

Activity 4 – UX Design Integration (Journey Mapping)

SoundSight: User Experience Documentation for Deaf Competitive Gamers

1. Empathy Map – Sarah (Competitive Deaf FPS Player)

User Profile: Sarah

Role: Competitive Deaf FPS Player

Primary Goal: Compete alongside pro players at the highest level, and have equal access to game information

Context: Plays ranked matches 4-5 nights per week and active in deaf gaming communities

SAYS

- "I'm losing so many encounters that I know I should be winning."
 - "I have to rely on my teammates to tell me everything."
 - "Why don't the games I want to play have better accessibility?"
 - "I know I have good aim and strategy."
 - "I just need to be able to 'see' what they 'hear'."
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THINKS

- "If only I could just 'see' the sounds, I know I'd be fine."
 - "I know the map layouts way better than most of the hearing players."
 - "Am I at a disadvantage or do I just need better tools?"
 - "Other players that can hear have no idea how much harder it is to play like this."
 - "I believe I deserve to compete on an equal footing."
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DOES

- Constantly staring at the small top-left minimap during gameplay throughout the match

- Continues to watch popular CS:GO streamers and professional players, memorizing their common in-game positions
 - Avoids queueing for games alone, choosing instead to play with trusted teammates and friends
 - Checks around corners of the maps out of paranoia and plays a lot more defensively, hiding from the enemy team due to being unable to hear anything
 - Actively participates in deaf online gaming Discord communities
 - Tests new accessibility features immediately upon their release
 - Records and reviews her own gameplay extensively to try and learn how to compete.
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FEELS

- Feelings of frustration whenever she's killed from behind without prior warning
 - Feels excluded whenever videogame developers don't consider user accessibility
 - Feeling proud when she wins matches fairly despite immense challenges
 - Anxious about being seen as less-skilled than the 'hearing' players
 - Hopeful whenever new accessibility tools are announced
 - Determined to prove that deaf gamers can also compete alongside other gamers at the highest levels
 - Validated whenever gamers in the gaming community recognizes her skills
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Key Insights from Empathy Map

1. Dignity over Pity: Sarah wants equal tools, not special treatment
 2. Community-Driven: Words of validation and recommendations come from peers
 3. Skill Recognition: She knows her abilities; the problem is that she just really lacks information access
 4. Defensive Adaptation: Current behavior compensates, but heavily limits playstyle
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2. Customer Journey – "Ranked Match Night"

Journey Overview

Timeline: 2-3 weeks from discovery, to advocacy

Primary Emotion Arc: Curious, Anxious, Focused, Empowered, Proud

Stage 1: DISCOVER

Timeline: Day 1

Primary Activity: Hears about the SoundSight software in deaf gaming Discord

User Actions:

- Browses Discord gaming community servers during downtime
- Sees multiple community members discussing SoundSight's accessibility software
- Watches demo video that shows directional sound visualization
- Reads first-hand testimonials from other deaf players

Thoughts:

- "Does this actually work or is it just the hype?"
- "Can this finally level the playing field?"
- "What's the catch?"

Emotions: Curious, Skeptical, Hopeful

Pain Points:

- Skeptical about its effectiveness (has tried other tools that failed)
- Unclear about if it's compatible with her specific game (CS:GO)
- Concerned about whether it incorporates a cost or subscription model
- Worried about being flagged by Valve anti-cheat

Channels: Discord servers, YouTube demos, SoundSight website

Opportunities:

- Clear value propositions with clear video evidence
 - First-hand testimonials from recognized deaf gamers
 - Free trial or demo mode offered
 - Anti-cheat compliance certification is displayed prominently
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Stage 2: ONBOARD

Timeline: Day 2-3

Primary Activity: Installs app and runs calibration

User Actions:

- Downloads the SoundSight app installer from website
- Runs the SoundSight setup wizard
- Selects the game (CS:GO) from supported list
- Completes audio calibration with sample sounds
- Tests the software's indicators with pre-recorded gameplay

Thoughts:

- "This seems a bit complicated... Am I going to understand it?"
- "How accurate is the sound calibration?"

- "What if I configured the settings wrong?"

