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Do Not Play With My Emotions. Design for Emotional Accessibility.

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Emotional accessibility is a concept that is in development both in industry and academia. To make accessible an experience means tailoring the experience based on the skills level of the players and therefore to their needs. Therefore we contribute in this paper with a i) revised understanding of emotional challenge based on high arousal and low valence emotions, ii) presenting which skills play a role in emotional processing, iii) revising the current tools to create emotional accessibility and how we can design for emotional accessibility.

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1 INTRODUCTION

We often believe that emotional moments in games are often related to intensity: the surprise of a plot twist [27], the connection and death of a beloved character [8], or even taking difficult decisions [28]. Players are often exposed to moderate emotions [27], while intense or challenging emotional experiences [11, 16] are presented in extraordinary situations, Although difficult, intense experiences can be pleasant [8] and even give a high sense of appreciation described as eudaimonia [13, 15]. However, there is still uncertainty on how this experience is formed [12] as not all challenging emotional experiences are appreciated. Some can create "emotional roadblocks" [23] to the extent that the player is so overwhelmed that they have to leave the game [9, 20]. However, there are some limitations of our current understanding of emotions. Firstly, we often confuse emotions with emotional. Although we experience an emotional impact more commonly for certain emotions, such as for "negative" feelings [8] or mixed-affect experiences [14] a wider range of emotions can be experienced, including somatic emotions such as adrenaline, frustration, tension. Secondly, focus on the narrow sense of emotional challenge has diverted attention from emotional accessibility. Industry has begun to recognize the destructive impact that unfiltered emotional content may have on neuro-divergent players [4] and players with mental health needs [2, 17]. Although mental health solutions are currently the most explored, commercial games often protect the player by avoiding or modifying the experience. However, create games that protect well-being while navigating through intense experiences should not be a prerogative of mental health, but a possibility for all players based on their level of sensitivity. To better understand the substantial difference between accessibility for mental health and well-being one of the authors, FF, will offer here my perspective as player.

For 30 years of my life I thought I did not like horror games. Until when mentioning Cooking Companions [26] to a colleague, a visual novel psychological horror game, we realized that it is not that *I do not like* playing horror games, is

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1

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2 Foffano and Cairns.

that I do not play them because I am unsure if I can handle them. I often feel overwhelmed by sudden movements or sounds, like jump scares. On the contrary, I cope well with unpleasant contents, such as gore or with uncomfortable feelings. So when facing the opening warning screen of an horror game, no matter how in detail the description is, my only options as a player are only two: either to take the risk of being triggered or do not play at all. This lead me to avoid horror games as I believed they were not meant for me. I did not want to avoid being scared but I was always concerned to be overwhelmed by the intensity. In most horror games jump scares often appear while doing a task, such as find an escape, collecting information, or fighting. I do not have enough cognitive resources to play the game and be scared. So traditional horror games often get me so overwhelmed to become unplayable, or in other words, inaccessible to me. Instead, in narrative games jump scares are often presented as animations, to which I can give my undivided attention, or in scene transition in which I can re-process my emotions before moving to the next screen. In short, narrative games showed more accessible features for me to enjoy the same content according to my needs. The reason it took me so long to realise this was an accessibility problem is because as researchers we often believe difficulties are based on the subjective nature of emotions. This is understandable since emotions are built through appraisal [5] and therefore they are not predefined concepts in us but created by society and our personal experiences. However, emotions are generated in first place by near universal affective states that are consciously perceived before we label them as emotion [7]. So what if emotional accessibility was an overstimulation of affective states, and instead of excluding the player from it, we offer them ways to process them better? In this paper we challenge the community to adopt a new perspective on how emotions are experienced by players to increase awareness of individual sensibility and suggest design options.

2 EMOTIONAL ACCESSIBILITY

Like any other form of accessibility, emotional accessibility aims to ensure that all players can access the emotional content according to their own abilities, preventing disengagement and harm [10]. For neuro divergent players this typically means avoiding surprises [4], while for players with mental health avoiding triggering contents [2, 17]. However, even when players do not fall into these specific categories, they might struggle to deal with the intensity of the experiences. Players can feel "overwhelmed by emotions" while playing, so much that they need to "have a pause now and then" [9]. Reasons for this include the inability to deal with anger [9], struggle to choose between difficult options [9] unexpected torture scenes, surprised attacks [20], or when a character might suffer as a consequence of the player actions [9, 20]. In commercial games, the most common solution is to "moderate" emotions [4]. This solution is often implemented as *change*, *skip*, or *warn* about the emotional content. This imply the possibility of deactivating gore options [1], improving mental health and violence representation [2], or offering a more precise warning system and informed consent to the player [17]. These tools, while useful for players who want to avoid triggering content, it does not create an inclusive experience. How then might this be achieved? This hinges on how people form emotions.

