# Interspecies Artistic Research Strategies: Biosemiotic Methods and Open-Source Network Technologies

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## ABSTRACT

Today, most people spend their lives online: browsing social media, watching cat videos, etc. Some consider this a parallel activity-not part of their 'real' life. But the truth is that today those whose brains have been rewired through their interaction with these technologies are in fact constructing their reality through these systems of representation. One could argue that they seem so intimately attached to those images that even their reality seems postproduced (Steyerl, 2017). On the other hand, this new collective subjectivity offers new possibilities, as they promote the idea that today—as Joseph Beuys predicted—everyone can be an artist (2004), thus assigning a new role to internet shared images and their producers. The challenges that arise from these scenarios are: Can we embrace the creative potential of these apparently meaningless daily activities as the rich material for new collaborative narratives? Can we benefit from these collective productions to promote new bioethical discourses, or might this perhaps add another footstep towards a new becoming paper will develop these media? This arguments and present the results of the author's formal artistic research based on opensource network technologies as the materialdiscursive tool for the articulation, promotion and distribution of collective singular intimate interspecies explorations in a 'new aesthetic' paradigm.

## **KEYWORDS**

Artistic Research; Open-Source; Network Technology; Media Ecology; Biosemiotics.

# 1 | INTRODUCTION

The problem of "other minds" is a very ancient problem that is still present in contemporary society, and it is so because we haven't been given the tools to construct our cultural beliefs that allow us to understand other species. Today, we are not missing observation skills and tools, nor moments of interaction with other species—in fact, we are all exposed to meaningful moments of exchange with other species all the time, though what we are missing are the cultural constructs that make all these observations and experiences cohesive. This discrepancy between our own singular ways of experiencing and understanding the world and what we are taught to believe can lead to confusion and frustration (Haraway, 2008).

When we extrapolate this argument to the use of animals in laboratory research, we are confronted again with paradoxical contradictions: on the one hand, research on animals is considered "ethical" for the physiological and cognitive differences that separate us-we have been taught that those species experience the world in a different way than we do and therefore they don't experience pain and anxiety the same way as we do; on the other, research on animals is legitimated precisely because of the similar features that we share (Wolfe, 2013). Acknowledging these similarities could provide the grounds to explore those other potentially profound differences that exist in the ways we experience the world, or in Ludwig Wittgenstein's words: "if a lion could talk, we probably couldn't understand him" (1958) and concluding with Lisa Jevbratt's words: "...and precisely because we can't understand, it is important to listen" (n.d.).

Human-nature relationships today are still described in two contradictory ways: on the one hand, animal and wildlife activists have condemned the unsustainable industrial exploitation of nature; while on the other, we claim to hold an inherently holistic relationship with it. Applying Levi-Strauss' paradigms of the Raw and the Cooked, we display great sensitivity toward idealized forms of the natural world-part of a domesticated aesthetic nature identical with culture, while simultaneously we show indifference for the nature in the raw, from which we have to take moral distance in order to exploit it for resources (1983). But to affect the machinery governing this border seems to

be more complicated than we think, as we note that the nature-culture relationship was never lost but simply affected by the implications of modernity. Today, more than ever, we can see how both worlds are indivisible. There is no biosphere nor noosphere—as Manuel De Landa says, everything belongs to the same Mechanosphere (1996). There is no fixed order, nature and human technology affect each other. For that reason, we should pay special attention to the methods of capitalist systems. We are provided with subjectivity through systems of representation and signification, thus assigning us to a specific process of individuation, creating roles and functions. These modes of expression over signifying semiotics are a political process, since the "appropriation of meaning is always an appropriation of power" (Lazzarato, 2006). In other words, one could say that we live in a semiotic trap.