Emotions: Anxious, Uncertain, Engaged

Pain Points:

- High setup difficulty (unclear about which settings matter the most)
- No ASL tutorial videos, only English text/captions
- Lots of uncertainty as to whether the sound calibration is accurate
- Too many configuration options upfront making the tool complicated
- Fear of misconfiguration reducing the software's effectiveness

Channels: Download portal, setup wizard, tutorial documentation

Opportunities:

- Express Lane: Game-specific presets (30 seconds to playing)
 - Custom Lane: Full calibration wizard for power users
 - ASL video tutorials with deaf instructors
 - Interactive calibration that shows real-time feedback
 - "Test Your Setup" mode with known audio samples
 - Clear explanation of what each setting configures
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Stage 3: FIRST MATCH

Timeline: Day 3-4

Primary Activity: Tries default profile in unranked match

User Actions:

- Launches CS:GO with SoundSight overlay enabled
- Joins casual/unranked match to test without any competitive pressure
- Observes what each indicator represents (footsteps, gunfire, reloads)
- Correlates indicators with actual game events
- Dies several times while adjusting to all of the new information
- Takes mental notes on what works and what's confusing

Thoughts:

- "Is this indicator accurate or am I seeing false positives?"
- "There's a lot of information... how do I filter what matters?"
- "That indicator appeared right before I got killed - it works!"

Emotions: Focused, Testing, Cautiously Optimistic

Pain Points:

- Potential Information overload (too many indicators at once)
- Difficulty in trusting the tool's accuracy during high-pressure moments
- Dies despite seeing the indicators (learning curve)
- Unclear as to which sounds to prioritize to survive
- Teammates questioning her in-game performance during learning phase

Channels: In-game overlay, HUD elements, directional radar

Opportunities:

- Guided Learning Mode: Highlights the most critical sounds first
 - Tooltips that pop-up on the first occurrence of each sound type (beginner-friendly)
 - A practice range mode with predictable sound patterns
 - Progressive disclosure: Start with 3 core important sounds, add more gradually overtime when the player adjusts to the new information
 - Post-match summary showing all accuracy metrics
 - Replay review showing when each indicator was triggered
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Stage 4: TUNING

Timeline: Week 1

Primary Activity: Adjusts sensitivity, colors, and filters

User Actions:

- Opening configuration panel in-between matches
- Adjusts the sound sensitivity to reduce false positives
- Changes indicator colors for better visibility, adjusting brightness, vibrance
- Disables non-critical sounds (ambient, music) to reduce clutter on the radar
- Tests each configuration change in practice mode and adjusts them to the user's preference
- Saves multiple profiles for different scenarios

Thoughts:

- "Which configuration would give me the competitive edge I need?"
- "I need footsteps to be MUCH more visible than gunfire."
- "This is slowly starting to feel natural."

Emotions: Engaged, Empowered, Experimental

Pain Points:

- Unclear as to which settings are the most optimal for competitive play
- Trial-and-error from adjusting settings takes time significant away from actual gameplay

- Settings that work in casual don't necessarily scale to ranked intensity
- No clear guidance on any "pro player" configurations
- Fear of over-tuning and potentially missing any important sounds

Channels: Settings panel, configuration UI, preview mode, practice range

Opportunities:

- AI-Recommended Settings: Based on playstyle analysis
 - A/B Testing Tools: Compare two configs side-by-side to adjust to user preference
 - Community Presets: Ability to import configs from the top-ranked deaf players
 - Setting presets by a rank tier (Silver, Gold, Diamond)
 - "Start with Pro Settings" quick-import option
 - Visual preview of what each setting visually changes in real-time
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Stage 5: RANKED PLAY

Timeline: Week 2

Primary Activity: Uses SoundSight in competitive ranked matches

User Actions:

- Enters into ranked-matchmaking with tuned profile
- Can now detect enemy flanks earlier than before
- Makes proactive rotations based on distant footsteps
- Wins more clutch situations by being able to now 'see' reload sounds
- Communicates better with teammates (calls out sounds she can detect)
- Climbs 2-3 ranks in the first week

Thoughts:

- "This is working! I just outplayed them because I heard the flank."
- "I'm making decisions in-game that I would've never been able to make before."
- "What if somebody accuses me of cheating?"

