

INSTRUCTIONS AND REFLECTIONS ON HOW TO PLAY WITH TIME: THE ILLUSTRATED STORY ABOUT *FUTUROSCOPIO*

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ABSTRACT

This contribution delves into the philosophy and design process behind *Futuroscopio*, a tabletop roleplay game aimed at recovering the players' agency to transform their present. The article charts the multiple prototypes and insights gained along its iterative development across manifold scenarios. Upon assessment, *Futuroscopio* emerged as a tool fostering exploration, collaboration, and dialogue, adept at addressing weighty subjects while maintaining players' engagement. Aligned with Farnè's Pedagogy of Play, this experience embodies the two fundamental states of education: a spontaneous immersion in natural chaos and a structured reflective process that leads players to learn what they need at their own pace. The conclusions point into an unexplored territory, where play is not limited to basic education, but entails an open attitude for discovery across multiple professional fields, therefore transversal to disciplinary thinking; where games act as provocations to imagine alternative scenarios and transform our present into better possible places.

Keywords: Game design; Game-based learning; Speculative futures; Play pedagogy.

Among other contemporary media, games are defined by the agency of the player to influence the course of events (Juul, 2001). While playing we learn about the consequences of our actions, and we are able to apply those learnings into real life scenarios. Moreover, within this magic circle of games (Huizinga, 1957), players may feel safe to explore beyond their comfort zone, to express and discover their surroundings along their own desired pace, exposing themselves to situations beyond their “normal life”, while avoiding the danger of risking too much (Vygotsky, 1976).

As representations of real-life situations, games lower the stakes by which players dare to take part in non-conventional situations, test alternative situations that otherwise would be too boring or too dangerous, and learn about the consequences of their actions by applying those learnings into real life scenarios (Piaget, 1962). Playful dynamics tend to be based on psychological resonance rather than on imposition or force, therefore maintaining positive attitudes that persist beyond the play time, providing an antidote to boredom (Homeyer and Morrison, 2008) and consequently “freeing the mind from the bonds of imitation” (Kandinsky 1947).

Opposed to the top-down managerial view on gamification that set players in competitive and rewarding systems that quantify their behavior aiming for optimization and rationalizing of working practices, Woodcock and Johnson (2017) describe bottom-up play as a rebellious attitude of resistance against the standardization of everyday life. Jodorowsky (2007) describes play as a stratagem with the power to unlock the door to the unconscious, breaking the illusion that we are ruled by logic, opening the possibility for players to imagine and build their own future, free and genuinely; correspondingly to what Gooding (1991, p. 10) describes in the context of surrealism as “the visual and verbal poetry of collective creativity”.

Within the fictional scenario of play, the same limits that enclose any game, expand the detail by which players imagine and confabulate into a journey of collective self-discovery, entailing our first experience of political education: as players are required to assume roles, follow rules, experiment power, transgress limits, manage conflicts and make decisions. In search for their creative freedom, players acknowledge themselves as actors in a collective struggle to build their own destiny, making their own local policy by which they forge common identities and develop a sense of belonging to a community (Farnè, 2005).

The non-compulsory character of games allows play enthusiasts to look at complex issues, across professional fields and disciplines, without the need to control everything, rather as an open attitude for exploration. From an experiential education perspective (Kolb, 1984), the coherent materialization of play into games, reflects a self-directed iterative process of active experimentation and reflective observation where players make their own knowledge, learning what they need, at their own pace, sustaining what Roberto Farnè (2005) coined as Pedagogy of Play.

To celebrate the 50th anniversary of the Industrial Design Research Center at Mexico's National University (CIDI UNAM), a group of teachers and students began to plan a series of events that would culminate in three days of conferences, roundtables and future workshops. Our intention was not to praise any glorious past, nor to emphasize how technology has wrecked our planet. On the contrary, we decided to honor our history by looking ahead to the next 50 years to come.

