

# **E-CULTURE FOR ALL: AN INITIATIVE TO BROADEN HORIZONS. CREATING CONVERGENCES OUT OF A FRAGMENTED GLOBAL SCENARIO**

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## **Abstract**

Faced with several crises, such as climate change, social asymmetries and more, this article summarises key points in the field of e-Culture to engage audiences in raising awareness on current issues.

Analysing the latest situation from both a local and global approach brings some key points, such as questions and strategies to emphasize the co-creation of sustainable information and communication highways for e-Culture.

In conclusion, the article reinforces the value of educating future teachers as a cornerstone for shaping and transforming society. This education becomes a catalyst for generating a cognitive convergence capable of raising awareness of the creative human capacities needed to build a sustainable future, together with a robust training strategy in the digital humanities to address various crises, present or future.

**Key words:** *e-Culture, Co-Creation, Teachers Training Education, Sustainable Future, Digital Humanities.*

## INTRODUCTION

The article's context focuses on the convergence of Educational Sciences located in the Teacher Training Education in Uruguay, together actions related to the field of e-Culture in the Latin American-European Cultural Ring in Uruguay and its global networks. The objective of different projects and initiatives carried out is aimed at fostering both global and local awareness, with an emphasis on sensitising and informing audiences about a sustainable future, through caring for nature in the face of the challenges caused by the expected climate change crisis.

In Europe, since the establishment of the European Commissioner for Climate Action ([https://climate.ec.europa.eu/index\\_en](https://climate.ec.europa.eu/index_en)) in 2010, there has been an increase in initiatives aimed at raising awareness about humanity's sustainability future in relation to the climate crisis. Moreover, in the field of e-culture, especially within the Latin American-European Cultural Ring in Uruguay, which serves as a network of co-creation across the Internet in the realm of art, science, technology and society (<https://anillaculturaluruguay.net/>) since 2011, numerous initiatives have been carried out on contemporary issues, as previously mentioned.

In this regard, it is useful to ask ourselves: what are the five key words for the future? In fact, there is the European platform on the web called "5 Words for the Future" (<https://fivewordsforthefuture.eu/>), curated by Prof. Pier Luigi Capucci. From this repository, the author the author shared five words for the future four years ago. It is important to clarify that there is no self-referential intent, but rather, these five words result from reflection and synthesis of the collaborative work in networks carried out in the Cultural Ring. These remain relevant in relation to the theme of the conference "Science and Education for Sustainable Development" particularly within the panel of "Humanities facing the challenges of the climate crisis", organized by the University of Gdansk on the 24th and 25th of November 2022.

The five words can also be understood as interrelated ideas and concepts, which are: 1) collaboration and co-creation of new developments, 2) empathy, involving deep comprehensive understanding about nature from a local and personal level, 3) openness through Internet networks, 4) networks bridging the gap between human and technology, 5) wisdom. In the context of the climate crisis, these five words (collaboration, empathy, openness, networks and wisdom) have a significant role to play in reflecting on the challenges faced by humanity.

Those reading this article have surely imagined their own five words for the future, shaped by individual perspectives and circumstances. Readers may feel free to imagine future scenarios when reading this text, for this article is not only intended to provide information, but also to motivate and exercise cognitive engagement in order to contribute to the creation of a new and improved future for all.

## 1. IMMERSSED AT THE HEART OF THE E-CULTURE

Pioneered by Alfredo Ronchi in his book “e-Culture: Cultural Content in the Digital Age” (2009), the field of e-Culture relates to the preservation of cultural heritage, rather than commercial or business aspects. In addition, the development of the field itself is currently linked to the interdisciplinary study of creators, encompassing both artists and scientists, among many other profiles, who create various digital manifestations on Internet networks and connected devices [Baeva 2017].

We identify two types of interconnected digital devices: a) those that have a counterpart or similarity in the real world, such as e-museums, e-libraries, etc.; b) as well as digital objects themselves, such as video games, apps, social media, etc.

Other fields such as Digital Humanities<sup>1</sup>, networked culture, digital activism, etc. intersect with the field of e-culture. Therefore, the need to establish a theory of e-Culture based on a concept of “third nature” [Baeva 2019: 513], generated between the interactions of human creativity and information technologies, emerges from the scarce intellectual and scientific production in this field.

All this leads to the development of a “systematisation of e-Culture” [Baeva 2018: 328] and makes the field an area of opportunities for professional work. However its study is complex due to the porosity and intertwining of disciplines, among other emergent or conditioning factors.

In order to address and transform local and global problems, such as the climate crisis, that affect all areas and fundamentally threatens the future survival as humanity, it is vital that we look at the climate crisis from both a local and a global perspective.

To establish a logical order of concepts, with the climate crisis as the focal point, we should recognize its correspondence with a global crisis and the need to view it simultaneously from a local and global perspective to find GloCal solutions (a neologism and acronym between Global and Local).

At present, if we seek find solutions to GloCal problems, despite these digital technological environments serving as both the problem and solution from the perspective of the climate crisis, we need to use the ICT world as the most appropriate strategy for raising awareness of the climate crisis.

This may appear to be obvious, but the challenge lies in the need to generate meaningful action from this awareness. To achieve this, we inevitably have to immerse ourselves in an intertwining of the symbolic world, individual and collective cognitions, together with ICT technologies. It is therefore working in the field of e-Culture within the Digital Humanities at its foundation is essential.

The linkages between e-Culture and the Digital Humanities seem at times almost undifferentiated and simulations are influenced by the challenges and novelty digital tools bring themselves, as well as containing the synergy between local and global dimensions.

What does the Digital Humanities entail?

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<sup>1</sup> Hereafter, the acronym DH or Digital Humanities is used interchangeably in the text.

