Guest Editorial Preface

Special Issue on Advances in Digital Media-Art

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THE END OF IMPERVIOUSNESS

Creativity in art is a multi-layered process, ranging from inspiration to intervention, and is permeated by a series of conscious and unconscious decisions. Bringing them to light is possible through arts-based research, as this family of methodologies presents suitable and oriented means to unravel the thread. If once the artist and his work were regarded as a secluded ecosystem, closed behind studio doors, nowadays the act of creation, particularly in digital media art, increasingly establishes an inseparable relationship between the artist, the artwork and the audience.

Artistic creation first dealt with the relationship between humanity, deity, and the physical world. It is now, however, more focused on the sphere of inter-human relations, crossing all relevant areas of society.

John Dewey highlighted the distinction between artefact and work, between object and experience. He claimed that the focus on the artefact would leads us in the wrong direction, since the real work of art is also an act of re-creation: at the precise moment when the audience comes into contact with the artefact, the experience is born. This view is corroborated by Hans-Georg Gadamer, who sustains that a work of art (Werk) acquires its existence from the experience it facilitates: each work of art belongs – and speaks – to a human universe to such an extent that their truth cannot be experienced when abstracted from their context and treated as a separate subject.

Arts-based research thus relies on the creation of experiences, which are brought into the environment in which they were created and where they are tested against multiple variables and factors – all of them external to the creation act, whether social, cultural, historical, environmental or economic. This type of research not only presents questions – to the authors, peers, audience members and other agents of the ecosystem – but also contributes to the creation of knowledge, by questioning the subject's place, their humanity or their freedom, the relationship of the human body with the technological or immaterial devices, but also ethics, copyright and property issues, among many other subjects.

This alliance between technology and critical thought is at the root of Roy Ascott's *tecnoetics*, addressing the exploration of consciousness and its new forms, the new qualities of the mind, cognition and perception. The desire to transcend the linearity of thought through the use of interactive, pseudo-random, virtual systems, as a way of expanding consciousness and the individual mind, embraces a free flow of associative structures that define a new collective consciousness. It is thus a research imperative to explore the interfaces between creator and observer in physical or virtual interaction, collaborating in the production of meaning and the creation of meaningful experiences. Lev Manovich has also stressed the interconnectedness between interface and artwork, claiming that in new media art – unlike design – the connection between content and interface is motivated: the choice of a particular interface is driven by the content to such a degree that it can no longer be thought of as an independent process. Content and interface merge into one entity, and no longer can be taken apart.

For him the idea of content pre-existing the interface is challenged by new media artworks, which dynamically generate or acquire their own data in real time, in deep contrast with, for example, a menu-based interactive multimedia application or a static Web site, where all data already exists, even before any user access.

This inquiring tension in digital media art drives the artists/researchers into diverse forms of creating and manipulating this interface in their relationship with the audience: presentation and interaction, including public exhibitions, political and economic performance scenarios, art, architecture and urban spaces, only to name some examples. The paradigm of technological integration with the arts has also been changing. Initially technology was seen as an intelligent partner. Then it changed its role to act as a "prosthesis", an extension of human capabilities, and finally as a catalyst. The creative involvement that new media art demands, supports the emergence of new conditions, interactions and relationships. Thus, new forms of socialization and creativity can develop and boost not just technological innovation, but also social innovation.

Many of the most recent artworks demonstrate that it becomes increasingly difficult to make a categorical distinction between objects originating in the artistic imagination, scientific research and techno-industrial invention. Many products are derived, in fact, from the interaction of talent and investment in all three areas: art, science and technology.

The new media artists can dissect these relationships with the accuracy of a surgeon, the scope of a philosopher, but most importantly with the sensitivity of a craftsman, who is able to experience the most acute contradictions of our time and express them in the most appropriate language.

We exercise, thus, the deliberate choice to consider the creative processes as open interactive communication systems that include elements of various natures, with dynamic features, articulating relationships and powers: socio-cultural context, media, values, individuals, groups, narratives, memories, dialogues, meetings, places and temporality. The study of creative processes assumes that these systems are not simply the sum of their parts and that those parts establish an intricate set of mutual implications, in which actions and reactions feedback into one another. These processes behave like networks whose configuration is in permanent change, in a state of flux, and this implies renouncing to concepts such as source and/or completion, hierarchy and linear organization methods of work. The creative processes are thus sets of moments with generative potential, pathways or versions of the development of a creative thought: a rhizome of noospheres. Since new media art is deeply interwoven into the information society, its network structures and collaborative models are creating new forms of cultural production and autonomy. This type of artistic creation necessarily transcends the boundaries of traditional art exhibition and fruition spaces to potentially address all disciplines of knowledge, and eventually intervene in all areas of society, across businesses, leisure and entertainment, academia and industry alike.

