

EBOOK

SHIFT LEFT AND BUILD EMPATHY THROUGH INCLUSIVE DESIGN

Involve People With Disabilities
Early in the SDLC



APPLAUSE^o

Compliance complicates accessibility and inclusivity for many companies. In our world of regulations and best practices, it's easy to lose sight of goals for improving digital products when accessibility lawsuits loom. And, when organizations do have compliance issues, most fail to recognize that the issues likely arose from a bad user experience in the first place, not because of some missed checkbox on a compliance list.

Development organizations often address individual components to meet accessibility compliance guidelines, but when the components are put together in a user flow, they can fail to provide a good UX for people with disabilities (PwD). Without involving your customers in planning, design and testing there's no way to truly understand their needs. This is why companies need to build their products by working closely with all persons from the start — PwD and non-disabled. It ensures an equitable experience for all...and benefits everyone.

This ebook covers some basic concepts around inclusive design and briefly walks through three repeating phases of how Applause addresses the shift left toward an Agile and inclusive software development life cycle (SDLC). It's meant to serve as a primer for further conversation on the topic and serve as a foundation for additional customization.



Inclusive Design Principles – "Nothing About Us Without Us"

In his book "Nothing About Us Without Us," James Charlton expresses the point that people with disabilities know what's best for them. This concept of including the people that decisions impact in the decision-making process is not new. It has been traced back to politics in the 1500s in Europe and illustrates a core component to the start of the American Revolutionary War: "No taxation without representation." It's a fundamental human desire — and should be a right — to be involved with the construction of inclusivity issues that affect us.

When it comes to ensuring inclusivity in the digital realm, beyond individual rights and guidance lies the need for empathy. Without it, true inclusivity doesn't exist, and the innovation that comes from involving as diverse a population as possible in your product design phase is lost.

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As we say in the accessibility and inclusivity field, 'essential for some, useful for all.' For example, working to ensure touchscreen target size in a mobile app is large enough for people with upper body mobility issues helps everyone. We're all busy and distracted, and we all want content that is easy to understand and user experiences that are intuitive and smooth.”

FATIMA KHAWAJA

Senior Inclusive Design Researcher, Applause



So, What Is Inclusive Design?

It's a human-centric approach to how software development organizations design a methodology. It begins with a targeted person in mind, say a person with low vision, from which you create a persona that understands the needs and challenges of individuals with that condition. It's much more than adhering to accessibility guidelines and checking off Web Content Accessibility Guidelines (WCAG) requirements, then QA testing and dusting off your hands. Most important, inclusive design is an adherence to direct experience and feedback from specific people with the lived experience of a disability, as only this direct contact with users creates empathy. And this empathy goes a long way in creating truly exceptional experiences for everyone.

It has been said that disability is really just mismatched human interactions played out in various mediums. In the world of software design, every designer should create products that can be used by the broadest range of people. Yet it's easy for designers to lose their way. Deadlines to get products out the door take precedence over high-quality inclusive products. But it's not just pressure to release that creates hurdles for software designers. Too often, designers are isolated. They work in a vacuum, with little or no contact with the people for whom they're designing. How could they possibly design a high-quality product for a person about whom they know next to nothing? That's why personas for PwD are a great starting point, but even they can miss the mark.

Taking the First Step: How To Start an Inclusive Design Program

The journey begins with an organizational mindshift.

Consider these questions:

- ☑ Can you achieve WCAG compliance and not have a fully inclusive experience for some customers? Yes.
- ☑ Can you embrace inclusive design principles, execute on them completely to produce fully accessible and inclusive products and not meet all WCAG standards? In theory, yes. If everyone is served well and equally through your efforts and can access your products easily to meet their goals, then WCAG becomes secondary.

WCAG is important, but the focus must start with the customer. It's about building an SDLC where accessibility is part of the release process, not an afterthought. This is key to making the shift away from a compliance-driven accessibility program toward one which is driven by real input from PwD early in the process to ensure inclusivity is baked in at the start.

