

Article

Potential Social and Economic Repercussions of The Transhumanist Revolution

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Abstract: Our project consists of a visual novel game called Not Today, centered around the topic of transhumanism and its possible repercussions in our society.

Transhumanism is a cultural and intellectual movement that advocates the creation of mechanisms to enhance various parameters of human life and revolutionise the notion of what it means to be human. It presents very attractive solutions, a long and promising future for mankind, and the potential achievement of the dream of eternal life. However, from a social and ethical point of view, we encounter many obstacles to the soundness of the proposed solutions.

Through our project, we managed to create an interactive experience that aims to expose a utopian scenario in which our society was divided into two distinct factions: the transhumans (the rich and powerful) and the humans (the lowlifes). This split in society occurred with the arrival of the transhumanist revolution, which widened the already existing social inequalities.

Not Today takes the player on a journey into this new society, through the eyes of a member of the poor class that decides to rebel against the system. During his cross-country journey to seek freedom, the player will learn more about transhumanism and its possible harmful effects and will go through various challenges, gradually getting to know this society in depth.

The ultimate goal is above all to surprise the players and take them through an immersive experience to get to know the darker side of this movement, to foster debate on the subject and generate more sensitivity to the issue.

Keywords: Transhumanism, Futurism, Video Game, Inequality

1 - INTRODUCTION

The present paper aims to explain the creation process of a video game on Transhumanism and its possible perils for our society.

Transhumanism is an intellectual movement that addresses the way to think about the future and the premise that the human species in its present form does not represent the end of our development, but rather an early stage.

From an ethical perspective, several criticisms are offered to transhumanism: it could promote a certain dehumanisation and genetic homogeneity of the population, and could even fuel discrimination and disrespect for difference. There is also a great danger that these transformations will be possible for only a small stratum of society, the

most powerful and well-off, and that the human species may split into two or more sub-species due to this inequality.

Through a visual novel game, the player is transported to a dystopian future in which the human species has been splitted into two, due to the social inequalities brought about by the transhumanist developments. The purpose of this project was to create an interactive experience that encourages discussion on the topic of the potential effects of Transhumanism.

2 - RESEARCH

Before beginning to develop the game, it was imperative that some in-depth research on the topic of transhumanism

nism was carried out. Of all the issues at hand regarding possible effects of transhumanism in our society, one ended up standing out, for it appeared to be the most pertinent and worrying: the social and economic repercussions that transhumanist developments may have upon society. Transhumanists believe that in the not-so-distant future we will be able to transcend ourselves, becoming far more capable than contemporary human beings. This post-human future will be possible with the development and widespread availability of technologies to eliminate ageing and greatly enhance the intellectual, physical and psychological development of humans.

This movement aspires to revolutionise human life as we know it, whilst valuing the human being and all its characteristics, thus it can be considered a sequel to Humanism. Yet a humanism based on a new paradigm: no longer should we limit ourselves to our current characteristics but rather take advantage of the scientific and technological means we have at our disposal to improve ourselves. It is also important to acknowledge that for the advocates of this movement, all people ought to have equal access to the advances of the posthuman age, for only then would the transhumanist purpose be truly fulfilled. However, this idyllic scenario is highly unlikely to occur, and the risks of the transhumanist advances amplifying the already severe social and economic gap are considerable. It is very likely that such improvements will only be accessible to a small group of people: the wealthy. In this scenario we would have an already advantaged group becoming even more privileged and increasingly isolated from the rest of the population.

These advantages for the wealthiest population could reach such a stage, that a split of the human species into two or more subspecies would ensue. Even if this scenario were not to come true and the prices of these modifications were eventually to decrease substantially, the better-off population would always have an advantage over the poorer one, for everything would be accessible to them much sooner. There are also other relevant issues, such as the risk of promoting a certain dehumanisation and genetic homogeneity of the population, eliminating diversity through mandatory transhumanist transformations, as well as unintentionally forcing people to follow the post-human path, even if they don't want to, just to remain competitive in the job market or at an academic

level. Although these are all relevant issues, in the end it was considered that the idea that there could be a split in society would be the most interesting to work with and perhaps the most likely to actually become a reality in the future. With each passing day we see society becoming more polarised, partly due to technological advances that have allowed us access to social networks and forums, where it is possible to share ideas and ideals, however dangerous they may be. Therefore, it did not seem at all unrealistic to envisage a scenario where technology ended up separating us in such a manner that two distinct species emerged.

