OPHILIA: Cy-Collage Cyberperformance

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Abstract. This communication intends to present a practical case developed within the context of an exploratory project on cyberperformance, titled CyPeT. As part of this project, we surveyed the strategies developed by teachers, creators and performers during periods of confinement and identified the possibilities and challenges that cyberperformance brought to the context of the performing arts. Resulting from a collaborative creative process, the experimental cyberperformance *Ophilia*, created by the team involved in this study, aims at learning more about creation in a digital medium through practice. *Ophilia* is a work in progress, developed through the implementation of an arts-based research methodology, that allowed the team of researchers/creators to identify creative strategies inherent to cyberperformance while adapting Shakespeare's character Ophelia to a new medium. Above all, during this process, we were able to identify various technological limitations inherent to the platforms provided by educational institutions when applied to the creation of cyberperformances.

Keywords: Cyberperformance · Artistic practices · Teaching methodologies · Higher Education · arts-based methodology

1 The CyPeT Project and the Cy Co-lab Pedagogical Experimentation Workshop

CyPeT is a research project funded by the Foundation for Science and Technology (FCT) in Portugal started in 2021. The aim of the project was to seek critical thinking about performance art produced online and envisage new teaching methodologies that could arise from this investigation. To this end, we analysed the strategies developed for the teaching of performing arts during confinement and developed a diagnosis of the academic reality, during the same period, based on the analysis of the results of the surveys applied to Portuguese Higher Education Institutions (HEIs). We also analysed the artistic practices, based on the results from semi-structured interviews with artists who, during the period of confinement, used new strategies for the presentation and dissemination of their performances.

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Online teaching, imposed throughout the confinement periods, in the years 2020–2021, has faced many challenges. The "new normal", as this phase became known, demanded from teachers/artists the ability to "reinvent themselves", to adapt, and to be creative in even more precarious conditions than usual [1]. In the Portuguese context, studies on this period, in education, are still scarce. Most publications focus on how institutions have adapted to remote teaching, emphasizing technological requirements, teaching strategies, and means for interacting with students [2]. Even scarcer is the research related to online teaching within performing arts. The existing few present generalist studies: the authors [1, 3] and [4] point to online teaching during confinement while [5] and [6] address specifically research focused on online teaching in performing arts.

All the investigations mentioned above put forward a series of problems and challenges associated with the abrupt transition from face-to-face teaching to emergency remote teaching. Among the main difficulties identified by the authors are the conditions for distance learning, namely network problems, the lack of adequate equipment and the diversity (and inequality) in the access to technological resources felt by students and teachers [2]. Furthermore, in the next section, we deepen this subject in the analysis of surveys carried out with Portuguese HEIs.

Despite technological difficulties, creativity allowed good practices and successful experiences. Creativity is inherent to human beings, making possible individual discoveries and reinventing oneself in different circumstances. It is present in our society in various instances, enabling scientific, cultural, political, economic and educational advances over time. In the university context, it could not be different, as creative processes are important for structuring and thinking about didactic structures for the classroom. As such, "it is observed that the world has changed quickly, however, many didactic formats used in the classroom remain the same" [7]. The emergence of distance communications became a pressing issue in Higher Education that demanded creative solutions: how to adapt the teaching of artistic practices that traditionally require corporeality to a virtual space that dematerializes it? How can creative adaptation be carried out by teachers without previous technological training? These questions became even more relevant because the pandemic situation highlighted the current gap between, on the one hand, the manifestations of a society that tends to disengage from traditional cultural media (theatre, cinema, books) preferring digital content, and, on the other hand, the absence of effective methodologies for teaching in the arts context through digital devices.

When considering the transposition of the classroom from face-to-face to online environments [8], is necessary to go beyond the physical space, going also beyond the structure of the classroom and the traditional way of thinking about it. Society works as a diverse and complex network and creative education has the challenge of keeping up with this dynamism, by including collaborative practices to boosts student's creativity, projects, and creative processes. In this sense, the study of cyberperformance responds to the developments of innovating creatively in the teaching methodologies for online performing arts.

