

# Design Guide

# UICD

Unique Centered Design

**Or how we design  
for uniqueness**

because users' social and cultural identities, and their shifting contexts, needs, and abilities, affect how they experience your designs.



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## Unique Centered Design

# Why we use U\*CD

Unique Centered Design (U\*CD) creates solutions that consider users' identities, contexts, needs, and abilities.

By considering multiple dimensions and engaging different perspectives, we help avoid **'groupthink'** and broaden the range of possible solutions — inspiring more creative, robust, and universal designs.

## Users' insights dimensions

### Identity & Contexts

Social identity, socioeconomic status, education, language, religion, technology, surroundings, and constraints like physical environment...

To ensure solutions are relevant and inclusive.

### Situational Aspects

Immediate circumstances such as multitasking, time pressure, limited resources, and health or economic changes...

To design solutions that are dynamic and adapt to shifting user needs.

### Functional Capabilities

Permanent and temporary variations: physical, sensory, cognitive, emotional, communicative, variations from injuries and fatigue...

To foster inclusive, adaptable and user-friendly designs.



**Diversity fuels creativity:**  
Collaborate for greater success

# Users' needs shift, constantly

Designing across dimensions **anticipates challenges** and enables transformative solutions

By designing with different **user contexts and abilities in mind**, we can anticipate challenges and open the door to more inclusive and effective digital experiences.



## Situation-based needs

Walking outdoors with glare, using a device in noisy or shared environments, multitasking, commuting, or feeling stressed, tired, or distracted...



## Temporary needs

Working with one hand after an injury, eye strain, temporary hearing loss, using a small screen, poor internet connection, learning to use a new interface...



## Permanent needs

Blindness or low vision, color blindness, deafness or partial hearing loss, limited mobility or motor control, cognitive or learning difficulties, chronic pain or fatigue...

## Did you know...

Accessibility regulation is not a constraint; it's an opportunity to design for a wider audience eager to participate fully.

It is estimated that between **70% and 90% of people** will, at some point in their lives, experience a temporary impairment (motor, visual, hearing, emotional, or cognitive) that significantly limits their ability to access or engage with digital content for a short period, ranging from days to months.



## 1 in 6 people

worldwide live with a disability, **representing over 1 billion potential users**



## 70 to 90%

of people experience some form of disability during their digital lives

# Diversity & Inclusion

Designing for the full diversity of the world's population.

Beyond their preferences, needs, and abilities, users come from diverse backgrounds and are shaped by their age, race, gender identity, sexual orientation, culture, education, socioeconomic status, language, and many other social identities.

These identities influence how they interpret interfaces, relate to content, feel represented, and navigate digital or social environments.

## Our designs...

Interfaces, content, and interactions should reflect and respect diverse ages and social identities, avoid assumptions about users' backgrounds or experiences, and support safety and comfort across varied cultural and identity contexts.

## Design strategies that support diversity & inclusion



### Inclusive representation

Use imagery, examples, and narratives that reflect a wide range of ages, races, cultures, genders, family structures, and identities.

### Bias-aware content

Avoid stereotypes, gendered language, cultural assumptions, or exclusionary phrasing. Review content with diverse perspectives.

### Respect for social identities

Use names, pronouns, and language that affirm users' identities. Provide opportunities for users to self-describe when relevant.

### Inclusive language

Use neutral, readable language. Avoid idioms, jargon, or culturally specific references unless they are essential and contextualized.

### Culturally aware design

Consider norms around color meanings, gestures, symbolism, feedback patterns, and interaction expectations across cultures.

### Privacy & safety options

Offer ways for users to control visibility, anonymity, or participation, especially in social features where identity-based harm may occur.

### Flexible personalization

Allow users to customize elements (avatars, names, communication modes, themes) in ways that align with their identity and comfort.

### Accessible communication

Support multiple forms of expression (text, audio, emojis, images) so users from different linguistic and cultural backgrounds can engage comfortably.

### Diverse user input

Engage people from a broad range of identities, preferences and abilities when testing or reviewing designs to uncover assumptions or blind spots.

By acknowledging and designing for the rich diversity of users' social identities, cultural backgrounds, lived experiences, and personal needs, abilities, and expressions, digital experiences become more inclusive, respectful, meaningful, and welcoming for everyone.



# Guidelines for Designers

Set of guidelines that will help you design experiences that are clear, intuitive, and respectful of diverse user realities.