New media art should then be regarded as a conglomerate of different states or phases of materialization. Its increasing exposure and visibility as a cultural phenomenon facilitates the perception of aspects that would otherwise be ignored. As it migrates from the secluded and well defined space of the museum, the concert hall or art gallery to the flexible public space of personal and professional mobile screens over the Internet, or the digital layers hovering in urban environments, destined to reach and be enjoyed by the masses, it changes status and scope, setting up new possibilities for actual and effective intervention. This movement may be contradictory, since it implies a positive gesture of appropriation, commitment and insertion in a technology-based society, while at the same time it requires a critical, disruptive and challenging posture, through a desire to innovate and communicate.

As Bourriaud points out, the possibility of a relational art – with the realm of human interactions and its social context as its theoretical horizon, rather than the assertion of an independent and private symbolic space – points to a radical upheaval of the aesthetic, cultural and social goals introduced by new media art.

In fact, new media art becomes more relevant and impactful when acting upon and questioning society's implicit assumptions and biases, laying the foundations for a fully functioning 21st century.

As Lev Manovich announced in 2013, "*New media* has become *The media*." The articles compiled in this issue reflect upon this idea in the current computational art projects developed by students and lecturers of the doctoral program in digital media-art (a joint offer of the University of Algarve and Universidade Aberta in Portugal). Although the intersectionality between art and technology is not a new theme we can find new approaches, new ways to think and act about it. For Nicolas Borriaud the novelty in Contemporary Art is not what the artists do but how they recreate and inhabit the old places.

PAPERS IN THIS ISSUE

In "Clash (and Dance) Yourself: Performance and Dance – Tech to Enhance", Hugo Canossa invites us to dance with an installation composed of a circuit artefact. Through this artefact the visitor reacts to the visual stimuli being displayed on a screen, which are manipulated in real-time. This artwork explores a clash between the concept of art and entertainment, acting as an interface between both. The author proceeds to explain how this immersive artefact can actually serve multiple purposes. Digital art or (new) media artworks depend mostly on their capabilities to engage the audience, and from this perspective Canossa's work is an accomplished challenge.

Maurício Oliveira Junior and co-authors present an unexpected way to apply media arts in a project about Health and Sexuality. The work "Looks on Faces" is part of current academic research applied to a larger project sponsored by the Brazilian Ministry of Health, in the wake of a current syphilis epidemic in the country. The challenge lies in finding effective ways for media art to be used in this line of work, aimed at a vast audience. The authors thus turn to augmented reality resources on a printed panel with historical and artistic content, a time-based code management system and a fully automated electronic device to accomplish the informative and practical interaction with the viewer. The interfaces between media art, education, information and health-prevention practices are tested and the authors explain their choices as well as the effectiveness of this project.

"Backyard Sounds: An Immersive Sound Experience in Almenara-Vale do Jequitinhonha, Brazil", by Rosy Rocha, presents a more mystical vision of media art, where the author has developed an artefact that uses synesthetic immersion through evocative soundscapes and visual stimuli to transport the audience to a particular reflective atmosphere. Rosy Rocha details this immersive audio-visual installation, where human interaction triggers sounds and images, leading the audience through an intimate sensorial experience in a darkened room, where each visitor goes through different evolutionary stages, where vision gives way to hearing, summoning pictures of daily life through contemporary sounds, reinterpreting their own memories from childhood backyards.

All works have been developed as arts-based research within the doctoral program in digital media-art between 2019 and 2020. This doctoral program enables and fosters the systematic development of challenging artistic and technological experimentation, engaging students, professors, and associated artists, while promoting the production of critical thought and scientific knowledge on the role of media art intervention in society.

ACKNOWLEDGMENT

FURTHER IN THIS ISSUE

This issue embraces a fourth article selected from the regular pipeline, "Pattern Recognition and Color Modularity in Mathematics and Art: Knowledge Visualization & Visual Communication", by Jean Constant presents a work on pattern recognition. The author combines consequential elements applying the Bongard methodology and principles of color modularity to transform a five-to a ten-pointed star polygon, and in doing so attains a rich, persuasive visualization. This process, that can be repeated for more complex objects, brought to light additional valuable implication for mathematics visualization, visual communication, and pattern recognition practices.

We prospect this journal issue will provide important insights into the research and development underway in digital media-arts community of the doctoral media-arts program while also a rather interesting perspective of arts application of the Bongard methodology is presented. We wish you interesting, playful and delightful read-throughs.

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