Accessibility Meets Innovation:

A 10-Step UX Sprint

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Main Title: Accessibility Meets Innovation: A 10-Step UX Sprint

Subtitle: A Hands-on Practice from Leadership Through Design Innovation

Duration: ~2 weeks (based on design sprint timeline)

Role: UX Researcher & Designer

Tools Used: Pen & Paper, Figma, ChatGPT, Copilot, Microsoft Word, Google Docs

This project was part of the "Leadership Through Design Innovation" program, where we practiced using design thinking not just to create solutions, but to lead inclusive change within our organizations.

AGENDA

Empathize: Observation & user behavior study in real context (Short 10-min observation of a blind colleague interacting with meetings)

Interview: In-context conversation to uncover needs, frustrations, and tools used

Synthesize: Turning observations into actionable insights (+ Insight cards)

Define: Framing the challenge as a focused How Might We question

Ideate: Generating 5 different ideas (sketches + brief concepts)

Get Feedback: Quick feedback session with the participant on all 5 ideas

Iterate: Combining the most effective ideas into one refined solution

Prototype: Creating a low-fidelity prototype that communicates the final concept

Test: Sharing the prototype with the participant for feedback

Reflection: Documenting what worked, what didn't, and what could be improved next

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Empathize

Observation & user behavior study in real context

I spent 10 minutes observing a visually impaired colleague while they scheduled a meeting using Microsoft Outlook and a screen reader (JAWS). The goal was to better understand their environment, interactions, challenges, and workarounds during the task.



Key Observations

- 1. Heavily relies on keyboard shortcuts Mouse is completely avoided.
- 2. Screen reader reads sequentially Makes finding the right time slot tedious.
- 3. Interruptions from pop-up reminders Screen reader reads them out, breaking focus.
- 4. Calendar grid is not intuitive Difficult to perceive available vs. busy slots.
- 5. Uses verbal notes on phone to cross-check info External memory aid.
- 6. Asks a colleague for confirmation via Teams chat Needs to verify slot.
- 7. Skips UI elements like color indicators Can't interpret visual availability cues.
- 8. Mentions frustration with double-bookings Often unaware until it's too late.
- 9. Adapts using habit, not preference Workarounds feel like survival tactics.
- 10. Expresses desire for 'smart assistant' Hopes for proactive suggestions.

Interview

I conducted a short in-context interview with the same visually impaired colleague right after the observation. Instead of formal Q&A, we had a casual 1:1 chat where I asked open-ended questions about their scheduling experience.

Interview Highlights

- Q: What's the hardest part of scheduling a meeting for you?
- Honestly? Just knowing when people are free. The calendar shows it, but the screen reader reads it like... one long list."
- Q: Do you trust the screen reader's output?
- 1 "Not fully. Sometimes it skips stuff or reads too much. I often double-check with someone on Teams."
- Q: What do you usually do if you're unsure about availability?
- 🧎 "I send a quick message and ask. It's not efficient, but safer than assuming."
- Q: Do you use any other tools to help?
 - 🚶 "I sometimes record voice notes or set up reminders verbally. Visual tools just don't work for me."
- Q: If you could wave a magic wand and fix one thing, what would it be?
- 🧎 "Let me talk to my calendar like it's a person. Just ask: 'When's the best time for me and Sarah?'"
- Takeaway Tone:

The interview wasn't just about pain points—it also revealed hope. The participant wasn't asking for "accessibility features." They wanted agency and clarity—a smarter, more conversational experience.

Synthesize

Insight #1: Blind users rely on conversations to compensate for screen reader limitations.

Although screen readers technically provide access to calendar info, they often overwhelm or skip important parts. Users trust direct messaging more than relying solely on tools.

Insight #2: Knowing "when" isn't the same as knowing "what works."

Availability is technically visible, but interpreting context (e.g., focus time, lunch, flexibility) isn't screen reader-friendly. Users want meaningful cues, not just blocks of time.

Insight #3: Users crave natural interaction, not more features.

Rather than new accessibility menus or toggles, users want tools to feel more like a helpful human assistant, something they can talk to, not navigate through.

