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The Ontology of the Digital Image

The context of the digital image and, above all, a deeper reflection on the ontology of the digital universe is a field that requires a more in-depth analysis (Medina 2021, 117-159). In this article, we will point out only some considerations about the different forms of appearance and use of the digital image within "extended reality," from augmented to virtual reality, thinking about the possibilities (such as new ways of presence, inter-action-participation, sense of reality, 3D sound, generative AI, distributed authorship, democratization of access) that are being created for the entire field of performance arts.

In the specific case of what is called "virtual reality" (VR), several difficulties arise with its use – although partially correctable after a period of adaptation. On the one hand, 360-degree videos presuppose a lack of perceptual habituation that leads to fatigue and dizziness, and, on the other, a change of "frame" that calls for an audiovisual language different from that of framing as the basis of the composition, which leads to another type of relationship with the "space" of the image. Virtual experiences of images in three dimensions no longer have anything to do with the static point of view of the pictorial perspective but rather with an adjustment of the user's gaze based on their movement (Martín Prada 2018, chapter 6).

In the initial stage of this technology, it has often been developed as a documentary form, which exploits its capabilities for immersion so that the user identifies with the protagonists (such as homeless people, refugees, migrants, and prisoners) (Arcagni 2020). What characterizes these pieces is a successful sense of "presence," used for tourist or historical tours, sporting events, visits to artistic spaces, or performance events with significant cultural, therapeutic and educational applications.¹ VR is, in

¹ Within the documentary genre, virtual reality has been successful in large part with the support of the *New York Times* and museums, effective already in *Hunger in Los Angeles* (2012)

Mimesis Journal, 13, 2 | 2024, pp. 585-596 https://doi.org/10.13135/2389-6086/10025 ISSN 2279-7203 ©2024 Author(s) (CC BY-NC-ND 4.0) short, an "empathy machine" (Chris Milk) (Arcagni 2020, 40), in which the emotional predominates over the narrative, although they are not incompatible, acquiring instead a special cognitive value in pieces such as *Notes* on *Blindness* (2016).

However, this "realistic" dimension denotes a use still anchored in a way of seeing from before the emergence of these instruments, which neither takes advantage of the specificities of the medium nor develops its own discourse. Creators have begun to use these possibilities in video games and film products, where the immersion is accompanied by a wide interaction and a plasticity that achieves a more complex narrative than simple simulation of exotic places.

Thus, other possibilities seem more pertinent to the medium, especially those that take advantage of interactivity. It is clear in video games such as *Half-Life: Alyx* (2019), spin-offs such as *Dunkirk DR Experience* (2017), or experiments such as the award-winning *Dear Angelica* (2017), with an extraordinary capacity for empathy and wonder, thanks to a plasticity that exploits the specificities of the medium, to go beyond sight and hearing. This is something that the performative arts have already demonstrated, although with a low degree of development and interactivity, for example, Jean-Michel Jarre in June 2020 with his live concert in VR (Arcagni 2020, 202).

Of all of the dimensions that are beginning to be explored, we insist on two, immersion and interaction with the audience, which then become instruments that cause the viewer to relate to the story differently, providing a mechanism for the acquisition of the story. It is knowledge in relation to the viewer's "position." Both are structurally evident in formats based on role-playing games, from video games to experiments like *Bandersnatch* (2019).²

Further, experiences of the digital image have as a common point a distortion of an external reference and a distancing of the image as an index or representation. Moreover, every image needs a story to exist and be interpreted, even as a new autonomy for images is being inaugurated.

In this regard, Román Gubern affirms that "the great cultural novelty of the digital image lies in the fact that it is not a technology of reproduction,

and in the successful Carne y Arena, by González-Iñárritu (2017), or in the miniseries Metro Veinte: Cita Ciega (2019).