Despite all these obstacles, it would be a mistake to attempt to prevent transhumanist developments from taking place. To overcome the inequalities and imbalances that may be associated with the implementation of transhumanist measures, there is an urgent need to accompany them with awareness-raising campaigns and public debates. Further investigation and research are also needed, as well as a certain epistemic hesitation. It was therefore decided to create a game that would stimulate the players' interest in the topic and provoke them into questioning themselves about the possible perils of transhumanism and above all, take part in this debate.

3 - METHODOLOGIES

When the idea of making a game surfaced, an in-depth research was in order. The term gamification, which stands for the application of game-design elements and game principles in non-game contexts, used to enhance systems and services in order to motivate and engage users came up a lot during the research. Although this concept is fundamental to user interaction, it was then concluded that it didn't quite fit the initial concept. Consequently, the research shifted towards interactive storytelling, a concept that allowed to combine a game and a narrative deeply rooted in a transhumanist future. When it comes to writing a game, the main elements to be considered are the interactive game spaces, and the player-character dynamic, in a way that the player and the main character are one. The player needs to feel immersed in the game atmosphere and be in control of the character's actions and choices. The game also needs to be written not only considering the plot but the gameplay element as well. In the first phase of developing a game, the major storyline

needs to be outlined. Whether there are several different possibilities for an ending, or the narrative is linear and allows no alternate endings, the major storyline acts as the base of the project. When regarding narrative writing, it's pivotal to mention the monomyth template, also known as the hero's journey. This tripartite story template studied in the 19th century and popularized by Joseph Campbell in the 20th century, consists of a story pattern that involves a hero who goes on an adventure, is victorious in a decisive crisis, and comes home changed or transformed. Campbell describes a pattern of 12 to 17 stages in a monomyth, organized in 3 acts, but points out that not all monomyths necessarily contain all the stages explicitly. The first act of the narrative consists of the departure, where the character receives a call to action, is reluctant to follow it but is aided by a mentor figure. The second act is the initiation section, the character traverses the threshold to a different scenario, faces tasks or difficult quests and is either alone or assisted. Here, the character faces and overcomes its biggest obstacle, gaining a reward. Lastly, the return act consists of the character's return to the ordinary world, transformed by adventure and wisdom.

After the general storyline is written, the game type is decided. Ranging from action-adventure, role-playing, first-person shooter to puzzle games, hybrids may float between these core types. In this phase, it was decided that a visual novel game would convey the transhumanist revolution narrative best, whilst grabbing the player's attention with several interactions and choices throughout the quest.

Developing the world is the next most important thing, because the player will be seeing it at all times. Fleshing out the world, its culture and history will actively contribute to how players experience character development. Only then, the main characters are created, bearing in mind that these will interact with the player from a first-person mindset, and that they will be simple figurines until you introduce possibilities to the narrative that can change how they behave. For this particular game, it was decided to go for a more poor and abandoned environment, depicted with a dark and cold color palette, aimed to immerse the player in the main character's mind and convey his thoughts of revolution, where the poor lived a gloomy, dark life in an utopian transhumanist future.

After the world and the characters are developed, the major story needs to be written. Focusing on canon cutscenes that have minimal interactivity is a great basis to ground the story and point out where it needs more interaction. For this, a story flowchart is made to establish all the storylines, choices, secondary paths and key elements to the plot. After the flowchart is done, as well as all the cutscenes written, the rest of the interactivity needs to be developed. Small quests, non-playable characters, mini-games and all the items your character interacts with, that guide them through the game. These key moments will be what draws your player deeper into the gameplay and captures their attention.

4 - UX

The project's UX stage focused on the elaboration of character journeys, creation of personas, a storyboard, wireframes, and user testing so the users' needs and habits would become clearer. After extensive research, it was time to create user personas. This is where a deeper analysis into the target audience's needs and motivations begins. For that reason, two user personas were developed. The first one, an eighteen-year-old experienced player who is really into single-player online games but doesn't have a lot of time available; as for the latter, a twenty-two-year-old occasional player who doesn't have that much experience in online gaming but is interested in getting to know more about futuristic-related topics.

At the same time, a mood board was conceived, gathering several visual references, color schemes, ambiences, and even characters. It allowed for synthesizing abstract concepts such as emotions, desires, and thoughts.

Soon after, the game's visual aspect began to gain life. Through the development of a storyboard, ideas and descriptions turned into more thoughtful and structured moments. It came as a result of a well-structured story flowchart that revealed every possible path and choice. At this stage, sketches and ideas for sceneries started being appointed for each event included in the narrative.

