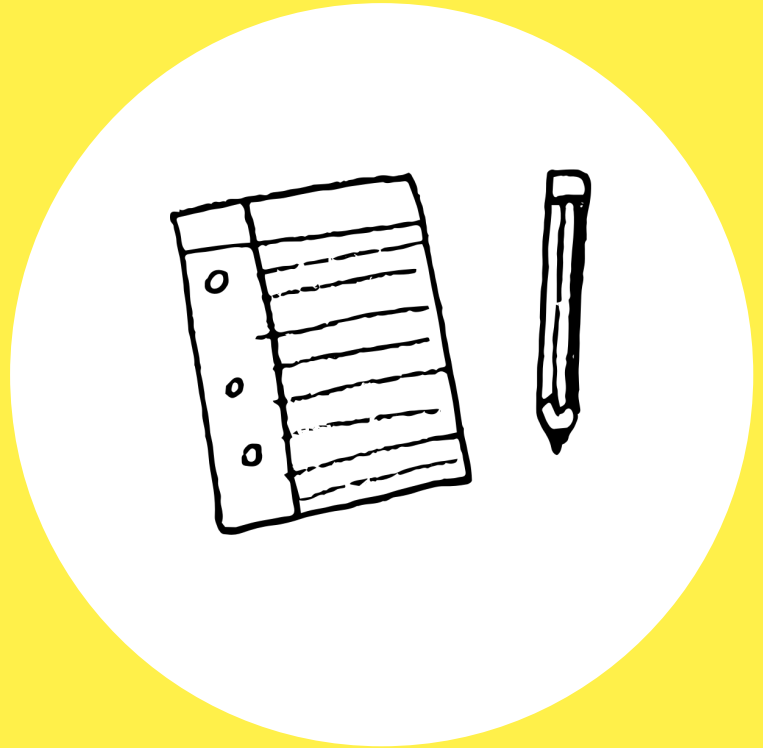
ACCESSIBILITY

Reading Level

Learn about your users and write for the lowest reading level that is appropriate.

By writing for a lower reading level you are benefiting, people with cognitive impairments, people who do not speak English as a first language and those who are simply distracted.

Tool: [Flesch-Kincaid Readability Tool](#)



PERFORMANCE

Low Bandwidth

Many services would benefit from addressing low bandwidth and print styles with design.

Designing for performance serves users are accessing content during a natural disaster or routinely have limited access to the Internet based on cost or other factors.

Tool: [Google PageSpeed Insights](#)



VOICE & TONE

Inclusive Language

Use voice & tone guidelines to instill equitable and anti-racist vocabulary into your products.

For example you can remove terms that refer to race and slavery, such as “blacklist” and “whitelist” for “blocklist” and “allowlist,” and “master” for alternatives like “main/default/primary” and “secondary.”

Example: [Intuit Content Design](#)



USABILITY

Digital Literacy

Simple intuitive interfaces and interaction patterns invite users with lower tech literacy

Design learning opportunities into the solution and content in order to teach through engagement. Terms and language should educate users, moving from simpler concepts to more complex details

Resource: [Design for Digital Literacy](#)