Early in the process, we discovered that prognosis is not common, as most people are unable to think about their future. It was through the work of Jake Dunagan, pioneer of experiential futures and social foresight, that we learned that what most people do, when asked about their future, is to recall what they previously saw in a movie or heard on the news. Even if these scenarios are against their own interests, once they assume those future scenarios as their own destiny, they will walk towards it unconsciously (Dunagan, 2015; 2018).

To address this challenge, we invited Dr. Karla Paniagua, an expert in future studies, to facilitate a workshop regarding the topic. She introduced us to the work of Candy and Watson, *The Thing From the Future* (2015), and helped us establish the premise of our proposal: before looking to the future, we must recognize our present. The reason behind this simple idea is that any trip needs a starting point and acknowledging the luggage we decide to carry during the trip will have a direct impact on our experience (Baena Paz, 2016).



Figure 1. First iteration of the didactic material used during the future workshops (2019). © Author.

The celebration of the 50 years anniversary of CIDI took place over a 3 day event, called *Miradas desde 2050* – meaning Gazes from 2050 –, that gathered over 750 participants, including students, alumni, teachers, friends and family from our academic community. The objective was to explore the future with respect to the universal categories of culture

(Herskovits, *et al.*, 2014; Torres Maya, 2020), to generate and plan new educational strategies in the training of industrial design students (de Paz, 2019).

Each day had a similar structure: a morning lecture (by a renowned professional non-designer invited to share their visions of the future), a round table with expert panelists discussing the most outstanding ideas and afternoon workshops, focused on visualizing the imaginary future of our community over a future oriented SWOT analysis that would take participant teams to the 4 future scenarios: Utopian, Dystopian, Tential and Plausible.

The premise of these workshops was to ensure that attendees managed to process and channel the information provided by speakers and experts panelists, through a recreational activity that would guide them to identify new trends and key terms. Our main objective was to promote that participants take ownership of the acquired knowledge by contributing with their own perspective on three main topics: 1st day – Research / Education / Learning; 2nd day – Work Environment / Professional Practice; and the 3rd day – Interfaces / Interactions / Relationships. The future workshops followed a systematic interaction consisting in the following activities:

1. Introduction of the participants / Topic of the day
2. Deconstruction of the present – SWOT analysis
3. Detaching from the present into the future – Prospective SWOT
4. Reconstruction of the future scenario – Sketch and narrative
5. Presenting the future scenario – Sketch and narrative
6. Sorting the scenario according to its degree of chance and desirability

All the information generated over the 3-days event and across 24 future workshops was saved and analyzed in an effort orchestrated by CIDI's Academic Research Coordination in collaboration with CIDI students and researchers from the Postgraduate School of Industrial Design at UNAM. Along this process, the gathered data was sorted through multiple analysis models: STEEPLE (looking at Social, Technological, Economic, Ethical, Politica, Local and Environmental factors); through Herskovits' parameters of culture: integrating physical, metaphysical and semiotical characteristics; by sorting them in futures cones. Based on these, new knowledge was built, discussed and distilled into further graphs, narratives, illustrations and recommendations for the future of industrial design education (CIDIUNAM Diseño Industrial, 2020).



Figure 2. Multiple future workshops running in parallel (2019). © Author.

3. EARLY RESULTS

De Paz (2023) identifies at the center of CIDI community a desire to inhabit a world free of stigmas, where peace reigns in solidarity and empathy is combined with critical thought, throughout open, creative, accessible, horizontal, and transdisciplinary relationships highlighting healthier environments, by acknowledging and responding to the emotional state of the student community; inviting the authorities to acknowledge changes in favor of a common and solidary future. The main results of the analysis was summarized by Miguel de Paz (2023) in four different scenario clusters:

- **Business as usual:** Tendential scenarios are perceived as the most probable. They reflect severe social and ecological issues, caused by deficient politics and highly developed technologies that keep the governments and populations captive and disconnect from nature. Individualism, economic inequality and social segregation contrasts with the hyperconnectivity generally fostered by digital technology.
- **Uncontrolled desolation:** Dystopian scenarios picture the worst possible events: authoritarian control, discrimination, repression, commercialization of the human body, loss of local traditions, depletion of natural resources... Alarmingly surprising, these are perceived as imminent threats, not only to humans but to every forms of life.
- **Interdisciplinary ethics:** Futurable scenarios are built upon collective education: local and accessible. Technology is used to fight misinformation and to foster self-directed learning and conscious consumption in harmony with nature. Education is connected to social welfare as it raises employment of skilled agents of change that counteract complex challenges such as climate change, justice and addiction to digital technology.
- **Collective activation:** Utopian futures make out favorable scenarios with a common interest to prevent people from negative habits: happiness, fairness, dialogue, freedom of speech and pacific conviviality inspire story

