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IMMERSIVE EXPERIENCES IN SOCIAL SHARED SPACES AUDIO/VISUAL ARTISTIC RESEARCH IN EUROPEAN IMMERSION LABS

DDR STATEMENT

This paper analyses the use of Immersive Experiences (IX) within artistic research, as an interdisciplinary environment between artistic, practice based research, visual pedagogies, social and cognitive sciences. This paper discusses IX in the context of social shared spaces. It presents the Immersion Lab University of Malta (ILUM) interdisciplinary research project. ILUM has a dedicated, specific room, located at the Department of Digital Arts, Faculty of Media & Knowledge Sciences, at University of Malta, appropriately set-up with life size surround projection and surround sound so as to provide a number of viewers (located within the set-up) with an IX virtual reality environment. The set-up is scalable, portable and provide easy to use navigation and allow the user to move around within the virtual environment. The paper discusses how ILUM combines and integrates three research strands that are part of a major, sustained artistic or scientific focus of the partnering academic institutions, namely the Visual Narratives Laboratory (VNLAB at the Centre for Interdisciplinary Research, Filmschool Lodz), the Instytut Kultury at Jagiellonian University, Krakow, Poland, and the Spatial Media Research Group (SMRG) at the National and Kapodistrian University of Athens, Greece. In those labs researchers, artists, film-makers investigate and create different kinds of IX. ILUM provides the opportunity to situate artistic research in the context of scientific. The thematic backgrounds of these research strands and the infrastructure of ILUM serve as starting points from which the partners collaboratively create new communication content, exhibition settings and research as well as teaching materials.

ABSTRACT

The paper discusses how ILUM combines and integrates three research strands that are part of a major, sustained artistic or scientific focus of the partnering academic institutions:

1) The original development of the ILUM as being oriented towards practice-based research in Media Arts: Interdisciplinary Immersive Experiences within Media Arts.
2) The second scenario and field of expertise is established through collaborative work with the Department of Cognitive Science, Faculty of Media and Knowledge Sciences, University of Malta, on Interdisciplinary Immersive Experiences within Cognitive Sciences. For the researchers, the key element is that the subjective experience can be challenged using new technologies and IX media that induce perceptual bodily illusions.

3) The third scenario is the application of techniques, tools, and processes of ILUM in Interdisciplinary Immersive Experiences within Social Sciences, such as Heritage Dissemination activities and finally an outlook on envisaged IX productions within migration studies.

Immersive Experiences in Social Shared Spaces
Audio/Visual Artistic Research in European Immersion Labs

This paper discusses the use of Immersive Experiences (IX) within artistic research, as an interdisciplinary environment between artistic, practice based research, visual pedagogies, social and cognitive sciences. This paper examines IX in the context of social shared spaces. It presents the Immersion Lab University of Malta (ILUM) interdisciplinary research project. ILUM has a dedicated, specific room, located at the Department of Digital Arts, Faculty of Media & Knowledge Sciences, at University of Malta, appropriately set-up with life size surround projection and surround sound so as to provide a number of viewers (located within the set-up) with an IX virtual reality environment. Throughout the project, scientists collaborate to transfer scientific experimentation settings into the Immersion Lab that enable visitors to actively engage with and learn about these topics and methods of investigation. The paper discusses how ILUM combines and integrates three research strands that are part of a major, sustained artistic or scientific focus of the partnering academic institutions:

1) The development of the ILUM as being oriented towards practice-based research in Media Arts: Interdisciplinary Immersive Experiences within Media Arts.

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1) Interdisciplinary Immersive Experiences within Media Arts

In Genius Loci [1], Towards a Phenomenology of Architecture, Norwegian architect and theorist Christian Norbert-Schultz re-interpreted the ancient notion of Genius loci advocating a more sensitive approach to architecture in the direction of the symbolic understanding of places. Going back to taking into consideration the value of the 'character of place', and understating it in terms of heritage, would – Norbert-Schultz suggested – offer insights to a more sensitive and dialectic relationship between society, the environment and the forms of human living. In Computers as Theatre Laurel [2] introduced a totally new perspective on the then rather new domain of human-computer interaction [3], by combining drama studies with video-game design at the Atari corporation. Laurel's work brought a refreshing perspective to the emerging field of interface design. Laurel advocated to look for advice in formulas from the classic world noting how "designers of human-computer activities can borrow concepts and techniques from drama in order to visualize and orchestrate the structural patterns of experience" [2]. From a different perspective, interesting insights in this area can also be found in Char Davies' early experiments in Virtual Reality [4], like in Davies' Osmose [5] immersive VR installation. In a general context in which technology radically modifies the relationships between the visible boundaries – that we, at large, consider as a "screens" – and the moving image artifacts they are meant to display, the idea behind the traditional immersive VR setup is being questioned. A key area of investigation is, on the grounds of a long-established history of orchestration between spatial, visual components and storytelling, hence that of the possible contaminations between the diegetic space [6] of the audiovisual field and the narrative power of an expository medium. Furthermore, the very practice of sharing and creating information on social media, so characteristic of our times, tends to introduce a new space in which the real and virtual dimension overlap, interacting in new and unexpected ways.

2) Interdisciplinary Immersive Experiences within Cognitive Sciences

For the researchers, the key element is that the subjective experience [7] can be challenged using new technologies and IX that induce perceptual bodily illusions. Such illusions are interesting to study for cognitive neuro-scientific research of self-consciousness and provide an excellent way for communicating and explaining our scientific questions. Work in ILUM implements the experimental conditions for visitors to experience these bodily illusions and provides the public with a better understanding of the fundamental mechanisms of self-consciousness [8]. The main goal of the science communication project is to showcase exemplary research at the intersection of art and science. An example for such a field of expertise is established through collaborative work with Cognitive Sciences. The design of the User Experience [9], through cognitive analysis, is the first fundamental step to create an immersive experience.

