Cybertheory tutorial assessment
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Post-phenomenological approach on new media technologies: exploring League of Legends' cyberspace for an updated technical culture.

Post-phenomenology is an approach initiated by Don Idhe (1990) that seeks to study technology in terms of the relations between human beings and technological artifacts. It does not reduce technology to its function: it avoids the widespread instrumental conception to take it as mediator of "human experiences and practices" (Verbeek, 2016). Additionally, this approach combines philosophical analysis with empirical investigation. This empirical work acts as the basis for philosophical reflection. Simply put, post-phenomenology is a philosophy 'from' technology. In *A Guide to Post-phenomenology*, Rosenberger and Verbeek provide a third defining characteristic of the approach: it seeks to elucidate "how, in the relations that arise around a technology, a specific 'world' is constituted, as well as a specific subject" (Rosenberger and Verbeek, 2015, 31). As Ritter argues, post-phenomenology is closely tied to design (2021, 583). Its investigating nature ultimately aims to inform design practices based not only on aesthetic nor functional objectives but based on our relationship with them. This aim is therefore fundamentally political: an aspect of technology that has unfortunately been relegated to corporations' decision power motivated by profit-making and to powerless critics of all kinds. The question of the politics of everyday life technologies is sadly absent from institutional political debate. No representative assembly or institutionalised political body has ever gathered to discuss and work towards the design of technologies that condition the way individuals interact daily.

The vestiges of the ancient city of Teotihuacan show a very rapid architectural shift. From a small number of large houses and many small houses, together with the presence of a large monument interpreted as serving to glorify a hierarchical figure; to same size houses and large places understood as serving for people gatherings.

Archaeologists assume that this architectural shift occurred as a result of a decision to change the political organisation of the society (Cowgill, 1997). The design of the physical space allows and constrains how people make society. Technological design is indeed a very political matter, although it is absent from political institutions canals. Instead, technologies are often produced by corporate organisations and are common to all cultures, all countries, all cosmologies, confirming once again the phenomenon of planetarisation under universal cybernetic logic called by Heidegger in *The end of philosophy and the task of thinking* (1977).

Simondon's work on technology begins with the assessment of a conflict between technology and culture in the western thought (Simondon, 1965). For him, we have separated the world of objects into two categories: one related to beauty, arts, and one related to functionality, technology. The former category is seen as promoting human values while the latter is considered as other than human, as alien to culture (Read, 2016, 104). This divide is presented as unfounded and stemming from a misunderstanding of technology. It is also the source of a double alienation impacting both machines and humans operating them. Solving this conflict means working towards a renewed relation to nature, technology, and society: a new technical culture. In its endeavour to investigate pragmatically the relationship between humans and their technologies, post-phenomenology seems to be a fruitful approach to work towards a technical culture.

Contemporary times seem to present a contradiction that few dare to tackle. On one hand, modern technology has become ubiquitous and inevitable. Not interacting with digital technology for an entire day has become a feat in itself: it has penetrated the spheres of work, leisure, and study alike. By mediating human interactions, digital technologies are central to social, economic, and political life. In a nutshell, they mediate human experiences: they mediate the relation between humans and their world (Ritter, 2021) or their milieu (Hui, 2022) to speak in Simondian terms. As Vlieghe points out, "digital and social media will become the dominant technologies which structure the way in which the new generation encounters the world" (2016). On the other, the way the world appears through the mediation of technology seems absent to cultural knowledge. The effective change operated by the advent of digital technologies in terms of how humans experience time and space seems crucial to

analyse in order to understand the contemporary relationship that relates huamns with technology.

It is possible to draw a distinction between a pre-digital and a post-digital world characterised by multiplicity. Regarding time first, the pre-digital is characterised by a rather universal rhythm imposed by nature. In history, societies have organised around the sun rising and setting and the seasons passing. Nourishment cycles generally ritualised in lunch and dinner follow – ideally – the organic rhythm of digestion and hunger. Culture also provides rhythms with the institution of rituals and traditions such as celebrations. More recently, more and more humans have started reacting to bells ringing and notifications popping up in the context of organisation management. Technology has already been extensively analysed as inherently political that is, as embodying specific forms of power and authority (Winner, 1980), and as crucial to the disciplinarisation of bodies and minds (Foucault, 2020). What I would like to stress here for the sake of my argument is the rhythmic properties of technology. Indeed, modernity is characterised by an increase in rhythm setting objects and processes that culminates with the development and spread of digital technologies. Today, everything can be conceived in terms of available lifetime to be invested in this or that activity. These spaghetti cook in 10 minutes which coincides almost perfectly to this newly released video on YouTube: they can therefore be superposed. The contemporary human condition is condemned to stack blocks of activities and consumptions to maximize the biologically limited time it has been granted. Technology is “rhythm setting” and allows humans to give rhythm to their experience of the world while it was only possible to a limited extent in the pre-digital era. This means that humans are longer obliged to follow *the* time, they can instead follow *their* time or at least the rhythm that they constituted for themselves via technologies. A multiplicity of rhythms ensues.