Similar to e-Culture, Digital Humanities aims to demonstrate the nature of epistemological shifts for research in the humanities', understanding that there are multiple representations of knowledge and culture, while also being grounded in a 'glocal (global-local)' scope [Rio Grande 2014], similar to e-Culture, which 'accounts for different ways of generating, representing and accessing knowledge and culture'.

Whilst López Poza (2019) identifies DH as,

“a transdiscipline, a set of academic knowledge that combines the methodologies and contents of the traditional disciplines of the Humanities (and some include the Social Sciences) with the use of tools, applications and heuristic perspectives provided by computer science and statistics.” (p.128)

On the other hand, Rio Grande (2014) emphasises that the DH “do not constitute a thematic discipline, but a set of procedures that cut across our areas of interest”. Referring to the famous Digital Humanities Manifesto, the author states that trying to define the DH implies establishing “postcolonial parameters” that aids in understanding the global landscape of the Digital Humanities, through a “reworking of the concept of local knowledge that provides consistency to the knowledge and perceptions of this for a culture”. [<https://bit.ly/3m9tuz>]

Another digital humanities expert, Christopher Nunn, asks and answers the question in his blog: “Is there THE theory of digital humanities? Certainly not. The field is far too diverse for there to be one single theory that covers it all”. He defines himself as “someone who considers himself a practitioner” of the field, and at the same time as a digital humanities scientist, it is necessary to engage deeply with the theoretical imbrications in a process of permanent revision, avoiding reductionisms and absolutisms which are unnecessary in such a diverse and dynamic field of knowledge. [<https://bit.ly/3ZM8r11>]

Returning to the idea of reconfiguring the GloCal correlation, with Rio Grande's idea of establishing “postcolonialist parameters” in the Digital Humanities connected with Educational Sciences, pedagogy and innovation, we find an interesting commonality. In the 2019 report ‘Innovating Pedagogy’ at Open University, which recommends ‘decolonising learning’ as a pedagogical trend for that year, among others such as ‘virtual studios’, ‘drone-based learning’, ‘action learning’, etc.

As a consequence of an increasingly globalised education, educational communities have questioned whether the teaching and learning value only comes from a worldview that is presented as male, white and rooted in the European tradition. So, we might ask, what is “decolonising learning” about?

The report mentions that,

“This isn't simply about removing some content from the curriculum and replacing it with new content – it's about considering multiple perspectives and making space to think carefully about what we value. Decolonising learning helps us to recognise, understand, and challenge the ways in which our world is shaped by colonialism. .. It is an approach that includes indigenous knowledge and ways of learning, enabling students to explore themselves and their values and to define success on their own terms.” (Open University (2019), ‘Innovating Pedagogy Report’, Open University United Kingdom Publisher, p. 3)

And it goes a step further, reimagining learning that is impactful and valuable for all, where “Rather than using educational technology to amplify oppressive efforts, it can act as a catalyst that precipitates a change in the aims of education.” (p. 17)

This role as a practitioner in the digital humanities also makes e-Culture an excellent field for intervention in both the real and virtual symbolic world within human appropriations. This is further encouraged by the practical nature of pedagogy, which is understood as an art, i.e. the art of cognition beyond the discipline that each teacher imparts. Additionally, that the field of educational sciences offers its epistemology and scientific method for research. As a corollary to this section, we can ask whether the professionals in the field of education and culture perceive themselves as having an artistic and scientific profile simultaneously.

If the answer to this question is in the affirmative, we should also consider how we might make this dual artistic and scientific role of the e-culture practitioner work in relation to Digital Humanities and education.

Therefore, it is appropriate to consider another approach that could be intrinsic to both fields. One key question in line with this inquiry would be, for instance, what skills are required for this hybrid role between art and science?

Juan Luis Suárez, from the DH, (<https://youtu.be/XVqpijd80yQ>, 1:09:00 min.) Underscores how creativity is the fundamental challenge for the education of any person in the digital world. The OECD’s recommendations (2021) for sustainable education in the 21st century incorporate skills related to creativity into lifelong learning and the transversal skills acquired by the person. Creativity and imagination are part of deep learning, alongside critical thinking and problems solving, communication, collaborative work, awareness of global citizenship and personal character formation [Fullan & Langworthy 2013]. They are regarded as fundamental skills in the 21st century education for innovative contexts.

Thus, the profile of the practitioners and interveners in the fields of e-Culture and Digital Humanities in education should be perceived in his or her role as an artist of individual and collective cognition, as well as in his or her scientific research role, in order to be creatively empower the processes of local and global transformation.

## **2. THE ART OF CONVERGENCE AND INTERCONNECTEDNESS**

In acknowledging the value of this vast sea of educational and cultural opportunities where diverse fields of knowledge and intervention intersect, another key question for reflection emerges: How can we foster a culture of the value of convergence and interconnectedness? These are fundamental skills for understanding the importance of a sustainable future that is being built in the present, by all of us.

One sure path lies in generating powerful digital experiences that evoke feelings and encourage the appropriation of knowledge in relation to life and all the elements that make humans a sensitive and empathetic being.

For this reason, art in its various forms offer an infinite field of sensitisation and formation of audiences who in a present and promising future will be able to exercise micro transformations that mobilise other decisional changes on a micro, medium and large scale.