² A proposal for interaction with the public for the subsequent drift of the story was already present in the initial project of *The Tulse Luper Suitcases* by Greenaway in 2002, although the conditions for it were not met.

but of production, and while the photochemical image postulated *this was so*, the panoptic image of infographics affirms *this is so.*" (Gubern 2006, 147) It can be deduced, therefore, that this condition also makes the conception of the image as a representation of the world problematic (whether artistic or not). In effect, its mimetic character disappears, and its meaning refers to its own appearance, remaining its self-referentiality both in terms of representation and of a possible truth.

This also triggers a new conception of time, linked to the "timeless gerund" of many digital practices. In this regard, it should also be noted that the interactive digital work is produced at the same time as it is experienced, appearing as an opening to relational and ongoing operations while emphasizing the demanding nature of every work of art (Prada 2023, 184).

Thus, virtuality appears as a mechanism of narrative potentiality, where dialogue is established between mise en scène and mise en abyme to highlight the ontological particularities of the digital image and interesting ways of communication and knowledge.

However, it is clear that for a wide audience, this "trip" runs the risk of shipwreck, if we do not establish links of social and procedural development. One way to avoid this can be to integrate and conceive the digital experiences of participation in the processes of creation of the performative arts within a broad culture for projects, thus bringing its processes closer to what are common practices in research or in disciplines such as architecture or design.

The Quality of Participation: Involvement

When we talk about participation in a digital context, we should ask ourselves about the quality and the significance of that participation. In many cases, optimism about the interaction is excessive. For example, for many people, a "like" on a social network or a questionnaire at the beginning of a process are enough to believe that they are part of a process. Yet is this true participation? There is another way of understanding it. Participation evolves into more critical terms, as a way for socio-political emancipation and as an equivalent to involvement. To demonstrate this point of view, we will provide some historical and theoretical references that will help to define it.

First, I want to go back to Gropius and Piscator's Total Theater, which presents Piscator's reflections on the best way to transmit the values of socialism. At first, Piscator had opted for epic as a genre to produce greater emotion in the viewer. At the same time, he tried to reinforce it with technological innovations, such as conveyor belts in the staging of Bertolt Brecht's Mother Courage. This search for a scene that involves the viewer more and generates a simultaneous "mimesis, led Piscator to create a project with Gropius for the best conditions to observe his works, giving rise to the Total Theater. Its design stands out for having a stage that completely surrounds an audience and mechanisms to move the stalls and make them rotate. Also, many cinema projectors are used, which turn the whole stage into a large and dynamic set. The consequence is obvious. Everything present is involved, and the differences between the space of representation and the space of enjoyment are dissolved, bringing the viewer within the scene. Thus, as in many contemporary works, it is about ensuring that the viewer does not feel "in front of" what is represented but "inside" the story, provoking a reaction of greater identification with what is being told (Rispa 2005) In this case, architectural innovations and the use of a contemporary medium such as visual projection allow the the involvement of the viewer in the story.

It is therefore important to understand the motivations that led Piscator to innovate, using unusual technologies or original staging, but above all to reflect on the consequences of these open pathways, such as the change in the conditions of perception and the role of the spectator or the breakdown of narrative linearity.

Definitely, "involvement" is a common concept for many current artists, from Judy Chicago to Martha Rosler, to cite two examples. Indeed, for thirty years, Antoni Muntadas has repeated the following motto in the works belonging to the series, *On Translation* (1995-2024): "Attention: perception requires involvement."

Nowadays, we must ask ourselves about similar turns at a time when we have access to technologies where the image is digital, opening new possibilities in the virtual field, without forgetting other characteristics such as its transmediality or hybridization.