The development of character journeys followed. It was a way of highlighting the moments that would bring greater differences in terms of empathy and involvement between the player and the character. In accordance with the hero's journey premise, the narrative's most impactful

GONÇALO MARQUES Jogador experiente		
INFORMAÇÃO PESSOAL Idade: 18 anos Estado Civil: Solteiro Residência: Com colegas do quarto Localidade: Coimbra Emprego: Centro de licenciatura desempregado		
NÍVEL DE ESPECIALIZAÇÃO TECNOLÓGICA Internet: **** Jogos online: **** Conteúdo interativo: *** Manter mensagens: ****		PERSONALIDADE Adaptabilidade: *** Paciência: ** Curiosidade: ****
INFLUÊNCIAS E REFERÊNCIAS Amigos Facebook Videogames Youtube		APARELHOS E PLATAFORMAS 
OBJETIVOS UI Diversão Interativo Informativo Ração científica		SOFTWARE E APLICAÇÕES Redes Sociais Canais Games Mensagens Youtube
PONTOS POSITIVOS Grátis Curto Estético		PONTOS NEGATIVOS Multitasking Demorado Exige demasiada concentração
RELAÇÃO COM O TEMA E O PRODUTO - Descobre o conceito de transhumanismo. - F3 do jogo interligado, gosta de estar totalmente educado do dentro. face do jogo. O seu jogo ideal não exige um nível de conhecimento elevado. - Por causa da tecnologia, não tem muito tempo livre. Porém, se a consola fosse apenas a tecnologia do jogo, não teria o suficiente para jogar e desenvolver parte do seu tempo para experimentar um novo jogo.		

		RITA COSTA Jogadora Ocasional	
INFORMAÇÃO PESSOAL Idade: 22 anos Estado Civil: Solteira Residência: Casa dos pais Localidade: Bragança Emprego: Recém licenciada, desempregada			
NÍVEL DE ESPECIALIZAÇÃO TECNOLÓGICA Internet: **** Jogos online: *** Conteúdo interativo: *** Manter mensagens: ****		PERSONALIDADE Adaptabilidade: *** Paciência: **** Curiosidade: ****	
INFLUÊNCIAS E REFERÊNCIAS Pais Amigos Temáticas de conspiração Aplicações de compras online		APARELHOS E PLATAFORMAS 	
OBJETIVOS UI Simplicidade Preço Originalidade/Criatividade Entretenimento Aprendizagem		SOFTWARE E APLICAÇÕES Notícias Youtube Mensagens Aplicações de compras Redes Sociais	
PONTOS POSITIVOS Direto ao assunto Prático Grátis Interativo (UI e aprendizagem)		PONTOS NEGATIVOS Demasiado desafiante Demasiado texto Demasiado sério Aborrecido Complexo	
RELAÇÃO COM O TEMA E O PRODUTO - Já ouviu falar de transhumanismo, mas não sabe muito sobre o assunto. Porém, tem interesse em saber mais. - Tem bastante tempo livre, por isso tem mais paciência para explorar novos jogos e assuntos. - Joga online ocasionalmente. - Interessada por futurismo, alienígenas, espaço			

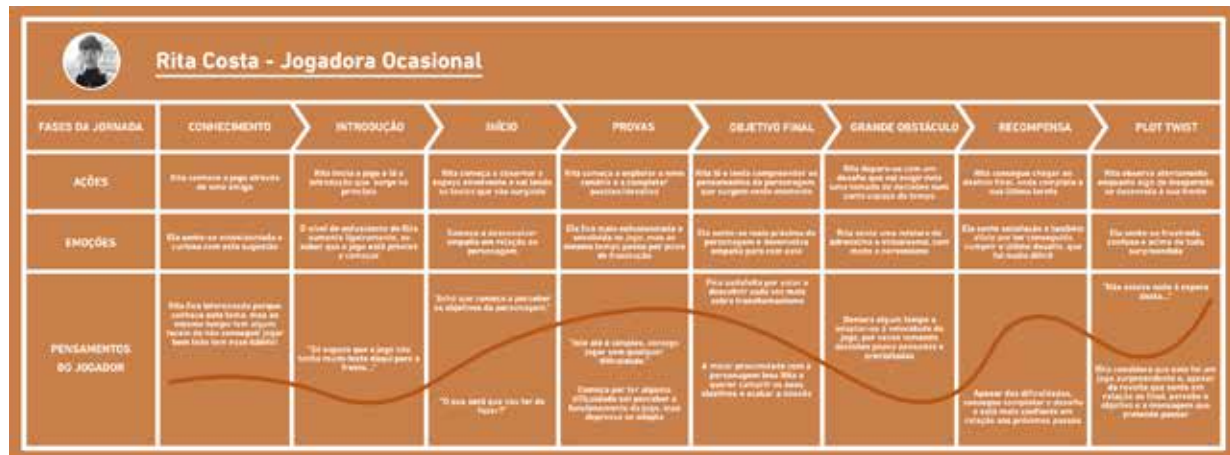
User personas developed for the game.

