# Implementing Accessibility Across a Studio: Year One

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Senior Designer Accessibility

# Who am I?

Computer Arts Graduate

Graphic Design > UI > UX

Accessibility Honours Project

UX Designer

# Year One

New role at Rebellion

One of the first in games in the UK

One year retrospective

# What We'll Cover:

Education

Practices

Advocacy

# Takeaways

⊙ Practical ways to build accessibility momentum at your studio

⊙ Actionable starting points for these methods

⊙ Learn from our successes and failures

# References

AbleGamers - APX
https://accessible.games/accessible-player-experiences/

Special Effect Devkit:
https://specialeffectdevkit.info/

WAI - Web User Stories
https://www.w3.org/WAI/people-use-web/user-stories/

One Special Day
https://onespecialday.org.uk/

Everyone Can
https://www.everyonecan.org.uk/

GAAD
https://accessibility.day/

Family Game Database
https://www.taminggaming.com/en-gb/features/Supporting+Game+Accessibility

Family Game Database Accessibility Data List
https://www.taminggaming.com/video-game-accessibility-data

Xbox Accessibility Guidelines
https://learn.microsoft.com/en-us/gaming/accessibility/xbox-accessibility-guidelines/101

Microsoft Learn – Gaming Accessibility Fundamentals
https://learn.microsoft.com/en-us/training/paths/gaming-accessibility-fundamentals/

Game Accessibility Guidelines
https://gameaccessibilityguidelines.com/

The Wobbly Gamer
https://thewobblygamer.co.uk/

Sightless Kombat
https://www.sightlesskombat.com/

Inclusion Through Design Sprints – Tara Voelker
https://www.youtube.com/watch?v=UZPLHkO04qg

Make it a Pillar - by Ryan Greene
https://www.youtube.com/watch?v=dgtck3FIU7U

Stacey Jenkins Workshops
https://stacey-jenkins.com/workshops/

"There is no room for pride when it comes to accessibility. We need to reach between companies and talk to each other, learn from each other. We all want the same thing, wins for disabled gamers."

Meagan Marie, 2018 GAConf EU
Accessibility In Shadow Of The Tomb Raider: Providing Player Choice
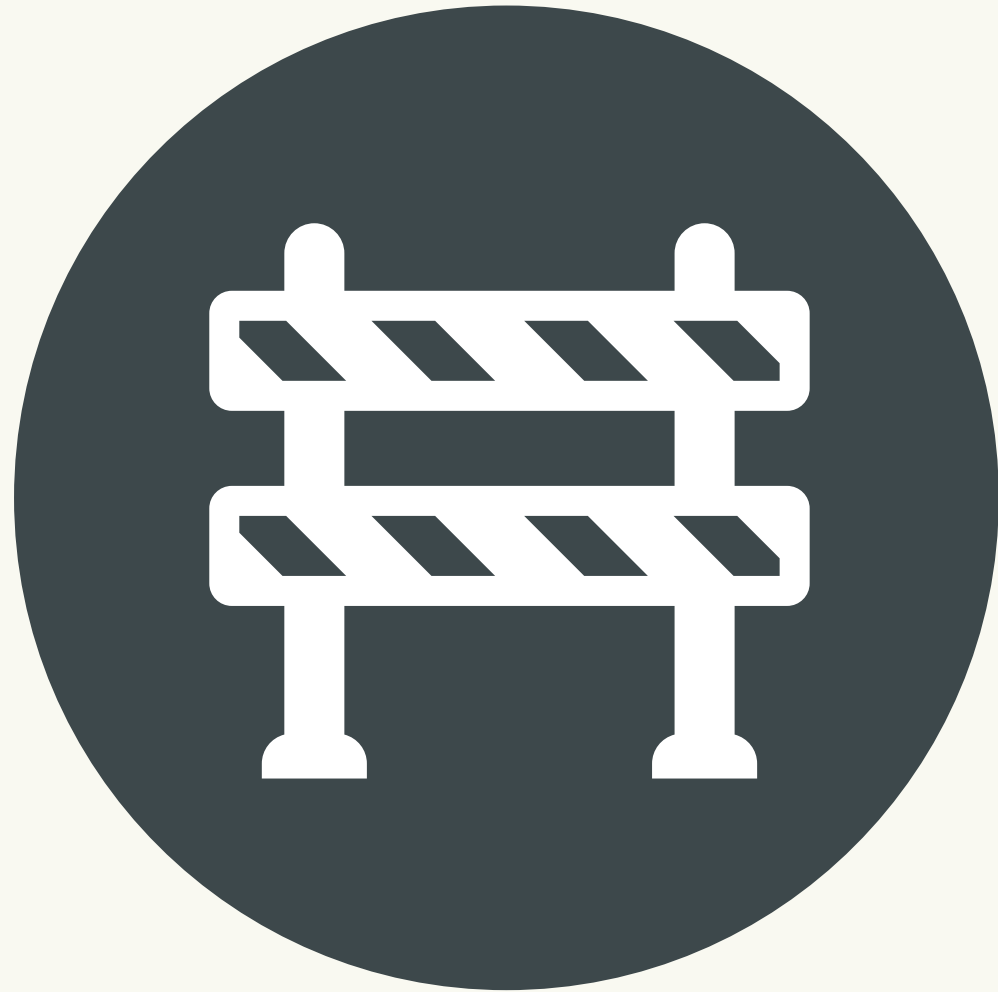
# Accessibility is about **barriers**

A barrier is something that stops a player from being able to play the game as intended, or from playing entirely.

For example, a difficulty that is too hard or a lack of control remapping.

# 20%
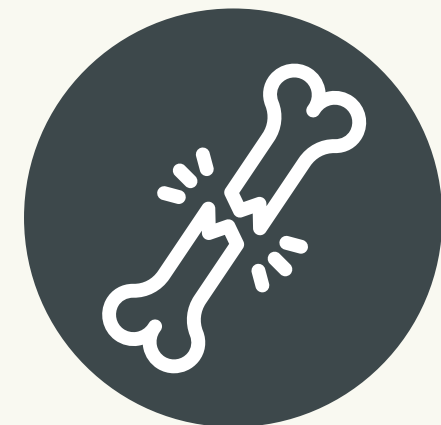of gamers experience disabilities

Statistics: https://gameaccessibilityguidelines.com/why-and-how/

# Accessibility
# ≠
# Disability

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**1 in 12 men**
and 1 in 1000 women
are colour blind

**1 in 7 adults**
in the US have a reading
age of 11 years old

**Anyone**
could experience a
temporary impairment

Statistics: https://gameaccessibilityguidelines.com/why-and-how/

"Disability is part of being human. **Almost everyone** will temporarily or permanently experience disability at some point in their life. **Over 1 billion people** – about 15% of the global population – currently experience disability"

World Health Organisation
https://www.who.int/health-topics/disability#tab=tab_1

# Accessibility benefits everyone

Education:
**How do we educate our staff about accessibility?**

Question:
**How does someone at the company learn about accessibility?**

# Accessibility HUB

Approachable "Homepage"

Accessibility Overview

Anyone can access it

Introduces my role

Shares Resources

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# Useful Links

### Video Games
Tools for accessibility in video games, notable game examples and reviews and some info on platform accessibility features.

### Tabletop & Board Games
Tools, guides and articles about board and TTRPG games, as well as notes on creating accessible PDFs.

### Web & Social Media
Tools and guides for websites, social media and streaming.

### Guidelines
Broken down into hardcore guidelines and criteria and some lighter, simplified introductions to accessibility as a whole.

### Events
Covering events in full from the logistics of creating an accessible event booth to a collection of accessibility focused events and holidays.

### Learning Resources
From books to videos to courses, many learning resources are available. Also find guides for specific features and a list of accessibility-focused review sites.

**Question:**
How does someone at the company learn about accessibility?

**Solution:**
A concise, user-friendly confluence page with clear signposting to more information.

**Successes:**

+ Page was engaging and clear.

