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From gamification to the metaverse and beyond. Metaphors, myths, and ideologies

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Introduction

In the early 2010s the term "gamification" quickly reached a state of great hype. The term, probably coined in 2008 by Bret Terrill (and spelled "gameification"), was used to indicate an emerging paradigm, which found applications in fields such as marketing, education, healthcare, and business : that of using elements extracted from digital games in non-game contexts. While part of popular culture since the 1980s, it was in those years that the economic impact of games started to eclipse many other sectors in entertainment. At the same time, leaving behind the moral panics that targeted them in the decades before (which linked them, for example, to mass-shootings) games began to be seen as positive elements of society[1].

The idea of gamification, hence, was extremely enticing. Why not making use of the ability of digital games to motivate their players, their ability to engage them for hours, to make them challenge themselves, to make them loyally buy every new game in a series ? The term quickly became a buzzword. New experts

1 T. Malone, "What makes computer games fun ?", *Proceedings of the Joint Conference on Easier and More Productive Use of Computer Systems : Human Interface and the User Interface*, 1981.

emerged proposing solutions to embed gamification in business[2] or to use them to fix the World's problems[3].

As it often happens in these cases, the enthusiastic reaction of some was met by the apocalyptic perspectives of others (two use Eco's famous terminology[4]). "Gamification is bullshit !" was the rallying cry of sceptics, formulated by influential researcher Ian Bogost[5]. Gamification was presented, at the very best, as an attempt to tap into the economic and cultural success of digital games to sell half-baked marketing strategies to "Vice Presidents and Brand Managers". In the worst case, it was a form of "exploitationware", a technology used in fraudulent and malicious ways[6]. Egregious cases of abuse of gamified systems, such as Disney's infamous "electronic whip"[7] became case studies on the dangers of gamification, increasingly depicted as top-down, exploitative, simplistic and risking to be a tool of capitalism[8].

The debate around gamification continued for years. Some early proponents, such as McGonigal, distanced themselves from the term. Others looked for new labels or concepts to indicate similar things — such as "eudamonic"[9] or "gameful"[10] design — or started to distinguish between "proper" and "rhetorical" gamification[11].

While the debate is still ongoing[12], the interest of the public and of the organisations and brands that were previously strongly invested in gamification started to fade. Many promises of gamification where unrealised, many simplistic attempts to apply it failed, and the term itself started to sound old and simplistic. It could seem that the lifespan of the buzzword was coming to an end, as it happened to many concepts that became quickly fashionable and then disappeared.

In this paper, however, I argue that this is not completely the case. If the fortune of gamification has recently suffered from its acquired connotations,

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2 K. Werbach and D. Hunter, *For the win : How game thinking can revolutionize your business*, Philadelphia, Wharton digital press, 2012.

3 J. McGonigal, *Reality is broken : Why games make us better and how they can change the world*, Harmondsworth, Penguin, 2011.

4 U. Eco, *Apocalittici e integrati*, Milano, Bompiani, 1964.

5 I. Bogost, "Why gamification is bullshit", *The Gameful World*, Cambridge, MIT press, 2015, p. 65.

6 *Ibid.*

7 As reported by a Forbes article in 2011 (https://bit.ly/DisElectroWhip).

8 J. DeWinter et al., "Taylorism 2.0 : Gamification, scientific management and the capitalist appropriation of play", *Journal of Gaming & Virtual Worlds*, 6, 2, 2014 ; M. Fuchs, "Gamification as twenty-first-century ideology", *ibid.*

9 S. Deterding, "Eudaimonic design, or : Six invitations to rethink gamification", in M. Fuchs et al. (eds.), *Rethinking gamification*, Lüneburg, Meson Press, 2014.

10 C. Dichev et al., "From gamification to gameful design and gameful experience in learning", *Cybernetics and information technologies*, 14, 4, 2014.

11 R. Landers, "Gamification misunderstood", *Journal of Management Inquiry*, 28, 2, 2019.

12 Cf. M. Thibault, "Punk gamification", *Proceedings* of the 3rd GamiFIN Conference, CEUR-WS, 2019 ; id. and J. Hamari, "Seven points to reappropriate gamification", *Transforming Society and Organizations through Gamification*, Cham, Springer, 2021.

the deeper semiotic cultural dynamics that gave rise to the concept are strongly entrenched within our globalised semiosphere and keep being extremely productive when it comes to influence our ways to conceptualise media, communication, and the creation of value in an increasingly digitised world.