1 RIFADO stands for Responsabilidades, Ideales, Fortalezas, Amenazas, Debilidades and Orgullos.

tellers and designers to put together local narratives regarding ethical artifacts and circular economies that implement healthy lifestyles fine-tuned with nature.

4. NEXT ITERATIONS

With promising results and good feedback from the participants, the future workshops served as a starting point for a second iteration of the game model consisting in evolving the SWOT analysis. The opportunity happened thanks to the Arts & Design Biennial (UNAM, 2020) which convened interdisciplinary projects in development under the slogan “Ask for the impossible”, suggesting the replication of the future workshops experience in another context: the Arts & Science University Museum (MUCA), at UNAM’s Architecture Faculty.

Along with 9 other projects, our proposal was selected, offering us a new opportunity to expand its narrative, turning the didactic exercise into a more attractive and playful artifact with the agency to facilitate itself, so that random people were able to explore their future without need for external supervision. Together with a group of professors and students we developed a new version of the game to be played at the MUCA Museum.

Besides the enlargement of the size of the game to fit in the new context, we redesigned the interface and integrated an instruction manual so that any player would know how to operate the artifact without external supervision. Each set of the game consisted of one table and one hangar with all the pieces required to play: mainly CNC-cut pieces that fit each other to indicate their placement, some of them containing prefilled words and illustrations to simplify the initial interactions and one roulette to randomly choose one of the potential futures to explore. Additionally, an instructions manual, markers, printouts for players to write and draw, a table to expose and map the explored scenarios and stickers so that the narrative did not end within the museum but continue outside.

The previous SWOT analysis was modified and extended, into RIFADO analysis (for its initials in Spanish¹), changing some of the original categories and adding new ones, in such a way that the analysis of the present has a greater emphasis on the interpersonal aspects that determine the players’ present: shifting Opportunities to Responsibilities, and adding two new categories: Ideals and Prides.

By the end of 2019, the current name of the game was born: *Futuroscopio*. As any other journey, a futuroscopic exploration begins by recognizing where we are. As an invitation to make sense of the game, not only by reading the following article, but also by playing along, the readers are encouraged to do a RIFADO analysis to recognize their takeoff platform and begin their exploratory journey.

Table 1

RIFADO analysis with description of its 6 categories (readers ~ players are invited to fill in their information in the blank spaces to play ~ make sense of the game).

RESPONSIBILITIES	IDEALS	STRENGTHS
Obligation or care when doing or deciding something. These are a link between our internal (values) and our exterior (behavior); therefore, cannot be considered negative nor positive, as in the moment we assume them, they are simply our reality	Desire, aspiration or inclination of the will towards something or someone. Ideals may be personal or cultural, in any way, they are considered positive and necessary for a fulfilling life	Ability to endure and face adversity. Strengths are usually internal, positive and evident; if latent, they cannot be considered strengths, in any case, desires or ideals
THREATS	WEAKNESSES	PRIDES
Warning of a hazard, evil or danger in the context. These are usually negative and external. They may be latent or explicit, in any case, it is worth having them well identified so as not to give in to surprise	Lack of energy or character to face or solve something. Weaknesses tend to be internal and negative; therefore, by being aware of them we can prevent deterioration and avoid possible ruptures	Confidence or satisfaction that is experienced in relation to genuine achievements. Prides are related to dignity and shall be considered valuable, as long as they do not interfere with others' welfare

The second stage of the journey consists in choosing a portal to the future. Each portal will lead the players into different future scenarios, altering their current state by using the same information provided by the players: exalting, decreasing or permuting the elements on their RIFADO analysis.

