IS ACCESSIBILITY THE NEXT BRAND CONSIDERATION IN THE GAMING INDUSTRY?

A CRITICAL CASE STUDY OF THE GAME "THE LAST OF US -2"

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ABSTRACT

As industries and their brands shift onto digital interfaces, User Experience and User Interface play a key role in creating a seamless digital experience for users. Through this research, the context of accessibility is looked at as a relevant component for UI/UX design for today's brands and industries to cater to disabled users. Focusing its lens on the gaming industry, the study explores the wide variety of accessibility settings featured in the game "The Last of Us -2" by Naughty Dog LLC, a first-party video developer acquired by Sony PlayStation. The game has been critically acclaimed by the gaming community and mainstream media for its development in furthering inclusivity. Through a qualitative research methodology, the accessibility features of this game are assessed through user testing. In the analysis it is visible how the gaming industry has through certain games, surpassing the benchmark for inclusivity within their space. The results of this research study may cater as a guideline for other brands and industries to incorporate.

Keywords: Accessibility, Brand Image, Disability, Gaming, Inclusivity, User Experience

1. INTRODUCTION

With the continuous digital disruption in today's world, brands have already made a significant shift with their platforms and communication methods. It can also be considered that a large number of products and services today are primarily digital and the access provided to the consumer is also the same. Here, User Experience (UX) and User Interface (UI) design methods work as the key necessities to help brands close gaps between themselves, their customers, and their product. Where they can provide a seamless experience that is driven both visually and through interaction. As we find UX being integrated into our digital consumption, today and tomorrow, understanding its impact on branding and marketing must be considered. Brands today have and continue to jump onto the expanding digital shift catering to their specific target groups to create the ultimate digital customer experience (CX).Let's talk about Uber, for instance. Besides having an easy to navigate UX and consistent UI, they have also incorporated multiple languages as an option for all their users. By doing this not only are they improving the experience for both their customers and their drivers, but they are also expanding their reach, where a driver doesn't need to know specific languages to operate the app.

Today, it is safe to say that brands are:

a) Focusing on user experience to build a better customer experience

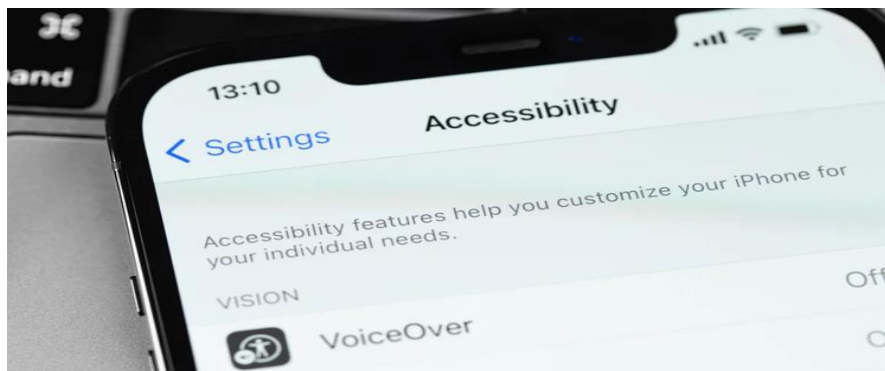b) Aiming to have these experience shifts is a part of their brand value and image.

Image 1.1: Accessibility settings on Apple i Phone

Looking further into this, the context of **accessibility** is a relevant component for UI/UX design. A digital requirement that is inclusive to users with disabilities across the spectrum. The role of accessibility is a necessity in providing the same experience to all users. Many industries have already recognized this need within the digital era, while they continue to develop and implement accessibility features in their products.