+ Supported by focus group testing

+ People who visited would engage more with accessibility

**Improvements:**

- Visibility of the page
+ Posting about it on our channels

- Engagement
+ It's there for folk who need it

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**Question:**
**How do we promote learning about accessibility through different routes?**

# Meet Ups



ACCESSIBILITY MEET UP

July 5th
3pm - 4pm
Zoom

Submit your topic suggestions

- Open to everyone
- Every 4 weeks
- Focus topics
- Updates
- Questions

**Question:**
How do we promote learning about accessibility through different routes?

**Solution:**
A regular, open meeting to discuss accessibility and ask questions.

**Successes:**

+ Keeps momentum

+ Good learning environment

**Improvements:**

- Took a while to become a dialogue
+ Diversifying presenters

- Lack of topic suggestions
+ Opportunity for me to direct

-Engagement
+ Always someone new each time

Question:
**How do we train our team to consider accessibility throughout development?**

Inclusion Through Design Sprints – Tara Voelker
https://www.youtube.com/watch?v=UZPLHkO04qg

# Workshops



- Inclusive Design Sprints
- Learn from disabled players
- Small groups
- Interactive tasks
- Group presentation

**Question:**
How do we train our team to consider accessibility throughout development?

**Solution:**
An inclusive design workshop for Design, GUI, Audio and other departments.

**Successes:**

+ Highly positive feedback

+ Engaging and Interactive

+ Wide reaching

+ Boosted engagement with accessibility platforms

**Improvements:**

- Make it more applicable to other roles
+ Researching areas like Level Design

- Lack of interaction with SMEs
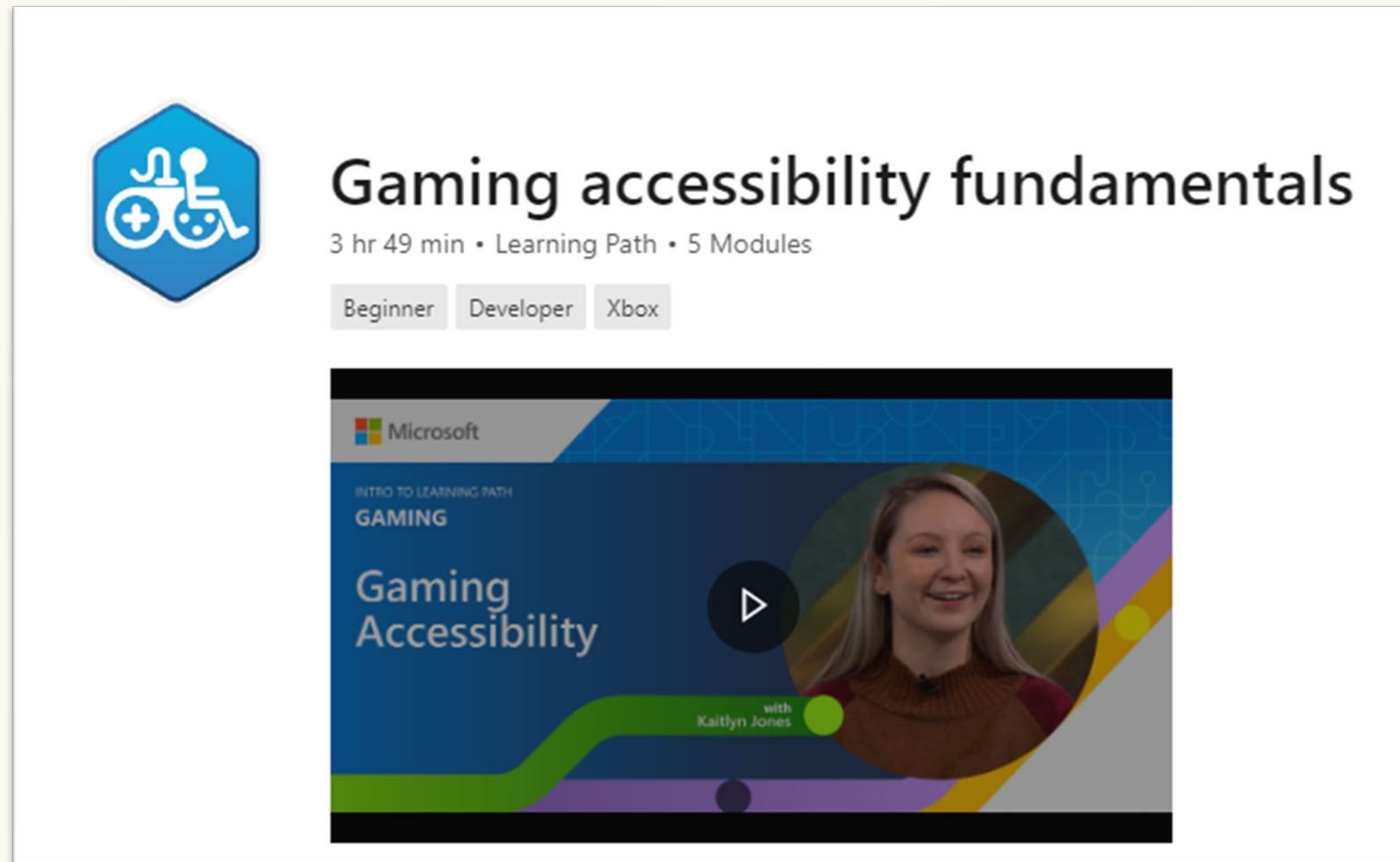
- Keep this knowledge going with more workshops/curriculum

**Question:**

**How can we add to this curriculum, including training those outside of Design?**

Special Effect Devkit: https://specialeffectdevkit.info/
AbleGamers – APX: https://accessible.games/accessible-player-experiences/

# Microsoft Learn

**Free**

**Self Directed Study**

**Well Presented**

**Accessibility Basics**

**Leader Microsoft**

Gaming accessibility fundamentals

3 hr 49 min • Learning Path • 5 Modules

Beginner | Developer | Xbox

Microsoft Learn – Gaming Accessibility Fundamentals
https://learn.microsoft.com/en-us/training/paths/gaming-accessibility-fundamentals/

**Question:**
How else can we train our staff, including those outside of Design?

**Solution:**
Microsoft Learn Gaming Accessibility Fundamentals course.

**Successes:**

+ Great for QA and tech

+ Course was approachable

+ Easy to organise

**Improvements:**

- Workshop participants found it less valuable
+ Optional part of the curriculum

- Lack of specialised training for those outside of design and GUI

**Question:**

**How can we deliver more specialised training to staff and teams outside of design?**

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# Workshops



Learn with CIPT

Accessible Community Management

Stacey Jenkins Workshops:
https://stacey-jenkins.com/workshops/

Paid

Online

Interactive Workshop

Specialised

Run by experts

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**Left post — Rebellion Unplugged @Reb_Unplugged**

Sniper Elite: The Board Game is OUT NOW in the UK!

♥ Try it and buy it at #UKGE this weekend - bit.ly/3m4UjBh
♠ Order it from your local game store
♦ Order it from the Rebellion Unplugged webstore - bit.ly/3LRCvnX

10:13 AM · Jun 3, 2022 · Sprout Social

**Right post — Rebellion Unplugged @Reb_Unplugged**

A magical tower. A missing wizard. Is this job too big for these small-time heroes?

Coming to @Kickstarter in November, Tiny in the Tower is a cosy fantasy RPG written by @_r_n_w_ and illustrated by JJ Ariosa!

Sign up for the pre-launch page here - reb.to/TinyKS

3:00 PM · Oct 26, 2022 · Sprout Social

**Stacey Jenkins** 💀 🥖
@HereLiesStacey

This is the first time I've seen this damn meme today with alt text, git gud everyone else 👀

> 🔴 **Rebellion** ✓ @Rebellion · Feb 22
>
> realising you set your mission to Authentic in @sniperelite 5 and are back in the lobby feeling emotionally damaged
>
> ALT

4:00 PM · Feb 22, 2023 · **3,543** Views

**Cari Watermelon** ➡️ GDC
@CariWatterton

Seen a lot of this meme going about, but this is the first one that I've seen with ALT text! Proud Accessibility Designer Moment 🥲

Also shout out to @HereLiesStacey and their amazing workshop with Reb's CM team that helps them make more accessible content!

> 🔴 **Rebellion** ✓ @Rebellion · Feb 16
>
> My sniper? Elite.
>
> 🟠 **Chucklefish** ✓
> @ChucklefishLTD
>
> My fish? Chuckle.
>
> **Raw Fury** ✓ @RawFury · 23h
> My Fury? Uncooked.
>
> **AssembleTeam** ✓ @AssembleTeam · 24s
> My Team? Assembled.
>
> **Cyberpunk 2077** ✓ @CyberpunkGame · 41 Min.
> My Liberty? Phantom.
>
> **The Witcher** ✓ @witchergame · 8m
> My Hunt? Wild.
>
> **PlayStation UK** ✓ @PlayStationUK · 59m
> My Station? Played.
>
> **Sumo Digital** ✓
> @SumoDigitalLtd
> My planet? LittleBig.
>
> ALT

12:24 PM · Feb 17, 2023 · **2,242** Views

**Question:**
How can we deliver more specialised training to staff and teams outside of design?

**Solution:**
External workshops with experts on specialised areas of accessibility.

**Successes:**

+ External teaching from experts

+ Impactful and relevant

+ Saw a change in the accessibility of our social content

**Improvements:**

- How do we keep up these practices

- Training new starts with this knowledge
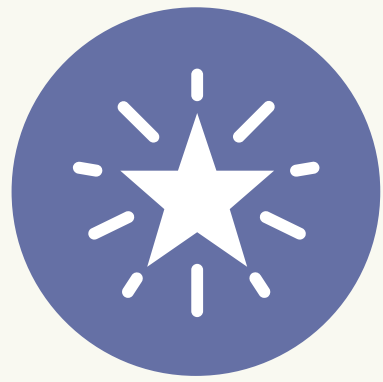
Education:
**How do we educate our staff about accessibility?**