In the next paragraphs I will outline the semiotic mechanisms behind the emergence of the concept of gamification, and I will argue that they play a key role in shaping technological and economical discourses related, for example, to digital scarcity, Artificial Intelligence and the "Metaverse".

1. Games as a modelling system

If the concept of "gamification" emerged in the late 2000s, the idea of transforming activities in gameful[13] ways is not a new one. Nelson showcases a series of "precursors" of gamification from the previous century[14] — but the examples could reach earlier times. After all, play is a key activity for most living creatures (or, at least, all vertebrates[15]), and it has been deemed as fundamental in the making of human beings[16]. Humans have played always and everywhere, as archaeological digs regularly prove by uncovering board games and toys[17]. While we might not fully agree with Caillois that drug abuse and the stock market are degenerate forms of play, it would be difficult to argue that play and games do not influence many other aspects of culture.

Nevertheless, it would be equally unreasonable to claim that the role of games, or their ability to influence other cultural systems, is the same in every culture. Leone provides a concise but accurate perspective on how different religions in different times can have very different attitudes towards playfulness[18].

Without going too much in detail for an historical reconstruction, we can mention that different scholars have noticed a progressive change in the general attitude towards games in Western cultures, starting roughly with the Enlightenment (and with the works of Rousseau and Schiller). Brian Sutton Smith[19] calls it the "ludic turn", which he describes as the "shift in sensibility that makes it possible to see contemporary living through the lens of play". More recently, Ortoleva, draws a parallel between play and sex as key models in our culture[20].

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13 K. Huotari and J. Hamari, "A definition for gamification : anchoring gamification in the service marketing literature", *Electronic markets*, 27, 1, 2017.

14 M.J. Nelson, "Soviet and American precursors to the gamification of work", *Proceeding* of the 16th international academic MindTrek conference, New York, ACM, 2012.

15 R. Caillois, *Les jeux et les hommes*, Paris, Gallimard, 1958.

16 J.C.F. von Schiller, "Letters upon the aesthetic education of man", *Literary and Philosophical Essays*, 32, 2004.

17 S. Crawford, "The archaeology of play things : Theorising a toy stage in the 'biography' of objects", *Childhood in the Past*, 2,1, 2009.

18 M. Leone, "La pallavolo sacra : dalla gamification urbana all'eutrapelia", in M. Thibault (ed.), *Gamification Urbana. Letture e riscritture ludiche degli spazi cittadini*, Roma, Aracne, 2023.

19 B. Sutton-Smith, *Play for life : Play theory and play as emotional survival*, Rochester, The Strong, 2017.

20 G. Ortoleva, *Dal sesso al gioco. Un'ossessione per il XXI secolo ?*, Roma, Espress Edizioni, 2012.

According to Ortoleva, sexuality in the last century has played a cardinal role in the creation of value (from cinematography to advertisement) and has taken the form of a century-long strip tease where nudity has become increasingly accepted. The continuous representation of naked bodies has progressively desemantised them, making plastic surgery and tattoos gradually more mainstream. Games, according to this argumentation, offer a new "obsession" for our culture, a new model that can be used in mechanisms of seduction and value creation.

Gamification can be fruitfully understood from the perspective of semiotics of culture. Following Tartu-Moskow semiotic school terminology, we can look at games as at a modelling system, whose position in the semiosphere has been subject to change[21]. This conceptualisation has several entails. First, if games are a modelling system, then they exercise their modelling ability over other systems in the semiosphere. Models have both descriptive and prescriptive dimensions, being able to represent other systems as well as to influence them. Second, the movement of games in the semiosphere, while it can be traced, as mentioned, to the Enlightenment, has been accelerating recently, in particular with the diffusion of digital games in the 1980s and with a generational change that has normalised them and borough them to the mainstream.