Throughout the research and in addition to presenting the state of the art on cyberperformance, questionnaires were carried out on higher education institutions and interviews with artists. This constituted the first stage of the CyPeT project. On the second

stage, for the development of a methodology aimed at teaching cyberperformance, artistic works were created. One of these projects, Ophilia, was developed at a workshop on pedagogical experimentation, which took place in May 2023, titled Cy Co-lab. The Cy Co-lab workshop brought together teachers and artists for a one-day event that aimed at contributing to the development of a pedagogical model to be implemented within the scope of the CyPeT project. The event has as objectives: to share knowledge, perspectives and strategies of artistic and pedagogical nature in the area of cyberperformance by involving participants from different areas: teachers, artists and technicians; to propose adjustments to a pedagogical model for teaching cyberperformance under development within the CyPeT project; the creation of microcyberperformances; to develop critical thinking on the process of creating a cyberperformance, along with the teaching-learning process of a digital performance.

2 Cyberperformance

The term Cyberperformance describes live performance that takes place on digital platforms, and it is characterized by being mediated, intermedial, hybrid, collaborative, aesthetically and socially intervening [9–11]. Cyberperformance adapts tools, questions the cartesian division between mind and body, and the concept of simulating reality. It demonstrates that virtual reality is as real and consequential as the physical world. Its genealogy combines performance and net art because the Internet is its native environment [10]. That is, Cyberperformance draws on several sources, but it is mainly dependent on the Internet, reason why it tends to be processual and open ended [10, 12, 13]. As an artistic expression, cyberperformance is also described by new media characteristics, such as connectivity, universality, dissemination speed and virtuality, which distinguish these from other media-based artistic practices and establish unique possibilities that lead to new creative processes [14].

Attending to its characteristics, cyberperformance has become a departing practice for the development of creative methodologies in the online teaching, precisely because of the it establishes connections between the existing online dynamics through digital platforms and social networks as privileged spaces for the development of a "pedagogy of connections" [15]. From here, new initiatives gradually emerge that evoke engagement and personalization through the articulation of contents and skills of the digital and mobility era, by acknowledging the potential of the network communities and new concepts of participation, collaboration, autonomous learning, and associated multidirectional and creative dynamics.

As consequence, there are necessarily distinctive elements of this medium [16] which, as our study has shown [17], can condition the creation, dissemination, and reception of the work. The aesthetics of the Internet imply an immersion effect. Surely, immersion can be provoked by any other medium (music, literature, etc.), any time the listener/reader/spectator experiences the effect of being immersed in another reality in which all their senses are absorbed and become oblivious to the reality in which they find themselves. But the Internet has additional features that enhance this effect, for example, through the possibility of virtually entering an augmented reality, and through the multisensory stimuli that the devices allow (including video, sound, photography, graphic productions, animation, etc.).

Furthermore, immersion in virtual environments is altered by participation. Participation, enhanced by interaction, is not exactly original to the Internet, as it finds equivalence, for example, in theatre, with the fall of the "fourth wall". The difference, though, lies in the fact that participation online is inherent to the medium, part of the cybernetic creative process that totally obliterates the performative geographical distance. Participants must register, they have to create an access name, they can comment on the performance, synchronously or not, in short, there is the possibility of interaction between the participants/visitors and the performers. Another characteristic of this medium is its rhizomatic essence, the navigability resulting from its inherent transtextuality. Unlike a theatre, where the spectator is invited to disconnect, on a virtual stage the visitor/participant has countless tabs, toolbars, links, etc. at their disposal. One of the most frequent criticisms of the audience's behavior in online events concerns the fact that viewers turn off the camera (often to perform other actions at the same time), especially when the viewer realizes that they must participate actively, they have to play the role of performer and not just be a passive spectator. In this sense, the Internet imposes a redefinition of the spectator's role since it demands taking an attitude and deciding to be present or to disconnect.

Among the many features in the definition of the Internet as a medium for the performing arts and, consequently, of the dramatic productions it generates, we would like to highlight two as the most relevant taking in consideration the results of current research. One feature concerns the fact that the Internet allows the convergence, in a virtual space, of voices, texts, images, sounds, locations, which may be distant in time and space both real and fictional. The other feature concerns the error, failure and noise that can occur at any time because of the instability of the medium and its mediated nature and the way in which this randomness integrates the ephemeral aesthetics of the work created.

3 Methodology

3.1 Collecting Data for a Diagnosis

As already mentioned, we found a need to make a diagnosis that would address the difficulties and strategies found by teachers to mitigate or to overcome the constraints resulting from the pandemic. To this end, all the coordinators of the first cycles of study in performing arts in Portuguese Higher Education Institutions (HEIs) were invited to participate on the survey "Online Teaching of the performing arts in a context of confinement", of which twenty-three participated in a study caried out between April and July 2022.

To what concerns the semi-structured interviews with artists, the corpus was defined by an intentional sample of artists and artistic groups. Six interviews were made.

