

Degradazione per Sovrapposizione di corpi

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ABSTRACT

Degradazione per Sovrapposizione di Corpi (DpSdC) investigates on interaction mechanisms created using low cost DIY technologies, aiming at the creation of emotional environments that can be used to break the users' inhibitory barriers to narratively access dialogue on socio-political issues.

Categories and Subject Descriptors

J.4.3 [Computer Applications]: Social and Behavioral Sciences – Psychology, *Sociology*.

General Terms

Algorithms, Performance, Design, Economics, Experimentation, Human Factors, Legal Aspects.

Keywords

interaction, emotion, design, copyright, perception, inhibition.

1. INTRODUCTION

In DpSdC common household gestures become extraordinary ones. DpSdC is an experiment in interaction design using an emotional approach to technology to break the inhibitory barriers commonly found in the visitors of an exhibit. Classical arts and media left their mark on the fruition processes of contents and experiences: visitors embrace passive roles and limit themselves to visually browsing what they see shown in the museum, festival, or movie theater. This passive condition propagates to everyday life, where the audiences of the information flows (be them on television or on the internet) only partially grasp the possibilities for interaction. Socially, interaction with information and with experiences means the possibility for critical mindsets to form in the users' perception. Contemporary technologies offer the possibilities for these forms of social activeness to develop and to be truly accessible. Yet streams of inhibitory and practical barriers have to be bypassed to let these possibilities be broadly available. This is true for all the parties

involved. The developers of technologies must gain the technical competences needed to create effective products. The skills involved are not only to be found in the technical knowledge needed to create hardware and software, but also the ones needed to research on the neuro-psychological levels of user interaction, on product design, on the economic and production models that the new technologies enact. Also, technologies can be expensive, and the alternative, more accessible techniques, often embracing "Do It Yourself" production paradigms, can only be learned by social interaction of some kind with other developers, building communities and communication channels based on open source practices and free licensing schemes.

The users of technologies are often faced to systems/interfaces/artifacts that they don't technically or conceptually understand, or that they find boring or only partially engaging, or that don't confront with issues that they perceive as relevant or, even, interesting. Or, on the other side, they are sometimes simply used to having passive experiences with contents and information. DpSdC is an experiment trying to assess all of these issues. A low-cost, low-technology, recycling, DIY approach is used to create an interactive environment that uses common, well-known household gestures to create a fun, entertaining, engaging tool that is used to establish a dialogue on the international debates on the issues related to copyright and intellectual property.

DpSdC has been shown for the first time at the Live Performers Meeting 2008 in Rome, where it was used by hundreds of visitors, with amazing results.¹

2. Technique

Visitors can approach the installation from all sides.

The floor of the space is filled with an overhead projection, coming from a standard Personal Computer running a custom software. A standard, low-quality, webcam connected to the PC looks at the installation floor. The camera's optics have been prepared by removing the infrared (IR) filter, and replacing it with a small square of black photographic film, effectively turning the webcam into a basic, low-cost, IR-sensible device. The scene is lighted by the standard light provided by the projection, by the rest of the environment's lighting, and by a custom-built IR light source, created by assembling the printed circuit boards (pcb) of 5 recycled television remote controls, hooked to a simple on/off switch and to a power source created

¹ <http://www.artisopensource.net/DegradazionePerSovrapposizioneDiCorpi/>

by using a series of 9V batteries and a couple of simple electronic components (resistors, capacities, an inductor).

As visitors approach the installation's floor they are presented with various common household tools: a broom, an ironing board, a feather duster, a vacuum cleaner. Visitors could freely grab any one of these tools to perform the simple gestures we all performed once in every while to tidy up our homes.

The gestures of sweeping the floor, of ironing a t-shirt, of dusting a piece of furniture, were immediately and reactively captured by the installation's software - constituted by a truly simple set of motion capture algorithms - and mapped to curves



and strokes of varying pressure and width on the projection.

The calculated strokes were rendered on the projection by cutting up pixels from the digital images of the paintings coming from the last 300 years of Art History. A stroke with the broom would mean, for example, the "magical" appearance of an equal stroke of a painting by Andy Warhol or by Salvador Dali, as if removing the dust from the floor revealed the paintings underneath. Continuous interaction created a progressive overlay process, revealing the parts of the (about) 1500 paintings included in the installation, creating visual remixes that the users created, in delight, by brooming the floor, ironing, dusting and vacuuming.

3. Emotions and aesthetics

The first exhibition of DpSdC was in a very specialized setting: an international VJ meeting. People walking around the event space expected to see very "standard" presences: MIDI controllers, laptops, projectors, knobs, DJs, VJs. Arriving at the installation space, and confronted with a broom and with a vacuum cleaner, various expressions emerged from their faces, showing curiosity, interest, laughter and, sometimes, diffidence. The question clearly appearing along their facial traits was: "What the hell is this?".

The installation was anything but neutral. The presence of household objects that were immediately recognizable within a setup that had definite aural components created different kinds of approaches: people asking for explanations; other people asking if they could "touch it"; some other people asking what the "objective" was. Everyone eventually grabbed the broom or the feather duster and started dusting the floor and the furniture.

As soon as this happened the change in attitude was immediate. The simple gestures became extraordinary: the way in which well-known material actions acted on the immaterial plane created by the installation was fascinating, and had a light psychedelic feel to it.