# **Solutions**

Accessibility HUB

Accessibility Meet Ups

Internal Workshops

External Courses

External Workshops

# **Successes**

Variety of ways for people to learn

Boost in knowledge for our teams

Empowered staff to consider accessibility in their jobs

# Improvements

Learning directly from SMEs

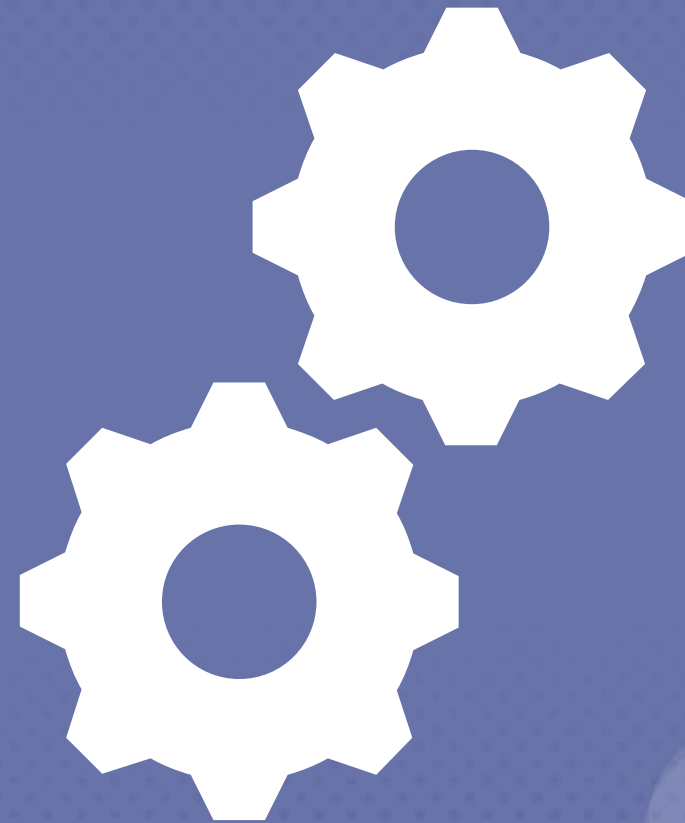Engagement with open platforms

Onboarding new starts

Make it consistent

# Practices:
## How do we make our games more accessible?

Question:
**How do we measure the accessibility of our games?**

# Xbox Accessibility Report: Sniper Elite 5

## Microsoft Gaming Accessibility Testing Service - Sniper Elite 5 (Xbox Series)

Report Date: March 15th, 2022

### Contents

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Sniper Elite 5 (Xbox Series) – Microsoft Gaming Accessibility Testing Service Report

## Player Rating - Tester 1

**Persona(s):** Users with little to no color perception, limited reach and strength, and who are neurodiverse
**Neurodiversity:** ADHD

### Overall Score: 4.5 out of 5

| Scenario | Impossible (1) | Difficult (2) | Requires Effort (3) | Easy (4) | Very Easy (5) |
|---|---|---|---|---|---|
| Game UI - Text | | | | | X |
| Game UI - Options | | | | | X |
| Game UI - Settings | | | X | | |
| Difficulty Options | | | | ☐ X | |
| UI Navigation | | | | | X |
| Objective Clarity | | | | | X |
| UI Context | | | | | X |
| Communications UI - Outside of Gameplay | | | | | X |
| Communications UI - During Active Gameplay | | | | | X |
| Communication - Outside of Gameplay | | | | | X |
| Communication - During Active Gameplay | | | X | | |
| General Gameplay | | | | X | |
| **Totals** | **0** | **0** | **2** | **2** | **8** |

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Sniper Elite 5 (Xbox Series) – Microsoft Gaming Accessibility Testing Service Report

## Feedback from Gamers with Disabilities

**Game UI - Text**
The following issues were found when attempting to read and understand the text in the game:

**Issue #1:** The title's descriptive text for *Collectibles* is hard to read.
**Reproduction Steps:**
1. Sign into an Xbox profile that has *Discovered* at least one *Collectible* and launch the title.
2. From the main menu, select *Service Record* > navigate to *Collectibles* > select *Any Mission* with a *Discovered Collectible* > navigate the focus to a *Discovered Collectible*.
3. Observe that the descriptive text for *Collectibles* is hard to read.
**Issue Impact:**
Some users with low vision or little to no color perception may have difficulty when attempting to read *Collectibles* descriptions if the text is displayed at too low contrast with its background.
**Suggested Solution:**
Consider implementing a higher contrasting background for *Collectible* descriptive text by default or *Options* to increase the contrast between text and the background.
**Other Occurrences:**
N/A.

**Associated XAG:**

https://docs.microsoft.com/en-us/gaming/accessibility/xbox-accessibility-guidelines/102

**Screenshot(s):**

Image (1 of 1): The *Collectibles* menu, where descriptive text for *Collectibles* is hard to read.

**Issue #2:** The title displays *Objectives* description text at too small a size.

March 20-24, 2023 | San Francisco, CA #GDC23

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GAME    CONTROLS    DISPLAY    AUDIO    ACCESSIBILITY    HUD

F2    cari.watterton
CAMPAIGN RANK 1    0

| SUBTITLES | | ON | OFF |
|---|---|---|---|
| CUTSCENE SUBTITLES | | ON | OFF |
| BOX OPACITY | 100% | < ──────── > | |
| TEXT SIZE | 200% | < ──── > | |
| TEXT COLOUR | | WHITE | ˄˅ |

**BOX OPACITY**

Change the opacity of the box behind the Subtitle text.

This may help with reading the Subtitle text in the game.

| ALLOW AIM ASSIST WITH KEYBOARD AND MOUSE | ON | OFF |
|---|---|---|
| AIM ASSIST - SENSITIVITY REDUCTION (SCOPED) | OFF | ˄˅ |
| AIM ASSIST - SENSITIVITY REDUCTION (AIM OVER SHOULDER) | OFF | ˄˅ |
| AIM ASSIST - SENSITIVITY REDUCTION (IRONSIGHTS) | OFF | ˄˅ |
| AIM ASSIST - SNAP TO TARGET (SCOPED) | ON | OFF |
| AIM ASSIST - SNAP TO TARGET (AIM OVER SHOULDER) | ON | OFF |
| AIM ASSIST - SNAP TO TARGET (IRONSIGHTS) | ON | OFF |

SENSITIVITY X    40%    <        >

This is an example of how subtitles will appear throughout the game.

BACKSPACE / ESC  BACK    F1  RESET TO DEFAULT

1.00 (2022.03.22.1161752) - 23:42:33, Mar 22 2022

GAME    CONTROLS    DISPLAY    AUDIO    **ACCESSIBILITY**    HUD

F2    cari.watterton
CAMPAIGN RANK 5                    0

| SUBTITLES | ON | OFF |
| CUTSCENE SUBTITLES | ON | OFF |
| BOX OPACITY | 100% | < ─────────── > |
| TEXT SIZE | 200% | < ─────────── > |
| TEXT COLOUR | WHITE | ^ v |

**BOX OPACITY**

Change the opacity of the box behind the Subtitle text.

This may help with reading the Subtitle text in the game.

**Paragraphs are left aligned for greater readability.**

| COLOURBLIND MODE | < OFF > |

**New colourblind mode feature**

| ALLOW AIM ASSIST WITH KEYBOARD AND MOUSE | ON | OFF |
| AIM ASSIST - SENSITIVITY REDUCTION (SCOPED) | OFF | ^ v |
| AIM ASSIST - SENSITIVITY REDUCTION (AIM OVER SHOULDER) | OFF | ^ v |
| AIM ASSIST - SENSITIVITY REDUCTION (IRONSIGHTS) | OFF | ^ v |
| AIM ASSIST - SNAP TO TARGET (SCOPED) | ON | OFF |
| AIM ASSIST - SNAP TO TARGET (AIM OVER SHOULDER) | ON | OFF |
| AIM ASSIST - SNAP TO TARGET (IRONSIGHTS) | ON | OFF |

This is an example of how subtitles will appear throughout the game.