In this context of cognitive convergence and knowledge networking, let us first take an example of empowered digital content. For instance, the Symphony of Science project (<https://www.symphonyofscience.com>) is an example of this, it “is a view of our universe through the prism of music. The series puts a new spin on science by remixing lectures, documentaries, and movies into music videos celebrating the most mind-blowing knowledge we have. The videos have been used in classrooms around the world as a means to get people interested in science”. [<https://www.symphonyofscience.com/about>]

Neil Degrasse Tyson’s commentary on this project aligns directly with the approach of this article “Only when creative people take ownership of cosmic discovery will society accept science as the cultural activity that it is. And so I applaud all such efforts of artists”. [<https://www.symphonyofscience.com/about>]

Building upon the idea of convergence and interconnectedness, the symphonic video “We are all connected” was made from sampling Carl Sagan’s Cosmos, The History Channel’s Universe series, Richard Feynman’s 1983 interviews, Neil deGrasse Tyson’s cosmic sermon, and Bill Nye’s Eyes of Nye Series, with added visuals from The Elegant Universe (NOVA), Stephen Hawking’s Universe, and with a wealth of other multimedia contents. Spreading scientific knowledge through digital audio and visuals. [<https://bit.ly/3kynY8Z>]

It not only showcases the scientific power of interconnected knowledge, but also converges in an emotional proposal that motivates us to appreciate the beauty of things. For example when Carl Sagan mentions that the beauty of a living being is not in its atoms but in the beauty of how they combine, he goes on to say or sing that the cosmos is within us. As the project’s website states, if this content has been used in classrooms around the world, we can imagine students dancing or singing about the beauty of the cosmos, whilst simultaneously appreciating the beauty and interconnectedness of all things.

Therefore, in addition to building the skills of a digital humanist, we need to understand, experience and deeply feel these interconnections in order to be aware of the consequences of climate change and the various crises it causes in multiple areas.

This awareness of interconnectedness can emerge when people have a prior understanding of cognitive convergence.

To delve further into this concept, it is necessary to offer other examples of experiences that extend beyond the excellent proposal such as Symphony of Science, which still delivers quality content that remains closed for use, since it is not made by the people it is intended for. In this regard, it is necessary to refer to an experiment in networked cultural and educational intervention, which was carried out in the context of Cul-

tural Ring UY and its global networks, called “MuRe, museografía en red” (MuRe, museography networking),

“had as its objective the generation of an exhibition circuit on the internet, with narratives around heritage objects, dialogues and interactions in real time with these objects, where only their exhibition existed as a whole through advanced internet networks. The museums, cultural centres, educational institutions and individuals involved did not all coexist geographically, but inhabited the same virtual space and time together. Networked Museography builds media narratives in an interactive audiovisual format with the public participating in each online session. Under the slogan “Experience the Internet by creating online”, various cultural and educational institutions in America and Europe made multiple appropriations of museum content in a local and global key.” [Rodríguez Morales 2019: 3]

In order to avoid the risk of believing that we are reinventing the wheel, in this same experience we theoretically took concepts bequeathed by pioneers of new media art, such as Professor Roy Ascott. In the early days of the Internet he carried out telematic artistic experiments and found that an “intersectorial sensitivity” emerges in the participants and creators of these proposals. He noted that this “intersectorial sensitivity” [Ascott 2003: 389], and “telematic embrace” occurs because it exists in virtual and real space, “hyper-connected minds”, “identities in telepresence”, and in the “museum mind” itself [Ascott 2003: 360]. Ascott himself probes this by questioning: what is more ubiquitous than consciousness - for a digital empowerment of “brain, body and heart” [Ascott 2003: 353]. The article titled “MuRe, museography networking” in the REIRE journal of Innovation and Research in Education takes these postulates and accounts for these overlaps by grounding theory with practice to feed back into future synergies. [Rodríguez Morales 2019: 8]

The challenge is for those who find themselves in the role of e-Culture practitioners and interveners who must understand these interconnections in order to design proposals accordingly.

In accordance with the experiences mentioned above, the impactful role of technologically mediated visual communication in the field of e-Culture is another valuable key for those who design and implement effective projects. Experiencing beauty in depth, regardless of the subject matter, mobilises the individual and opens doors for deep, lifelong learning. Regardless of the e-Culture initiative addresses, for instance the climate crisis, it should have this potential as a guiding principle for its actions.

### **3. THINKING OF UNTHOUGHT**

In order to consider the unthought and venture beyond our comfort zone and try to think outside the box, we will focus on several key points in relation to the climate crisis and e-Culture. The first key point, in the context of decolonising learning, revolves around the role of indigenous communities and their ancestral wisdom in the environmental preservation. In United Nations and the COP26<sup>2</sup>, this topic was

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<sup>2</sup> COP stands for Conference of the Parties at the United Nations Framework Convention on Climate Change.

addressed in multiple sessions. (<https://bit.ly/3J17saN>) The case of COP27 was particularly interesting (<https://bit.ly/3SENx4P>), because it drew criticism from indigenous peoples themselves, who complaining that their voices were not heard [The Guardian 2022]

This could be overlooked in the news published by Dr. Luci Attala (Big Issue, 2022) on 8th November, which promises to open up new horizons by rethinking solutions to climate change issues. This focal point of this project centers on the United Nations project with the Kogi indigenous people of Colombia who are one of the four communities that make up the Aruaco indigenous people. This initiative brought them together with scientists in order to collaborate, and learn from the Kogi people, enabling them to acquire their strategies and skills for nature conservation.

It is important to clarify that for the Aruaco indigenous people, their ancestral duty focuses on the conservation of the Sierra Nevada de Santa Marta, one of the most biodiverse geographical areas in the world, that is located in Colombia. This is their existential mission.

In accordance with the principles outlined in the art of convergence and interconnection, in order to consider Aruaco people's mission, we can encapsulate it as our own. This sentiment can be expressed as follows: This mission should be our mission. Or their mission is our mission.