Therefore, the first part of this paper will focus on two of the most exploited systems of representation that have been subjected to shifting articulations over the past year: first, the development of network technologies-with its best known representation 'the internet'; second, the still predominant ideas of 'nature' and 'speciesism' associated with scientific disciplines, such as the natural sciences. Finally, the author proposes a rearticulation of both systems through artistic methods in a practice-based site-specific workshop, in which the participants will have the possibility to: 1) Reflect upon their unique definitions of nature and culture. The participants are introduced to biosemiotic methods as an alternative to the classic monistic scientific method, and are challenged to perform a personal intimate experience with a non-human 'species'. 2) Document and share their intimate experiences with their workshop colleague with only the support of their personal smartphones, forcing them to reflect on the agency of the technology as a material-discursive apparatus. 3) Explore the potential of alternative collaborative systems of representation based on opensource network technologies, while they are introduced to the "offline gallery" platform and other similar projects, and encouraged to participate in a site-specific group exhibition hosted in the "offline gallery" platform.

## 2 | ARTISTIC RESEARCH STATEMENT

Contemporary artists have shifted from the traditional focus on the single image, and instead started making art by creating their own aesthetic systems: arranging resources, media, people and the interactions between them. Therefore, contemporary art today no longer

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works only as an object of interpretation, but it interactions also encompasses and deregulation of systems, allowing its participants to experience art in a new, questioning, amplified and empowering way (Kac, 2009). Based on the new possibilities of the application of interdisciplinarity in their work. many artists saw in working together with other species a new system to represent the natural world, one full of politics, culture, meaning, interaction, communication and intention. Confronting the results of these unusual collaborations could promote the disruption of the classic Cartesian distinction between culture and nature, forcing us to acknowledge their agency, turning them into our intellectual and spiritual partners and therefore make it much more difficult to put them through suffering or danger. Could contemporary art, as an already alternative capital, take on this challenge and propose new cartographies of subjectivity from which new values could be affirmed?

#### 3 | ARTISTIC RESEARCH & INTERSPECIES EXPLORATION

Contemporary scientific disciplines, such as the natural sciences, make use of continuous scales of structural differences, applying monism to explain their physical reality. But if we apply a more fine-grained classification of qualitative difference to this physical reality, we will find ourselves in another dimension of reality—in the domain of pluralism—the semiotic reality (Kull, 2011). Remodeling the relationship between art and science would imply the discovery of their common roots, which are the semiotic ones (Kull, 2009).

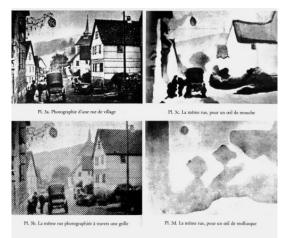


Image 1 | Illustrations found in the book *Mondes Animaux et Monde Humain,* by Jakob von Uexküll.

Within the group of pioneer Biosemioticians, the work of Jakob von Uexküll is especially renowned. Back in the XIXth century, the German biologist understood that the only way to acquire knowledge from a semiotic system semiotic would be through processes themselves. Jakob Von Uexküll developed specific methods called "Umwelt-research," aiming at reconstructing the vital creative nature of the process of creating what happens in all species. He called them "participatory observation" methods. Uexküll's methods would redefine "observation" as the recognition of the signs registered by the observer and also those received by the living organism under observation. Consequently, "participation" will then be defined as the resulting reconstruction of the "Umwelt" (surrounding world) of another organism through the sharing of the decoding processes occurring during its behavioural activities (Uexküll, 1956, 1957).

New examples of these forms of participation are constantly emerging due in part to the development of new technologies. Jacob von Uexküll, as early as the XIXth century, made use of new hot media like photography and photo editing techniques to represent the different sensorial apparatuses of animal species and their implications in their interpretation and understanding of their surrounding world. The development and rapid ubiquity of photography boosted the social repercussion of biosemiotics, promoting the conceptual development of new arguments and setting up the foundations of today's bioethical agendas.

Following the work of Jakob von Uexküll, contemporary biosemioticians have been reflecting on the classic system of biological species. Consequently, biosemiotics as a pluralistic research field—while still endorsing the use of categories in the natural sciences, though redefined as the group of semiotic objects in the human process of differentiation (Hoffmeyer, 2008)—insists that a semiotic system of categorisation, such as the speciesist one, is the result of a process of interpretation and therefore relational, as in fact there are no absolute characteristics describing any species (Kull, 2011).