Multiplicity can also be found in terms of space. Physical space used to constitute the only available milieu in which to evolve with its inherent time constraints. Modifying the environment via technological means used to necessitate physical resources, scarce or abundant, easy or difficult to access. Digital technologies allow to reshuffle the cards of space making. They enable to bring consciousnesses which are not physically close together in localisable areas. Similarly to physical spaces, they can be open and closed. They may require a ritual of entry (logging in) and exit (logging out). When

League of Legends (Riot games, 2009) players hit 'Accept' while queuing for a new match, they are thrown into a practically inescapable space that they will exit only when the enemy base is destroyed. Indeed, this competitive MOBA (Multiplayer Online Battle Arena) includes a disciplinary apparatus involving a system of punishment that prevents players from going 'AFK' ('away from keyboard'). Those spaces may also be permeable or impermeable to information, to in-formation, to form making from an outside. The evolution of the web usually referred to as the shift from web1 (read-only web) to web2 (participative social web) to finally web3 (read, write and execute web) tends towards more openness to information.

Like rhythms, places may be stackable. An updated conception of our relationship to technology allows us to conceive a smartphone as a bunch of keys giving access to multiple spaces at the same time. Any of my contacts can ring the bell to my virtual door and interrupt my flow of consciousness by calling me or sending me a text. *Discord* illustrates this reality in its very design by allowing users to create virtual rooms – textual and vocal – that they may 'enter' and 'exit' at will. In the case of vocal virtual rooms, they therefore make themselves available to live interaction even when nobody is sharing the space. This new technological condition explains the widespread feeling of overwhelmingness and the need to go offline. Whether this need aligns with social norms and is allowed at all is another question. Rather, my point is that digital technologies allow the creation of multiple spaces that can stack, with unique architectures and spatialities, doors that can lock and windows that can open.

These types of virtual spaces resonate with what some might call the '*cyberspace*' or what the cyberpunk writer Bruce Sterling calls 'the place between'. For him, the 'place' where a telephone conversation occurs is *between* the phones (1992). In those terms, the cyberspace "elicits images of empty space, other realities, dark regions beyond our sensory reach" (Van Mannen & Adams, 2009, 15). I would like to argue against this conception of the cyberspace that might be relevant with technologies such as phones but which, I argue, is not up to date to new media. The distinction between "old" and "new" media in terms of images can be illustrated by the shift from photography to film and finally, video games. From static to moving images, the newest form of new media seems to appertain to the realm of digital images involving action. It appears that more recent forms of new media such as certain video games seem indeed to include

sensory characteristics. This analysis does not account for all forms of video games, as multiple scholars showed that they could take many various forms and requiring different sorts of actions from players (Aarseth, 2004; Fizek, 2022; Frasca, 2003).

The player or the operator plays the code of the game (Galloway, 2010, 91). In the case of video games, 'playing' is an algorithmic practice where subjects are in direct conversation with their machine. Machines here must be understood as the combination of hardware – the computer or console, the screen, the controller or mouse and keyboard – and software – the code constituting the video game. Hardware and software can be understood as *'technical elements'* that form a *'technical individual'* when combined following Bernhard Rieder's reading of Simondon applied to contemporary digital machines (Rieder, 2020, 66). Both software and hardware are themselves composed of constitutive elements: it is simply a question of scale. What we might call 'the computer' must include a specific hardware and software. Indeed, the software gives the hardware a function, a way to perform, without which hardware would remain a technical element without purpose. Video games require, to varying extents, actions from operators (or players). This inclusion of actions from an external agent in the performance of the object is in fact the main distinctive characteristic of video games compared to photography and film. Video games must include action from players and for that reason we might conceptualise operators as part of the machine, as *technical elements* too. Even video games that 'play by themselves' or what Fizek calls 'Ambiant play' (Fizek, 2022, 31) must require some kind of input from an external agent.

There is therefore a conversation between the operator and her machine, all of which could possibly be interpreted as a combination of technical elements involving hardware, software, and operator. This conversation is a dialogue (dia-logos) between the algorithm, the core of the video game composed of rules, a game world and gameplay (Aarseth, 2004), and the operators via intermediaries taking the form of a mouse, a keyboard, or a controller. An academic debate in the field of game studies have been focusing on the notion of interactivity to characterise video games. Fizek (2022) dedicates an entire chapter to it, taking the side of various other scholars in argues that the concept of interactivity is not sufficient to characterise all videogame genres. Firmly rooted in activity theory, it fails to account for "how technology influences

and acts on people" (Fizek, 2022, 3). Galloway prefers the term of "action-based medium" to stress that the materiality of this medium "moves and restructures itself" (2010, 3).