While the results of the questionnaires were subject to statistical treatment, the interviews were subject to content analysis according to a qualitative model [18].

The survey includes open and closed questions related to cyberperformance, creativity and Higher Education with the intention of collecting data about the impact of the pandemic on teaching performance related classes.

Before carrying out the interviews, guidelines organized by topics were created which included questions referring to the challenges that COVID-19 brought to creativity and the strategies that Higher Education Institutions and their agents have designed to overcome the challenges. The participants also detailed what they did during the confinement and what they think could continue afterwards.

3.2 Arts-Based Research

Arts-based research is a transdisciplinary strategy that values the role of creative arts in research contexts [19]. One of its main characteristics, and simultaneously one of the major potentialities of this methodology, is the fact that it favors interaction (at different levels: both emotional and sensorial) between the researcher/artist and the audience. As such, the process becomes particularly important, sometimes even more than the final outcome. This methodology involves a critical, and simultaneously collaborative, reflective attitude of everyone involved.

Artistic practices are at the core of the research itself [20]. This does not mean, however, that all research is limited to the practice. In fact, in many cases this methodology is combined with the use of other methodologies of an empirical nature, such as interviews or mixed with quantitative analysis.

Arts-based research expands the limits of discursive communication to artistic practices, where transmitting meanings and sensations is hardly apparent when using traditional methodologies. It is precisely why methodologies based on the practice of researchers/artists can lead to directions that are impossible to achieve with traditional scientific methodologies [21].

Research that is based on or as artistic practice is not just research "about art", but rather "through art" [22]. The creative process within the digital arts is traversed horizontally through long cycles of deep reflection. Artists continually raise questions about primordial visions and initial concepts/ideas under the light of the "other", being this other the audience, the performer, or even the materials, the technologies, the tools, and the prototype of the artifacts. But the arts-based methodology is not exclusively centered on the individual, rather, it is based on collaborative logics where the creative process and the research product(s) are shared. Precisely for this reason, it has been demonstrated that its effect tends to be more effective and immediate, particularly when applied to an educational context.

Artistic practices have proven to be particularly fertile in generating new curriculum approaches for general educational practices and the development of the learners [21].

The cyberperformance Ophilia and its entire creative process is the result of arts-based methodology studied and developed throughout the project CyPeT.

4 *Ophilia*: A Work in Process

The cyberperformance Ophilia (Fig. 1) is one of the microcyberperformances developed as part of the Cy Co-lab pedagogical experimentation workshop, in May 2023 (Fig. 2). After the workshop, collectively, the participants decided to present the performance at the Cyberperformance Symposium, the final event of the CyPeT project, on the 29 and 30 of June 2023, at the University of Algarve.

Fig. 1. Poster of the presentation of the cyberperformance Ophilia

Fig. 2. The poster of the Cy Co-lab pedagogical experimentation workshop.

Together with the authors of this text, took part on Cy Co-lab many invited artists and teachers from the group of respondents to the interviews. This was the case with Pedro Alves, artistic director of Teatromosca (the second participant from the right, Fig. 3) and with two other professors from Unicamp, Brazil, who developed the cyberperformative Jardim das Cartas. The researchers are: the scenic artist and researcher at the Institute of Arts, Department of Performing Arts, Daniela Gatti (the third participant from the right, Fig. 3), and composer, researcher, and teacher at the Institute of Arts, Jônatas Manzolli (the first participant on Fig. 3). Manzolli is also a Visiting Full Professor at CISUC-DEI, University of Coimbra, and at DeCa/University of Aveiro. Cy Co-lab took place on Microsoft Teams platform and at University of Maia campus and was divided into two moments. The first moment, held in the morning, in addition to presentations by the above-mentioned guests, the authors of this article shared CyPeT's results, the state of the art, and case studies. On the second part, Jônatas Manzolli presented a few applications used to create the cyberperformance Jardim das Cartas. Collectively, all the participants engaged on a creative process from which resulted the cyberperformance Ophilia.

The ephemeral collective at the Cy Co-lab chose to use the principle of *collage* as an aesthetic technique to combine various textual, sound and image elements. Like *montage* and *assemblage*, *collage* is a central technique of the modern visual art and fundamental to artistic movements such as Cubism [22]. It allows materials of different origins to be combined, providing a unifying meaning to the composition. In the case of Ophilia, collage has been adapted to intersect modern art and the performing arts through digital technologies [23].