More recently, contemporary philosopher and zoologist Donna Haraway redefined the classic notion of species bringing a new vitality to it. According to Haraway, species would no longer be defined according to perceptual categories, but rather according to their common interests and goals (2008). These new species would require new learning systems no longer based on imitation but on the exploration of the difference, awakening the taste for risk and collective creation (Guattari, 1984).

# 4. | ARTISTIC RESEARCH & NETWORK TECHNOLOGIES

Simultaneously, the emergence of network technologies, open-source hardware and software promoted the appearance of other non-hierarchical, self-organised, space-time forms of creation and collaboration. Today, many artists have found in these tools not only new fields for the development of new poetic languages, new forms of collaboration and participation, distribution and promotion of their but—what's more important-the work. experience to acknowledge that: one, the success of a collaboration is not based on individual contributions but on what they can all achieve together; and second, that—as in many examples of collaboration — sharing a common agenda is not always relevant for a collaboration to be successful.

The Internet today has the potential to construct global networks just as it creates a shared history. John Berger (2008) uses the pinboard as a metaphor of his desire for a future collective folk art, arguing that the images pinned in these boards belong to the same language and therefore have equal value, as they all represent the expression of their owner. These boards—he claims—should one day replace museums (Berger, 2008). Today, images in social media are more integrated in our lives than any museum has ever been.

Unfortunately, the internet today is verv different than its first version, losing its innocence and optimism and exchanging it with surveillance, loss of privacy and colonisation of the commons. But criticize Instagram, and that critique will be absorbed in its apparatus (Flusser, 1983). As young contemporary artists look for new markets, internet artists have to deal with a battleground for commercial platforms that automatically assimilate their political attempts of liberation. The challenges that arise are then: how do we escape these relationships of domination and how do we develop practices of freedom and processes of individual and collective subjectivation using these same technologies?

# 5 | OFFLINE GALLERY

As a result of the previous research, the author developed the "offline gallery," an offline digital platform based on open-source network technology, specifically designed to host and promote site-specific browser-based artworks. The device is composed of a Raspberry Pi, a USB antenna and a battery pack. Due to its small size and autonomy, this device can be installed in places that are usually not suited (or even allowed) for the promotion of the arts though they are usually the source of inspiration for the artist. The artist, the audience, the artwork and its object of representation can finally meet safely and express themselves freely in the "virtual" digital space.

The Offline Gallery offers an open network. The audience connected to this network will automatically receive a pop-up window in their mobile device, such as the captive portal window on public hotspots. The artwork, hosted inside the platform is only visible by the audience around its perimeter. No App download or registration required, the interaction of the audience with the artwork is completely anonymous, leaves no trace, and no data is collected.

The collective experience results in a more phenomenological and less disembodied approach to the work of art. Physically putting the audience in the context of the artwork, this project confront the prejudices against digital artworks as promoters of alienating and disembodied experiences. Offline Gallery offers the possibility to merge the source of inspiration in the 'real', and the artwork of the featured artist in the 'virtual'.

The gallery space makes use of offline network strategies, therefore aligning with the notions of privacy rights, freedom of speech, as well as open source values. In addition, the Offline Gallery deregulates the notions of a classic gallery space and art market stakeholders in the process of promoting and showing artistic production. This project is a reminder that art is about experiencing together and not about collecting commodities.

#### 6 | BOT (BOTANICAL GARDEN WORK-SHOP & EXHIBITION)

The "Offline Gallery" was designed in 2018 to show the individual results from a series of sitespecific day-workshops with Interface Cultures Master students at the Botanical Garden of Linz.