Both Fizek and Galloway's conceptions seem to be rooted in cybernetic theory. The central concept of feedback loop indeed accounts for the role that the machine has on its operator. Players are being displayed information on the screen in the form of digital images that are themselves the result of algorithmic, mathematical calculations running inside the hardware composing the machine. In reaction to it, they input information back to the machine using peripheral devices. The triple relationship between software, hardware and operator constitutes what we may call a complex cybernetic being in the context of video-game-play.

There are, however, distinctions that can be drawn regarding the natures that this cybernetic being may take. Scrolling content on TikTok forms a radically different being than engaging in a competitive MOBA match such as League of Legends. A reason for that assessment, I argue, comes from the concentrated volume and the rapidity of the flux of consciousness involved in such activity. Playing League of Legends or LoL does not involve spectatorship, except when the "champion" that the operator embodies is "dead" and the operator must wait to "respawn". Otherwise, a game of LoL requires generally from 20 to 60 minutes of deep focus and continuous action[1].

During the "draft" phase players "ban" and "pick" champions to play from a pool of 163 characters. Each character generally counts 4 spells, each of which is associated to a specific sound. There are therefore 652 sounds for spell activations only. Must be added the sound that AI-controlled characters make when they spawn, the one that is triggered when spell hit their target… More than a thousand sounds must be known and identifiable by players, each of which must trigger an adequate reaction to reach the ultimate objective of the game: destroying the enemy base. Sounds are only one type of output players must integrate. Indeed, they are always associated with specific visuals or potential "pings" from teammates to warn about imminent threats or signal for opportunities.

[1] For a concise but complete overview of the components of the game, see Maymin 2020.

Regarding inputs, players perform in reaction thousands of mouse clicks per game to move their character, to attack enemies or to hit objects, in short: to evolve in the game world. Players' physical and visual senses are overstimulated during the entire span of the match. Every single second is filled with multiple sensory inputs and outputs, leading to a particularly intense dialogue between the operator, the software, and the hardware. During the game, the relationship with the chosen champion corresponds to what Aarseth described in his analysis of playing Lara Croft: "When I play, I don't even see her body, but see through it and past it" (2004, 48). Players can evidently see their champion's movements as they are controlling it. But the volume and intensity of input-output cycles seem to create moments of symbiosis between the two entities. To speak in cybernetic terms, the number as well as the rapidity of feedback loops are particularly significant in the case of playing League of Legends. While they can be argued to be comparably less numerous and less rapid is the case of playing ambient games such as "Journey" or "Abzû", or while scrolling TikTok content. In those cases, the information flux can be said to be more unidirectional: from the hardware and software to the player. Or, the overall output is more important than the overall input. On the other hand, the process writing digitally using Microsoft Word seems to be rather balanced in terms of input-output ratio since every key pressing equals the appearance of one letter on the screen. Finally, watching a video on YouTube seems to involve more input than output coming from the hardware-software couple and directed towards the spectator. In those cases, a dialogue cannot really take place because the elements composing the cybernetic being are too distant from each other: the number and intensity of feedback loops are not sufficient to compose a true dialogue.

League of Legends matches oppose ten players into two teams of five. Singular players must therefore anticipate and act in response to nine other players. Often, the two teams must engage in "team fights" to attempt eliminating as many enemy champions as possible to accumulate "gold" and secure objectives. When those game phases are well executed, we can witness a telling example of several consciousnesses synchronising *at a distance.* This phenomenon further extends the characterisation of the human-software-hardware relationship to include multiplicity: of

machines and consciousnesses. It can therefore be argued that engaging in a League of Legends match is a unique instantiation of human-machine(s) relationship.

Analysing such relationships in light of the volume and intensity of the feedback loops involved offers a new perspective that may help distinguishing between different types of human-hardware-software beings. With around 152 million monthly players (Susic, 2023), League of Legends is an understudied object worth of interest. A more developed case study of this game would prove valuable to describe more precisely the type of relationships at play. More generally, the approach and the concepts that fuelled this reflection offer a renewed conception of the being that results from the relationship between hardware, software, and humans. This conception may enrich designers' conceptualisation and invention processes towards a more mindful practice, that is inherently political. It may equally benefit individual users of digital technologies to overcome a simplified instrumental conception of their relationship to technology, and possibly advance towards a technical culture.

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