A central position within the semiosphere, in Lotman's work, entails a stronger modelling ability. Games, while becoming more popular and culturally prestigious, increased their ability to both describe the world and prescriptively influence other modelling systems. An example that encapsulates nicely the descriptive ability of games in our current cultural landscape is that of "life coaches" — an idea that configures life as a game, with rules, and strategies, and that people can become better at with the help of a coach. This is but one example. We can also think of the increased tendency to categorise political adversaries as "losers", the idea that there are "winners at life", or even of extreme cases, such as Christchurch's mass shooter making video game references in order to describe his terrorist attack[22].

The prescriptive ability of games, on the other hand, is well exemplified by gamification — a strategy that aims exactly at making other activities more similar to games. If we understand gamification (also) as an effect of the new semiospheric centrality of games, then we are qualifying it as a *possible manifestation* of a deeper cultural change. The prestige of games (including their economical prestige) has supported the rise and fortune of the idea of gamification, but while the latter concept might be getting out of fashion, the prescriptive ability of games has not been reduced. It has, instead, started to assume new forms.

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21 Y.M. Lotman, "The place of art among other modelling systems", *Sign Systems Studies*, 39, 2-4, 2011 ; *id.*, *Universe of the Mind. A semiotic theory of culture*, Bloomington, Indiana University Press, 1990.

22 S. Lakhani and S. Wiedlitzka, "'Press F to Pay Respects' : An Empirical Exploration of the Mechanics of Gamification in Relation to the Christchurch Attack", *Terrorism and political violence*, 35, 7, 2023.

2. Media, metaphors, myths

As remarked by Ugo Volli, we often make use of metaphors in order to understand media[23]. We make use of metaphors related to actions (such as television, radiophone, cinematography, telephone) to time (news, Zeitung, giornale), and to materials (paper, film). Digital media are no exception, and both information systems and the World Wide Web are understood through spatial metaphors. Informatics is indeed based on a material infrastructure that takes the shape of networked spatiality, however, the content that is hosted and circulate through these networks has a similar shape : a series of texts connected to each, or, as Volli puts it, a sort of hypertext of hypertexts.

The spatial metaphor, hence, is a key conceptualisation that allows users to understand the Web and other networked systems. We populate the space with "(web)sites", we have "home(pages)s", we can "move" in the cyberspace. This space, accessible only using specific interfaces and digital prothesis, is described as a "virtual reality", a separate space somewhat less real, but accessible by users. Virtual realities, understood as virtual spaces produced by a computer, are in many cases digital game worlds. Games have played an important role in the development of informatics, and the interaction between the two modelling systems led to both synergies and hybridisations.

The metaphorical virtual space of the Internet has been approached and described in several ways, often using second degree metaphors. In particular, we can find two orders of metaphors depending on weather it has been depicted as a striated or smooth space[24]. When it is smooth, we often have seafaring metaphors : it is a space like the Ocean, that we can freely "navigate" and "surf". "Cybernetics" itself comes from the Ancient Greek word Κυβερνητική, meaning "steering a ship". And the Internet, of course, is full of "pirates". Theme metaphors depict it as a rather amorphous space, where the user decides where to "go".

In more recent times, however, the Web has been increasingly envisioned as a striated space. The space is mapped, given borders and directions, it is composed by information "highways", "tubes", "lanes", and "streams". This change is the result of a change in business model of technology companies. The platforms of the Web 2.0 started to apply strategies to keep users within their websites, diminishing the use of hyperlinks, and implementing data formats such as Web feeds, that provide users with frequently updated content and incentivise engagement.

Metaphors not only describe the mediatic spaces of the digital age but are also used to describe the circulation of information online. The most commons metaphors of this kinds are the aquatic ones ("torrents", "streaming": all with a connotation of speed, adaptability, dynamism) and those of contagion (the infamous virality, with a connotation of danger, infection, passivity, of being out of control).

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23 U. Volli, "La spazialità di Internet", *Il Tao del web*, Genova, Il melangolo, 2003.

24 G. Deleuze and F. Guattari, *Mille plateaux*, Paris, Minuit, 1980.

These few examples already show how metaphors are far from neutral and are often ideological. Eco grounds metaphors on the similarity based on two sememes that have a certain number of marks in common (his example, based on the metaphor of the *Domini Canes* are marks as "defending" and "loyal" common to the sememes of friars and dogs)[25]. The selection of the sememes and of the marks, however, can be used to give rise to ideological expressions.