This implies that everyone, regardless of their place of living, should feel and act in withing their capacity to preserve local rivers, forests, and land. Each of us has that responsibility to our ancestors, whoever they were and wherever they lived. It is also vital to consider how sustainable changes over time develop when the social processes that gave rise to these transformations synergizes from both bottom up and top down approaches. Such synergies require reevaluation of standasided conceptions of power and domination, to pursuit a conception of power as a correlation of forces. This perspective facilitates inclusion, allowing people at from social clases can to gain a deep understanding that such synergies are necessary to build a more embracing and equitable society. This ultimately paves the way for a healthier and more sustainable society in any given area.

In other sections of this article we will explore these key issues of dominance, power and collaboration in more detail. Pursuing the idea of thinking the unthought, can subsequently align with the recent news concerning the climate crisis. These thoughts can contribute to the convergence of ideas and actions, combined with the imminent relevance of human factor training.

Three current local, regional and global news items highlight the urgency to strongly educate people in their responsible mission towards Mother Earth.

Firstly, the renewal of the Amazon Fund established in the new Brazilian government under Inacio Lula Da Silva, with Germany's support, seeks to preserve the Amazon and restore deforested rainforests. We can also do a critical analysis, due to Germany's return to the intensive use of coal, oil and nuclear energy, amidst the conflict



between Ukraine and Russia, which has forced the nation to hold its goals of reaching a 100 percent renewable energy matrix in the short term. However, beyond the financial support earmarked for cooperation, the German President Scholz, statement stated to Lula that “I am happy, we are all happy, that Brazil is back on the world stage”. [Deutsche Welle 2023]

This detail reminds us that for this type of responsible mission, there needs to be involvement and commitment from at least two parties. This is no trivial matter as any type of cooperation, had been suspended due to the absence of platforms for dialogue and exchange, where “otherness” is developed. This type of bilateral government process is part of the top-down scheme of action. To achieve even minimum success, it becomes necessary to have a multi-stakeholder warp involved in this responsible mission, to insure that millions of dollars designated for cooperation do not evaporate in a fruitless manner.

The second piece of news comes from Chile, where the Council of Ministers for Sustainability created a national fund to restore one million hectares of marine and forest ecosystems by 2030, in order to recover the ecological functionality of landscapes and thus improve people’s quality of life. [Diario Sustentable 2022]

This initiative, which similarly follows the top down processes, is an example of the responsible mission previously discussed, although going beyond the headlines, once the funds had been spent and repairs to nature carried out, it became evident that simply the repair process is insufficient at keeping nature sustainable. To maintain sustainability it will be necessary to promote educational and cultural policies that sustain these projects in the short, medium and long term. These endeavours are necessary to uphold the motto expressed above: Their mission is our mission. Only by promoting awareness of this shared responsibility and acknowledging fundamental and irreversible role of the human factor, will it be possible for items like this to achieve long-term sustainability.

The latest news to exemplify, is that,

“Uruguay placed in the market a green bond ‘pioneer in the world’ for 1,500 million dollars, by indexing its interest rate to the result of its environmental performance reflected in two indicators, the reduction of greenhouse gases and the conservation of native forests”. [Medios Públicos 2022]

Although it is a novel instrument that bridges local, regional and global perspectives by linking environmental care, the economy and financial speculation, it is important to note on only two environmental indicators were chosen (reduction of greenhouse gases and conservation of native forests). Whilst, in reality the problem is multidimensional and should be approached with multiple indicators. Surprisingly two fundamental indicators related to water and land care were not included, especially considering the fact that Uruguay and the Latin American region have the third largest freshwater aquifer in the world (Guarani Aquifer Agreement : <https://>

bit.ly/3KOVp1F) and the largest arable land reserve in the world. (FAO <https://bit.ly/41xiwUp>)

In fact, these two indicators, water and land care, can be considered threatened at the local level. For instance in a recent interview [Búsqueda 19 January 2023: 23] the former Minister of Livestock, Agriculture and Fisheries, Carlos María Uriarte, mentioned that water management, responsible treatment of environmental impact, are not on the public agenda. For example, the issue of costal cyanobacterias outbreaks in the summer, caused as a result of untreated sewage that reach rivers and streams, require immediate action. He emphasised that these are the significant issues in the country, and that ensuring that sewage is properly treated should be a top priority. Another recent local news report on these conceptual and practical disparities, particularly in relation to land contamination. In Uruguay 16 out of a total of 19 provinces dispose of their waste on land in unauthorized landfill sites, and this poor management “can contaminate ground and surface water” with “impact on public health” [Búsqueda 26 January 2023: 18], the news item alludes not only to the environmental problem but also to the need to implement public policies that align with national and provincial governments, in order to insure efficient management. Thus, in order to encompass the examples given, the human factor is once again fundamental and closely linked with integration of a multi-stakeholder framework that has a multidimensional vision to critically solve problems. Top-down processes alone are insufficient when the human factor is not positively empowered, as such, bottom-up synergies are needed to complement with top-down strategies.

#### **4. RADICAL RESHAPING THE HUMAN FACTOR**

As stated by Ronchi, (2022) a global authority in e-Culture, e-Government, e-Services, among others, is fundamental for future trends in the ICT society or “the networked society” [Castells 2000] we find ourselves in. And in this respect, it is paramount to emphasize that effective human solutions to the climate change crisis will emerge from a deep understanding and action spanning culture, economy and network society. The environment itself consistently demonstrates how it functions at micro and macro networking levels.