Emotions: Empowered, Confident, Slightly Anxious

Pain Points:

- CRITICAL: Fear of being accused of cheating or using any form of unfair advantage
- Teammates questioning how she "heard" something that they didn't call out
- Opponents now reporting her for suspicious behavior
- Tournament eligibility concerns due to low trust score
- Social stigma: "You're only winning so much because of the tool"
- Rare false positives are still causing wrong decisions

Channels: In-game ranked matches, team voice/text chat, post-game lobbies

Opportunities:

- Tournament Mode: Verified fair-play setting finally approved by esports orgs, eligible to use the tool in tournaments.
 - In-App Explainer: Screenshot-ready panel explaining the tool's purpose and how to use
 - Transparency page showing that it provides equivalent (not superior) information
 - Partnership badges from major esports organizations and teams
 - Public API for tournament admins to verify tool and in-game settings
 - "How It Works" overlay option for streaming/recording
 - Community guidelines for responding to cheating and foul-play allegations
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Stage 6: REFLECT

Timeline: Week 2-3

Primary Activity: Reviews match replays and analyzes performance

User Actions:

- Watches a video replay of close match she won
- Sees indicators appear 2-3 seconds before she reacted
- Realizes that she had survived 4 situations that previously would've been deaths if it weren't for the tool
- Identifies moments where she still missed some audio cues
- Shares video clips on Discord community channels to show successful plays
- Compares performance metrics from before/after using the SoundSight tool

Thoughts:

- "The data doesn't lie - this has saved my life numerous times."
- "I'm not just surviving more often, I'm outplaying my opponents."
- "I want to optimize the tool even further."

Emotions: Validated, Proud, Analytical, Motivated

Pain Points:

- Long-term maintenance: Game updates that change sound effect files might break accuracy
- Concern about becoming too dependent on the tool
- Paranoid and wondering if she should keep optimizing the tool or if it's "good enough"
- Limited replay playback features specifically for accessibility analysis

Channels: Replay system, performance analytics, community Discord

Opportunities:

- Accessibility-Focused Replay Tools: Highlight whenever indicators appeared vs reaction time
 - Performance dashboard highlighting growth and performance improvement over time
 - Side-by-side comparison: "You vs Hearing Players" starting to present relatively equivalent information
 - Achievement tracking system for user accessibility milestones
 - Integration with game stat-tracking sites (showing rank improvement)
 - "Share Your Success" templates for uploading stats and highlights to social media
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Stage 7: SHARE

Timeline: Week 3+

Primary Activity: Uploads profile and recommends to friends

User Actions:

- Exports her tweaked user profile to share
- Posts to deaf gaming Discord with description
- Records tutorial video to show her configuration
- Recommends SoundSight in YouTube comment sections
- Helps other deaf players with troubleshooting their setups
- Becomes a community advocate and power user

Thoughts:

- "I want to help others experience this feeling of empowerment."
- "The deaf gaming community deserves to know that something like this exists."
- "Maybe I can be a SoundSight ambassador."

Emotions: Proud, Excited, Generous, Validated

Pain Points:

- Settings configuration compatibility across different hardware setups
- Sharing configurations requires a manual export/import (difficult barrier)
- No way to update shared profile when she improves it
- Limited ability to explain why certain settings work better than others
- Time-consuming to help multiple people individually for each unique setup

Channels: Profile gallery, Discord channels, YouTube, community forums

Opportunities:

- One-Click Sharing option by implementing direct integration, connecting SoundSight account with Discord, Twitter
- Profile Ratings and Comments: Community feedback and reviews on shared configs
- Version Control: Auto-update whenever a creator improves on a configuration
- "Top Configs This Week" featured section

- An upvoting/rating system to surface best community configuration presets
- Config descriptions with text + video explanations
- Referral Program: Credits for bringing new users that can be spent on customisability (skins)
- Ambassador Program: Recognize the top SoundSight community contributors

3. Experience Map – Multi-Dimensional View

Dimension Analysis Across Journey Stages

ACTIVITIES (What Sarah Does)

Discover	Setup	Play	Tuning	Sharing
Browsing discord, Reading reviews, Watching demos, Checking compliance with anti cheats.	Download and run the application. Calibration with test samples. Set profile settings.	Join unranked matches and observe indicators. Learn to effectively use the tool.	Adjust sensitivity, colours, and sounds based on preference.	Recommend to friends, make youtube tutorials, and post about it on social media.