One could say, holistic accessibility features are limited primarily to certain smart phone brands, such as Apple (through both their hardware and software), or apps and websites specifically made for people with disabilities. While these may presently be available to certain disabled users, what has the initiative been amongst mainline brands when it comes to curetting their UX for these demo graphics? A notable industry where this can be observed is the video game industry. The overall accessibility landscape in the gaming industry covers a more prominent ground of accessibility features, aiding visual, auditory and motor skill impairment. The regard for accessibility as a consideration has been a continuous conversation within the disabled gaming community. Big players like Sony, Nintendo and Xbox have been recognized for incorporating accessibility in their gaming devices. This has led to expanding their reach within the gaming community, while also prioritizing the gaming experience for disabled players. Naughty Dog LLC, a first-party video developer that was acquired by Sony Play Station, is known to be one of the best video game development companies in the current industry landscape. In recent years, one of their video games has made waves around the gaming community, particularly for its accessibility features."The Last of Us - 2", a single & multiplayer video game, was released in June 2020. It received the "Game of the Year" award at The Game Awards 2020along with the "Best Innovation in Accessibility" award. The game was widely acknowledged and praised for its diverse accessibility settings by both critics as well as the gaming community. Incorporating over 60 different accessibility features, the game covers a wide range of physical disabilities across the spectrum, thus offering a multitude of customization settings that can help many disabled users gain the full experience of the game. BBC News claimed that LOU2 could be "the most accessible game ever".

Image 1.2: Screenshot of Battle game play in motion in Last of Us -2, (2020)

1.1. Historical Perspective

a) What is The Last Of us About?

The original game, which was released in 2013, has its storyline based in a post-apocalyptic era in America. Civilization is crumbling due to a parasitic fungus that is infecting humans and turning them into vile cannibalistic creatures. The unaffected population live in a dystopian world where different factions even fight and kill each other just to survive. The game follows an action and adventure game play from a camera perspective known as 3rd person's perspective, where the user engages with other characters, fights battles and makes choices relevant to the game's journey. In the original game, the user plays from the perspective of a middle-aged man "Joel" (whom the user plays as), who must escort "Ellie", a young girl across the country. A story theme in this game focuses on the father and daughter relationship that Joel builds with Ellie. The second part of the game is set in the same storyline, about 4 years later. The narrative follows Ellie's perspective for 50% of the game, where she sets out for revenge because of the murder of Joel. The second half of the game is played as Joel's killer, "Abby", and the user experiences the rest of the game's story from her perspective, resulting in a transformative journey for both characters from revenge to forgiveness. Besides LOU2 and its prequel, The Last of Us (released 2013), Naughty Dog is also known for its popular single and multiplayer game series "Uncharted (parts 1-4)".

Image1.1. (a) 1: Cinematic shots of the game play in Last of Us -2, (2020)

Image1.1. (a) 2: Snippets of Josh Straub's interview for Arc Gala in Minnesota, 2020

b) How Accessibility became their Game-Changer

Back in 2014, during a GDC (Game Developers Conference) event, the UI/UX designer for Naughty Dog met with a disabled gamer Josh Straub, who runs D.A.G.E.R (Disabled Accessibility for Gaming Entertainment Rating System). There, Josh narrates his experience playing their game "Uncharted-2", where he, unfortunately, was not able to finish the game in the end, because the game controls required inputs which only an able person could do. He describes how his and many other disabled players' experiences while gaming is an escape. One where they are not seen or recognized for their physical appearance but for the decisions they make in the game. Josh reflected on his disappointment in being unable to complete the game after being part of the journey and experiencing it from the beginning. He concluded by quoting how important accessibility is in this sense for disabled players to be able to experience that "escape" to its fullest potential. Post this, Naughty Dog's developing team

worked around expanding their accessibility features in their next game Uncharted 4 (released 2016). Their main aim was for all their users to be able to complete the entire journey of the game. The game was well-received for its accessibility developments upon its release, which led them to go all out for their next release, The Last of Us 2.

Image 1.1.b. 1 Close up of PlayStation Controller

As devices or gadgets are the primary touch points for engagement, in the case of gaming, it comes down to the main controller. A gaming controller for PlayStation consists of 2 joysticks (called a Duel Stick) which aid the left and right hands, as well as a total of 14 buttons and a track pad, all within easy access of the player's fingers. Using both sides of the controller helps the user to effectively move through the game. Naughty Dog understood the requirement for a high level of competence to be able to use the controller. Hence, they maximized the number of features for all buttons and touch points present on the controller, making it as flexible as possible to lend to their accessibility settings. During their design process, they involved many players from the disabled gaming community to consult their development team. This helped them navigate through the nooks of every possible hindrance a disabled player could experience. As result, the game's 60 plus customizable features expand on multiple aspects of one singular disability making it a case of "Not one size fits all".

c) What Are These Features?