Expanding on the value of to the human factor, Ronchi positions the importance of education in primary and secondary level as fundamental setting out its most significant scenarios, such as,

“Firstly, a growing opportunity is the appropriate use of ICTs for development and for the inclusion of nations and regions. But because the Internet and its providers are cross-border entities, national access, or denial of access - inclusion or inclusion or exclusion - within any one country also affects an entire region and beyond. The effects of digital exclusion affect citizens, but also international markets, financial institutions and regions. international markets, financial institutions and the regional economy. Secondly, work on hybridity - the potential of ICTs and technology in general - to work in non-hegemonic ways with populations that have and wish to maintain their traditional tech-

nologies show great potential. The debates on “low-tech no-tech” and “low-code no-code” show opportunities to benefit all societies, not only less developed ones. Furthermore, hybridisation between ICTs and traditional technology can contribute to maintaining the momentum of democratisation and decolonisation of technology. The challenges for the coming years are the ways to sustain the humanitarian side and the inviolable right to personal freedom and privacy in an era of unlimited supply of information and technological enterprise. The need to strike the right balance is omnipresent. The social sciences and the humanities must establish close cooperation in the design or co-creation of cyber-technologies, always keeping the human being in focus”. [Ronchi 2022: 236-237]

Amidst this sea of delicate symmetries, correlations and varying asymmetries, the human factor should be at its center, or at the very least, be a focal point. Design and co-creation are the foundation of practical methods for developing of any of these digital technologies. Fiormonte et al, have already mentioned the “human factor” (p.199) as fundamental in the development of technologically mediated skills that make up the digital humanist.

To conclude this section, we can ask ourselves how to effectively influence the human factor so that it serves as a transforming agent that permanently incorporates the motto “Their mission is our mission” as a vital priority. Undoubtedly, within the context of this article, the key lies in the art of convergence and interconnection through formative visual communication, to raise awareness on these issues. Education and transmedia culture spanning a lifetime is a creative and intersectoral way to co-creative empowerment among citizens and appears to be a necessary process.

## 5. CULTURAL TRANSFORMATION THEORY

The nurture a digital humanist who is aware of the current issues related to the climate crisis, not only requires the training of the human factor in both the technological and the humanistic in a creative way. This endeavor also requires public policies that support this type of transformation. In this context, the work of Riane Eisler (2021) is essential as a pioneering woman, social scientist and creator of the theory of cultural transformation. From her role as president of the Center for Partnership Studies (<https://centerforpartnership.org>), she identifies the core components of societies that support positive human qualities such as consciousness, caring, and creativity, and explores how we can build those societies. In her contribution to “Global Crusade: e-Culture for all” ( YouTube playlist: <https://bit.ly/3J1BFXc>) she underscore’s that “e-Culture has a major role, and responsibility, to accelerate this shift to a more equitable, less violent and sustainable partnership future” (<https://youtu.be/9NHcActmGOA>) and also identified two social configurations: “the domination social configuration and the partnership social configuration”.

To lay foundations for a better world, Riane Eisler states that, as previously mentioned, that public policies, education and media should educate individuals in the interconnectedness of social systems oriented towards domination or partnership in relation to: i) childhood, ii) gender, iii) economy, iv) language.

From this perspective, the author argues the need to create new tools that transform society, from a system of domination to one of partnership and collaboration.

So, for Eisler e-Culture has to promote that,

“1. Changing how we measure economic health. 2. Demonstrate that supporting care work can cut through cycles of poverty. 3. Implementing a cohesive family policy where care work- still done for free primarily by women in families is rewarded - such as affordable and well paid, high quality early childcare and paid parental leave. 4. Sharing evidence that investing in caring for people and nature is good for businesses and society. 5. Recognizing that economic systems are affected by, and in turn affect, the larger social system.” (<https://youtu.be/9NHcActmGOA>)

Thus, from Eisler’s perspective of collective cultural creation extends beyond artistic experiences or scientific knowledge. This radically reshapes the co-creation of public policies through collaboration or partnership, forming interconnecting and transforming relationships which cover aspects such as race, the gender, economics, the environment, childhood, language, power, narratives, teamwork, among others. This theory is not only found at the academic level of social sciences, the Center for Partnership Studies offers a multilingual digital training toolkit (<https://www.learn-partnership.org/techtoolkit>) that is free to download by everyone. This toolkit can play a vital role in shaping the digital humanist in the present and future. In order to train human collectives capable of co-creating public policies from the perspective of collaboration, it is first necessary to incorporate a personal transformation. This transformation will need to encompass language, the ways in which we living with nature, in the manner in which we care for ourselves and others, our relationships across equality of gender and race, as well as the foundations of the economy and its correlations of power.

All this approaches gain significance if we look back at the previous sections of this article, whereby the role of teachers in effecting positive transformation of society in the face of the climate change crisis is discussed. Furthermore, this extends to the work of those involved in e-Culture. All of them may have the opportunity to shape audiences with a perspective of cognitive convergence and interconnectedness that enables radical co-creation in societal shaping of the human factor.

## **6. CO-CREATE, CO-CREATE, OTHERWISE WE ARE LOST!<sup>3</sup>**

This section uses the case study [Stake 1999] as a tool for analysis and comparison. It will also be used to integrate other methods specific to the field of Digital Humanities and its technologically mediated analyses.

To illustrate and reflect on the importance of cognitive convergence in the field of e-Culture and teacher training, related to global and local awareness with ancestral knowledge, together with transdisciplinary co-creation, we have identified two case

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<sup>3</sup> It paraphrases the dancer and choreographer Pina Bausch’s “Dance, dance, otherwise we’re lost!”, which was also the eponymous title of Wim Wenders’ film.

studies within the projects of Anilla Cultural Uruguay and its global networks. These examples are “MuRe, museography networking” and “Co-creation Lab”, serve as examples of both cultural intervention and research projects.

MuRe is the acronym of “MuRe, museography networking” (<http://anillacultural-uruguay.net/mure/>), known most notably in the Iberoamerican. This experience described previously, was conducted in 2017 and coincided with two other research projects (2017-2019). One related to the cultural intervention for the inclusion of various participating audiences, while the other delved into the deep learning from the same process. This made it evident that MuRe is a cultural, educational and technological interface for the inclusion and expansion of individual and collective consciousness, promoting co-creation in a network with a multilingual approach. It integrated languages as Spanish, Portuguese, English and also indigenous languages such as Quechua, Kichwa, Náhuatl, entre otras más. In 2017 there were seven synchronous meetings via different video conferencing systems (e.g. H323, via web, etc.). There first five meetings were themed and the last two events were constructed with an input from the participating audience based on the co-creation processes conducted.