By offering greater detail in the description of the present, the shift from the SWOT to the RIFADO analysis allowed for more diversity into the description of future scenarios, allowing for greater detail while exploring the Futuriverse. This shift required the redesign of the original 4 scenarios (Utopian, Dystopian, Tendential and Plausible) into portals that would direct players from their present into new scenarios. Table 2 describes six sets of rules to build different future scenarios based on the RIFADO analysis.

Table 2

Six portals to imagine local futures scenarios derived from a RIFADO analysis.

COMMITMENT	RENAISSANCE	APATHY
By assuming your THREATS as new RESPONSIBILITIES, the loss of your WEAKNESS made you feel PRIDE for the RESPONSIBILITIES you assumed.	Your previous THREATS, PRIDES and RESPONSIBILITIES have disappeared. In return, your IDEALS have become new STRENGTHS from which to build a new reality	The loss of your IDEALS turned your old RESPONSIBILITIES into your worst WEAKNESS. Your old STRENGTHS are now more RESPONSIBILITIES.
ENTHUSIASM	SELFISHNESS	UTOPIA
By assuming your WEAKNESSES as new RESPONSIBILITIES, you managed to convert your IDEALS into more STRENGTHS. Your old THREATS are now gone.	Vanity converted your old STRENGTHS to pure PRIDE. As a consequence, you lost your IDEALS and became unable to assume your RESPONSIBILITIES, which ended up acting as new THREATS.	The loss of your THREATS was reflected in the IDEALIZATION of your STRENGTHS and, therefore, you feel PRIDE in the RESPONSIBILITIES you have assumed.

The evolution of the game mechanics included a Futuroscopic Map where participants could visualize the explored scenario based on a phenomenological approach that invited the crew to describe their prospective experience through their feelings and perceptions, rather than as a logical explanation of their future. Once they could define the date of the explored scenario, players were able to locate the size of the time travel and the distance from their present, therefore could begin their way back home.

Nowadays, we use a backcasting analysis to identify key happenings and cornerstones that had to exist in order to arrive at each explored scenario. These are placed in cards over the timeline that connects their present with each future. This feature was only integrated in 2020. During the Biennale, the game would conclude when players found a key that they could take home. This key pointed to one first step, either to avoid unpleasant futures or to assure desirable scenarios. This key would also allow them to store their experience on our Futures Library: a long table where they could rate their future scenario from desirable to undesirable.



Figure 3. A crew of players analyzing their present before their Futuroscopic Journey (2019). © Author.

The Biennale's exhibition opened in February 2019, contemplating three sets of the *Futuroscopio*. For a couple of months, the game was played over a dozen times without major complications, taking groups from 4 to 8 players on their journey. During this time, we realized that the players' experience tended to be smoother when there was no intervention from the game designers, but players themselves were able to direct their own way into their future... Until the Covid19 Pandemic forced everything to close.

Given the situation, a new stage was necessary to keep the futuroscopic exploration available, without the risk of contagion. Figure 5 visualizes this version: mounted in Miro.com, a virtual collaborative whiteboard to visualize the shared information, in coordination with Zoom.

us to exchange audio and video in real time. Due to the nature of this version, the experience brought back the need for external facilitation. At the same time, the use of a virtual space improved our capacity to save and share the results of each expedition.

With the ending of the Biennale, a paper version of *Futuroscopio* was published in the Biennale catalog. This version contributed to the portability of the game, shifting the focus of the narrative from the group dynamics to an individual interlocutor. Besides the Biennale catalog, this version was printed in different scales and materials, looking for a balance between its portability, attractiveness, and ease to read and write over it. One of these versions, printed in lenticular film, was later selected as finalist, and exhibited at two design awards: Abierto Mexicano de Diseño (AMD) and Premio Diseña México (PDM) (Figures 4 and 6).