This is Tomorrow: Interdisciplinarity

To understand what creativity and ways of working can arise from a project's culture, a famous exhibition from 1956 can illustrate its possibilities: *This Is Tomorrow*, of which *Just What Is It That Makes Today's Homes So Different, So Appealing*? by Richard Hamilton, has remained the most famous work. However, beyond Hamilton's collage, Lawrence Alloway states that the exhibition is "devoted to the possibilities of collaboration between architects, painters, and sculptors" (Alloway 1956, 7). From this

premise, he refers to other moments in history where the integration of all the arts in a common project has been sought, although he acknowledges that until then, the ideal of a symbiotic "art architecture" has not been achieved. He finds various reasons, but, above all, he finds it in the difficulty of establishing a universal design principle, which makes the integration of the arts impossible. However, the artists and architects participating in *This Is Tomorrow* want to imagine the program of the future based on the desire for collaboration. In fact, "a result of this exhibition is to oppose the specialization of the arts" (Alloway 1956, 8).

This common spirit is found in the British tradition, which also has many references in other countries, such as the Bauhaus movement, whose origins are in many respects a continuation of the Arbeitsrat für Kunst program and the Werkbund culture, and which invited us to think of the house of the future as a crossroads of art and craft forms, also opening up to new technologies.

It is necessary to conceive of this provision today, which is hardly imaginable from the perspective of disciplinary specialization and frustrates the challenge of assuming a reality of continuous change and increasing complexity. Indeed, a position open to an impulse for dialogue between knowledge and techniques seems more suitable than the narrowness of doctrines settled in closed compartments. However, it is a proposal that can suffer from a certain vagueness if it is not determined how the knowledge is related.

Yet the proposal that Alloway summarizes implies a change in mentality since the (industrial) training in which we have grown up has tended to a multidisciplinary approach to knowledge fragmented into subjects without contact between them, and therefore without transversality. In *This Is Tomorrow*, creativity arises when disciplines meet, not so much by examining the internal object of study from another field of knowledge (typical of a transdisciplinary approach), but because it promotes the combination of practices and knowledge, integrating several professionals with different skills in the same project.

It is therefore committed to an interdisciplinary way of seeing and proceeding, aware of the lack of knowledge in the face of a complex reality, because it overflows any analysis and teaching closed in on itself. Therefore, to proceed, dialogue and collaboration among disciplines is required, without according privilege to any of them, so as to approach knowledge in an integral way.

Ultimately, *This Is Tomorrow* was one of those exhibitions that presented ideas and principles. It leads to thinking that rejects the idea of art simply

to admire. What results is a vitality that goes beyond the realization of the work of art, where two variables appear for the future, interdisciplinarity and collaboration, even if it means better specifying how this collaboration can be understood in the current panorama.

Innovation and a Culture of Participation in a Digital Environment

Our interest – *inter esse* (what is between or relates to several people) – has shifted toward interdisciplinarity as the main way to develop creative and innovative projects, becoming a propaedeutic attitude to face complex projects. Indeed, this approach, already in sociologists like Louis Wirtz, appears as a response to the complexity of the world, now being deeply influenced by computerization.

The current scenario for any activity takes place in an atmosphere of infinite metamorphosis. Therefore, in this context, the culture of a project must recognize that it is not possible to speak of innovation (discovery with application) without associating it with collaboration, when planning the future scope of creation.

To do so, it is also necessary to take into account how, in recent years, the idea of project has undergone a progressive dematerialization, a concept that obviously recalls the work written by Lucy Lippard as a result of the emergence of conceptual art. Indeed, the emphasis on the processual nature of the project, the consideration in it of aspects of a narrative or communicative nature, the appearance of non-objective developments in areas such as design, and the disruptive irruption of digital technology in work processes, among other aspects, demonstrate the dematerialization of the project universe, which implies a new way of understanding the relationship between the idea and its realization and, therefore, a fertile field to rethink ideas such as authorship, version, and "ownership.

For this reason, in a society made up of flows and relationships, the concept of collaboration is becoming increasingly important. It was described by Ezio Manzini in *Design, When Everybody Designs*, in which he calls for a new culture of design, sustainable and within networks. A project's culture then appears as a democratized phenomenon in a connected world undergoing frenzied transformation, where everyone designs thanks to the tools at their disposal and the possibility of being globally communicated, which has led to the development of collaborative solutions.