In the context of MuRe research, we found that participants experienced a sense of convergence when they began to engage their bodies in the technological context through video conferencing, whether dancing, dancing or other forms of expressions to introduce others to them in synchronous encounters. Participants felt safe in a complex technological environment as other participants from different regions could also engage at the same time as them. [Rodríguez Morales 2020]

**Fig. 1. Audiences participating in MuRe 1.1 and 1.3 respectively**



This is synthesised in the Figure 1., which illustrates the co-creation processes during MuRe, where the Mure 1.3 session discussed “ICT Ancestors” (in English: <https://bit.ly/3kzdGVZ>) and where indigenous dances were performed, poetry was recited, among other actions. At the same time, in MuRe 1.1, with the theme “Global Consciousness” (in Spanish: <https://bit.ly/3ZwwmEy>), featured a connection with Mamo Lorenzo (a representative of the Aruaco indigenous people from Colombia). He shared with the participants the use of technology from his perspective, with participants having the opportunity to draw and create their own images based on the shared theme (in English: <https://bit.ly/3SSt2BX>). From MuRe 1.1 to 1.3 there was an accumulation of actions to sensitise the participants towards active involvement and from the third session onwards, we could see this change from active participants to protagonists who contributed with content in the following sessions. In addition, across all sessions from MuRe 1.1 to 1.7 (YouTube MuRe playlist: <https://bit.ly/3J4wCFO>), different access routes with languages interpretations were available within the platform, either in Spanish and English, Portuguese (<https://bit.ly/3y3nwCS>), or even in indigenous languages such as Quechua (MuRe 1.3) and Kichwa (MuRe 1.7 <https://bit.ly/3J3NL2m>). A repository of educational materials for teachers was created and is available, open and free to download, from the MuRe website: <https://anillaculturaluruguay.net/repositorio-mure>. In addition, research findings were published in the Monograph “Digital Humanities and Cultural Pedagogies” in the journal REIRE of the University of Barcelona. Rodríguez Morales, D. (2020).

The subsequent case stems from the accumulation of experiences and lessons learned in Cultural Ring, where the synergies of the projects are producing other initiatives to continue co-creating and carrying out research in action.

The second case study refers to the Co-creation Lab initiative (2019 edition), which consisted of a distributed laboratory of co-creation in art, science, technology and society. The premise was to generate new collaborations between people from different parts of the world, crossing language barriers and encompassing a wide range of backgrounds and experiences.

It is worth noting that “co-creation is a meta-level process that enhances collective creativity and drives innovation, cultural change by harnessing the creative potential of any group” [Rill and Hämäläinen 2018: 12]. Therefore, the focus lies in innovation and cultural change, with its articulation within the context of the Cultural Ring as bridge between educational and cultural institutions. This encourages co-creation inside and outside the laboratory, after the first experience in 2019, a trilingual repository (Spanish, English and Portuguese) on what co-creation entails, was made available on the YouTube playlist: <https://bit.ly/3KOXMS7>.

The question then becomes a pertinent one, what were the findings in this case?

The participants found the facilities that allowed them to experience a pedagogy of co-creation in relation to cultural education and educational culture.

The key aspects of technological mediation involved developing the skills to explore the multilingual IT tools, to generate an empathetic visualization with others through ICT media, accompanied by a personalized and group guidance that allowed them to complete stages (synthesize, compile and define) and reach the end of the co-creation ‘journey’.

In this respect, there is a demand for further research into the pedagogy of co-creation, most notably from the perspective of facilitators of co-creation processes. This was a new avenue that opened up the research process itself. These findings were presented in the framework of the international network NRENs<sup>4</sup> of Internet 2 and GEANT into the NPAPWS event, Networking Performance Art Production Workshop (<https://npapws.org>) and had the participation of several of the laboratory’s organisers. (Presented in the video from 18:37 to 21:26 min.: <https://bit.ly/3K0XMS7>)

**Fig. 2. Visualised synthesis of findings into the processes of Co-creation Lab.**



In summary, in accordance with the principle that co-creation is for all, the following tips lay the groundwork that build a strong “Co-creation House”, explained in the video from 29:10 to 31:57 min.: <https://bit.ly/3ZvEqp8>. Participants should experience aspects such as, free association and clear steps in the process, the lack of external obstacles, enriched IT environments, availability of multiple advisers, expanded environments for self-expression, advice for co-creators’ groups on the importance of bonds, convergence, solidarity, etc. Furthermore, they should collaborate with other co-creators, foresee challenges during the process, have direct and indirect strategies, and to maintain a permanent feedback loop. Last but not least, is managing and balancing frustrations in the co-creation process.

<sup>4</sup> National Research and Education Network

The positioning of an individual in the face of co-creation as a life experience will become increasingly relevant, along with the role of teachers and cultural managers, both in the learning processes as well as in the quality cultural experiences to accessible to people.

These challenges related to repositioning the human factor are summarised in the crossover mentioned by Halit Ünver (2018, p.255) between the “Leonardo creature” becoming the human as a cultural creature and the “homo economicus cooperativus” in the social nature of humans., These transitions towards intelligent collaboration enable people to deal with uncertainty and set long-term goals with corresponding decisions.