CHANNELS (Where Interaction Happens)

Discover	Setup	Play	Tuning	Sharing
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Discord servers, youtube, reddit, X, instagram, and facebook.	Downloading happens from the download portal and involves setup wizard. Email confirmation is needed.	In game overlay, HUD, radar feature, and practice mode.	Settings panel, configuration UI, preview mode, and testing environment	Profile gallery, discord youtube tutorials, and Social media.
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EMOTIONS (How Sarah Feels)

Discover	Setup	Play	Tuning	Sharing
Curious Hopeful Skeptical	Anxious Uncertain Optimistic	Focused Cautious Happy	Empowered Experimental Satisfied	Proud Excited Generous

OPPORTUNITIES (Design Interventions)

Discover	Setup	Play	Tuning	Sharing
Influencer partnerships, free trial advertisements, video testimonials.	Quick start options, documentation, and interactive calibration.	Learning mode, progressive disclosure, practice mode, and tooltips.	AI recommended settings, community presets, and pro player configs.	sharing, profile ratings, version control, ambassador program

Trust Evolution (Additional Dimension)

Discover	Setup	Play	Tuning	Sharing
"Does this work as advertised?"	"Is my setup optimal?"	"Are the tools giving me accurate information?"	"Is this reliable?"	"How do I recommend this to more people like me?"

4. Service Blueprint – SoundSight System Architecture

Overview

This blueprint maps the service ecosystem across the five layers, from user interactive points to hidden service infrastructure.

Layer 1: PHYSICAL INTERACTION

What the user sees and touches

Marketing	Installer	In-Game UI	Settings	Community
Website landing page, demo videos, discord, and social media posts.	Download page, setup wizard, progress indicators, and a welcome email.	HUD overlay, directional radar, edge indicators, color-coded alerts.	Configuration panel, preset library, visual previews, test mode.	Profile gallery, sharing interface, rating system, comments section.

Layer 2: FRONTSTAGE – Customer Actions

User interactions (visible to user)

Browse and Research	Install and Calibrate	Play Matches	Customize	Share and Review
Read about product, watch demos, check compatibility, and read testimonials	Download installer, run setup wizard, test with samples, and select game	Launch with overlay, interpret indicators, learn patterns, and Adjust in real time	Modify settings, ttest configurations, save presets, Compare options	Export profile, upload to gallery, provide feedback, help others

LINE OF INTERACTION

Layer 3: FRONTSTAGE – Support Actions

Visible support (user can contact)

Content Creation	Onboarding Help	Community Moderation	User Research	Profile Curation
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Tutorial videos, documentation, FAQ pages, email newsletters.	Live-chat support, troubleshooting guides, Setup assistance, Email support.	Monitor forums, respond to questions, flag inappropriate content, feature top contributors.	Collect feedback, analyze usage patterns, user interviews, A/B testing.	Review submissions, feature top profiles, quality assurance, editorial highlights.
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LINE OF VISIBILITY

Layer 4: BACKSTAGE – System Operations

Hidden from user (internal systems)

Analytics	Audio Capture	ML Classification	Config Storage	Profile Database
Track all the downloads, check the engagement metrics, usage analytics, monitor performance	Hook into the game audio, isolate all the sound channels, real-time streaming, buffer management	Identify all the different sound types, calculate the directionality, estimate the distance, filter out unwanted noise	Save user configs, sync user config across devices, version-control, backup configs	Store shared profiles, handle uploads, index by game/rank, serve all downloads

LINE OF INTERNAL INTERACTION

Layer 5: SUPPORT PROCESSES

Infrastructure and maintenance (foundation)

Infrastructure	Model Training	Latency Monitoring	Anti-Cheat Relations	Game Partnerships
CDN hosting, API services, Database servers, Cloud storage	Update ML models, Retrain on new games, Improve accuracy, Dataset curation	Track response times, Ensure <50ms latency, Optimize pipeline, Performance testing	Provide verification API, Tournament compliance, Fair play documentation, Admin tools	Official partnerships, Access to game audio APIs, Patch coordination, Joint announcements