The "co-design" between *diffuse* design (performed by everybody) and *expert* design (performed by those who have been trained as designers) creates a new culture of participation, typical of the postindustrial world,

which thinks of innovation from an overlap of networks and connection nodes that speak of a decentralized and mobile reality. Therefore, to interdisciplinary logic, we must add the active involvement of all subjects involved in any project. Hence, it is increasingly important to consider the user as a participatory co-creator, a reality that links with the desired scenario at the beginning of this article.

Toward a New Culture for Projects

In this way, the traditional culture for projects would be characterized by providing solutions and concrete forms – from an exclusive field of knowledge – through work alone or in teams according to individual disciplines. In contrast, the current one understands its work in a procedural way, is inclusive, and is oriented to solve problems by generating new opportunities through work teams that promote transversal and collaborative processes.

So, a new paradigm opens with enthusiasm, although it could reproduce typical problems of horizontal structures. In principle, they are democratic and full of possibility, but, in practice, many times they are not conclusive and lack rigor. Science requires guarantees. How can they be offered in the digital collaboration scenario?

It is not a matter of opening a *querelle* between digital apocalyptic intellectuals and digital integrated intellectuals. Rather, it is about highlighting a possibility that complements the foundations of living, which, of course, will need to undergo a critical process to reflect on the consequences of these shifts..

Regarding possible guarantees or solutions, the concept of collective intelligence, defined by Pierre Lévy at the end of the twentieth century – and which researchers such as Thomas Malone continue to develop today – may be useful. This idea has its origins in biology, specifically, in those forms of collaborative intelligence found in bees or ants. Now it is applied to a field of relationships deployed by the internet, where individuals who collaborate in an orderly manner can produce cognitive enrichment, understanding the participatory culture³ oriented to innovation as that which is open, peer-based (transversal exchange of competences), shared, and of global action (De Biase 2016).

Many examples demonstrate its validity in different settings and scales,

³ According to studies by Henry Jenkins since 2006. Cf. Jenkins 2019.

such as citizen science, when hobbyists in astronomy collaborate to identify galaxies, or programs to build plausible scenarios for the evolution of the planet, such as the Millennium Project. However, is this enough for knowledge to advance?

If we want these procedures to be valid and grow reliably, they must have participants with complementary knowledge, which results in a transversal exchange of competencies to arrive at reasoned and well-founded conclusions, that is, they should never be a sum of opinions and tastes. It therefore rejects a quantitative-majority system to opt for a consensual one. The participants correct each other in a process not by voting but as the product of a discussion that must reach an agreement. Undoubtedly, this opens up negligible possibilities, although it raises other considerations such as the scale on which it is most effective, which could limit its implementation in some cases; although the logic of consensus itself should establish the inconclusive projects, inviting a sphere of negotiation that avoids the blockade and polarized positions.

In a territory where the only certainty is knowing that the truth is multiple and provisional, consensus and collaboration can save from relativism to develop a collective work-project. In addition, they have proven to be an effective generator of knowledge and innovation, founding a new principle for coexistence, not only from an epistemological point of view but also from a social point of view.

Toward a New Project Model: A Case Study

If we speak about projects to generate processes of change in urban life through new forms of collaboration, new ways of working, and new ways of thinking and building, the DesignNet projects are eloquent, aimed at building solutions and taking advantage of the possibilities of collaborative action that technological advances have offered in recent years.

Based on the experiences of the three DesignNet projects developed by the Istituto Europeo di Design (IED) in Madrid, Mexico, and Peru, the possibility opens up of thinking about forms of collaboration characterized by more personalized and networked work and training practices, with the change of hierarchies and roles that this entails.

These projects have been carried out through simultaneous international workshops in several countries, seeking diverse creativity for cities in the first two cases and through an international competition in the last. These actions accompanied a series of cultural activities and strengthened links between educational institutions in several countries around the world.