Define

✓ Final "How Might We" Question:

How might we help blind users schedule meetings in a way that feels natural, efficient, and confidence-boosting, without overwhelming them with technical steps?

Preakdown of the HMW Components:

Who? → Blind or visually impaired users

What? → Scheduling meetings

Why? → To make it feel natural, efficient, and empowering

Barrier? → Overwhelm, tech complexity, lack of human-like flow

Alternative versions (just for brainstorming):

How might we reimagine meeting scheduling as a human-first experience for blind users?

How might we reduce the friction and guesswork blind users face when using scheduling tools?

How might we make blind users feel in control when setting up or responding to meetings?

Ideate

HMW Reminder:

How might we help blind users schedule meetings in a way that feels natural, efficient, and confidence-boosting, without overwhelming them with technical steps?

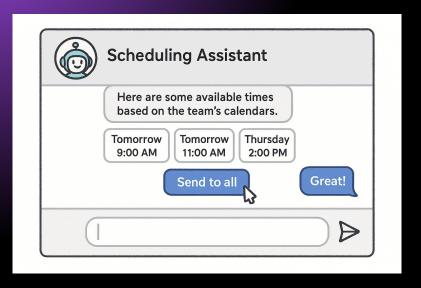
✓ Concept 1: Vocal Scheduler AI

A smart voice-based assistant (integrated into Teams or Zoom) that understands natural speech like:

"Book a 1:1 with Alex next week before noon."

It automatically parses intent, checks calendars, and confirms.

o Empowers natural interaction, no screen needed



✓ Concept 2: Haptic Availability Scanner

A mobile feature that reads your availability and gives tactile feedback via vibrations:

Vibrates once for a free slot, long pulse for conflict.

Navigate with left/right swipes to explore schedule blind-friendly.

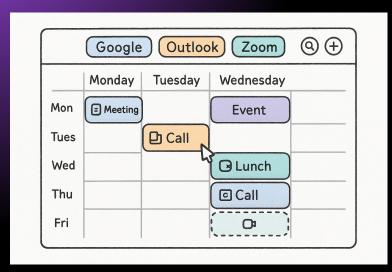
Screen-reader alternative, sensory feedback



✓ Concept 3: Simplified Scheduler Mode

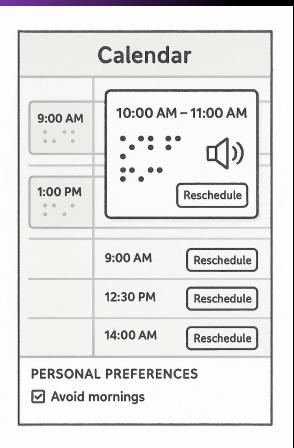
A stripped-down UI mode for blind users with only 3 buttons: "Suggest Time", "See Invitations", "Ask AI Help"
Everything is guided with audio cues and large tappable areas.

© Removes clutter and anxiety from too many steps



- ✓ Concept 4: Braille-Compatible Meeting Cards
- Printable or refreshable braille "meeting cards" generated by an app that gives summary info of upcoming meetings:

 Date, time, participants, link in physical or e-braille format.
- Works for people who prefer physical tools or braille displays



✓ Concept 5: Human-like Chat Scheduling Bot

A chatbot-style scheduler inside messaging platforms (like Teams/Slack) that behaves like a co-worker.

"Hey! Want me to propose 3 times for your design sync with Sara?"

The user replies by voice or text.

© Reduces tech stress and boosts confidence through a natural tone



Bonus Concept: One-Click Rescheduler

A super simple way to reschedule meetings in just one tap, optimized for screen reader users.



Get Feedback:

After sketching five different concepts, I set up a short feedback session with the colleague I originally interviewed. I walked them through each idea, asking for open thoughts on:

What they liked 🛑

What they wished was different 🔵

What they were unsure or curious about 🛑

Their responses helped me understand which ideas truly resonated and which needed rethinking. Here's a summary of the feedback:

- 1. Smart Merge Calendar
- 👍 Liked the ability to pull multiple calendars into one view.
- Suggested an option to group events by accessibility status.
- Wondered how the system would handle overlapping events.