Water was chosen as the central theme for Ophilia in connection with the concepts of fluidity and integration. The theme seeks to present how collectively, teachers and artists can engage in dialogue to overcome obstacles and learn with each other. Water is a great metaphor for our work together as it relates with fluidity, mutability, and the way in which, in constant movement, different particles can be united, allowing drift while leading to converge into new forms. The theme also related closely to the

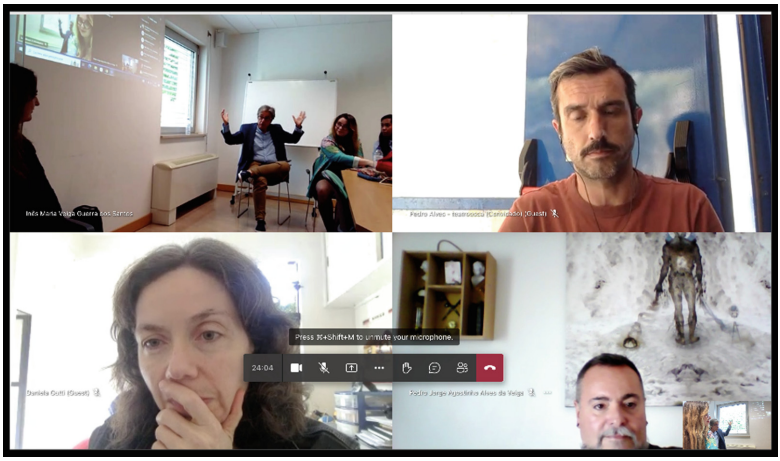

Fig. 3. Workshop Cy Co-lab on May 2, 2023. Photographer Juliana Wexel (2023).

textual tradition of Shakespeare's Ophelia which led to new sub-themes associated: the theme of love and the theme of woman. The tragic character of Ophelia was adapted to become multiple cybernetic Ophelias. In digital contexts, new forms of adaptation have been developed by establishing connections between media through dynamics of transmediation. These processes led to developments in the theory of adaptation providing perspectives that allow traditional comparative approaches to be rethought. In literature and film studies, for example, one of the dominant trends has been to focus on the question of transposition i.e., on analysis based on the comparison of works resulting from the transition from one medium to another, more precisely, from the literary form to the moving image, systematising similarities, and differences. The question of adaptation raises a broader issue, that of the function of adaptation in digital culture. Multimedia adaptation highlights creative processes in which adaptation is not simply rewriting a concrete, finished work, but rather integrates forms of creation that tend to be transtextual and transmedia. This perspective corresponds to a notion of adaptation as fluid, in the sense of Bryant [24], which includes all forms of transferring, rewriting, and revisiting a text, in other words, a notion of adaptation as an "ever-changing ever-developing story" [25]. From Shakespeare's tragic Ophelia to the creation of the cyberperformance Ophilia, there is not only a different thematic approach, instead, several transformations take place resulting from the change of the medium itself [16].

Using adaptation as a creative strategy, new and contemporary versions of the tragic Ophelia came to existence. These new modulations manifested through poetic declarations made by emancipated Ophelias, who refuse to die for love, who accuse any Hamlet of cowardice and find in water the natural element that reconnects them with cosmic harmony, far beyond any romantic disaster. The first composition, "Archimedes' Principle", by Célia Vieira, takes the form of a past hypothesis and questions what Ophelia's behaviour would be if she had understood her existence as part of the liquidity that unites all beings: "if Ophelia on her way to the river/would have found a friend/a shelter, a bird, or a book/and her blind eyes stopped/and if Ophelia had seen on her way to the river/that

living or dead/the inert body floating/ […] and laughed at her image/would she continue to float/on the surface of the water?".

One other of the several poetic compositions, the poem *Ophelina*, by Juliana Wexel, breaks with the premise that water is the material of female death in literature [26]. In the first verse, the text's interlocutor, the Greek naiad Daphne, tries to dissuade Ophilia from committing the suicide of passion: "*Ah, Ophilia, Ophelina… Thy name is not frailty*". The sentence subverts Hamlet's original speech in dialogue with the Denmark's Queen Gertrude, his mother, in Shakespeare's original, "*Frailty, thy name is woman*" [27]. In the last lines, Daphne suggests that the tragic character should enjoy herself rather than end her life because of an amorous disappointment: "*Ah, Ophilia, you would sip a port wine, slowly, slowly… You would contemplate the prairies of urban madness, smile in soliloquy and say 'no, no, Laertes… That madman? He's not worth loving!*'". The text was regionalized in reference to the fundamental product of the cultural landscape of the Douro Wine Region, the oldest controlled vineyards in the world. The poem *Ophelina* has been presented at the performance *O Baile da Ofélia* (2014), produced by Denise Andrade and developed in collaboration with the artistic producer Riko Viana. The textual creation is derived from the adaptation of *Hamlet* by Vitor Pordeus, for the play *Loucura sim, mas tem seu método,* a project of the *Hotel e Spa da Loucura* (2012 and 2016), developed at the Instituto Municipal Nise da Silveira, Rio de Janeiro, Brazil.