The development in progress of this project exposes the advance and application of innovation strategies in business management and teaching models, promoting those initiatives that have been able to best combine the analysis of their social and technological context through the invention of creative and functional processes. The use of specific methodologies for the development of these network projects becomes essential to guarantee results within a specific timeline and allow comparison between the projects carried out in different work groups. This is the *IED ToolKit*, a methodology created for participants in the Madrid DesignNet workshops and designed for people involved in innovation, horizontal-knowledge management, and evaluation of products in the real context, both global and local.

The methodology is based on a dynamic balance between project-development collaboration and personal time, channeling the process from participatory research to efficient communication. The project is developed in five phases in five days with two purposes. The first is to guarantee a result at the end of the week and the second is to allow the comparison of the results of each workshop at the end of the day. In this way, coordinators can analyze the proposals of other workgroups in another city on the same topic and start with inputs from other perspectives on the following day. This is how we achieve a different creativity.

Thus, it enhances collective creativity and the playful side of design, focusing on the real needs of users and recipients of innovation. It includes in its method different activities that promote practical and social research, in addition to several tactics already known in the world of creativity.

These workgroups are in the field of empirical analysis, and their results are interpreted as part of a system, that is, understanding the model as a whole allows us to extract those results that allow us to understand the proposed procedures and dynamics. That is why those elements that differentiate each particular case and those that can be universalized more easily are shown. Therefore, although the methodology is aimed at extracting conclusions that can be applied to other cases, contextual elements are also taken into account because every creative process is subject to objective, social, and temporal needs.

Among the aims of this project are to establish new forms of professional collaboration, promote research and creative processes, develop the urban and business fabric of different cities, and activate didactic and methodological processes that take advantage of new technologies and their possibilities of collaboration within a new model that promotes the analysis and interpretation of changing contexts. Precisely with this aim, the DesignPass project manager, the online platform for the development of DesignNet (Maseda 2010-2014), emphasizes the specificity of each member through the definition of their profile according to established parameters, in addition to other variables such as their level of occupancy in a calendar. This allows us to identify the most relevant members for each project, providing the tools to build multidisciplinary network groups and the possibility of responding simultaneously from different parts of the world to each challenge.

The final goal of this project is to be an agent of change that transcends the current processes of education and innovation, pointing to a space of relationships where interaction with knowledge and the language of design promote and build new ways of living and working.



Connections

A specific idea of "project" has been highlighted in the text, which involves the radical assumption of participation in a global and digitized context. Processes along this line have fostered a hybrid and multidisciplinary territory where a good part of innovation arises.

This means imagining – according to Hilary Putnam – another world, that is, making a rational projection to calculate the most appropriate way to achieve the desired result (Putnam 1990, 129). Therefore, we have to establish strategies and system analysis to determinate the viability and

value of a project and, above all, to promote ways of thinking beyond the necessary technical knowledge, still anchored in many cases to a physical world.

We therefore need new points of view and new languages that allow us to consider the new global context to rewrite the constellation of interests of the consolidated systems. The research project *Forms of Culture* within *Connective Tissues* (Labrador 2022-2024), from the MNCARS Study Center, is very suggestive. The contribution of this research group consists of providing an interrogative perspective to reflect on how to orient ourselves through the various existing forms, knowing that every established system starts from a hegemonic paradigm.

In short, artistic practices can offer a more relevant mode of participation, because these practices are capable of problematizing the ways of perceiving our times, knowing that changing the ways of seeing the world is a good way to change the ways to transform our reality.

At this point, this project offers "disorientation strategies" and critical processes (such as situationist *dérives*, actions and documents of the artists presented in *Disobedience Archive* (Scotini 2005-2024), or exhibition models such as the new anticolonial arrangement of the Es Baluard collection in Palma de Mallorca) that serve to dismantle the current hegemonic models. Next, we must consider how to create new orientation models to describe other "cartographies," not from the point of view of places but from the point of view of systems of relationships. An interesting field of experimentation will arise in which local and global realities meet at open intersections, pointing to a *novum* still to be explored.

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