When a player loads the game, they are led to an accessibility menu option after 3 interaction points. Since navigating through 60+ options can be tricky, and not every player would know what it is they exactly need, the accessibility menu offers 3 core presets that aid visual, auditory and motor functions. Besides this, for finer customization, the page expands into a range of 6 broad features.

i. Alternate Controls

Alternate Controls help users remap commands and inputs within the controller. This can be further expanded into movement controls for specific game-based tasks like riding a boater strumming a guitar. Users can also have the option to press on certain keys for voice inputs or have the controller aim at certain targets automatically.
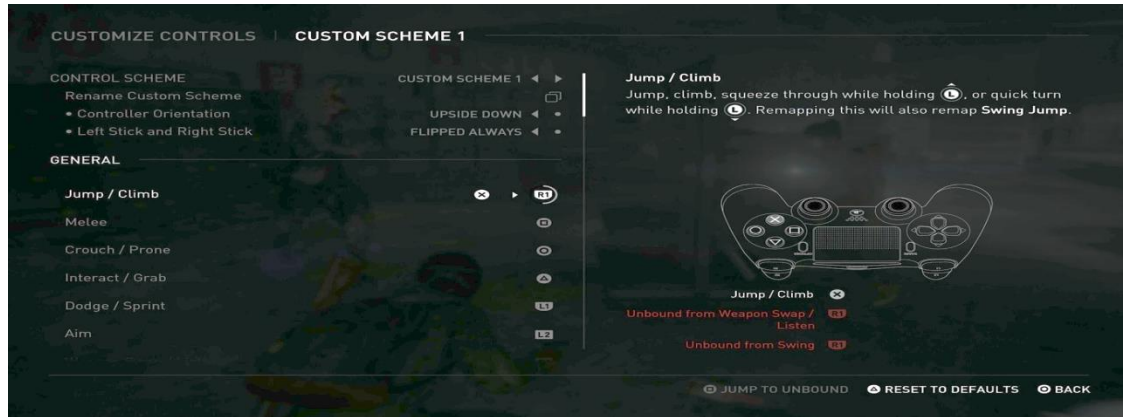
Image 1.1.c. 1 Menu Option for Customizable controls in LOU2

ii. Magnification & Visual Aids

The Magnification and Visual menu primarily aid users to customize their visual interface specifically to their HUD (Head-Up Display) inputs. This in particular helps users with auditory impairments, as well as visual impairments like colour blindness.

Image 1.1.c.ii.1 High Contrast Mode in the Magnification & Visual Aids, helps low vision users locate their interactions with more ease
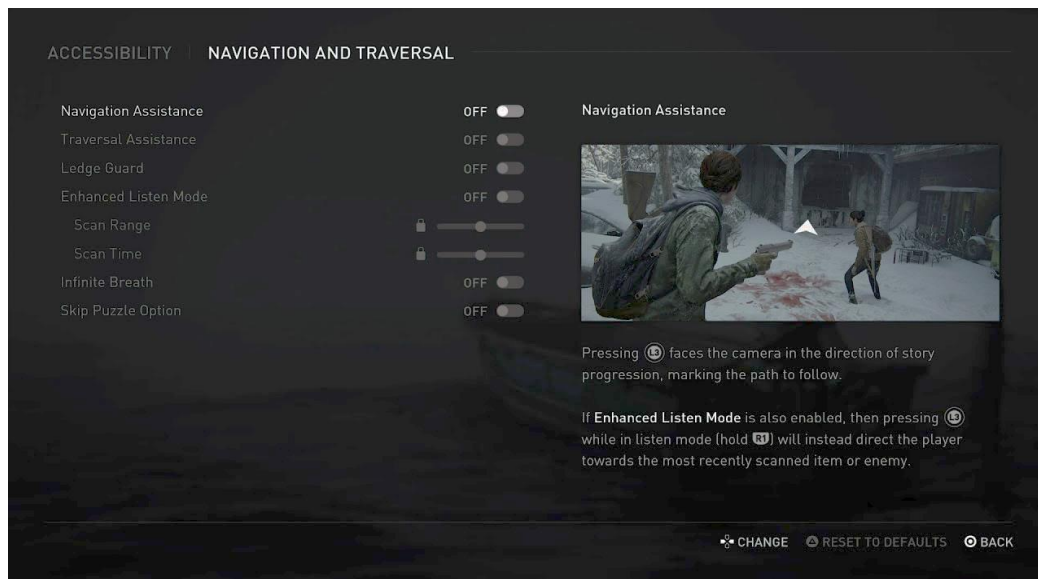
Image 1.1.c.ii.2 Navigation and Traversal menu in LOU2