events were identified and analysed. These are the moments characterized as the ones behind a greater shift in mood or reactions when engaging with the game. That is, instances of greater frustration or excitement as the narrative progresses and reveals a deeper analysis of the audience's engagement with the game.

One of the final steps was conceiving the wireframes. They served as a way of defining and planning the game's information hierarchy and helped visualize all the possible routes a user could take when interacting with our product. Without the distraction of colors, typeface choices

or text, wireframing allowed for the development of a two-dimensional outline of screen layouts and basic interaction moments.

Lastly, it became essential to run tests on real users as a way of highlighting any design flaws that could have occurred up until that moment. Several rounds of user testing took place before the design was fully complete. The first stage of user testing gathered some insights into the users' needs and habits. The results revealed that most of the people interested in transhumanism were aged from 18 to 23 years old. The majority of them weren't vastly ac-



A prospect player's character journey.

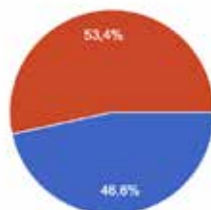
customised with the topic but were eager to know more. It is also inferred that most of the audience prefers computer or phone games and was overall open to trying a new game based on transhumanism. Therefore, embedded in the storyline, facts about transhumanism and how it could impact the future were added. This was also a way of introducing the possible danger and repercussions caused by this movement.

In the second stage of user testing, the main focus was figuring out how people interacted with the game. It was important to perceive how the users followed the storyline, and if they found it too long or confusing. It was also crucial to understand if the game had enough and diverse

interactivity, so suggestions on what to add were gathered, in order to make it as immersive as it could be. Some users argued that there weren't distinct or enough interaction moments. Others affirmed that the game would hold more momentum with the aid of small animations or even music. The answers were truly helpful and substantially improved the game. Due to the limitations of Adobe XD, only a few animations were integrated, such as the characters' expressions, plenty of easter eggs (hidden interactions inside the scenery) and ambient sounds.

Já tinha ouvido falar sobre Transhumanismo?

73 respostas



● Sim
● Não

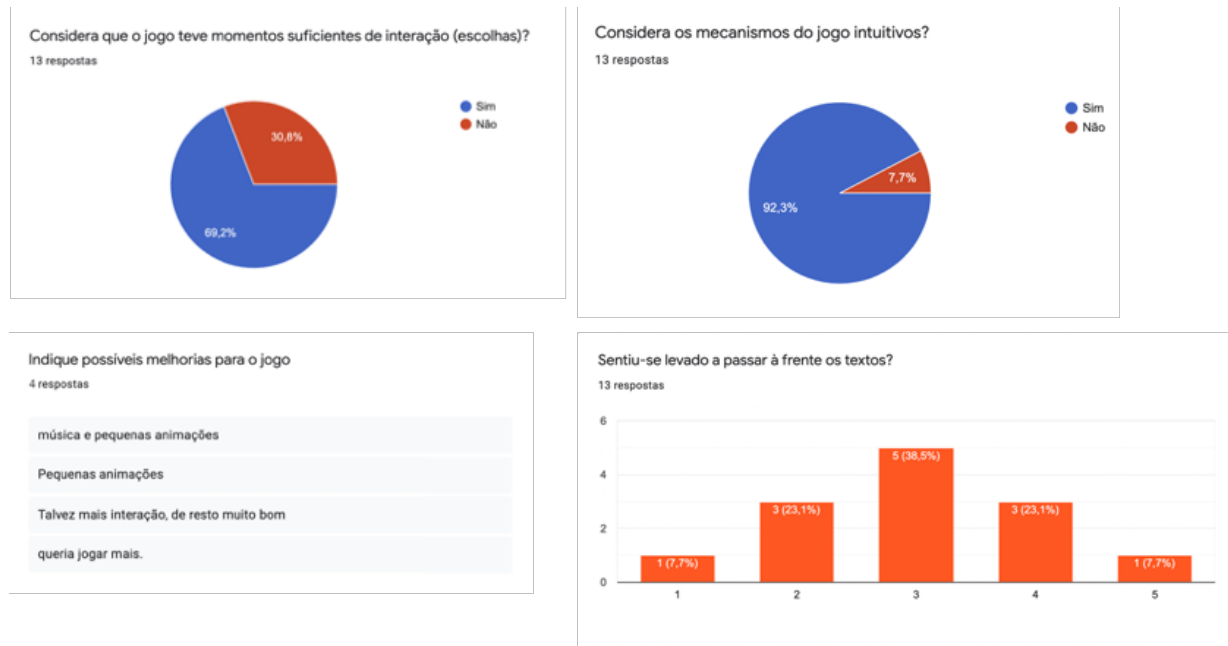
Se respondeu não, teria curiosidade em descobrir o que é?