**100% opacity now makes the background fully opaque.**

BACKSPACE / ESC    BACK        F1    RESET TO DEFAULT

1.00 (2022.04.13.1171093) - 23:42:44, Apr 13 2022

**Example of the colourblind mode**

cari.watterton
CAMPAIGN RANK 5
0

GAME    CONTROLS    DISPLAY    AUDIO    ACCESSIBILITY    HUD

| SUBTITLES | | ON | OFF |
|---|---|---|---|
| CUTSCENE SUBTITLES | | ON | OFF |
| BOX OPACITY | 100% | < ──────────── | > |
| TEXT SIZE | 200% | < ──────────── | > |
| TEXT COLOUR | | WHITE | ⌃⌄ |

| COLOURBLIND MODE | < | DEUTERANOPIA | > |
|---|---|---|---|

**New colourblind mode feature**

| ALLOW AIM ASSIST WITH KEYBOARD AND MOUSE | | ON | OFF |
|---|---|---|---|
| AIM ASSIST - SENSITIVITY REDUCTION (SCOPED) | | OFF | ⌃⌄ |
| AIM ASSIST - SENSITIVITY REDUCTION (AIM OVER SHOULDER) | | OFF | ⌃⌄ |
| AIM ASSIST - SENSITIVITY REDUCTION (IRONSIGHTS) | | OFF | ⌃⌄ |
| AIM ASSIST - SNAP TO TARGET (SCOPED) | | ON | OFF |
| AIM ASSIST - SNAP TO TARGET (AIM OVER SHOULDER) | | ON | OFF |
| AIM ASSIST - SNAP TO TARGET (IRONSIGHTS) | | ON | OFF |

**COLOURBLIND MODE**

Select a colourblind mode to change the colours of certain UI elements, catering to different types of colour blindness.

| TEAM | ENEMY | INVESTIGATING |
|---|---|---|
| ▼ ▼ | ▼ ▼ | ▼ |

BACKSPACE / ESC  BACK    F1  RESET TO DEFAULT

1.00 (2022.04.18.1171942) - 23:43:20, Apr 18 2022

LB  RB   GAME   CONTROLS   DISPLAY   AUDIO   **ACCESSIBILITY**   HUD

Y  cari.watterton
CAMPAIGN RANK 1          0

AIM ASSIST - SNAP TO TARGET (AIM OVER SHOULDER)          ON   **OFF**

AIM ASSIST - SNAP TO TARGET (IRONSIGHTS)          ON   **OFF**

SENSITIVITY X          50%   <  ▭  >

SENSITIVITY Y          50%   <  ▭  >

SCOPE SENSITIVITY X          50%   <  ▭  >

SCOPE SENSITIVITY Y          50%   <  ▭  >

IRONSIGHTS SENSITIVITY X          50%   <  ▭  >

IRONSIGHTS SENSITIVITY Y          50%   <  ▭  >

**TOGGLE RADIAL MENU**

When enabled, press the Radial Menu button to open or close it, without needing to hold the button down.

CONTROLS

TOGGLE RADIAL MENU          ON   **OFF**

TOGGLE AIMING          ON   **OFF**

ALLOW AUTO-RUN          ON   **OFF**

ALLOW AUTO TRAVERSAL          ON   **OFF**

ALLOW AUTO CLIMB          ON   **OFF**

**Extended suite of settings to remove held inputs.**

B  BACK   X  RESET TO DEFAULT

# Accessibility Evaluations



Section 1

## Accessibility Barriers

This area of the report contains the test that was observed in accordance with the User Stories, Xbox Accessibility Guidelines and Game Accessibility Guidelines. Each issue reads as a bug writeup and shows the impact of a settings/aspect of the game and its impact on an impaired player.

| | | Achieved? |
|---|---|---|
| 11 | Visual: Color options | ✅ ❌ ➖ |
| 12 | Visual: Steady camera | ✅ ❌ ➖ |
| 13 | Visual: Subtitle options | ✅ ❌ ➖ |
| 14 | Visual: Text contrast options | ✅ ❌ ➖ |
| 15 | Input: Adjustable input sensitivity | ✅ ❌ ➖ |
| 16 | Input: Full keyboard support | ✅ ❌ ➖ |
| 17 | Input: Input remapping | ✅ ❌ ➖ |
| 18 | Input: No button holds | ✅ ❌ ➖ |
| 19 | Input: No quick-time events | ✅ |
| 20 | Input: Single stick gameplay | ❌ |
| 21 | Input: Text-to-speech/Speech-to-text communications | ➖ |

QA

Guidelines (XAGs / GAGs)

User Stories

Focus on Usability

Test Early and Often

**Question:**

How can we measure the accessibility of our games?

**Solution:**

Create an internal accessibility report process.
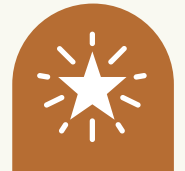
**Successes:**

+ Outsourcing to QA was effective

+ Allowed us to test early and often, and measuring changes in our games in development

+ Using existing guidelines is efficient

+ The process is iterative

**Improvements:**

- Develop our own guidelines

Question:
**How do we incorporate accessibility guidelines into our workflow?**

# Guidelines

## Motor

(Control / mobility)

### Basic

- Allow controls to be remapped / reconfigured
- Ensure controls are as simple as possible, or provide a simpler alternative
- Ensure that all areas of the user interface can be accessed using the same input method as the gameplay
- Include an option to adjust the sensitivity of controls
- Ensure interactive elements / virtual controls are large and well spaced, particularly on small or touch screens
- Include toggle/slider for any haptics

### Intermediate

- Support more than one input device
- Make interactive elements that require accuracy (eg. cursor/touch controlled menu options) stationary
- Ensure that multiple simultaneous actions (eg. click/drag or swipe) are not required, and included only as a supplementary / alternative input method
- Ensure that all key actions can be carried out by digital controls (pad / keys / presses), with more complex input (eg. analogue, speech, gesture) not required, and included only as supplementary / alternative input methods
- Include an option to adjust the game speed
- Avoid repeated inputs (button-mashing/quick time events)
- If producing a PC game, support windowed mode for compatibility with overlaid virtual keyboards
- Avoid / provide alternatives to requiring buttons to be held down
- Allow interfaces to be rearranged
- Allow interfaces to be resized
- Provide a macro system
- Do not rely on motion tracking of specific body types

### Advanced

- Allow play in both portrait and landscape
- Do not make precise timing essential to gameplay – offer alternatives, actions that can be carried out while paused, or a skip mechanism
- Include a cool-down period (post acceptance delay) of 0.5 seconds between inputs
- Provide very simple control schemes that are compatible with assistive technology devices, such as switch or eye tracking

Game Accessibility Guidelines:
https://gameaccessibilityguidelines.com/

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### ⌄ Guidelines

| 101 - Text display |
| 102 - Contrast |
| 103 - Additional channels for visual and audio cues |
| 104 - Subtitles and captions |
| 105 - Audio accessibility |
| 106 - Screen narration |
| 107 - Input |
| 108 - Game difficulty options |
| 109 - Objective clarity |
| 110 - Haptic feedback |
| 111 - Audio description |
| 112 - UI navigation |
| 113 - UI focus handling |
| 114 - UI context |
| 115 - Error messages and destructive actions |
| 116 - Time limits |
| 117 - Visual distractions and motion settings |
| 118 - Photosensitivity |
| 119 - STT / TTS chat |
| 120 - Communication experiences |
| 121 - Accessible feature documentation |
| 122 - Accessible customer support |
| 123 - Mental health best practices |

Xbox Accessibility Guidelines; https://learn.microsoft.com/en-us/gaming/accessibility/xbox-accessibility-guidelines/101

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| Tag | Games |
|---|---|
| **Video Game Accessibility:** Identifying accessibility options and inclusive design for video games. | |
| **Controls:** How you control the game, different options for alternative inputs and whether you can remap these settings to suit your needs. | |
| **Gamepad:** | |
| **1 Button:** Can play with a single button. | 35 |
| **2 Buttons:** Can play with 2 buttons. | 12 |
| **1 Stick:** Can play with 1 stick. | 12 |
| **1 Button & Single Stick:** Can play with button and stick. | 60 |
| **Multiple Buttons & Single Stick:** Can play with multiple buttons and a stick. | 286 |
| **Multiple Buttons & Two Sticks:** Can play with multiple buttons and two sticks. | 425 |
| **Mouse And Keyboard:** | |
| **Keyboard Alone:** Can play with just the keyboard. | 206 |
| **Mouse Alone:** Can play with just the mouse/mouse-button/mouse wheel. | 203 |
| **Mouse and Keys:** Can play with mouse and multiple keys. | 439 |
| **Mouse and Controller:** Can play with mouse and controller simultaneously. | 53 |
| **Touchscreen:** Additional gestures may be required for games played with a screenreader like VoiceOver. | |
| **One Tap Anywhere:** Can play with touchscreen, tap anywhere. | 26 |
| **One Tap Targeted:** Can play with touchscreen, tap in specific locations. | 94 |
| **One Motion Targeted:** Can play with touchscreen, tap and swipe or hold gesture. | 110 |
| **Two Taps Anywhere:** Can play with touchscreen, two simultaneous taps anywhere. | 0 |
| **Two Taps Targeted:** Can play with touchscreen, two simultaneous taps in specific locations. | 18 |
| **Two Motions Targeted:** Can play with touchscreen, two simultaneous taps, swipes or hold gestures. | 50 |
| **Motion:** Games that can be played with different sorts of motion controllers. | |
| **Motion Aiming:** Can use small movements of the gamepad to fine-tune aiming or as the main aiming mechanism. This is sometimes known as Gyro-Aiming. This usually provides the ability to calibrate these controls to taste. | 47 |
| **Motion Pointing:** Can use the orientation of the gamepad to move a cursor-target around the screen like a mouse. | 25 |
| **Motion Tilting:** Can use movements of the controller to replace steering or simple movement otherwise controlled by left/right movement of a stick. | 22 |
| **Motion Gesture:** Can motion with the controller to direct an in-game action. This can be a one-to-one motion for analogue sword or camera movement. It can also be a simple shake to trigger a one-off action. This is sometimes known as Waggle or Shake controls, as popularised by the Wii. | 31 |
| **Motion Camera:** Can use a camera controller like Xbox Kinect or PlayStation Camera. This can offer game control via hand gestures or body movement and position. | 13 |
| **Total of 165 rows:** | 21,095 |