iii. Motion Sickness

As many action &adventure games are fast-moving and the camera perspective is constantly shifting, many users have the problem of motion sickness affecting their gaming experience. The game offers its players the choice to edit the range of their camera and screen movement. This includes editing the range of the camera scale, motion blur, zooming, panning and camera distance.

iv. Navigation & Traversal

For any gaming company, one of the primary challenges with accessibility is navigating a completely visually impaired player through the game without any visuals. This feature assists in the user's journey by audio highlighting specific cues and actions, to help them find their game leads easier. It can also prevent obstacles by having additional audio and vibration feedback.

v. Text to Speech & Audio Cues

This feature uses a mix of both vibration cues through the controller and in-game sound cues to communicate information to the player. It aims to guide users to perform certain actions upon hearing different sound cues, like interacting with an object, jumping across a gap or avoiding an incoming attack. These sound cues are detailed in a separate section within this feature called "Audio Glossary".

vi. Combat Accessibility

Despite the game attempting to adapt to the "full experience" of challenge from an accessibility perspective, it also offers users the option to ease certain combat interactions in the game for players who would prefer to not engage.The user here can choose to not engage

in certain situations like having their hostages escape, or be attacked from behind. They can also choose their overall gaming experience ranging from the easiest level to extreme difficulty.

1.2.   Literature Review

Img1.2.1 Website screenshot of the platform "Can I play that?"

  i.   CIPT? (Can I Play That?), is an online platform created in 2018. Started as a blog by disabled gamers, the site review video games and assesses their accessibility features. According to Courtney Craven, the editor-in-chief (who has auditory and motor-control issues), her first reaction upon starting LOU2 was to call her friend and cry. "Not only have Naughty Dog joined the ranks of Ubisoft and The Coalition in leading the industry in advancing the inclusion of disabled gamers in their design process, but they have set a new standard for all games to strive for." She concludes by rating the game a 10/10.

 ii.   Being acknowledged by mainstream media like CNN and BBC, in an article 2020, it was stated "The Last of Us 2 looks like a slam dunk for Sony", where they commend the gaming company for appealing to such a wide audience. Besides suggesting that it could be the most accessible game ever, the BBC quotes various insightful reviews and reactions from players worldwide. They also acknowledge Sony PlayStation and Naughty Dog's breakthroughs concerning accessibility and how this attention to detail has expanded the opportunity for players to play games they have never played before

iii.   Cory Schröder, a senior content marketing manager in her piece (Nov 2021) concludes her article "How Modern Brands Need to Prioritize Accessibility" by explaining how customer loyalty for a brand eventually, can be gained through adapting accessibility in "all meanings of the word".

 iv.   In a 2021 article from PlayStation Lifestyle, the lead system designer from Naughty Dog, Mathew Gallant, describes the potential for accessibility in gaming as being beyond just

options to ease gameplay. If the main experience of the game is a challenge, then accessibility should play to that as well.

v.   During an interview in Feb 2020, the Global Head of Inclusive Design and Accessibility at Wunderman Thompson, Christina Mallon, said "Inclusive design is more than a checklist" and elaborated on 2 key principles, 1. Recognizing exclusion and 2. Solve for one, Extend to Many. She concludes "design for disability, and your work will work for everyone. Accessibility must be a part of your design and creation process upfront — and not an afterthought."

vi. A review of a study done by Kyle O'Brienhighlights how the lack of accessibility becomes normalised. Despite having low standards that could impact brand sentiment, 40% of the general public perceives that brands have done a good job in catering to the disabled.