3 HOW WE EXPERIENCES EMOTIONS

While emotions are recognized as an important part of the game play experience [22], there is little discussion about emotional skills, quite possibly because researchers have supported the idea that skills do not apply in emotions [16][11] or only on the reflection of the experience [9]. Psychology, however, offers a way to introduce emotional skills. According to the Circumplex Model of Emotion [25], we experience affective stated based on two dimensions arousal and valence. Arousal is the level of physiological activation, while valence differentiate an emotion from being pleasurable to unpleasurable. Only in a second stage, through appraisal [5], will we give an affective state a name Manuscript submitted to ACM

that will construct the emotions based on our social conceptualisation of it. According to this model, there are two conditions in which the player might feel challenged emotionally. When arousal is high, as managing adrenaline while being able to steer a car in Horizon Forza 4 [19]. And when the valence is low, as in That Dragon, Cancer [18] feeling the grief empathizes for the entire game with the story of a child dying of cancer. The reason why we like this challenge is because we want to feel competent, and sometime this is create by feelings suggested by the narrative [24]. What Cole et al. [11] define as emotional exploration might be the need to develop emotional granularity [5] which help in feeling competent in predicting ours and others affective states. By exposing our self to new emotional experiences, we argue that what we are doing is training two set of skills. Emotional response regulation, that allows us to contain arousal response to be able to perform other actions, and *Emotional acceptance*, that help us to be exposed to an uncomfortable emotional state. The reason why some emotions can become overwhelming instead of simply challenging rely on the fact that our brain was not created for think or feel emotions Barrett [6] but rather to regulate and control the body in order to survive. It does it by body budgeting the energies at our disposal, including the energy available for emotional responses. We can use amount of energy for depending if we need immediate pleasure (hedonic experiences) or to staying in uncomfortable states to develop precious lessons or emotional skills (eudaimonic). Emotional challenge is investing resources in being emotionally activated with the expectation this will eventually payed back. So, how does this apply to games?

4 WHAT MAKE GAMES INACCESSIBLE

Coming back to my, FF, experience with horror games, it is clear that was the intensity of the emotion was more than I could regulate. But even manageable emotions can be overwhelming if extended for too long because of the drain on the body budget. When I tried to play Bioshiock [3], hearing the constant screams of the monster before they were able to reach me caused a constant state of alert that I was unable to concentrate enough to play the game. Overwhelmed players, either by intensity or or extent of emotions, would then use techniques such as distancing themselves from the game in order to process their emotions, as suggested by Gowler and Iacovides [20]. However, emotional processing tools could be integrated in games without the need to "moderate" these emotions. As we have only one brain, so we use the same resources for processing emotions and taking cognitive decision [6]. Creating game with limited cognitive demand, as might using simple mechanics to emotional content as found by Cole et al. [11] might help the player avoid being overwhelmed. Alternatively agreeing on the game expectations can help us prepare to react to certain stimuli. We do expect a jump scare in horror, so our activation cost is less than if we are exposed to an unexpected disturbing described by Gowler and Iacovides [20]. Lastly, we spend resource with the expectation of payback in terms of learning or gratification for spending emotional energies. To offer a metaphor, emotions are like losing progress in games. We are happy to lose our investment in the games, if there is a valid reason, otherwise it feel like all our energy was for nothing. This happen for example games that either force us to take a decision or present different decisions but both situations have negative outcome and create a ludo-narrative dissonance [21]. In short, emotions are just another resource in a game. We consume our energy with the intention to progress and develop our skills, and if a game is not tailor for our skills, it become inaccessible. In conclusion, this paper presents a new perspective on emotions, emotional challenge and emotional skills. We demonstrated how emotional challenge has so far being misunderstood as often studied considering unpleasant emotions, and discarding the challenge involved in an emotionally activating experience. We pointed out how unregulated and unfiltered emotional experiences can lead to inaccessibility, and how it is important to consider more inclusive design options for all players.

4 Foffano and Cairns.

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