Taming Gaming; https://www.taminggaming.com/video-game-accessibility-data

# Accessibility Heuristics

## UI Accessibility Heuristics

| | Heuristic |
|---|---|
| ☐ | 1. Don't rely on colour |
| ☐ | 2. Deliver information through at least two channels |
| ☐ | 3. Remove analogue only inputs (cursor/sticks) |
| ☐ | 4. Check the contrast (text and icons) |
| ☐ | 5. Test Text at Largest Scale |
| ☐ | 6. Left Align Paragraphs |

Per Department

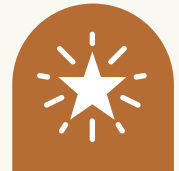Less Overwhelming

One Place

Focus on Usability

Self Review

**Question:**
How do we incorporate accessibility guidelines into our workflow?

**Solution:**
Condense guidelines to heuristics.

**Successes:**

+ Simple workflow as part of review process

+ Catch issues early

+ Easy to follow checklist

+ Clear language and examples

**Improvements:**

- Some folk struggled with nuances
  + Rewording

- Doesn't cover everything

- Lack of context of the user

Question:
**How do we ensure we consider users with varying capabilities?**

# Stories of Web Users

in *How People with Disabilities Use the Web*

## Summary

The following stories of people with disabilities using the Web highlight the effect of accessibility barriers and the broader benefits of accessible websites and web tools.

**Note:** The following scenarios are not real people. They do not address every kind of disability.

### Page Contents

- Lee, online shopper with color blindness
- Alex, reporter with repetitive stress injury
- Martine, online student who is hard of hearing
- Ilya, senior staff member who is blind
- Preety, middle school student with attention deficit hyperactivity disorder and dyslexia
- Yun, retiree with low vision, hand tremor, and mild short-term memory loss
- Luis, supermarket assistant with Down syndrome
- Kaseem, teenager who is deaf and blind

WAI - Web User Stories: https://www.w3.org/WAI/people-use-web/user-stories/

# Accessibility User Stories



**Visual**

**As a colour blind player...**

- I want to be able to play a game without missing out on information that is communicated through colour.

*Ideally, I don't want any information to be communicated through colour alone so I don't have to change any settings. If I have to make colour adjustments, I would like to customise the colours myself instead of selecting a preset palette.*

Inspired by WAI

Contextualises barriers

Builds empathy

Builds awareness

User-Centered Design

GDC

**Question:**

How do we ensure we consider users with varying capabilities?

**Solution:**

Provide accessibility user stories.
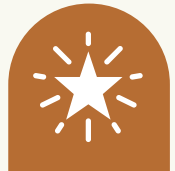
**Successes:**

+ User Stories is something design is familiar with

+ Build empathy for users and contextualise barriers

+ Encourage innovative thinking

**Improvements:**

- Less valuable than Subject Matter Experts

- Less usable than the heuristics, can be overwhelming

- Encourage their usage across teams
+ Used in Inclusive Design Workshops

Question:
**How do we more strongly encourage accessibility engagement during development?**

Make it a Pillar - by Ryan Greene
https://www.youtube.com/watch?v=dgtck3FIU7U

# Accessibility Pillars

6. Meaningful Accessibility

- The game should allow itself to be adapted and configured to match the individual needs of the player.
- The experience should avoid excluding those with impairments or disabilities.
- The game should adhere to external Accessibility standards and guidelines as much as possible (XAG, GAG).
- The game will uphold the accessibility features of SE5 and push them further, building upon our legacy to create an even more accessible experience.