1.3. Objective

This study aims to assess if accessibility is something that certain brands/industries have already successfully addressed in their digital UX & UI. While accessibility is a norm that is app and website-specific, the study looks at whether this feature could potentially be brand-specific too.

1.4. Hypothesis

According to the information presented, the hypothesis is H_a - Alternative. Through examples, it will confirm how accessibility is the next brand consideration within the gaming industry.

2. METHODOLOGY

Through a qualitative research methodology, this study focuses on the accessibility features incorporated in the video game "The Last of Us -2". The methodology will include building and analysing a case study through user testing. Sample users try out certain accessibility features of the game, while their performance and experiences are assessed.

The detailed methodology and case study can be viewed at the following site: https://issuu.com/achala91/docs/achala_athreya_tdr2_methedology_a2_d13ecb9aac3428

2.1.   Case Study

For this research, the accessibility features for the game LOU2were tested out by 3 different users:

User 1 Jahan Nargolwala Age - 31 Profession: Brand Strategist	User 2 Achala Athreya(Myself) Age - 30 Profession: Student	User 3 Megha Bhaduri Age -28 Profession: Film Maker
A seasoned video gamer who has previously played LOU1 & 2 as well as other games offered by Naughty Dog and PlayStation. Is well versed with a dual-stick controller.	Prefers to play mobile and iPad games that leverage a touch screen as there is difficulty with PlayStation controllers. This is because of the dual-stick coordination with multiple buttons. Also has prior knowledge of the game and its accessibility features.	Is not an avid gamer and has not heard of this game or any of its features. This is their first time playing with a controller since 2015. Prefers physical card and board games over digital games.

The testing focuses on two of the accessibility features offered for visual aid in LOU2. One is the navigation during the player's journey and the second is interactive game play where the user learns how to play the guitar. Since the users are visually able, to test the accessibility features, they were blindfolded through each game play journey. The users at first were guided through the games menu where they learnt of the available custom options for sound, vibration and text-to-speech cues. Post this they were blindfolded before the start of each game play

Image 2.1.1 (L) User 1familiarizing with the audio glossary before playing. (R) User 2is attempting the guitar game play

Game play 1 – Navigating through the game

Through this feature, the users are navigating the movement of their journey only through sound and controller vibration guides. To be able to play with this feature, the accessibility settings were edited under the Text to Speech and Audio Cues menu to mainly have audio cues guiding the game. Users were made to listen to voice cues from the "Audio Cue Glossary" that associated certain sounds with specific buttons as well as game guides, like hitting a dead end or signalling them to interact with something. Once they had listened to the audio cues and felt the vibration modes, each user started the game from the first cinematic sequence of the game.

Image 2.1.2 (L&R) User 1 and User 3 during their journey navigation through the forest.

Game play 2 – Playing the Guitar

Post the third cinematic sequence in the game, there's an interaction point between the two protagonists Joel & Ellie. In this scene, Joel teaches Ellie how to play a few strings on the guitar. Here the user plays as Joel and follows the cues of the game.

Image 2.1.3 Toggle control operated through the left hand, and upward swipe operated on touchpad through the right hand

The cue leads the user to toggle the Left analogue stick (with their left hand) in a circular motion till they feel a vibration from one particular angle during the movement. Upon feeling the vibration, the user needs to hold the Left analogue stick at that angle while making an upwards stroke on the touchpad, in effect holding your cord through the toggle, and strumming the guitar by stroking up.

Image 2.1.3 Ellie playing the guitar. HUD graphics on-screen indicate cords through L1 while the voice to text option notifies the user to swipe on the touchpad to strum

3. ANALYSIS & INTERPRETATION

For the first game play, as the users were blindfolded for the first time, they took a little longer to familiarise themselves with the audio cues and vibration. Being a well-versed gamer, User 1was able to navigate through the accessibility options and understand the necessity of many of the features and what they implied to the game. The main difficulty he faced was identifying the audio cues during the game, but through the help of the "dead-end" cue and navigation cue, he was able to reach the third cinematic play of the game. (Which is almost 10 mins)? User 2 spent almost as much time as Jahan playing, but covered the lesser ground as she got stuck at certain points. She was able to pick up the pace after entering an open field where the sound cue and controller vibration helped navigate her to the character she is supposed to follow. Although User 3 wasn't able to hear the sound cues, she guided herself through the vibrations of the controller which he highly praised. Although the players didn't utilise all the available sound and audio cues available in this feature, through certain sound cues like "dead-end" and "interact with object" and the vibration cues they were able to get through the game play sequence.