The interaction was captivating and people stayed at the installation for dozens of minutes, eventually returning, hours (or even days), later bringing their friends with them to show the "magical" installation.

The installation was designed so that the technological elements disappeared from perception. The resulting environment featured a minimalistic representation of a house, with two recycled TV



sets taken out from their case, with the circuits exposed, a small cabinet with the feather duster on top, and the projected floor with the broom and the vacuum cleaner. No technology was visually present to distract the visitors from the household setting. The projection and interaction were, thus, perceived as additional, immaterial, levels of a physical reality to which they were accustomed. The familiarity and "friendliness" of the aesthetics immediately lowered inhibitions: once they started interacting, people just kept on going, even starting to experiment with lighters, or by rolling their bodies on the installation floor to see what effects it would produce.

4. Copyright

When asking for information visitors were greeted with the explanations about the basic mechanisms making the installation work, and with the description of the conceptual themes of the installation, regarding the use of interaction design and of emotional approaches to technologies to discuss issues related to copyright and to intellectual property.

The installation allowed to create content by using in creative ways existing contents, bringing them to new forms of life and value through collaborative, accessible practices. This approach was explained as being the metaphor for what is currently

happening in the global re-definition of the concepts of intellectual property, of knowledge, of creativity and of legality.

The avant-gardes of the XX century artistically materialized the contexts produced by the industrial revolutions, as described in Walter Benjamin's theories: art has radically changed, becoming an entity that is characterized both by aura and by reproducibility. The post-industrial revolution brought this change to exponential levels of growth, with the emergence of the communicational metropolis to point out a definitively new concept of production and merchandise. The "remix" has become a formal artistic and creative tool. William Burroughs' cut up, pop art, conceptual art, situationism, street art, net art, advertising, contemporary literature, performative arts, video-art, DJ-ing, VJ-ing have extensively approached the concepts of re-elaboration, of de-structuralization/re-structuralization, of the "false" and of the "reproduced", of the augmented and of the degraded, transforming them into practices that are at the foundation of contemporary arts.

Stepping away from arts, and entering into more general contexts, digital technologies have created entire new methodologies that are globally used in cultural production and content fruition: streaming, peer to peer networks, virtual realities, hyperlinking, multimedia processing are all techniques that are used to create content. Many (most) of the times by simply creating new structures, elaborations and connections with existing content. This power, provided by digital technologies in contexts that are social and, potentially, universally accessible, is of fundamental importance for the cultural practices of the contemporary era: knowledge sharing, collaborative processes, free circulation of information and contents are the keys that will enable future philosophical and economic models. Even more, these practices are the only ones that are recognizing the true essence of content, information and production in the contemporary era, providing feasible business models that are rewarding and sustainable, and democratic practices that bring the population to face the need for critical approaches to information and knowledge, and to embrace usable tools to appropriate these spaces and practices.



DpSdC proposed all of these concepts through a simple, interactive experience. By collaboratively interacting on pre-existing (and, in some cases, copyrighted) contents, using widely available, autonomously obtainable, simply enactable technologies they could create beautiful compositions and democratically share a living space together with the other participants.

People had fun and learned many things about fine arts: some people were clearly more acknowledged to the history of arts

than others, and could guess a Pollock from a Botticelli with just a few strokes of the broom, revealing even small handfuls of pixels in the global composition of remixed paintings. This proved to be a very interesting collaborative educational experience ("oh! that's a Hopper!") in which the "game" was effectively (and autonomously) being used as a tool for knowledge sharing.

People were actually gratified by the beauty of the creations they could achieve by remixing with such a simple technique the paintings of Picasso or by De Chirico. They immediately recognized the importance and value of the original content, but they clearly identified the collaborative compositions as "new" products, as different in essence and in their definition of value itself: an entity created by interaction and communication, by an immaterial level of reality, and "meant" to be shared and communicated.

5. Conclusions

Exhibiting DpSdC has been a wonderfully rewarding experience. The installation was extremely successful in implementing a simple mechanism with infinite dialectic possibilities. Two unexpected, and welcomed, results have proven to be quite interesting among the others exposed in the previous sections: the educational perspectives emerged during the interactions and the opportunities to expand the collaborative processes at the base of the creation/implementation of such technologies.

On the educational side the exhibition at the LPM 2008 created the will to define an experimental project to be executed with children of all ages in which the "game" dimension will be expanded to create learning processes that are based on interaction, collaboration and sensorial perceptive levels. On the production side, people clearly felt the value of the DIY methodology: The availability of technologies that are structurable and enactable by individuals and by communities with few financial resources was immediately perceived as a tool that was truly democratic and of fundamental importance. These considerations have produced the ideas to expand on these areas of activity towards the creation of something that, now, is taking the form of an experimental laboratory in which consumer electronics and widely available technologies are (conceptually and physically) disassembled and reassembled in new ways, in a process of "social reverse-engineering" of technology.

6. ACKNOWLEDGMENTS

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A video of the LPM 2008 exhibition of DpSdC can be seen here:

<http://it.youtube.com/watch?v=6liNqLD14Vo>

² <http://www.liveperformersmeeting.net/>

³ <http://www.flyer.it/>

⁴ <http://www.deliriouniversale.com/>

⁵ <http://www.phagoff.org/>

⁶ <http://degradarte.beyourbrowser.com/>

⁷ <http://www.nova100.ilssole24ore.com/>

⁸ <http://www.artisopensource.net/>