By following **WCAG principles**, we create designs that make digital experiences **perceivable** in multiple formats, **operable** without reliance on a single sense, **understandable** through clear cues and readable text, and **robust**, ensuring no critical information depends on a single sensory channel.

Learn more at [www.w3.org](https://www.w3.org) 





# Visual preferences

Users may experience a wide range of visual conditions and contexts, including temporary vision changes, low vision, and blindness.

## Design implication:

**All essential visual information should have audio, text, or tactile alternatives, nothing critical should rely on sight alone.**

### Key challenges:

- Difficulty perceiving visual content, structure, or relationships within an interface
- Difficulty using a mouse
- Difficulty perceiving colors or low-contrast objects and text



## Design strategies for diverse visual preferences

### Alternative feedback

Provide audio alerts or haptic feedback for important events, notifications, or system states (e.g., form errors, new messages, confirmations).

### Customizable UI

Allow font resizing, color contrast adjustment, and simplified layouts that adapt to each user's visual comfort and needs.

### Haptic feedback

Use subtle vibration or motion cues to communicate key interactions or status changes when sound or sight may not be available.

### Inclusive color systems

Avoid relying on color alone to convey information. Use patterns, labels, or icons to support meaning and ensure accessibility for users with color vision differences.

### Flexible layouts

Design responsive and adaptable interfaces that maintain readability and usability across devices, orientations, and zoom levels.

### Assistive technology

Ensure the product works with screen readers, magnifiers, Braille displays, and other assistive devices.

### Real-world adaptability

Consider how environmental factors (lighting, noise, distractions) affect user perception and focus, and offer modes or settings that adjust automatically.

### Accessibility options

Include toggles for high-contrast and light/dark modes, and allow customizable settings that adapt to user preferences and contexts.

### Audio and text alternatives

Offer text or audio descriptions for all essential visual content so that no information is lost.

By providing alternative feedback, customizable settings, and compatibility with assistive technologies, digital experiences become usable and enjoyable for everyone.

# Hearing preferences

Users may experience a wide spectrum of hearing conditions, from mild loss to total deafness.

These conditions may be temporary, permanent, or fluctuate depending on the environment and context of use.

## Design implication:

**All critical audio cues must have visual or haptic alternatives. Nothing essential should depend on hearing alone.**

### Key challenges:

- Can't perceive audio cues or spoken instructions
- Hard to follow live or recorded civic events when captions or transcripts are missing
- Difficult to focus when background noise interferes



## Design strategies for flexible audio experiences

### Feedback and notifications

Provide visual cues, icons, or vibrations for important actions, alerts, or system feedback (message received, error, task completed).

### Haptic feedback

Use vibrations or motion cues to reinforce alerts, notifications, or transitions when sound may not be perceived.

### Visual sound indicators

Display real-time visualizers or waveform cues during voice interactions, calls, or video playback to show when audio is active.

### Subtitles and captions

Offer customizable subtitles with control over size, background, color, and placement, including speaker identification and tone when relevant.

### Visual alternatives

Guarantee that all essential auditory information has a visual or textual counterpart, such as status bars, progress indicators, or icons.

### Silent mode awareness

When sound is off, provide clear visual confirmation of alerts or incoming content so no information is missed.

### Text communication

Ensure voice-based interactions (calls, voice notes, assistants) have chat, transcripts, or speech-to-text options.

### Context-based settings

Allow users to adjust volume or mute specific types of sounds to focus on what's relevant in each situation.

### Audio narration toggle

Allow users to enable or disable narration or sound descriptions according to their preferences or context.

By providing visual and haptic alternatives, captions, and text-based communication, digital products remain accessible and usable for all users, regardless of hearing ability.



# Cognitive diversity

Users may be affected by stress, medical treatments, sleep deprivation, brain injury, or other conditions impacting memory, attention, and comprehension.

## Design implication:

**Interfaces, content, and workflows should minimize cognitive load, provide clear step-by-step guidance, and allow easy recovery from errors.**

### Key challenges:

- Difficulty understanding instructions, complex text, or multiple stimuli
- Difficulty remembering tasks, recalling objectives, or navigating menus efficiently



## Design strategies that support understanding for everyone

### Clear instructions

Give step-by-step guidance combining text, voice, and visuals, so users can follow processes without confusion.

### Manage cognitive load

Simplify workflows, allow users to control pacing, limit simultaneous tasks, and break tasks into short, manageable steps.