All of the users enjoyed the second game play the most. For Achala and Megha, not only had they played the guitar through a controller for the first time but also did it blindfolded. The ability to interact with this game play was easier than the navigation one because the users had to rely mainly on the vibration cues. While Jahan was able to compose the entire tutorial as a song, the other 2 managed to get a grasp of the interaction technique before the game

play ended. Overall, the users found the experience quite thrilling and challenging being blindfolded. By the end of each game play experience, the users felt more resonance with the accessibility options and how it's designed to navigate a completely visually impaired user. Although they acknowledged not knowing how it would feel to a disabled user, they felt the diverse features offered here can adapt to customize fine details in a variety of user's experiences. User 3, who has Huntington's gene, is an involved member of the Indian and Global Huntington's community. Knowing that motor function impairments begin to occur at a certain stage of the disease, she was happy to know that games like this exist to be available to many users who develop motor function struggles through diseases like Parkinson's and Huntington's. She further quotes "If you look at it from the mental aspect, to have a motor disability occur after a certain time of your life and staying in that isolated state of mind does a lot of damage to mental health and motivation. Gaming in that sense is a great way to move away from that space and experience something just like everyone else."

4. CONCLUSION

Through this study, it is visibly noticeable how Naughty Dog and PlayStation both have surpassed the benchmark for inclusivity. Clear attention to detail is given both to their game play as well as their user experience, which is appreciated loudly by the gaming community and beyond. It can be said they are creating a potential mandate for all developers within their industry to cater to. Another key observation is the impact of voice and agency that's come through from the disability community in regards to making gaming a more inclusive place. The testing process revealed a lot of insights into the element of comfort. Additionally, blindfolding is provided as a potential user testing method for accessibility features amongst able players and designers who could be navigating accessibility. The test insights have highlighted the potential opportunity for accessibility in digital experiences and interfaces. The results of the study can be far more refined having user testers from one of the disabled communities that the game caters to. The insight provided by both one of the users and Josh Straub reflects on the aspect of "Escape" being the key component of any gaming experience for disabled players. Where accessibility acts as the sole driver for achieving this. Sony, PlayStation, and many other device-specific game developers have made breakthroughs in incorporating accessibility features into their physical devices like controllers and consoles for some time now. An observation that stood out was the responsibility Naughty Dog took here in terms of pushing the limits to assist in a more holistic experience with accessibility.

By engaging so specifically with every part of their game play with a micro-lens, the aspect of their refined experience is recognized by both able and disabled users through the game play. Being the first major game developer to have accessibility as a core part of their game development process, Naughty Dog has shown the potential for games and digital platforms as a whole to cater to a more diverse audience. Their core motto of the user being able to engage with the entire experience and thus achieving completion is a value that can and should be integrated into any product or service offered today. Similarly, by understanding the processes and fundamental approach of these big players like Sony & PlayStation towards providing accessibility, brands outside the realm of gaming can learn to improve and expand

their user experience and user interface for similar results. The same audience present here is relevant for brands outside the gaming industry as well. To do this more effectively, like Naughty Dog, brands need to directly engage and leverage the experiences of members from various disabled communities and have these members in essential strategic roles to ensure that the accessibility of their platform is both widespread and necessary. Accessibility has always been a long-standing concern for product and service providers, one which has been compounded in the current digital era. With the growing penetration of digital platforms and technologies across all demographics brands and organizations need to consider accessibility as part of their digital brand touch points. This need is both notably established and supported in this research through various inputs from members of the disabled community championing this cause. While 'The Last of Us 2' is by far the most evolved game with regards to accessibility, there is incredible scope for other game developers to adapt accordingly. Large titles such as 'God of War and Marvel's 'Spider-Man' have also received minor praise for their inclusion of certain accessibility features. And outside of the disabled, there is also a larger conversation among able-bodied gamers as well, who ask for accessibility features to simply make the gaming experience easier and therefore more approachable for a larger audience.

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