Figure 4 (top left). *Futuroscopio* at Abierto Mexicano de Diseño (AMD), (MUNAL, 2020). © Author; Figure 5 (top right). Board with eight parallel Futuroscopio explorations online (Miro, 2020). © Author; Figure 6 (bottom left). *Futuroscopio* in lenticular film (CDMX, 2020). © Author; Figure 7 (bottom right). A portable paper version of *Futuroscopio* (Coimbra, 2022). © Author.

Towards the end of April 2020, the Digital Culture Center (CCD) of the Ministry of Culture of Mexico City launched a call for the development of role-playing games. This opportunity required adapting the *Futuroscopio*'s instructions manual by integrating the development of fictional characters and a role-playing system based on dice that substituted the roulette. The game was successfully selected and published as Ministr3s del Pluriverso (Alatorre Guzmán, *et al*, 2020).

Unconvinced by the triangular spaces for the RIFADO analysis in the lenticular version (Figure 6), a new stage began. The redesign of these triangles windows to squares, allowed the inclusion of a circle in the middle, where participants would introduce themselves (Figures 5 and 7). This change required rethinking the graphical algorithm behind the portals to the future, suggesting the addition of new future portals: Commitment, Selfishness and Reparation, for a total of 9 portals. Currently available as a Print & Play version, instead of a roulette to determine the portal to the future, this version comes with a deck of cards to set the journey’s direction.

With the narrative completed, we felt ready to approach Malmö University’s Games Research and Education Laboratory, intending to build a mobile version of *Futuroscopio*. It was computer science student Joanna Gladh, supervised by Dr. Jose Font, who programmed a digital application to explore the Futuriverse online. This version can be downloaded for play testing from the links section at its Instagram profile (Futuros del Pluriverso, n.d.).

Her main contribution was the development of a fully functional prototype that integrates the instructions to operate the *Futuroscopio* within the game interface, without the need of external facilitation nor an instructions booklet. Her research identifies that the interactions through a digital interface may dilute the depth and richness of the deliberation that happens when the game is played face-to-face (Gladh, 2023).

In the case that you, the reader, would like to read the whole story and make your own future exploration, you can do a RIFADO analysis by writing each category and describing its main factors in a piece of paper and choosing one of the portals at Table 2. In the case that you are interested to read the whole story, you can find the latest versions of *Futuroscopio* within its Instagram profile (Futuros del Pluriverso, n.d.). Playing *Futuroscopio* may offer another way to make sense of this article, beyond the case study, it might present the players their own assessment and recognition of their potential times to come.

Table 3
Iterative development process of *Futuroscopio*.

ITERACTION NARRATIVE	1. Dr. Karla Paniagua	2. Gazes into the future	3. MUCA Museum	4. Lenticular	5. Rolegame	6. Miro	7. Print & Play	8. Unity
Sponsored by	CIDI ²	CIDI	UNAM 2nd A+D Biennale ³	PDM + AMD ⁴	CCD ⁵	CIDI	FCT + CEIS20 ⁶	MAU Gamelab ⁷
General setup	Workshop	Didactic material	Tabletop game + Side tables	Lenticular print	PDF	Online whiteboard	Booklet	Mobile app
Introduction	Future studies	Design Education	Ministry of the Pluriverse					Tutorial
Present decoding	SWOT analysis		RIFADO analysis					
Detachment of the present	4 scenarios (tendencies)	4 scenarios (themes)	6 scenarios (roulette: chosen or by luck)				9 scenarios (cards: chosen or by luck)	
Future recoding	Open	Narrative drawing	Emotional continuum	Futuroscopic Map (Phenomenological approach)				Event cards
Return home	Possible VS. Impossible	Storytelling	Finding a key to take away		Roleplay	Backcasting		

2 Centro de Investigaciones de Diseño Industrial (UNAM).

3 Second Arts & Design Biennale (UNAM)

4 Premio Diseña México & Abierto Mexicano de Diseño

5 Centro de Cultura Digital (CDMX)

6 Fundação para a Ciência e a Tecnologia & Centro de Estudos Interdisciplinares (Universidade de Coimbra)

7 Games Research and Education Laboratory (Malmö University)

In-game reflection	How to replicate?	Desirability	Take learnings home	Desirability VS. Feasibility		Find a key		Prototype
Target player	Professors + Researchers at CIDI	CIDI extended community	UNAM community	Museum exhibition	Role players	Design students	Entrepreneurs	Students