As a framework for the workshop, the students were introduced to classic notions of biosemiotic methods of observation and articulation. On that ground, the Botanical Garden of Linz represented the perfect scenario, as the participants could already observe first-hand through their visit to the garden the many layers of meaning that were made accessible to them through different systems, such as: the scientific Latin signage present all around the park, the separation of species by continents, climates, the notions of 'exotic' and 'domesticated' species, the conversation with the director of the park and his personal relation to botany and the management of an international research institution, our encounters with the caretakers of the garden, the local visitors, etc.



Image 2 | Offline Gallery at the Botanical Garden of Linz

After some time exploring all these different layers, the participants of the workshop were encouraged to create their own unique interspecies narrative as the result of the artistic exploration of an intimate exchange between them and a non-human subject of their choice. The goal of this exercise was to reflect on the substance of these unique interspecies relationships, singular moments of exchange, that—according to Donna Haraway—would only be possible to achieve through curiosity, emotion, exchange, and respect for the difference (2016).

The participants were asked to document and present the results of this exercise to their colleagues at the end of the session. As a constraint, they were limited to the tools offered by their personal smartphones, forcing them to confront the challenges and frustrations inherent to the limitations of the interface in the process of remediation, turning those moments of singular exchange into synthetic digital representations, thus acknowledging the agency of the smartphone apparatuses as producers of phenomena (Barad). Though they mainly made use of visual media, the participants were able to present a large variety of formats, such as: artistic photographs, double exposure photographs, photographs of photographs, as well as photographs of people taking photographs, vertical and horizontal short movies edited in specific Apps, as well as GIFs and stop-motion animations, among others. After the casual presentation all their documentation was collected, in addition to a written description of their projects, with the final goal to curate a site-specific exhibition using the "offline gallery" platform.

All the projects were then compiled in a static website. The participants had the chance to collectively decide the final design and additional elements of their project, again confronting a new process of post-production and remix, following Hito Steverl's ideas of poor images as promoters of democratic access to tools for the production and distribution of art (2009). The result was then uploaded to the platform and installed back at the botanical garden. As a protective and aesthetic element, the participants decided to exhibit the device inside a transparent waterproof fanny pack-in an aesthetic attempt to emphasise the original ideas of open black box-and strapped securely around a tree a few meters above the ground.

# 7 | CONCLUSION

Having the gallery directly installed in the same space where the artworks were developed resulted in a very interesting scenario: on the one hand, the poor website aesthetics provided less sensory data, thus demanding more participation from the user; on the other, the site-specific exhibition forced the audience to shift continuously between the virtual and the real world, merging art with life while exposing the medium itself.

The workshop and exhibition raised a general reflection about our responsibilities as producers and consumers of new communication technologies, showing how the mindless attitude toward the absorption of a new technological apparatus can also enslave us. But it also shows how the thoughtful use of medium—one а allowing participation, exchange and transformation, one diminishing the distinctions between author and audiencecan empower us as well.

Deleuze & Guattari (1987) saw in the role of the artist the transformative power to deregulate our political ethos. He promoted the idea that artists and writers are in a better place than professional politicians to do politics, calling instead for the transformative potential of the micro-politics of minoritarian becomings. The most extraordinary is that—according to Deleuze—these practices could happen without relying on political regulation, thus without political activism and rights defense (1987). In other words: there is no need to put morality into it, only narratives and signs.

Besides the exhibition in Linz, this project has been installed in different international botanical gardens, such as the Mildred E. Mathias Botanical Garden of Los Angeles, thus sharing similar ideas of knowledge and seed exchange between botanical Gardens around the world.

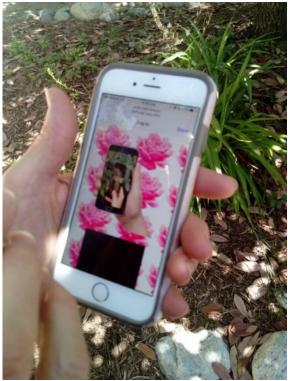


Image 3 | Offline Gallery at the Botanical Garden of Linz

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Fabricio Lamoncha is an artist, designer and researcher. His practice explores the

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