WCAG is a safety net – it's a set of excellent success criteria built from experience that helps ensure there are no gaps in design and testing. Conforming to WCAG is a critical step on the journey to inclusion, but we can't center our goals purely around conformance. This mindshift is imperative and must be maintained through ongoing inclusivity efforts. **Everything else in this ebook is built upon this simple but powerful shift in organizational thinking. Understanding the commitment to serving everyone is the beginning of the inclusivity journey.**



The 3 Steps to Implement an Inclusive Design Program

So, where do you start in the journey to inclusive design? In this section, we consolidated some common thinking around inclusive design as well as added Applause's pragmatic approach from working on many large corporate accessibility and inclusivity programs.

1. Create an accessibility lead role to build and own the goal

Like any program, clearly setting the goal and getting buy-in at the start is key. If your organization does not have an accessibility/inclusivity lead, then it's vital to create this role. Applause has found that the most successful organizations in inclusive design prioritize the development of this role, which oversees all inclusivity efforts, gains initial executive and cross-team buy-in and keeps all groups marching to the same tune. For more on this, view our webinar, [Accessibility Now Means Less Pain Later](#), or the companion blog, [Creating an Accessibility Program Requires Awareness and Empathy](#).

In this first phase, keep in mind that an inclusivity program is an ongoing, interactive process. It also takes a significant onramp; it's not something that happens overnight. Like any other process maturity, it takes time to create a culture that puts inclusivity at the forefront. Set realistic goals and timeframes to achieve them.

Applause considers the following key components in phase 1:

- ☑ Introduce design and project management teams to the concepts of accessibility and inclusive design
 - » Conduct empathy sessions with real-world assistive technology users in the context of their products
 - » Conduct informal training and design workshops
- ☑ Assess the current state of products
 - » Conduct UX studies and strategic accessibility conformance testing on critical paths
 - » Conduct expert reviews of design system artifacts and create a knowledge base
- ☑ Establish KPIs and scorecards
 - » Track progress based on usability studies and compliance bugs

Involving persons with disabilities when design discussions begin is very important. Designers can interact directly with these people and learn what doesn't work in current apps and gain new ideas for improvement. This is where the path to empathy begins.

2. Develop strong inclusive team practices and formalize procedures

For some organizations, this phase of the inclusivity program can be the hardest. You've begun to create awareness and educate, but the reality is that various groups across the organization have been doing things a certain way for a long time. You may begin to integrate accessibility and inclusivity requirements into the larger requirements documentation at the beginning of a project, but full adoption may still take time. Again, this is a journey.

Applause considers the following key components in phase 2:

☑ Conduct design reviews

- » Incorporate expert reviews into design processes to avoid known problem patterns
- » Organize focus groups with assistive technology users to field new concepts
- » Establish design handoff procedures and markup to smooth transition and avoid "invisible" bugs

☑ In-sprint testing

- » Execute regular accessibility testing synced with development sprints to reduce errors
- » Gain fast feedback on prototypes from real assistive technology users to identify potential UX issues

☑ Provide support

- » Provide office hours with experts
- » Conduct structured training sessions

Continuous improvement is at the heart of Agile, inclusive development. Incorporating ongoing feedback throughout the SDLC is key, but to do this, organizations must ensure that teams have metrics that they check against as they move forward. To achieve this, all persons involved must be clearly informed of the goals of all practices, and be able to evaluate how the practices measure up to goals as they move ahead.

Examples in an inclusive design checklist*

It's an understatement to say that there's a lot to manage when it comes to the ongoing and iterative process of building inclusive digital experiences. The list below provides a sampling of various accessibility/inclusive product features that teams must consider:

Visibility of system status

- » Heading and subheadings provide an information hierarchy to structure screen content semantically and visually.
- » Radio buttons and checkbox groupings have semantic and visual heading text immediately before the first button/checkbox for context.

Match between system and real world

- » All content is communicated by text and/or by accessible alternative text.
- » Avoid interaction patterns that flow up and or left.

User control and freedom

- » Interactions with time limitations provide accessible ways to request more time.
- » CAPTCHAs are designed to be fully accessible for all common assisted technologies.

Consistency of standards

- » All screens are designed for touch.
- » Text links should be consistently styled for focus, hover, inactive, etc.

Error prevention

- » Call to action buttons touch targets are a minimum of 44 pixels by 44 CSS pixels.
- » User focus does not change automatically or on hover.

Recognition rather than recall

- » Color is not the only means of communication. Text and/or shape are used with color to communicate.
- » Icons are paired with visible text.