We assumed that these lyrical texts would form modules of a multimedia composition together with spoken word, sung word, written word, video, and music. For its orchestration, we adopted a rondo structure since its ternary structure could serve as a score for the various modules. Singing worked as the connecting thread between modules.

The three movements that constitute the structure are: i) poetic dialogues between the Ophelias (inspired by the character from William Shakespeare's Hamlet), having as background a video of a river (Fig. 4); ii) interaction between Ophelia and ChatGPT, in an attempt to understand about life and love from an outside perspective (Fig. 5); iii) a poetic statement of Ophelia presented in voice-over, using a camera filter (Fig. 6).

In the dramaturgical composition of *Ophilia*, the use of *OpenAI's Web ChatGPT* interface had two main purposes. Firstly, as a digital tool, we could experiment textual construction in dialog with a cyber Ophilia and, secondly, the ChatGPT played the role of a supporting character due to its ability to imitate human conversationthrough a verisimilar interaction. This last aspect reconfigured the dramaturgy by including aspects of Artificial Intelligence Art (AI Art) in the cyberperformance.

As cyber Ophilia, Juliana begins the dialog with ChatGPT as if the virtual assistant was human: "*Dear Chat, what is love?*". She follows aloud the chatbot's superficial digression on the subject. From here, Ophilia deepens the bond of affection with the virtual assistant taking inspiration by what Bachelard calls the *Ophelia complex* and the literary preparation for suicide [26]. The conversation also references the dialogue between Ophelia and Hamlet in Shakespeare's original text: "*My 'ex' said he never loved me and told me to go to a convent… I'm thinking of diving into the waters of eternity…"*. The chatbot recognizes the metaphor of suicide in the passage "*diving into the waters of eternity*" and dissuades Ophilia from her suicidal intentions by advising her to seek a specialist help. At this point, cyber Ophilia becomes even more intimate with the chatbot by comparing it to her "ex" with compliments and inviting to an in

person meeting. The digital interlocutor kindly replies that this would not be possible, because, as an artificial intelligence assistant, it has no emotions and no human form. Ophilia insists and explains: "*But I like your artificial intelligence!*" Disappointed by the virtual assistant's second rejection of her invitation, repeating the same information as the previous answer, Ophilia concludes: "*I'm going to dive…*" and interrupts the conversation. The general intent of the text was based on the concept of liquid love [28] by addressing disillusionment *(pathos)* in contemporary use of dating apps.

Throughout the three moments, the singer Rosimária Sapucaia sings live the It's Sweet to Die in Love inspired by the song "É doce morrer no mar" (It's Sweet to Die at Sea), by Caymmi and Jorge Amado.

Fig. 4. Frame of *Ophilia* Performance, available at https://www.youtube.com/watch?v=5ls_Q8yMObg.

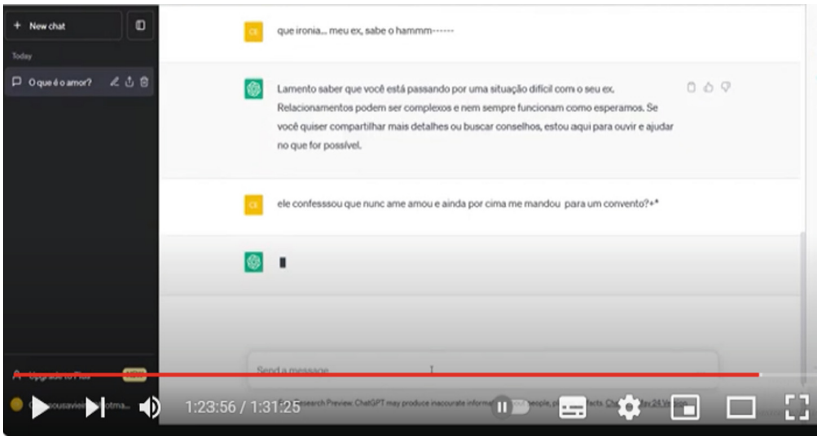

Fig.5. Frame of *Ophilia* Performance, available at https://www.youtube.com/watch?v=5ls_Q8yMObg.