Highlights Importance
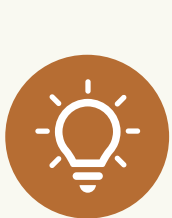
Measurable

Validate Decisions

Work Together

Achieve Goals

**Question:**
How do we more strongly encourage accessibility engagement during development?

**Solution:**
Make accessibility a design pillar.

**Successes:**

+ Unites vision

+ Highlights commitment

+ Makes accessibility a priority

+ Ensures consideration from the very start

**Improvements:**

- Ensure leads are encouraging use of the pillars

- Strive for new goals with each new project

Question:
**How do we continue to build on our accessibility features?**

CARI.WATTERTON

57

2

CAMPAIGN

HORDE

WEEKLY EVENT

RECORDS

SHOP

EXIT GAME · OPTIONS · ACCESSIBILITY · BENCHMARK

F2

cari.watterton
CAMPAIGN RANK 1

1
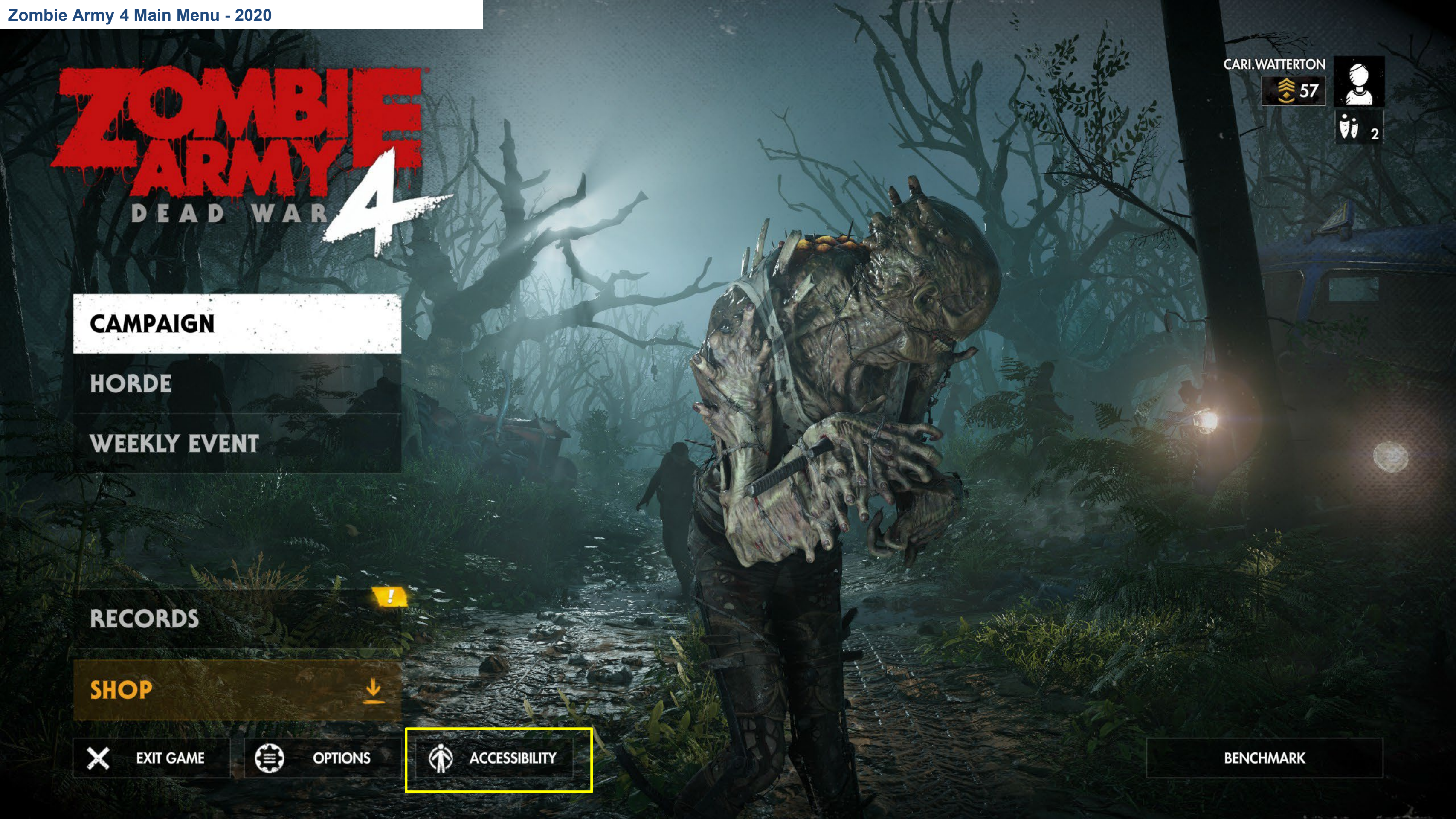
# SNIPER ELITE 5
## FRANCE

LAST PLAYED - CAMPAIGN
**THE ATLANTIC WALL**

**PLAY**

SERVICE RECORD

LOADOUT AND CUSTOMISATION

SHOOTING RANGE

OPTIONS

QUIT TO DESKTOP

**UP CLOSE & PERSONAL**
WEAPON & SKIN PACK

<

>

GET THE NEW DLC

OWNED DLC

**VISIT STORE**

1.41 (2022.10.13.1235989) - 20:53:07, Oct 13 2022

**EViL GENiUS 2**
WORLD DOMINATION

**SNIPER ELITE 5**
FRANCE

**ZOMBIE ARMY 4**
DEAD WAR
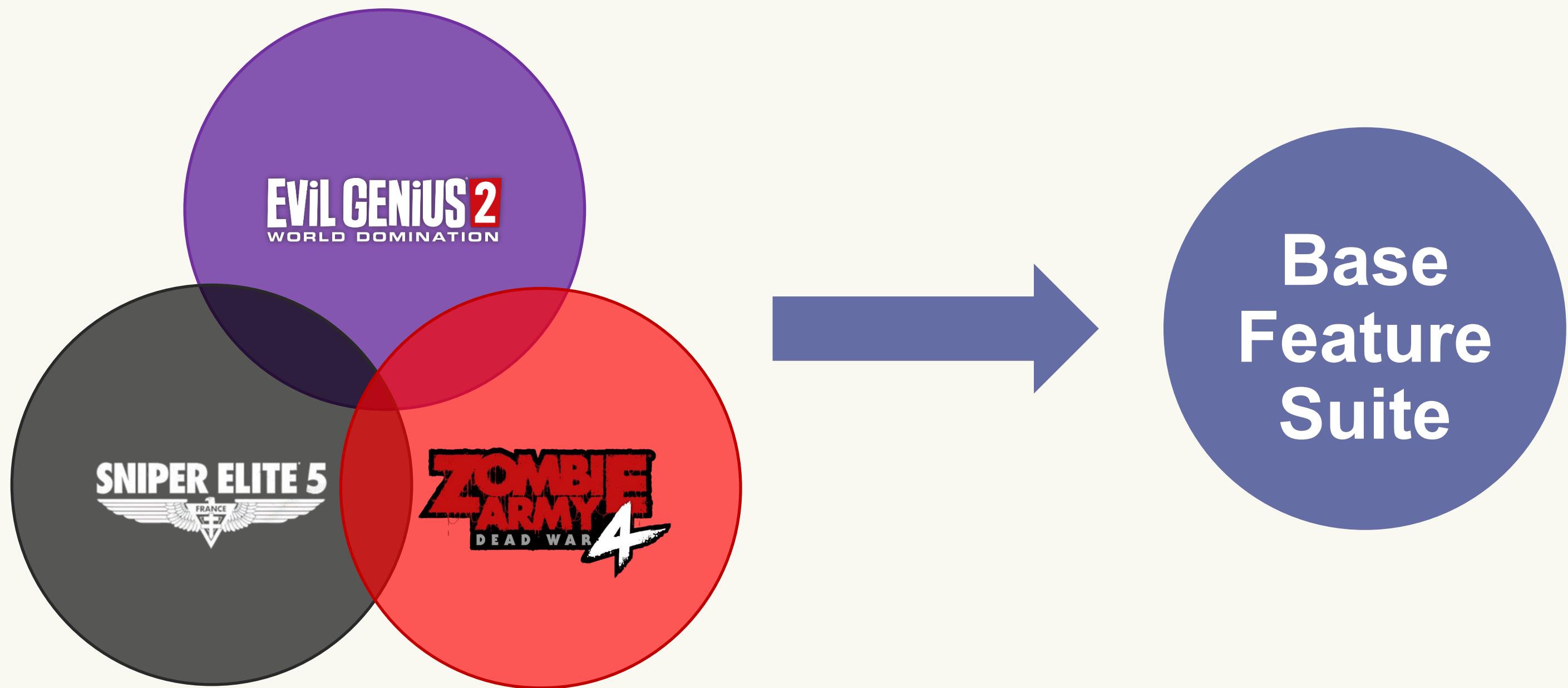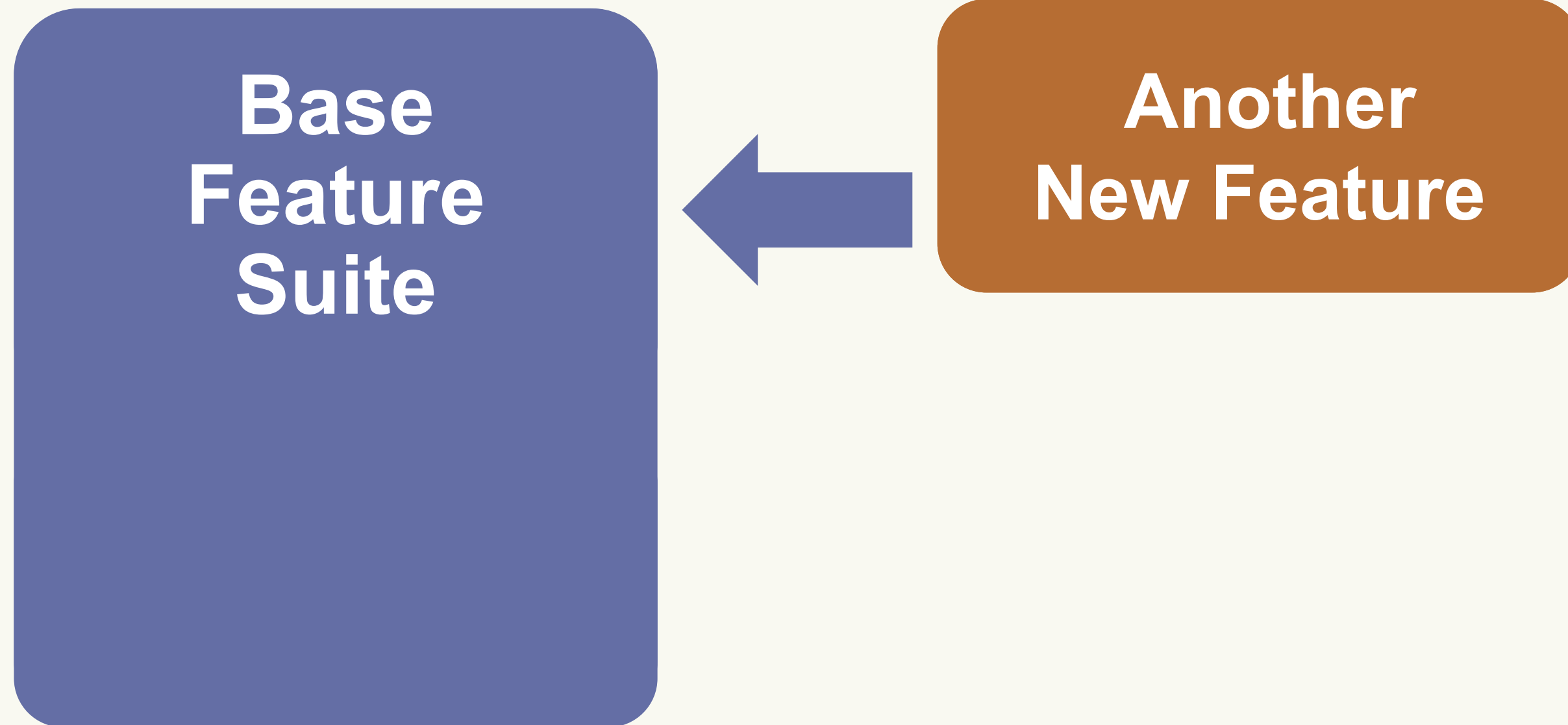
**Base Feature Suite**