An ideological *dispositio,* still following Eco, is an operation that choses explicitly some circumstantial selection, but hides the internal contradictions of a specific semiotic space[26]. Metaphors, by bringing two sememes close to each other, can do exactly that. Let's think of the aforementioned metaphor of "virality". It is easy to see how marks related to rapid expansion and diffusion are common both to the spread of some diseases and of information online. However, this metaphor also directs us towards a highly distorted understanding of the latter, with implications of passivity of the people involved in this communication that are reminiscent of the hypodermic needle theory[27]. Despite their ideological nature — or maybe in virtue of it — some of these metaphors become dominant enough that they become cultural myths[28]. These myths capture the imagination of the public, insert themselves in the communication strategies of brands and organisations, divert funding and hijack public debates.

In the next subsections I will engage with a few of these myths, and in particular with examples that are, at least partially, embodying emergent manifestations of the increased modelling ability of games and that finally acquire a mythical dimension.

3. Emergent manifestations

3.1. Metaverse

The term "metaverse" was introduced by American writer Neal Stephenson in his novel *Snowcrash*, where it stands for a sci-fi immersive and interconnected digital space — similar to other virtual infrastructures common in cyberpunk literature. The term was appropriated in 2021 by Facebook's Marc Zuckerberg to indicate a new project : the creation of a social media based on immersive Virtual Reality (VR), allowing users to interact, play, work, collaborate and hang out together in virtual space. Despite some online ridicule about the visuals of the project, the concept of Metaverse was able to attract immediately a lot of attention — and a lot of venture capital investment[29]. Different interpretations

25 See B. Sørensen and T. Torkild, "Umberto Eco and Metaphor", *Umberto Eco in His Own Words*, Berlin, de Gruyter, 2017.

26 U. Eco, *Trattato di semiotica generale*, Milano, Bompiani, 1975.

27 G. Marino and M. Thibault (eds.), "Semiotics of Virality : for an Epidemiology of Meaning", *Lexia*, 24, 2017.

28 R. Barthes, *Mythologies*, Paris, Seuil, 1957.

29 See, for example, https://bit.ly/WallStreetMetaverse.

of the term, not always strongly connected with Zuckerberg's idea, started to emerge, and compete, while the concept was quickly becoming a buzzword.

The metaverse has then rapidly become a key asset for value creation. Brands, companies, municipalities, and governments started to have their own "metaverse strategies". Offers of technologies and services related to the metaverse multiplied, and the term became a way to communicate the technological and future orientation of any organisation. In other words, it has become a myth.

If we look at the idea and realisation of the metaverse from a semiotic perspective, we can easily identify some of the elements that we have mentioned before. We have a spatial metaphor, that links the metaverse to our universe, but also positions it beyond it and parallel to it. It seems to indicate a sort of "second" universe, that everyone would be able to access through a VR headset, and that would allow them to conduct their online business while moving within a strongly figurative virtual space.

In other words, the metaverse seems to be nothing more than a digital game space that is oriented mostly towards serious activities rather than playful ones, and that presents itself as a digital extension to real life. Put this way, the metaverse does not sound much different than the older project of *Second Life*, which proposed almost the same thing in a 3D digital environment, but without the use of the immersive technology of VR.

The metaverse and *Second Life* are both supported by the same increased prescriptive modelling ability of games that is behind the idea of gamification. They could be even described as a form of gamification of everyday life, in which our tasks, work and fun are displaced into a digital space that has the same visual codes and semiotic conventions as a digital game.

The myth of the metaverse conceals, behind the excitement of a sci-fi setting and the playfulness of its looks, an ideology of centrality and control. It proposes a self-contained, striated space, separate from other mediatic spaces, where users are tracked in their daily activities. It seems to be an extension of the main product of its parent company, *Facebook*, a platform that promotes the mixing between real and digital life to profit from the data of its users — but happening in an immersive VR game space instead of in an internet browser of smartphone application.