- 2. "Auto-Suggest Meeting" Assistant
- Found this concept empowering for time management.
- Asked if the assistant could learn from past scheduling behavior.
- Curious how it would avoid conflicts with unshared calendars.
- 3. Meeting Mood Checker
- Loved the human touch and emotional awareness.
- Suggested making mood input optional for privacy reasons.
- Unsure how "mood" would be measured in real-time.
- 4. Timezone Smart View
- 👍 Very helpful for remote teams and blind users navigating time zones.
- Requested voice guidance for detecting overlapping hours.
- Questioned how accurate it would be with dynamic work hours.

- 5. One-Click Rescheduler
- Appreciated the simplicity and directness.
- Mentioned the need for confirmation alerts (audio) before changes.
- Wondered how it would handle multiple stakeholders.
- Bonus: Braille-Friendly Meeting Cards
- Excited about the concept of tactile meeting previews.
- Suggested haptic or audio feedback as a digital alternative.
- Curious if Braille output would require special hardware.

★ Key Takeaway

While each concept had merits, the strongest emotional and functional reactions were to the Auto-Suggest Assistant and the One-Click Rescheduler — both balancing automation and control. The Braille-Friendly Cards sparked ideas about alternative sensory feedback, which was valuable even beyond the initial scope.

Iterate

Refining the Concept Based on Real Feedback

After reviewing the feedback, I realized that two concepts stood out both emotionally and practically:

- Auto-Suggest Meeting Assistant
- One-Click Rescheduler

But there was also something powerful in the Braille-Friendly Cards and their focus on sensory accessibility. So instead of picking just one, I merged the strongest features into a new, refined solution:

Final Concept: SenseMeet, An Inclusive Meeting Scheduler
Concept Summary

SenseMeet is a smart, low-vision-friendly meeting scheduler that uses AI to suggest optimal meeting times based on context, availability, and preferences. It provides tactile and audio feedback for blind users, and has one-tap rescheduling options.



Combined Features from Original Concepts:

From	Feature	Adaptation in Final Concept
Auto-Suggest Assistant	Smart scheduling logic	Learned preferences, automatic slot suggestions
One-Click Rescheduler	Fast meeting adjustments	Single-button reschedule with audio confirmation
Braille-Friendly Cards	Sensory accessibility	Voice prompts + haptic buzz on screen readers
Timezone Smart View	Global collaboration	Voice cues for overlap zones
Mood Checker	Human context	Optional mood indicator during scheduling (accessible UI only)

Sketch & Description

The final sketch includes:

- A minimalist calendar interface
- A suggestion panel with Al-generated time slots
- A reschedule button (highlighted with tactile support)
- Audio & haptic feedback icons
- Voice input for blind users
- A toggle for emotional context
- Accessibility compliance indicators
- (Here you can upload or drop your refined hand-drawn or Figma sketch of the SenseMeet UI layout)

Why This Iteration Works:

- Directly addresses feedback without feature overload
- Focused on empowerment not just accommodation
- Can scale across screen readers, mobile, and desktop
- Leverages smart tech without making it overwhelming

Prototype



🇩 Prototype Focus Area:

Focus: Al Auto-Suggestion & Rescheduling Panel Accessibility-First Design, optimized for screen readers and haptic feedback.

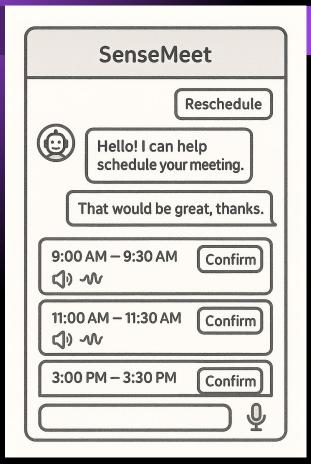
Prototype Includes:

- Suggested meeting slot cards
- One-click rescheduler button
- Voice assistant icon
- Accessibility indicators (e.g. haptic & audio tags)

Prototype Format:

This low-fidelity prototype was created using:

- Copilot Sketch (image-based wireframe)
- Hand-drawn layout reference
- Paper-based interaction flow (storyboard style)



Test

Participant Feedback Summary:

After testing the low-fidelity prototype with the same blind colleague, here are four key takeaways based on their reactions and comments.