# Accessibility Roadmap
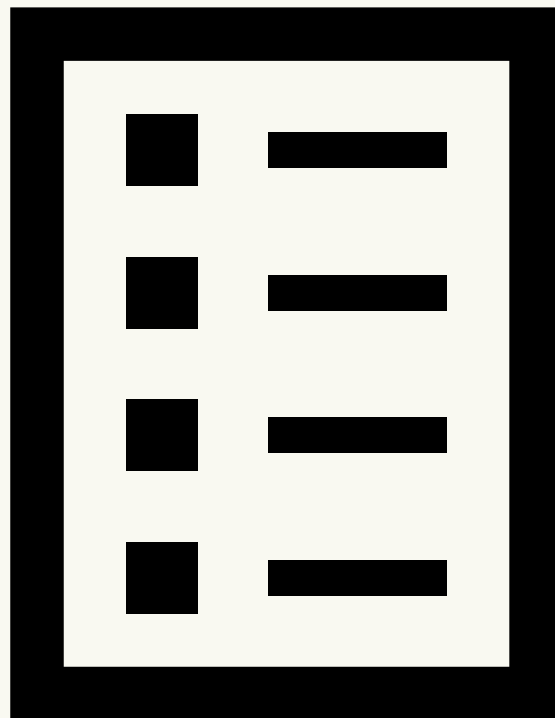


- Base Feature Set
- Feature Backlog
- Tracks New Features
- Maintain Standards
- Grows Feature Set

# Settings
# ≠
# Accessibility

**Question:**
How do we continue to build on our accessibility features?

**Solution:**
Accessibility Roadmap across all projects.
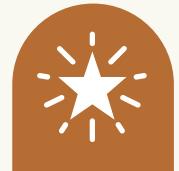
**Successes:**

+ Establishes a cross-project standard

+ Creates a backlog of new features to tackle

+ Ensures we maintain and grow with each title

**Improvements:**

-Visual layout improvements
+ Jira integration

Question:
**How can we test with users with varying capabilities?**

# Accessibility Tester Group

JOIN NOW

Accessibility Tester Group

- Working with HR
- Private & Ethical
- Open to all Employees
- Subject Matter Experts
- Anonymous Feedback

**Question:**
How can we test with users with varying capabilities?

**Solution:**
Internal Accessibility Tester Group
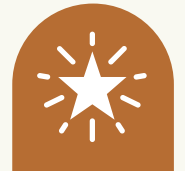
**Successes:**

+ Fast, ethical and effective

+ Boosted internal accessibility momentum

+ During development feedback

+ Subject Matter Experts

**Improvements:**

- Limited perspectives

- Not always completely removed from the project

- Not a replacement for external accessibility testing

Practices:
**How do we make our games more accessible?**

# Solutions

Internal Accessibility Reports

Heuristics

User Stories

Pillars

Roadmap

Accessibility Tester Group

# Successes

Accessibility considered throughout development

Accessibility was woven into reviews and considerations

Instant uptake on accessibility Jira tasks

First Accessibility Award Nomination

# Improvements

Testing with SMEs

Maintaining momentum

Constantly evaluate processes

Advocacy:
**How do we best engage with and support the accessibility community?**

**Question:**

**How can we engage with our disabled users?**

Request from our Accessibility Discord

Any ETA on that fov patch and an idea of the limitations? Game is fun but the 'fun' isn't worth the serious headaches and motion sickness 😟.

I asked about limitations because it'd be nice if the slider had the 'going past this value may have severe performance penalties' to cover the teams butt but allow the slider to go past that to let those of us that need to go higher than 90-100, do so.  Even in a game like Outriders I need it around 110-120 to offset other issues like the player model being close to the camera.

Request highlights a player's experience with motion sickness and their preferred solution – Field of View options.

Implementation of solution
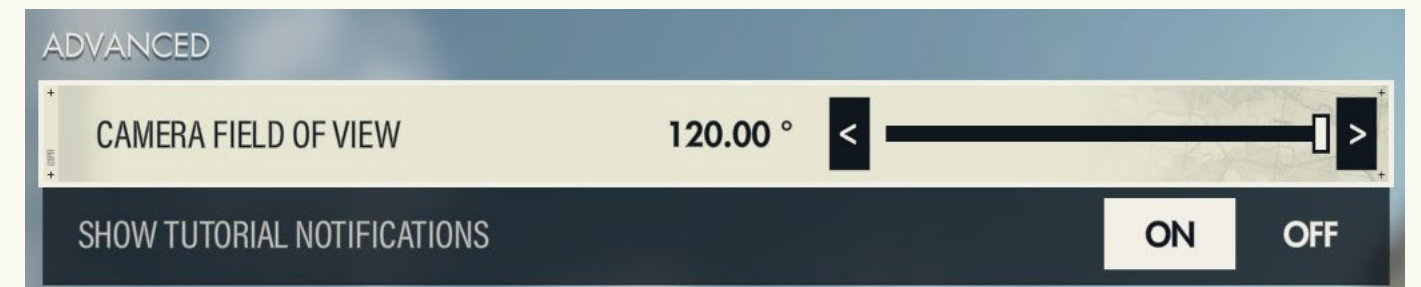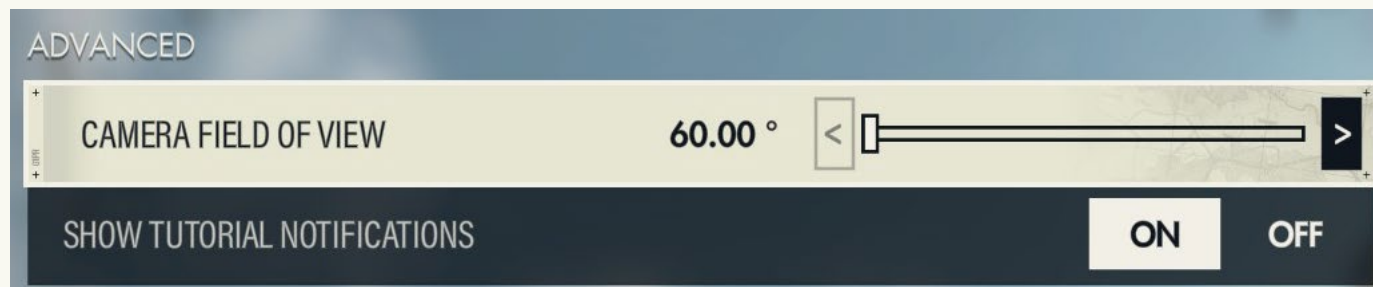


The implementation makes sure to have a large range to help as many players as possible, including the ranges mentioned in the initial request.

Request from our Accessibility Discord

A walk toggle would be helpful to me. I can only play with one hand due to a stroke. I have adjusted in one game using the walk/stop toggle to move. It's far less awkward than trying to use the left joystick. (edited)

Request highlights a player's experience playing with one hand and having to use the left stick to move.

Implementation of solution

ALLOW AUTO-RUN                    ON    OFF

ALLOW AUTO TRAVERSAL              ON    OFF

ALLOW AUTO CLIMB                  ON    OFF

ALLOW AUTO-RUN

When enabled, press the Traversal button to toggle automatic movement without holding Forwards.
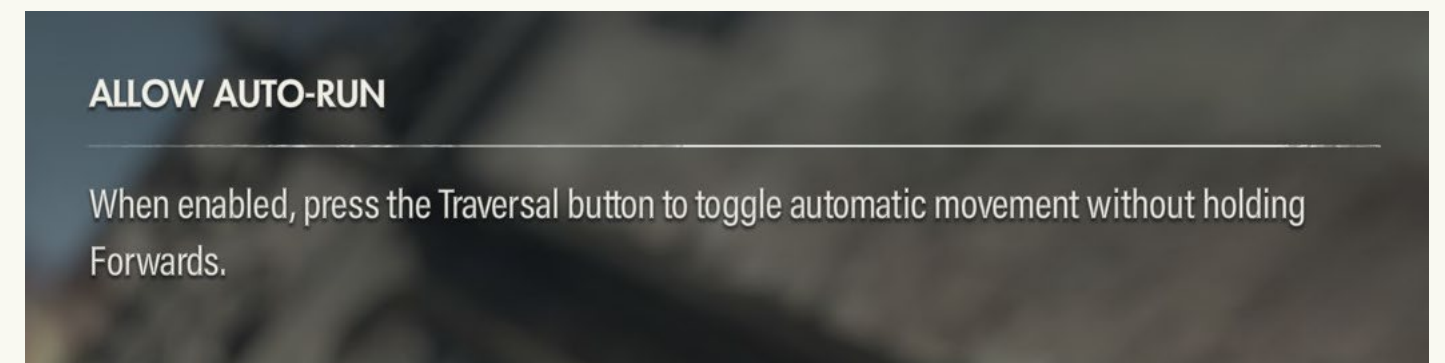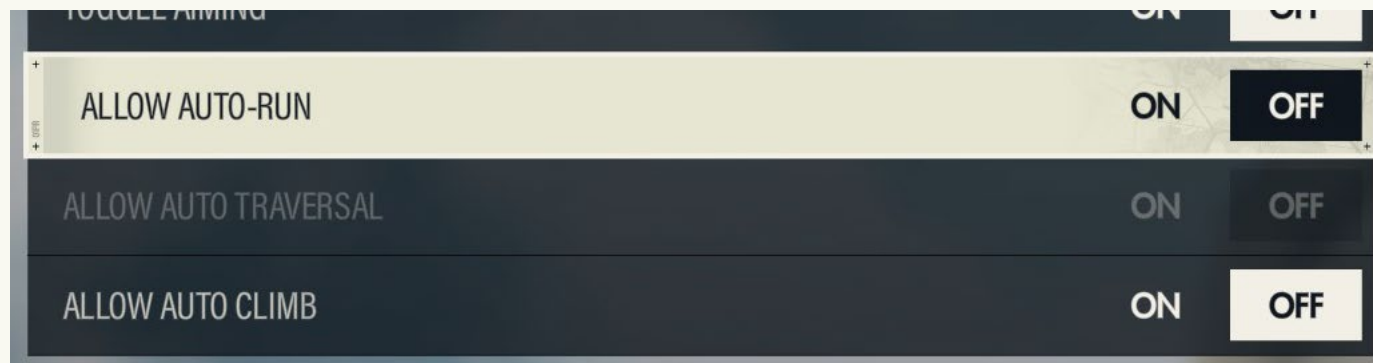
The implementation removes the need to use the left stick (or WASD) to move. Putting forward movement on a toggle also removes the requirement to hold.