From this perspective, the pillars of cultural transformation that combine elements the economy, environmental care, gender, childhood, languages and more, converge with creative environments directly linked to e-Culture, that should be allowed to circulate. The classroom, with its teachers and students, should not be distanced from these fertile realms of progress. Instead it should be conceived at the core of these contexts as co-creative laboratories for the society of today and the future.

## **7. FINAL REFLECTIONS**

Returning to the synthesis of key concepts, here are the main ones compiled from the sections developed in this article.

It is essential to preserve and multiply the co-creative spaces of e-Culture to foster a new consciousness of humankind. This would allows us to generate positive changes in predatory habits and produce good practices in the mission of caring Mother Earth to continue the legacy of our ancestors, those who came before us and those yet to come.

GloCal initiatives, such as the Center of Partnership Toolkit, the Science Symphony project, the MuRe, the Co-creation Lab, the Global Crusade “e-Culture for all” are vital, to renewing the e-Culture after the pandemic period, with a main focus on climate crisis themes. These initiatives involve analysing the issues and co-creating global solutions.

The convergence cognition is at its core for the digital humanists formation, preferably immersed in powerful experiences through the beauty of visual communication that mobilises the sensitivity of human beings. Engaging in their body, mind and heart.

Human enrichment in e-culture is offered in human groups spanning diverse locations, languages, interests and backgrounds. The opportunity to generate something innovative appears when we challenge ourselves to think the unthought. This is most valuable for educators and cultural managers.

Thus, training future teachers should be strongly oriented towards cultural education and educational culture in transdisciplinary co-creative empowerment processes.



With this in mind, teacher education in its educational and cultural role, must be based on the nature of digital humanism - a triple rope that tightens art, science and technology. Such an approach has many benefits for a transformation that envisions a sustainable future.

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## REFERENCES

- Ascott, R., (2003), *Telematic Embrace. Visionary, Theories of art, technology and consciousness*, University of California Press: California, United States.
- Baeva, L., (2017), Values of media sphere and e-culture. *Przegląd Wschodnioeuropejski*, VIII(1), 173–184. Recuperado de [http://uwm.edu.pl/cbew/2017\\_8\\_1/Baeva.pdf](http://uwm.edu.pl/cbew/2017_8_1/Baeva.pdf)
- Baeva, L., (2019), Existential Aspects of the Development E-Culture. En M. Khosrow-Pour, *Advanced Methodologies and Technologies in Artificial Intelligence, Computer Simulation, and Human Computer Interaction* (pp. 512–523). Hershey, PA: IGI Global. <http://dx.doi.org/10.4018/978-1-5225-7368-5.ch038>
- Big Issue, (2022), To Stop climate change it's time to take indigenous knowledge seriously, 8th November 2022, Available at <https://www.bigissue.com/news/environment/to-stop-climate-change-its-time-to-take-indigenous-knowledge-seriously/>
- Búsqueda, (2023), Para el agro 'no sería del todo catastrófico' si llegan las lluvias hay 'luces naranjas' por el 'atraso cambiario', 19th January 2023, 23
- Búsqueda, (2023), Mientras solo cuatro departamentos tienen sitios de disposición habilitados, el gobierno busca cerrar todos los vertederos para 2025, 26th January 2023, 18
- Castells, M., (2000), *La sociedad red*, Alianza, Madrid.
- Center for Partnership Studies, Available at <https://centerforpartnership.org>
- Center for Partnership Studies Toolkit, Available at <https://www.learnpartnership.org/tech-toolkit>
- Co-creation Lab, YouTube playlist, Available at <https://www.youtube.com/playlist?list=PLC-MLAc7BEo5NgiNQ8-mT--9dUy7I2KKUn>

Co-creation Lab, Available at (<https://anillaculturaluruguay.net/lab-co-creacion-postulacion-a-co-creadores/>)

Conference “Co-creation LAB” 2019-21 ~ “Non-scholar talk with tips to become creative in the academic life”, 21st April 2021, Ann Arbor, Michigan USA. Available at <https://youtu.be/qUxJb1azTqU>.

COP26, United Nations for Indigenous People, Available at <https://www.un.org/development/desa/indigenouspeoples/>

Cultural Ring Uruguay & Global Networks, Available at <https://anillaculturaluruguay.net/>

COP27, ‘Stand and deliver’, urges UN Secretary-General as divides threaten COP27 negotiations ahead of deadline, Available at <https://news.un.org/en/story/2022/11/1130732>

Deutsche Welle, (2023), Scholz lobt brasiliens klima, 31st January 2023, Available at <https://www.dw.com/de/scholz-lobt-brasiliens-klima-pl%C3%A4ne-unter-pr%C3%A4sident-lula/a-64562283>.

Diario Sustentable, (2022), Meta de 1 millón de hectáreas fija Chile en Plan Nacional de Restauración de Paisajes, 11st February 2023, Available at <https://www.diariosustentable.com/2022/02/meta-de-1-millon-de-hectareas-fija-chile-en-plan-nacional-de-restauracion-de-paisajes>.

Eisler, R., (2022), “e-Culture for all”, Available at <https://youtu.be/9NHcActmGOA>.

Eisler, R., (2021), *El cáliz y la espada. De las diosas a los dioses: culturas pre-patriarcales*, Capitán Swing, Madrid.

European Commissioner for Climate Action, Available at [https://climate.ec.europa.eu/index\\_en](https://climate.ec.europa.eu/index_en).

Fiormonte, D. et al, (2015), *The Digital Humanist: A Critical Inquiry*. Punctum Books, California, Available at [https://monoskop.org/images/d/dd/Fiormonte\\_Numerico\\_Tomasi\\_The\\_Digital\\_Humanist\\_A\\_Critical\\_Inquiry\\_2015.pdf](https://monoskop.org/images/d/dd/Fiormonte_Numerico_Tomasi_The_Digital_Humanist_A_Critical_Inquiry_2015.pdf).