3.2. Blockchain

While blockchain emerges as a legitimate attempt in computer engineering to find ways to regulate decentralised systems, in 2018 the technology quickly becomes a buzzword used and abused across sectors. With the complicity of the growing value of Bitcoin, a cryptocurrency from 2009 based on blockchain technology, blockchain rises rapidly to mythological status.

Engaging with the informational working of blockchain itself would be beyond the scope of this paper, suffice to say that the technology allows to reproduce scarcity in the digital realm. While digital objects can be reproduced virtually

endlessly, blockchain proposes a decentralised system that limits such productivity : the ability of a user to "write" in one of the blocks of the chain requires an investment of computational resources in increasing quantities. Interestingly, this process, especially when connected to cryptocurrencies, is referred to with another metaphor : that of "mining". The idea of "mining" is obviously strongly related to the idea of uncovering something that is precious because of its rarity through work. At the same time, it also has an ideological effect, as it seemingly hides the effects of mining (which requires lots of computational power and of energy consumption) while portraying cryptocurrencies as something simply waiting to be discovered.

Kristian Bankov uses Bitcoin as an example of "transaction semiotics", underlining how it is the combination of scarcity of a resource and trust in the system that determines its value[30]. The importance of trust in many commercial uses of blockchains, which include cryptocurrencies, but also Non-Fungible Tokens (or NFTs, whose popularity peaked in 2021) is well exemplified by the several scams discovered during the last years where investors in cryptocurrencies would lose everything while the initiators of the blockchain would try to run with the money[31].

The concept of artificial scarcity is not limited to blockchain : it is also a typical element of digital games. In many games, players are required to accumulate certain resources to achieve their in-game objectives. This is a "pretend play" scarcity, as the numerical values of in game resources are assigned by a centralised system (the game) according to rules that could always be circumvented. Many games, for example, have "cheats" that allow players to gain "infinite" resources.

If the metaverse seems to work as a game space created for real life activities, similarly blockchain seems to be a solution that imitates games' scarcity of digital resources in the real world while avoiding centralised control. The modelling ability of games is then also complicit in the creation of this myth — together with, for example, political stances related to anarcho-capitalism already strongly invested in cryptocurrencies and decentralisation.

The ideology of scarcity is presented, through blockchain, as a positive factor allowing for the creation of value, the protection of copyright, and independence from centralised control in economic exchange. However, it can be also interpreted as a capitalistic attempt to extract value by manipulating the availability of resources that would otherwise be abundant. A revealing example is that of *Decentraland*, an attempt to bring scarcity to the metaverse though blockchain. *Decentraland*, is a 3D digital environment that makes similar promises to Zuckerberg's Metaverse but with an important distinction : the new virtual universe will lack of central control, but instead be regulated though blockchain. The latter is used both to introduce scarcity of virtual space (with the digital lots becoming

30 K. Bankov, "Scarcity and meaning : Towards a semiotics of economic transaction", in P. Cobley and A. Alteanu (a cura di), *Semiotics and its Masters*, Berlin, de Gruyter, 2018.

31 See, for example, https://bit.ly/CryptoBubbleFortune.

limited in number and economically costly) and to regulate the decision making within the platform. This project, connected to the modelling ability of games both in terms of game spaces and of digital scarcity, still failed to mobilise a large user base.

3.3. Artificial Intelligence

Artificial Intelligence, or AI, is an umbrella term used to refer to many different informatic systems capable of imitating, to some extent, human decision making. Differently from the other myths that we have engaged before, the concept of AI has been around for a long time, going through several "summers" and "winters" of alternating attention and investments[32]. Current developments in Large Language Models (such as GPT models) and in Diffusion Models (generating images from textual prompts, such as Midjourney and Dall-E), have given rise to a new interest and buzz around the concept. AI has, once again, become a buzzword in most industrial and commercial discourses, and has gained centre stage in public discussions — going so far to bring about questions about possible nefarious effects of AI on the survival of humanity itself[33].

As for other areas of computer science, AI development has strong historical connections with digital games. Games have been a testbed to try out new ways computers can exercise strategic thinking, and the ability of AI to beat a human at a certain game has often been used as a milestone to measure the level of development of the technology. The victory of Deep Blue over Garry Kasparov in 1996, or of AlphaGo over Ke Jie in 2017 are the two most famous examples. On the other hand, some forms of AI are also a key component of most digital games. Many games have integrated AIs that control factions or characters, allowing players to compete against the machine.