# Accessibility Contact Channels



Public or Private

Open to all

Easy to access

User Feedback Routes

Highlights Barriers

**Question:**
How can we engage with our disabled users?

**Solution:**
Open, dedicated accessibility contact channels.
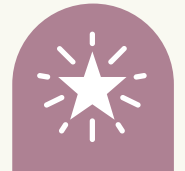
**Successes:**

+ Public or private options

+ Direct feedback from our players to improve our game

+ Highlights to players that their voices are heard

**Improvements:**

Engagement is low, but very positive
+ More accessibility content could help boost the channels

Question:
**How do we best support disabled gamers who may want to play our games?**

# The Family Game Database



**EVIL GENIUS 2**
**WORLD DOMINATION**

### Accessibility

Our Evil Genius 2 Accessibility Report documents 39 accessibility features:

- 12 Controls accessibility features
- 3 Difficulty accessibility features
- 9 Getting Started accessibility features
- 4 Reading accessibility features
- 3 Navigation accessibility features
- 5 Visual accessibility features
- 3 Audio accessibility features

**SNIPER ELITE 5**
FRANCE

### Accessibility

Our Sniper Elite 5 Accessibility Report documents 45 accessibility features:

- 14 Controls accessibility features
- 3 Difficulty accessibility features
- 7 Getting Started accessibility features
- 4 Reading accessibility features
- 7 Navigation accessibility features
- 6 Visual accessibility features
- 2 Audio accessibility features
- 3 Communication accessibility features

https://www.taminggaming.com/game/Evil+Genius+2

https://www.taminggaming.com/game/Sniper+Elite+5

GDC

# Articles & Interviews





https://www.gameaccessibilitynexus.com/blog/2022/06/21/interview-with-cari-watterton/

https://news.xbox.com/en-us/2022/05/18/scoping-out-the-accessibility-features-of-sniper-elite-5/

# Talks & Panels





https://www.gamesindustry.biz/a-beginners-guide-to-making-your-game-accessible

# Sharing Accessibility Info



Accessibility Features

Ahead of Launch

Accessibility Efforts
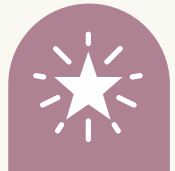
Accessibility Journalism

Personal & General Platforms

**Question:**
How do we best support disabled gamers who may want to play our games?

**Solution:**
Sharing accessibility information on our games and processes.

**Successes:**

+ Informs players what features are available

+ Shares how & why we're doing it

+ Helps push standards for how games publicise accessibility

+ Knowledge sharing

**Improvements:**

- Dedicated accessibility section of the website

- Just keep swimming

Question:
**How else can we publicly advocate for accessibility?**

GAAD https://accessibility.day/

# Accessibility Events

Fundraise for Charity

Share Knowledge
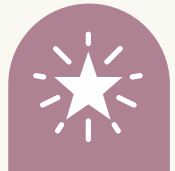
Support Disabled Creators

Networking

Showcase Efforts

Advocacy:
**How do we best engage with and support the accessibility community?**

# Solutions

Accessibility Contact Channels

Sharing Accessibility Information

Accessibility Events

# **Successes**

Direct accessibility feedback from SMEs

Knowledge sharing and transparency

Supports and showcases the disabled gamer community
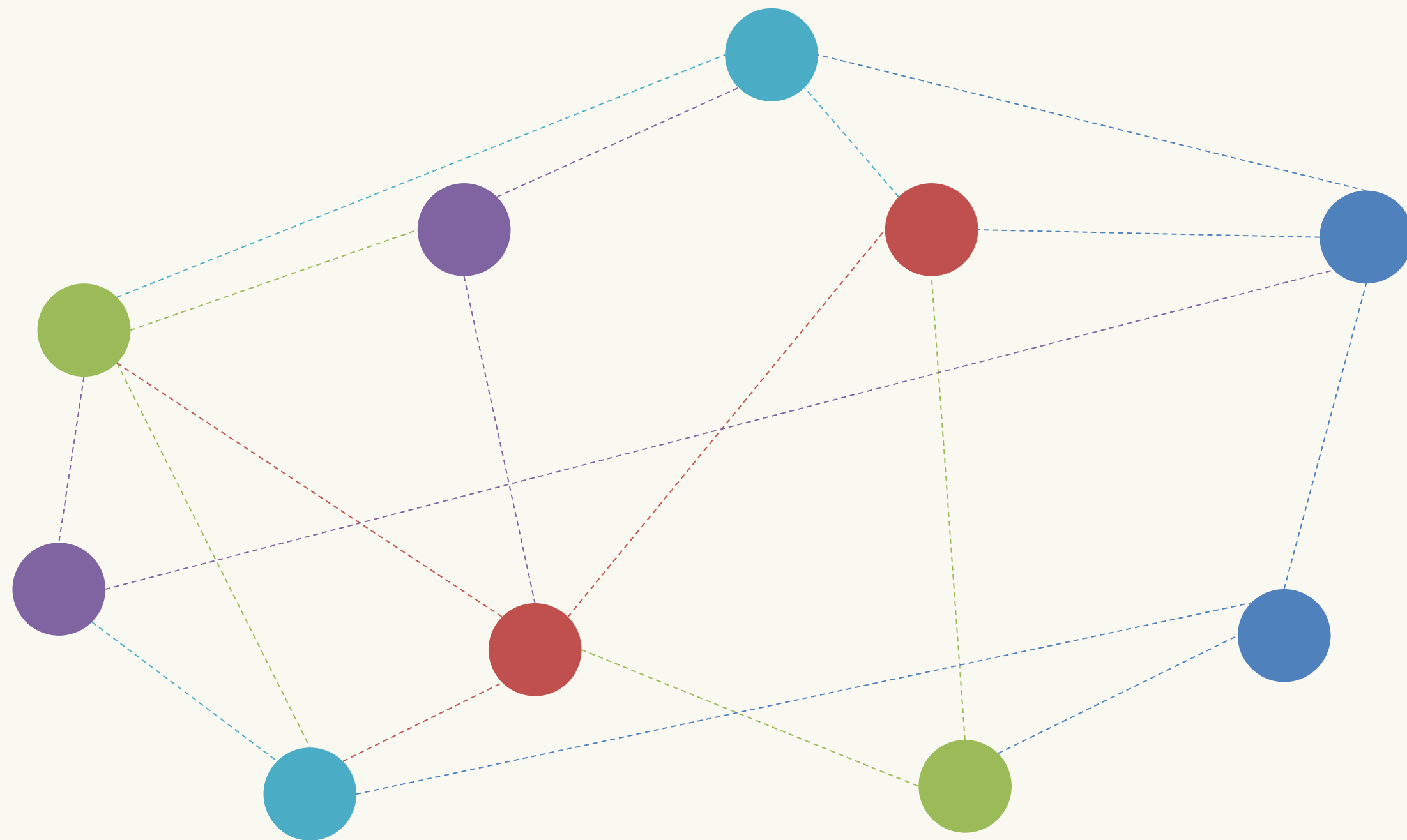
# Improvements

More dedicated spaces

More planning

More action

# Takeaways

⊙ Practical ways to build accessibility momentum at your studio

⊙ Actionable starting points for these methods

⊙ Learn from our successes and failures

# Thanks for listening!

@CariWatterton