### Support and error management

Include reminders, lists, visual cues, and easy undo/redo options to help users track progress and recover from mistakes.

### Predictable structure

Keep menus, icons, and interface layouts consistent, and provide hints or skip options to reduce surprise or confusion.

### Multimodal communication

Combine text, visuals, audio cues, and haptics to ensure key information is perceivable through multiple channels.

### Customization

Let users adjust interface elements, simplify workflows, or change reading levels to match individual needs.

### Chunking content

Break information into small, digestible sections with headings and bullets.

### Progressive disclosure

Show only the necessary information at each stage, revealing more details as needed, to prevent overwhelming the user.

### Language options

Let users adjust reading level, simplify wording, or switch language for easier comprehension.

By providing clear guidance, memory supports, predictable structure, and multimodal feedback, digital experiences become accessible and understandable for users with cognitive challenges.



# Motor abilities

Users may be facing conditions affecting mobility, dexterity, coordination, or reaction time (e.g., arthritis, cerebral palsy, stroke recovery, repetitive strain injury, a broken arm or wrist).

## Design implication:

**Input methods and interactive elements should be fully customizable, providing alternative controls and reducing physical strain.**

### Key challenges:

- Difficulty using mouse, keyboard, touchscreen, or precise controls
- Difficulty performing tasks quickly or reacting in time
- Difficulty navigating menus or interfaces requiring precision



## Design strategies for adaptable and accessible interactions

### Alternative input support

Enable adaptive devices such as switches, trackballs, touch, or eye-tracking so users with limited mobility can interact fully.

### Input assistance

Include features like auto-complete, auto-selection, or slow-mode for time-sensitive actions to accommodate varied motor skills.

### User interface flexibility

Use large buttons, minimal clutter, and clear spacing to make navigation and interactions easier.

### Customizable controls

Allow key remapping, toggle vs hold options, or single-action modes to suit different abilities.

### Simplified navigation

Streamline menus, provide shortcuts, and reduce complex gestures or multi-step interactions.

### Reduced motion

Provide adjustable animation speed, transition timing, or reaction windows to give users sufficient time for input.

### Gesture recognition

Allow alternative gestures or simplified touch/mouse patterns to reduce physical effort.

### Adjustable density

Let users increase spacing, button size, or target areas to reduce precision demands in the interface.

### Shortcuts

Provide keyboard shortcuts, macros, or automation for repetitive tasks, reducing strain and speeding up interactions.

By providing adaptive input methods, customizable controls, simplified navigation, and adjustable timing, digital experiences become accessible and comfortable for users with motor challenges.



# Enabling technology

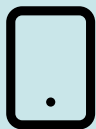
Users may face slow or unstable internet connections, low-spec devices, or outdated hardware, which can affect performance, responsiveness, and access to digital content.

## Design implication:

**Digital products should remain functional, understandable, and enjoyable, even under technical limitations.**

### Key challenges:

- Slow or laggy interactions, making navigation or tasks harder
- Interrupted access or degraded visual/audio performance affecting usability



## Design strategies to empower participation

### Low-bandwidth support

Reduce animations, optimize images and assets, and ensure content loads quickly even with slow or unstable connections.

### Simplified UI

Use minimal, clear layouts that perform well on low-spec devices and make navigation straightforward.

### Error forgiveness

Allow users to retry actions or delay inputs without penalty when performance is degraded.

### Offline / cached content

Load content progressively based on network speed or device performance to maintain responsiveness.

### Modular features

Allow users to toggle graphics, animations, or other performance-heavy options to match device capabilities.

### Progress saving

Implement frequent auto-save to prevent loss of work due to crashes, connectivity issues, or hardware limitations.

### Adaptive loading

Enable access to core features or content offline, so users can continue even without connectivity.

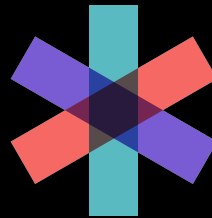
### Lightweight media

Offer compressed images, lower-resolution videos, or audio alternatives to reduce bandwidth usage.

### Performance feedback

Provide visual warnings for slow connections or heavy processing so users can adjust settings.

By providing low-bandwidth options, offline access, adaptable interfaces, and performance-aware features, digital products remain accessible, usable, and enjoyable for users regardless of their device, connection, or context.



This guide was created by  
**Raising the Floor.**

**[raisingthefloor.org](https://raisingthefloor.org)**

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