39 respostas



● Sim
● Não
● Talvez

Results taken from two questions from the first stage of user testing.



Results taken from four questions from the second stage of user testing before the final product.

5 - UI

The game's UI design allows the player to easily navigate throughout the story, due to the simplicity of its components. The information is arranged across the screen in such a manner that it leaves little room for confusion when it comes down to playability.

When looking at the main screen, the game's title is viewed as the most prominent component, calling to the player's attention and redirecting them to the immediately below "Start Game" button. The subtle background introduces the desired atmosphere, presenting the dissimilarity between the luxurious city abundant in high-rise buildings, and the deteriorated, dim side of town where the narrative takes place.

The game's main screen when hovering over the "Start Game" button.



Throughout the game, solely one font is used – PixelarRegularW01. Pixelated and minimalist but perfectly readable, it brings to mind 80's to 90's arcade games. Despite its narrative pointing towards a dystopian future, we portrayed "Not Today" as a retro game, as is noticeable throu-

gh the font choice and game aesthetic. Working towards a coherent visual aspect for the game, the scenery, characters and icon buttons are too, pixelized. The color use is limited to only a few shades of green and blue, setting a futuristic and melancholic tone.



In-game moment.

Across the various screens, the user will be presented with a large, central scenery illustration that allows for a full immersion into the game. Right underneath, the user will encounter a space where dialogues, descriptions and sounds will be inscribed. Delimited by a white rectangle, it serves as a "Next" button that the player should click when they desire to proceed with the story. Despite that, in several instances, the player will not be able to skip ahead by simply clicking this area. They will be expected to fulfill a series of challenges that will require much more than simply pressing ahead. The player mustn't lack curiosity, perspicacity and quick-thinking skills to come into contact with each one of the game's features. They will sometimes be required to press the screen to closely analyze specific objects, to click parts of a given scenery in an attempt to uncover hidden functionalities, or to engage with buttons

in order to uncover a certain pattern. On the upper-right corner, the player will encounter three buttons that are disengaged from the game's events and storyline. Enabled and disabled through one click, these buttons don't leave room for confusion. From left to right, each button allows the user to tinker with the settings, learn about the game's controls and return to the main screen.

6 - CONCLUSION

The video game "Not Today" creation process was divided into four distinct phases, in order to solidify the project and make the game development as functional as possible. The process began with a thorough theoretical research on the topic at hand, in order to deepen our knowledge of it, as well as to choose a sub-theme on which the project would focus. This process allowed a theme on an extre-

mely relevant topic for the contemporary world to be established: the potential effects that transhumanism could bring to our society, on a socio-economic level.

After the theoretical research, methodological research was needed. The research began with the study of gamification, but it was soon concluded that it was not exactly what the project required. A different strategy was then adopted, focusing on interactive storytelling and its multiple components.

Following this research, the UX design phase, which involved project planning and research focused on this game's potential users was then initiated. During this phase the following elements were created: personas, character journeys, a storyboard, wireframes, user research forms and a simplified prototype of what would be the final game. These elements allowed for an outline of the game's plot to be defined, as well as its structure and operation and to identify possible frustrations or flaws the players might encounter.

After the UX fase, the process reached the final stage which consisted of the production design, also referred to as UI design. In this stage the game was finalised with the application of all the information we had gathered from our user research and experimentation, as well as adding the final art, extra interactions and all the elements necessary in order to achieve the best possible game experience.

Through this whole process an interactive visual novel was created, exploring the theme of Transhumanism and its possible consequences for the future of our society.

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