What Worked Well:

• Al Suggestions Felt Natural:

The participant appreciated how the suggested time slots were presented like human speech. They said, "It feels like a colleague recommending a time, not a bot."

One-Click Rescheduler Was Empowering:

They liked being able to instantly reschedule without navigating multiple tabs. "This saves me at least three steps. I love it."

• Voice Assistant Icon Placement:

The voice assistant trigger was placed where they expected it, making it easier to find via screen reader navigation.

Haptic Indicators Were Clear (Conceptually):

While we couldn't fully simulate haptic feedback, the idea of vibration cues for double-booked slots made sense to them and sparked excitement.

↑ What Didn't Work as Well:

Too Many Accessibility Tags:

The screen reader read out too much information on each card. They suggested simplifying the descriptions.

No "Undo" Option:

The participant pointed out that accidentally tapping the rescheduler should be reversible.

Next Iteration Ideas:

• Add Smart Verbosity Control:

Introduce a setting where the user can choose "detailed" or "compact" mode for screen reader narration.

Implement Confirmation + Undo for Rescheduler:

Before applying changes, confirm with voice prompt or offer an "undo" banner after a tap.

Final Reflection

Leadership Through Design Innovation – Personal UX Case Study Title: Accessibility Meets Innovation – A 10-Step UX Sprint

1. Q Observation in Context

Watching a blind colleague navigate their meeting schedule highlighted a ton of micro-barriers I'd never thought about, overlapping time slots, lack of context in screen reader outputs, and visual UI elements that had no equivalent in assistive formats. Observing silently helped me notice not just what they did, but how they reacted to friction. It reminded me that empathy starts with attention, not assumptions.

2. Interviewing a Colleague

This step transformed my perspective. A simple 10-minute conversation revealed deeper emotional layers: frustration with constant dependence on others, lack of autonomy in rescheduling, and the mental fatigue of interpreting inaccessible interfaces. It wasn't about tech, it was about dignity and control.

3. Synthesis

Turning raw observations into clear insights was challenging, but powerful. Writing insight cards forced me to simplify and capture core truths like: "Contextual time suggestions increase confidence" or "Redundant notifications drain mental bandwidth." It became clear which problems were surface-level and which ones were structural.

4. ? Defining the Challenge

Forming the How Might We (HMW) question, "How might we redesign the meeting scheduling experience to be more accessible, intuitive, and empowering for users who are blind or visually impaired?", gave me a laser-focused problem space. This step helped me think like a leader: not just what can be improved, but who benefits and why it matters.

5. Pldeation

This was fun and chaotic, five ideas in 15 minutes, all solving the same problem from different angles. Some wild (haptic timelines!), some practical (auto-suggest meeting assistant). Sketching fast without judgment helped push me beyond "safe" solutions.

6. Getting Feedback

Presenting rough sketches to my colleague made me realize how co-creation builds trust. Their feedback wasn't just critique; it became part of the solution. I stopped thinking of them as a "user" and started seeing them as a collaborator.

7. **X** Iteration

Combining the best parts from multiple ideas was a creative puzzle. I merged the Auto-Suggest bot with One-Click Rescheduling and added voice/haptic features. This stage reminded me that iteration isn't polishing, it's merging meaningful feedback with design intent.

8. 🧩 Prototyping

Building a low-fidelity prototype with just pen, paper, and digital tools made me focus on clarity over perfection. I stopped worrying about aesthetics and focused on how the idea communicates. Even a rough sketch became a powerful storytelling tool.

9. / Testing

Testing with my colleague again brought full-circle validation. Some things worked, especially the assistant's human-like tone and rescheduling ease. Some didn't, like info overload. I saw how assumptions can sneak into even well-meaning features.

10. Reflection

This sprint taught me that inclusive design is leadership. You don't need a title to lead, just curiosity, empathy, and the courage to prototype something better. Real innovation isn't always flashy; sometimes it's about removing a single frustration that gives someone their independence back.

Looking Ahead

Next time, I'd love to redesign the experience of joining online meetings, from confusing links to inaccessible interfaces. And I'd involve users even earlier. This case study reinforced my belief that great UX = co-creating with the people you're designing for.



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THANK YOU

Any questions?

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