The performance has a duration of 10 min. The chosen software for creating and presenting Ophilia was Zoom, unlike Cy Co-lab that used Teams. Five researchers from

Fig.6. Frame of *Ophilia* Performance, available at https://www.youtube.com/watch?v=5ls_Q8yMObg

CyPeT were involved, from making the script to presenting the performance. The intervention of Jônatas Manzolli was also very relevant for the development of Ophilia. The equipment used was the IPVEVO VZ-R HDMI Camara, model CDVH-031P, connected to a notebook (Fig. 7). This camera helped to create the immersive environment through filters that allowed the simulation of different landscapes and effects, namely a shadow effect (Fig. 8).

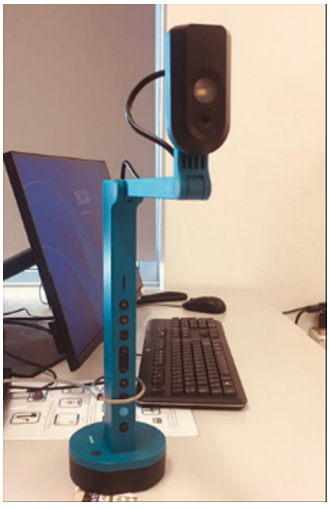

Fig. 7. Camera used in the performance. Photographer Célia Vieira (2023).

5 Results

Immersion that combines physical and virtual spaces and establish collaborative networks by enhancing ways of learning and teaching that reinforce appropriation, [29]. We have considered the following steps while developing Ophilia [30]:

Fig. 8. Filter generated with the IPVEVO VZ-R HDMI Document Camara. Photographer Juliana Wexel (2023).

1- Network collaboration. The group gathered several times via the Zoom platform for meetings, developing the performance, experiment with glitches, effects, soundscapes, and the creation of scenarios. Throughout the process, a few elements of the group were in different countries (Italy, Brazil, Portugal) and only came together at the workshop and for the final performance. The performance in itself is not the main goal of the process, most importantly is the creative synergy generated before, during and after the performance.
2- Multi-referential space-time. The group studied and tested various platforms and artifacts. Some of these tests were done asynchronously (the videos, for example) and others synchronously (the interaction with artificial intelligence, for example). As result, spaces and digital artefacts used were the ones suitable for the cyberperformance.
3- Cybercreativity. Also associated with technological innovation, cybercreativity highlights the inventive ability to create online digital art and flexibility around technical constraints, which cease to be an impediment factor and become allies in the process of creating and displaying online performance. The group had to overcome a series of obstacles arising from the limitations found while testing the platform and accept them as part of the creation itself.
4- Autonomy and dialogue. The collaborators involved in the creative process of this cyberperformance are autonomous and weave networks of creation, training and knowledge exchange among themselves. Autonomy made it possible for each performer to be autonomous in creating their own Ophelia artistic expression. But the plural and expanded dialogue made possible the collaborative spaces-times, transforming them into self-sustainable entities and seeking a continuous status of performativity.

6 Final Considerations

Ophilia was developed by a multidisciplinary team, thorough diverse dialogues that allowed us to put into practice an entire theoretical model of artistic creation. This dialogue created possibilities for performers without experience to create while exploring the technological tools available.

During this process we were able to identify, through practice, various technological limitations inherent to the platforms provided by educational institutions regardless

of if applied to the creation of cyberperformances or teaching classes. We realized that Zoom, which is mainly aimed at business communication, has several limitations when it comes to artistic creation. One of them concerns the fact that we couldn't play musical instruments while singing because the system filtered the sound of the music by considering it background noise. At the same time, the system prevented any kind of overlapping voices that we would have liked to apply to the reading of the poems. As result, vocal strategies such as the canon or the choir, for example, had to be avoided. In addition to these sound constraints, the use of filters with the camera proved to be ineffective because what was visible on computer screen was different from what was projected. The differences in resolution of the projection equipment, as well as the nuances of light at the performance venue, were therefore uncontrolled variants.

This performance, as an experiment, thus underline one of the main conclusions we had already reached through research during the CypeT project, namely, the valuable inclusion of cyberperformance in curricula, but also the need to adapt online communication resources so that they can be effective in pragmatic communication and also enhance creative uses.

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