5. ASSESSMENT OF FUTUROSCOPIO

While playing with the *Futuroscopio*, it's possible to witness firsthand a simple, yet compelling, dynamic to get to know others by freely sharing ideas (team bonding), boarding relevant topics from different perspectives (lateral thinking), formulating new hypothetical future scenarios (abductive thinking), and reflecting upon the implications of the ideas shared along the process (critical thinking). However, it was until mid 2022 that the first rigorous study to evaluate the degree by which *Futuroscopio* supports players' creativity took place.

The evaluation involved the hybrid application of the game, with a group of 32 students registered at the Design Transition course facilitated by professors Dr. Licinio Roque and Dr. Nuno Coelho, at the Multimedia Design bachelor at Coimbra University. The students were divided in 6 teams and had been working on their subject for a couple of months already: Ecological regeneration, Cultural identity, Technological vices, Sustainability, The new post-pandemic normal, and Gender imbalance in tech.

The session lasted close to two hours: most of the students were on site, half of them on their laptops and only a couple connected from their homes. The online board was projected on the wall and the link was shared with the students so that they could access it directly. The board had one copy of *Futuroscopio* for each group to work on. As suggested by Dr. Roque, by the end of the class the students answered a Creativity Support Index (CSI) questionnaire (Cherry & Latulipe, 2014; Craveirinha & Roque, 2016) encompassing 12 questions to be scored from 1 to 10 across 6 categories: collaboration, enjoyment, exploration, expressiveness, immersion and results worth effort. Additionally, the students answered two open questions to evaluate the most positive and negative aspects of *Futuroscopio*. The average score of each category and the questions asked are represented in Table 4.

6. RESULTS

After 3 years of work and multiple iterations, the development process of *Futuroscopio* reflects the two fundamental states at the basis of education: on the one side, the heuristic, sensitive and spontaneous immersion into the chaos of the natural world and on the other side, an intentional and structured reflective assimilation process that leads players to learn what they need at their own pace (Farnè, 2005). In between these two states, each version acts as evidence of a journey to recover ownership over our present, by recognizing the time we play as an opportunity to get to know each other, to weave differences and complementarities together.

Table 4

Quantitative results of the evaluation of *Futuroscopio* (Universidade de Coimbra, 2022).

QUESTION	CATEGORY	AVERAGE
	1. Collaboration	8.2
1.1. The system or tool offered support for multiple users.		8.4
1.2. It was really easy to share ideas and designs with other people inside this system or tool		7.9
	2. Enjoyment	7.6
2.1. I would be happy to use this system or tool on a regular basis.		7.2
2.2. I enjoyed using the system or tool.		8.0
	3. Exploration	7.8
3.1. It was easy for me to explore many different ideas, options, designs, or outcomes.		7.3
3.2. The system was helpful in allowing me to track different ideas, outcomes, or possibilities		8.3
	4. Expressiveness	7.3
4.1. I felt very artistic while using this system or tool.		6.9
4.2. I was able to be very creative while doing the activity.		7.7
	5. Immersion	7.0
5.1. My attention was totally attuned to the activity and I forgot about the system or tool I was using.		7.2
5.2. I became so absorbed in the activity that I forgot about the system or tool that I was using.		6.8
	6. Results Worth Effort	7.8
6.1. I was satisfied with what I got out of the system or tool.		7.9
6.2. What I was able to produce was worth the effort I had to exert to produce it.		7.6
	7. Open questions	
7.1. What was the most positive aspect of <i>Futuroscopio</i> ?		
7.2. What was the most negative aspect of <i>Futuroscopio</i> ?		

The analysis of the data collected by the CSI questionnaire (Cherry & Latulipe, 2014) suggested that *Futuroscopio* is best perceived to support multi-user collaboration (Average 8.4), to be useful for exploration as it allowed players to track different ideas, outcomes or possibilities (Average 8.3), and on average, players rated their enjoyment throughout the interaction as 8.0.