The cognitive science potential for researchers of the ILUM project are in researching and implementing content production pipelines at ILUM, concentrating on the creative aspects of IX research through (serious) game-like experiences using ILUM, disrupting dominant narratives, often unwittingly, promoting – by embedding stories, perspectives and artefacts representing cultures and communities that were previously hidden, or indeed (due to past prejudice in what might constitute legitimate historical narratives) altogether missing. Those stories, perspectives and artefacts will be positioned in juxtaposition to the most popular narratives. The new connections, meanings and nuances that will emerge from those juxtapositions will help demonstrate novel uses of IX technologies. ILUM develops a method in prototyping an experience for the inclusion of cultural perspectives and artefacts, which represent communities and groups that are currently missing or under-represented in the collections of cultural institutions.

3) Interdisciplinary Immersive Experiences within Social Sciences

One major aspect for ILUM is the engagement with Maltese cultural and historical sites. Museums are sites of knowledge and memory, heritage and culture. Museums and historical sites in the Malta also are publicly funded institutions that have a social responsibility to reach out to a wide range of demographics. However, participation in

culture is often significantly lower among those from a lower socio-economic background [10]. There is strong evidence of arts and culture's intrinsic, social and economic value. The government expects that all publicly-funded arts organisations must increase access for people from disadvantaged backgrounds and open up arts and culture for all. Furthermore, even when visiting museums and sites of cultural heritage, many visitors only engage with the 'star' exhibits, missing out on other, equally important if less celebrated or spectacular elements of the exhibition, either because they do not have an incentive to visit certain parts of the exhibition or because items are hidden in the storage. This can lead to educationally limited visits of cultural and heritage sites. Therefore ILUM focuses on learning to set up IX solutions to counter key challenges faced by Maltese cultural institutions today:

1. Diversity of audiences and narratives displayed. The diversity of audiences does not currently reflect the demographics of Malta as a whole. A contributing factor to this challenge is a widely-held perception that the story of the past, as the dominant narrative currently presented by mainstream cultural institutions, is primarily that of wealthy, heterosexual, white males. As a result, audiences from different ethnic and religious communities, or with particular protected characteristics, can feel disconnected from this cultural narrative. Maltese heritage sites, museums and galleries are urgently seeking to address this through examining how cultural sites can better contribute to cultural and social developments by encouraging and facilitating diverse communities to contribute to culture within Malta.

2. Visitors only engage with 'star' exhibits, resulting to educationally limited experiences. According to Waltl "the process of establishing museums for the many goes hand in hand with transformation of museums which (…) 'change from being product-led to audience-centred'' [11]. Cultural institutions today seek to offer more engaging, enriching and relevant experiences to visitors, encouraging them to extend and diversify their visits. They want visitors to engage with the wider collection beyond the star exhibits, which would enrich the visitors' experience, offering a broader contextual understanding and instigating 'surprise encounters' with objects or ideas they might have not previously encountered, thus audiences would learn more and deepen their enjoyment of visits.

3. Physical space and resources limit the range of collections and archives that can be displayed. Cultural institutions tend to only display a proportion of their collection to visitors at any time. A great deal of it remains 'hidden' either because of a lack of space or because of the fragility of the artefacts. However, the 'hidden' artefacts [12] are often those which are most pertinent to the under-represented communities [13]. ILUM enables immediate accessibility and provides direct experiences for general audiences that range from school-age children to adults. The ILUM researchers have the opportunity to retrace the process with a possible adaptation to the Maltese context [14]. Crucial is that by bringing together images, sounds, and movement through interaction, an embodied relationship arises from reconstructed shapes of palaeolithic art [15], [16] and their synthesised movements. Critical points of development are the translation of heritage content [17], [18] into digital interaction modules, providing uninhibited access via animated media scenarios.

Another Social Sciences research project which benefits from the ILUM project is the Platform for Migration [19] at the University of Malta. In an increasingly integrated world, migration presents opportunities and challenges to communities, institutions and individuals alike. The mission of the University of Malta Platform for Migration is to offer a dialogical space in which researchers from different academic disciplines can work towards understanding all the evolving aspects of international migration, including that of belonging across generations. The long-term goal is to thereby contribute to an equitable, more sustainable and more inclusive society that brings benefits to migrants and their families, communities of origin, destination and transit, as well as their sending and receiving countries. Today the migration crisis renders the Mediterranean an opaque space, removed from the public eye, where the key founding values of the European Union (as per Art 2 TEU) are put under strain, making the Platform for Migration initiative all the more necessary. The Platform for Migration can help to shed light and raise awareness among stakeholders, policy makers, and the general public about the unfolding crisis at the common maritime borders of the Member States. ILUM supports the Platform for Migration in data visualisation within immersive space for awareness raising purposes.

ILUM, considering the above discussed case studies, serves as a vehicle for the exploration of new narratives for spatial media-arts work, combining the modalities of musical and visual surround presentation with a full-scale interaction surface. A core idea is to provide a platform for a wide variety of researchers and artists to experiment in and develop artistic works specific to this multi-modal configuration. The installation system intended for a variety of research scenarios that include researching in the domains of social and cognitive sciences, and media arts, such as creative coding, interactive media, as well as computer music and algorithmic composition. Furthermore ILUM allows for experimentation in the artistic research domain, as well for generating experiences to be investigated from the point of view of composition, systems theory, and above all interaction and social behaviour within media environments.

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