Flexibility and efficiency of use

- » Complex content is simplified or presented logically in tables.
- » Button, link, heading, and subheading text are unique, meaningful and concise.

Aesthetic and minimalist design

- » Animations when used are planned to avoid inducing seizures.
- » Nothing blinks or flashes.

Error recognition, diagnosis and recovery

- » Error messages include the word "error" or start with "X."

Help and documentation

- » Ensure contextual help is provided.

*Adapted from: "[10 Usability Heuristics for User Interface Design](#)," Nielsen. November 2020.

3. Celebrate success through metrics and improve

As mentioned, regular accessibility testing synced with development sprints reduces errors, and in each sprint cycle, the three phases here repeat. At the core, however, long-term improvement results from an organizational mindshift. Teams must learn new skills and edit former practices. They must embrace the need to involve PWD early in the SDLC as a core shift toward empathy-based inclusive design. A key way to imprint these new skills and processes is to celebrate the improvements to the SDLC — and, ultimately, the digital user experience. Of course, after celebrating successes, the inclusive organization takes known insights and recycles them back into the SDLC.

Applause considers the following key components in phase 3:

- ☑ Maintain momentum and promote culture shift
 - » Publish customer success stories
 - » Internally promote success metrics
 - » Spotlight champions
- ☑ Apply findings and stay agile
 - » Monitor KPIs to identify areas of opportunity
 - » Conduct retrospectives on critical points in the SDLC (e.g. team ally expertise, design handoff templates, QA prioritization strategies)
- ☑ Invest in areas of need
 - » Expand to new product teams
 - » Hold vendors accountable
 - » Influence hiring practices



The Applause Difference

When starting on the journey to becoming an inclusive design software development organization, it can be difficult to know exactly how to get started, even with this basic guidance in this ebook. Some of the practices your organization will face are quite technical in nature, demand input from PwD and require significant learning and mind shifts within your organization.

From our work with many large organizations who have started the inclusive design journey, Applause has developed an offering of services that help organizations along the path to accessibility and inclusivity:

- » **PwD Insights** - Access to various assistive technology users and people with disabilities who serve as ambassadors to provide high-interaction feedback as consultation sessions, UX recording and/or training participation
- » **Inclusive Design UX Studies** - Focused studies with a UX researcher and panel of PwD to identify pain points and suggestions from improvement to the product experience
- » **Usability Studies** - Formal usability studies with a dedicated UX researcher to examine any aspect of a digital experience
- » **Accessibility and Inclusive Design Consulting** - Applause dedicated experts provide in-depth support in the design and development phase, producing deliverables such as design reviews and design system evaluations
- » **Accessibility and Inclusive Design Education and Training** - Our experts provide a range of education and customized training solutions for any role in the product life cycle
- » **Accessibility In-Sprint Testing** - Receive just-in-time feedback on critical WCAG checkpoints synced with development sprints
- » **Accessibility Conformance Reviews** - Full conformance audit against WCAG standards conducted by Applause experts
- » **Voluntary Product Accessibility Template (VPAT) Authoring** - After assessing accessibility conformance, Applause authors a VPAT for a product as an impartial, expert third party.

Learn more about how Applause can help you on your accessibility and inclusivity journey

- » Visit our [accessibility testing page](#) to learn more about our offering, read a case study and contact us for more information.
- » View our [second webinar in our accessibility series](#) titled "Integrating Inclusivity and Empathy Into the Webex Platform."

About Applause

Applause is the worldwide leader in enabling digital quality. Customers are no longer satisfied with digital experiences that are good enough; they demand the exceptional. The Applause Product Excellence Platform provides the world's leading brands with the comprehensive approach to digital quality needed to deliver uncommonly great digital experiences across the globe – with highly vetted testers available on demand, a complete and enterprise-class technology infrastructure, multi-point digital quality solutions and SaaS products, and expertise across industries and use cases. This harmonized approach drastically improves testing coverage, reduces costs and speeds time-to-market for websites, mobile apps, IoT and in-store experiences. Thousands of leading companies – including Ford, Google, Western Union and Dow Jones – rely on Applause as a best practice to deliver the exceptional products and digital experiences their customers love.

Learn more at www.applause.com

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