Critical Dependencies and Data Flows

Key System Relationships

1. Audio Capture Model Training
 - Real-time processing requirement: <50ms end-to-end
 - Dependency: In-game audio must be isolated from other system sounds
 - Failure mode: Indicator delay or missed game sounds
2. Game Updates to Model Retraining
 - Games frequently patch audio updates (footstep and weapon sounds)
 - Must monitor patch notes and continuously update the model
 - Failure mode: Sudden accuracy drops after updates
3. Tournament Verification to Anti-Cheat API
 - Esports organizations require an in-depth verification that the tool is legal
 - API must confirm that the settings are within fair-play bounds
 - Failure mode: Tournament disqualification and potential reputation damage
4. User Profiles to Cloud Sync
 - Settings and configuration data must be preserved across all devices

- Profile sync requires a centralized storage (Database)
- Failure mode: Lost configurations, broken shared profiles

5. Community Moderation to Quality Control

- Shared profiles must be regularly checked for accuracy
- Prevents any malicious or broken configurations from being shared on community forums.
- Failure mode: Users lose trust in the community

Key Performance Indicators (KPIs) by Journey Stage

Metrics to Track Success

Stage	Leading Indicators	Lagging Indicators
Discover	Website visits, video views, Discord members	Conversion to download
Onboard	Setup completion rate, calibration time	Users who play first match
First Match	Session duration, deaths vs. detections	Return for second match
Tuning	Settings changes per session, saved presets	Ranked match entry rate
Ranked Play	Win rate improvement, rank advancement	Daily active users
Reflect	Replay views, performance dashboard access	User satisfaction score
Share	Profile uploads, community engagement	Referral rate, NPS score

Moments That Matter (Critical Experience Points)

Three Make-or-Break Moments

1. Calibration Confusion (Onboard Phase)

Risk: User abandons due to setup complexity
Intervention:

- ASL video tutorials with deaf gamers demonstrating setup
- "Skip Calibration" option with smart defaults
- Real-time validation: "Your setup is working correctly"
- Visual feedback showing what "good" calibration looks like

2. First Death Despite Using Tool (First Match Phase)

Risk: User loses trust in accuracy and uninstalls

Intervention:

- Tutorial mode that EXPECTS mistakes and explains limitations
- Post-death analysis: "You saw the indicator 2 seconds before the kill - try reacting faster"
- Clear messaging: "This shows you sounds, but you still need to react and aim"
- Gradual difficulty: Start in bot matches, not competitive

3. Accused of Cheating (Ranked Play Phase)

Risk: Social stigma causes user to stop using tool publicly

Intervention:

- Users can screenshot to share with skeptics
- "How SoundSight Works" infographic for quick sharing
- Public endorsements from major esports organizations
- Streaming overlay option that shows tool is active (transparency)
- Community guidelines for responding to accusations

Implementation Priorities

Phase 1: Core Experience (Months 1-3)

1. Empathy-driven onboarding with ASL support
2. Guided learning mode for first matches
3. Community preset library
4. Basic sharing functionality

Phase 2: Trust Building (Months 4-6)

1. Tournament verification API
2. Replay analysis tools
3. Performance dashboard
4. Anti-cheat partnerships

Phase 3: Community Scale (Months 7-12)

1. Ambassador program

2. Profile rating/commenting system
 3. AI-recommended settings
 4. Multi-game expansion
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Design Principles Derived from Journey Mapping

1. Dignity Over Pity

Sarah wants equal tools, not special treatment. Avoid "helping the disabled" language.

2. Trust Through Transparency

Show exactly what the tool does by making it Open-Source. Users should understand how it works.

3. Community as Co-Creators

Deaf gamers know their needs best. Build with them by taking constant feedback from the community.

4. Progressive Disclosure

Don't overwhelm new users. Reveal complexity as they gain experience.

5. Social Proof as Infrastructure

Make sharing effortless. Peer recommendations are THE conversion driver.

6. Legitimacy is Survival

Without the esports organisation's approval, the tool dies. Tournament compliance is non-negotiable.

Conclusion

This UX integration demonstrates that SoundSight is not just a visualization tool, but a service that:

- Respects dignity by providing equivalent (not superior) information
- Builds trust through transparency and community validation

- Enables mastery via progressive learning and customization
- Ensures legitimacy through anti-cheat compliance and partnerships
- Scales through community by making sharing effortless

Sarah's journey from skeptical discovery to proud advocacy shows that accessibility is not about lowering standards—it's about removing barriers so skill can shine through.

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