“Five Words for the Future”, Available at <https://fivewordsforthefuture.eu/>

“Five Words for the Future”, Delma Rodríguez’ Statement, 1st January 2019, Available at <https://www.youtube.com/watch?v=PZccVZLZju>

Fullan, Michael. and Langworthy, Maria, (2013), *Towards a New End: New Pedagogies for Deep Learning*, Published by Collaborative Impact Seattle, Washington, USA, accessed January 15, 2023, [http://redglobal.edu.uy/wp-content/uploads/2014/07/New\\_Pedagogies\\_for\\_Deep-Learning\\_Whitepaper1.pdf](http://redglobal.edu.uy/wp-content/uploads/2014/07/New_Pedagogies_for_Deep-Learning_Whitepaper1.pdf).

FAO, Conservación de suelos y aguas en América Latina, Available at <https://www.fao.org/americas/prioridades/suelo-agua/es/#:~:text=El%20uso%20de%20la%20tierra,la%20expansi%C3%B3n%20del%20territorio%20agr%C3%ADcola>.

“Global Crusade: e-Culture for all” (2022-23), Available at [https://www.youtube.com/playlist?list=PLCMLAc7BEo5MjEI\\_kWvAwUFGEzQPfaapf](https://www.youtube.com/playlist?list=PLCMLAc7BEo5MjEI_kWvAwUFGEzQPfaapf).

Guarani Aquifer Agreement, Available at [https://www.internationalwaterlaw.org/documents/regionaldocs/Guarani\\_Aquifer\\_Agreement-Spanish.pdf](https://www.internationalwaterlaw.org/documents/regionaldocs/Guarani_Aquifer_Agreement-Spanish.pdf).

López Poza, S., (2019), *Humanistas y Humanidades Digitales. Trayectoria y proyección en la filología española*. pp. 125-158, en *proyecto Biblioteca Digital Siglo de Oro 5 (BIDISO 5)*, con referencia: FFI2015-65779-P, financiado por el Ministerio de Economía y Competitividad del Gobierno de España y el Fondo Europeo de Desarrollo Regional (FEDER), 1-01-2016 a 31-12-2019, y se integra en el Grupo de Investigación Hispania (G000208) de la Universidad de Coruña. Disponible en: <https://ifc.dpz.es/recursos/publicaciones/38/28/10lopez.pdf>.

“MuRe, museography networking” (<http://anillaculturaluruguay.net/mure/>)

Medios Públicos, (2022), Uruguay emitió su primer bono verde por 1.500 millones de dólares, 22nd October 2022, Available at <https://mediospublicos.uy/uruguay-emitio-su-primer-bono-verde-por-1-500-millones-de-dolares>.

MuRe website, Available at <https://anillaculturaluruguay.net/repositorio-mure/>.

MuRe YouTube playlist, Available at <https://www.youtube.com/playlist?list=PLCMLAc7BEo5NnRm7qQZ7u1cc-00Xpilt0>.

- NPAPWS event, Networking Performance Art Production Workshop, Available at <https://npapws.org>.
- Nunn, C., (2019), Poking in the fog – My personal access to Digital Humanities Theory. Disponible en: <https://infoditex.hypotheses.org/1275>.
- OECD, (2021), “The OECD Framework for digital talent and skills in the public sector”, OECD Working Papers on Public Governance, No. 45, OECD Publishing, Paris, <https://doi.org/10.1787/4e7c3f58-en>.
- Open University, (2019), ‘Innovating Pedagogy Report’, Open University United Kingdom Publisher, Available at [https://ou-iet.cdn.prismic.io/ou-iet/b0fbe67d-3cb3-45d6-946c-4b34330fb9f9\\_innovating-pedagogy-2019.pdf](https://ou-iet.cdn.prismic.io/ou-iet/b0fbe67d-3cb3-45d6-946c-4b34330fb9f9_innovating-pedagogy-2019.pdf).
- Rill, B.R., and Hämäläinen, M.M., (2018), The Art of Co-creation. A guide book of practitioners. Palgrave Macmillan, Singapore.
- Río Grande, G., (2014), ¿De qué hablamos cuando hablamos de Humanidades Digitales?. Disponible en: <http://sedici.unlp.edu.ar/handle/10915/64450>
- Rodríguez Morales, D., (2020), MuRe, museografía en xarxa. REIRE Revista d’Innovació I Recerca En Educació, 13(1), 1–19. <https://doi.org/10.1344/reire2020.13.128684>
- Ronchi, A.M., (2009), eCulture. Cultural Content in the Digital Age. Springer. Germany.
- Ronchi, A., (2022), Human Factor, Resilience, and Cyber/Hybrid Influence. Information / Security Journal, vol. 53, no. 2 : 221-239, accessed January 15, 2023, <https://doi.org/10.11610/isij.5315>.
- Stake, R.E., (1999), Investigación con estudio de casos, Ediciones Morata, Madrid.
- Suárez, J.L., (2017), Conferencia Magistral en el III Congreso Internacional de la HDH, Málaga, España. Available at <https://youtu.be/XVqpijd80yQ>.
- Symphony of Science project, Available at <https://www.symphonyofscience.com>.
- The Guardian, (2022), ‘Shameful’ UN silencing indigenous voices say banned COP27 activists, 18th November 2022, Available at <https://www.theguardian.com/environment/2022/nov/18/shameful-un-silencing-indigenous-voices-say-banned-cop27-activists>.
- Ünver, H., (2018), Global Networking, Communication and Culture: Conflict or Convergence?: Spread of ICT, Internet Governance, Superorganism Humanity and Global Culture. Springer. Germany.
- “We are all connected”, Symphony of Science project, Available at (<https://www.youtube.com/watch?v=XGK84Poeynk>).