The "intelligence" in AI, however, is only a metaphor. No one of the systems created until now is "intelligent" in a way similar to that of living beings. Describing them as such means using an anthropomorphising metaphor, which guides our perception of the strategies of interaction and communication of computers by setting up a series of expectations and of habits. As an autobiographical example, I personally find it rather hard not to use forms of politeness when engaging with LLMs, asking "please", and saying "thank you" frequently. This adds to the illusion of being in a chat with another intelligent being — not matter how aware I can be that the system I am interacting with works on the basis of statistical models.

This metaphor, as in the other cases, serves several ideological perspectives, and can be very misleading when thinking of the possible effects of the development of Generative AI. Public discourses have often been directed towards questions that are rooted in an anthropomorphic understanding of the

32 E. Francesconi, "The winter, the summer and the summer dream of artificial intelligence in law", *Artificial intelligence and law*, 30, 2, 2022.

33 Cf. https://bit.ly/PauseAIExp.

technology : Will the AI rebel ? Will it resent its creators ? These perspectives are not only based on a misunderstanding of LLMs, but also hide the man-made nature of AI, and obfuscate the many real issues that are related to its design, training, management, and the many ethical issues related to those, for example in terms of biases and intellectual property.

Conclusions

I have tried to provide an overview of some of the many concepts and metaphors that are influenced by the increase in modelling ability of games, and to highlight the ideological stances that characterise them. Within gamification literature some researchers started to write about "implicit gamification" to describe forms of gamification that, rather than being expressly designed as such, emerge due to a certain cultural climate. An infamous example is the so called "Chinese social credit system", an (often misunderstood) ecosystem of initiatives that are being implemented in the People's Republic of China, collectively aiming at fine-grained social control[34]. This ecosystem has often been described as a way to gamify loyalty to the State and characterised as a dystopian evolution of gamification.

However, I would argue that "implicit gamification", or more precisely the prescriptive effects that the centrality of games in our semiosphere have on other modelling systems, goes beyond that. In this article I have briefly engaged with a series of myths that orient today's discussions about media, but also the communicative and value creation practices in our economy, to showcase their relationship with such modelling power.

My position does not entail a perfect causal concatenation between these elements. Games are not the only modelling system influencing these myths : other elements related to ideologies of technology and progress as well as neoliberal ideals and investment strategies all have a profound impact on how they are conceived, and they circulate. Nevertheless, the impact of games' modelling ability seems at the same time significant and interstitial. It can be an important entry point for a semiotic analysis of the practices that are rooted in the ideological stances, metaphorical conceptualisations and mythopoetic processes that organise much of the current discourses about technology, progress, development, and, in general, about the future.

Semiotic analysis, in this regard, offers conceptual and analytical tools that are precious assets for a form of *semiological guerrilla*[35] that engages the continuous stream of buzzwords related to new technological developments, and allows to investigate the deeper cultural trends that generate and organise them.

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34 R. Creemers, "China's Social Credit System : an evolving practice of control", SSRN 3175792, 2018.

35 Cf. U. Eco, "Towards a semiological guerrilla warfare", *Travels in hyperreality*, San Diego, Harcourt Brace Jovanovich, 1986.

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Résumé : Ces dernières décennies, la capacité de modélisation des jeux numériques a de plus en plus fortement influencé et la communication industrielle et la prise de décision stratégique. La façon dont les entreprises communiquent, se représentent et organisent leurs flux de travail et leurs opérations a fait l’objet de tentatives de traduction des caractéristiques sémiotiques des jeux numériques. Les dynamiques et les interactions se « ludifient » et l’avenir de la communication industrielle est reporté à un metavers (encore hypothétique) qui emprunte esthétique et interactions à ces jeux. La rareté, pierre angulaire des jeux comme des systèmes économiques, est importée dans ces mondes numériques par le biais de solutions technologiques telles que la *blockchain*. Plus récemment, l’intelligence artificielle, acteur stratégique dans les jeux depuis des années, a été désignée comme la dernière frontière technologique. Le présent article cartographie les façons dont les jeux numériques ont influencé les discours relatifs à la technologie et au développement et montre comment langage métaphorique et pensée mythique, en façonnant les idéologies, limitent nos capacités critiques face à ces phénomènes.