From the first open question we found interesting opinions, one which make explicit the general intention of the game is: "It is a tool that encourages collaboration and the exchange of ideas in a creative way; stimulates creativity while discussing serious topics, we learn new points of view about the future; It is a very creative/fun tool in itself, in a balanced way." The most frequent words used to describe their positive appraisal of *Futuroscopio* were: Future (18 occurrences), Interesting (9 occurrences), Activity (8 occurrences) and Idea (7 occurrences).



Figure 8-9 Word Cloud with terms used to describe the positive appraisal (on the left) and the negative appraisal of *Futuroscopio* (on the right). © Author.

On the other hand, the lowest rated domain was Immersion (Average 7.0), with the items: "I was so absorbed in the activity that I forgot about the system or tool I was using" with an Average of 6.8 and "My attention was totally attuned to the activity and I forgot about the system or tool I was using" with an average of 7.2. Regarding perceived expressiveness, the worst average was for the item "I felt very artistic when using this system or tool" with 6.9.

From the second open question, the suggestion of transmediating the tool towards more immersive media stands out: “It is a little difficult to understand the reason for the tool. Does/can it have any practical use, or is it just an exercise to think about and debate the problem? How can it be transmediated to a medium other than Miro, and that allows the same thought exercise?”. The most frequent words used to describe their negative appraisal of the *Futuroscopio* were: Future (10 occurrences), Difficult (9 occurrences), Present (6 occurrences) and Tool (5 occurrences).

7. CONCLUSION

In contrast with other cosmogonies that experience time in multiple dimensions, modern time is a legacy of the transit from Greek to Latin, that shifted and homologated the temporal diversity present in ancient cultures to the proliferation of one simple concept. *Aiôn* was translated as *Aeternitas* and related to the Roman religion, *Kairós* was translated as *Occasio* and *Chrónos* became *Tempus*. The natural origin of time soon became related to God: mysterious and indomitable.

It was until the invention of the mechanical clock, that the control of time fell from the angels to the craftsmen and mathematicians, who described time as homogeneous, affordable, and quantifiable. (Elias, 1989; Serna

Arango, 2009). Opposed to the rationalization of time, philosophers such as Husserl, Heidegger and Bergson defended a subjective and intuitive notion of a time 'full of blood' (Canales 2015), that ended up relegated to margins of science as Einstein's theory of relativity gained terrain.

Supported by the technological advancements of modern physics, time was scrutinized and chopped time down into infinitesimal fractions. The search to control time developed highly specialized technologies that positioned industrialized nations 'in the future', justifying their hierarchy and consequently, the dependence of those who live subjugated in temporal precariousness, neutralized of any possibility of present, under the omen of catastrophic prophecies and the illusion of a promise of liberation (Rancière, 2022).

From the moment we wake up to bedtime, how we eat and how much we sleep we get is increasingly controlled by technology: watches, schools and cell phones are marketed as symbols of emancipation, as they seduce us to subdue to the overwhelming unpredictability of life, captivated by the promise of stability that hides the continuity of an oppressive reality: what van Amstel and Gonzatto (2021) call domestication of the future.

The study of time through play may be key to reflect on the biopolitical mechanisms of control and liberation that different ideas of time reflect and perpetuate. Moreover, role playing the future may be the first steps to actually making it happen, relegating those who live their present and absorbed by their past, unprepared to face increasingly complicated challenges and consequently more likely to abandon their expectations: demotivated, unwillingly adapting to others' desires and away from their own needs.

Given contemporary circumstances of crisis, misinformation, and unsustainable industrial development, it becomes important for game designers, teachers and ultimately any authority participating in crafting play, to perform ethically, to recognize their privilege and act consequently, respecting local resources in dialogue with their communities; clearly stating play underlying intention.

In the quest to liberate time from its domestication, *Futuroscopio* invites to stop and change the points of view by which players usually perceive reality, to weave new memories, embedded in between synapses that keep their identity vivid, to acknowledge their agency to transform their present into better possible places, to extend the scale of their circle by choosing play as an open attitude for a meaningful long-life education.

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