Mots clefs : idéologie des médias, intelligence artificielle, jeux numériques, ludification, metavers.

Resumo : Da “gamificação” ao metavers. — A capacidade de modelisação dos jogos numéricos exerceu uma influência cada vez mais forte sobre a comunicação industrial e a tomada de decisão estratégica. Os modos como as empresas comunicam, se representam e organisam seu trabalho e suas operações foram o objeto de tentativas de tradução das características semióticas dos jogos numéricos. As dinámicas e as interações tornam-se “gamificadas” ao mesmo tempo que o futuro da comunicação industrial é adiado a um metavers (ainda hipotético) que empresta sua estética e suas interações a esses jogos. A escassez, pedra angular tanto dos jogos quanto dos systemas econômicos, é importada nesses mondos numéricos por meio de soluções tecnológicas como a *blockchain*. Mais recentemente, a intelligência artificial, desenvolvida desde anos enquanto ator estratégico nos jogos, tornou-se a nova palavra na moda, considerada como a última fronteira tecnólogica. Este artigo explora os modos como os jogos numéricos, vistos como sistema de modelisação, influenciam os discursos sobre tecnologia e desenvolvimento ; mostra também como a linguagem metafórica e o pensamento mítico moldam as ideologias atrás destas operações, limitando nossa capacidade de lidar de modo crítico com esses fenômenos.

Abstract : In the last decades, the modelling ability of digital games has had an increasingly strong influence on both industrial communication and strategic decision making. The ways companies communicate, represent themselves, and organise their workflows and operations

have been subject of an attempt to translate and emulate the semiotic features on digital games. Dynamics and interactions become gamified, while the future of industrial communication is deferred to a (for now hypothetical) metaverse, that borrows aesthetics and interactions from digital games. Scarcity — a cornerstone of both games and economical systems — is imported in these, potentially abundant, digital words through technological workarounds such as blockchain. And, more recently, Artificial Intelligence, for years developed as a strategic actor in games, has become the new buzzword and has been indicated as latest technological frontier. In this article, I map the ways in which digital games, understood as a modelling system, have been able to exert influence over discourses around technology and development. To do so, I also show how metaphorical language and mythical thinking shape the ideologies behind these operations — and hence our ability to engage critically with these phenomena.

Riassunto : Negli ultimi decenni, la capacità di modellizzazione dei giochi digitali ha avuto un'influenza sempre più forte sia sulla comunicazione industriale che sulla decisione strategica. I modi in cui le aziende comunicano, si rappresentano e organizzano i loro flussi di lavoro e le loro operazioni sono stati oggetto di un tentativo di traduzione ed emulazione delle caratteristiche semiotiche dei giochi digitali. Le dinamiche e le interazioni diventano gamificate, mentre il futuro della comunicazione industriale è rinviato a un metaverso (per ora ipotetico) che recupera estetica e interazioni dai giochi digitali. La scarsità — pietra angolare sia dei giochi che dei sistemi economici — viene importata in questi mondi digitali potenzialmente abbondanti attraverso soluzioni tecnologiche come la blockchain. E, più recentemente, l'intelligenza artificiale, sviluppata da anni come attore strategico nei giochi, è diventata la nuova buzzword ed è stata indicata come l'ultima frontiera tecnologica. In questo articolo, mappo i modi in cui i giochi digitali, intesi come sistema modellizzante, sono stati in grado di esercitare un'influenza sui discorsi attorno alla tecnologia e allo sviluppo. Per fare ciò, mostro anche come il linguaggio metaforico e il pensiero mitico plasmino le ideologie dietro a queste operazioni — e quindi la nostra capacità di porci in modo critico di fronte a questi fenomeni.

Auteurs cités : Umberto Eco, Juri Lotman, Ugo Volli.

Plan :

Introduction
1. Games as a modelling system
2. Media metaphors, myths
3. Emergent manifestations
    1. Metaverse
    2. Blockchain
    3. Artificial Intelligence

Conclusions

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