



**HAL**  
open science

## New technologies and iconography language in the creativity process

Ofelia Ortega, Thomas Muller, Louis-François Fléri

► **To cite this version:**

Ofelia Ortega, Thomas Muller, Louis-François Fléri. New technologies and iconography language in the creativity process. PCST International Conference, Jun 2004, Barcelona, Spain. hal-02932444

**HAL Id: hal-02932444**

**<https://hal.science/hal-02932444v1>**

Submitted on 7 Sep 2020

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

## Parallel session 7: PCST as a performance: looking for new audiences

### CHILDREN 3D WORKSHOP: NEW TECHNOLOGIES AND ICONOGRAPHY LANGUAGE IN THE CREATIVITY PROCESS.

*Ofelia Ortega<sup>1</sup>, Thomas Muller<sup>2</sup>, Louis-François Fléri<sup>3</sup>*

<sup>1</sup> *3D Workshop Pegagogical group, Centre de Création en Réalité Virtuel. Lull, 334-338, 08019 Barcelona. Spain. Tel: +34-677-37-24-16 , E-mail: [ofeof@yahoo.es](mailto:ofeof@yahoo.es)*

<sup>2</sup> *Educational Software, Interactive Lighting and Art Software research groups. Institut Image. Ecole Nationale Supérieure d'Arts et Métiers. 2, rue Thomas Dumorey – BP 123, 71321 Chalon sur Saône –cedex, France. Tel: +33-(0)3-85-90-98-77, Fax: +33-(0)3-85-90-98-61, E-mail: [thomas.muller@ai.cluny.ensam.fr](mailto:thomas.muller@ai.cluny.ensam.fr)*

<sup>3</sup> *3D Workshop Pegagogical group's director, Centre de Création en Réalité Virtuel. 110, rue Vielle du Temple. Paris. France. Tel: +33-(0)6-08-60-80-06, E-mail: [lffca@club-internet.fr](mailto:lffca@club-internet.fr)*

#### **Abstract**

The Centre de Création en Réalité Virtuel (CCRV) and Institut Image propose the application of new technologies to the development of a children's workshop based on the work of graphic artist Warja Lavater.

The goal of this project is to develop a learning tool based on iconographic language supported with computers which would allow children to create and tell stories as a group. Researching the development of an application for an intuitive learning tool adapted for children is a key part of the project.

In general, we highlight the potential of this activity as a learning tool suitable for children's knowledge development.

**Key Words:** children, creativity, new technologies

#### **Text**

##### Context

The 3D workshop emerges from the combined efforts of the CCRV and Institut Image. Both institutions work together in premises where art and new technologies go hand in hand. CCRV provides the concept of interactive art while the Institut Image provides technical and human means.

The 3D workshop, aside from having a creative and technological approach, opens up an educational dimension that represents an introduction of interactive art to children of early ages.

The founder of this project, Louis Fléri, launched the 3D workshop with the help of the institutions mentioned above. His new challenge consisted in developing a software to create and recreate fairy tales through Warja Lavater's iconographic language adapted to children.

This project was made possible by the collaborative work of qualified professionals from different fields, among them there are artists, teachers, pedagogues and computer engineers. The project was supported by the European Union and the local authorities of Burgundy, France.

The graphic universe of Warja Lavater.

In the early sixties, at the Museum of Modern Art (MOMA) of New York, Lavater launched a book-object consisting of folded pages like an accordion, where The Little Red Riding Hood tale was narrated in an alternative way: with colour images and without words. The colour images were not figurative drawings but symbols. In this case little red riding hood was represented by a red circle and the wolf by a black circle.

"Imageries" is the name given to a series of Perrault's fairy tales using iconographic language, where the artist's goal is "to make written language into images and images into written language".

In 1965, Warja Lavater presented her first book at the Georges Pompidou Children's Workshop (Paris, France) and in 1994, the artist herself helped with the audio-visual adaptation and the production of synthesis images. The same year, the film was awarded the first Prize Pixel INA Art category at Imagina Festival.

Technical-pedagogical dialogue.

Dialogue between educational objectives and technical tools is the base which supports the development of this project. From a pedagogical point of view, the goal is to stimulate a different approach into traditional fairy tales, where the reader interprets the story conditioned by his/her social and cultural background and in accordance with his/her knowledge development.

Another objective of the workshop is to make it easier for children to develop group work creativity, as well as narrative and listening skills through the use of advanced technologies. In a certain way this initiative tries to put children in touch with new technologies.

The computer screen doesn't stimulate cooperative work, it encapsulates individuals into a virtual world. Children go through a learning process by using computer interfaces, keyboard and mouse. Softwares are full of abstract metaphors that are difficult to understand for the very young ones. These facts are confronted with its learning objectives.

In order to overcome the obstacles of using new technologies, we created, in the first place, an adapted ergonomic design to work in teams (tactile screens set on table surfaces not needing the use of keyboard and mouse). On the other hand, the workshop developed an info-graphic software without artificial devices (cut, paste, etc.) by which interaction is guided intuitively, “pointing a circle on the screen, giving it colour, making it bigger, moving it and changing page”.

To make the most of the software, it was set up in two different working places. On one hand, low tables with tactile screens called “Magic Palettes” and, on the other hand, a wide working surface called “Magic Table”, were children could climb and make their compositions with images using an e-pen.

The 3D Workshop.

Three schools were chosen to try out the project with a total of 45 students from four to eight years of age. Later, during the Nicephore Days (an image, art and new technologies festival), we opened the experience for all publics, from 0 to 99 years old.

The 3D workshop was divided into three phases:

1. Projection of video “Imageries”. An introduction of Warja Lavater iconographic language and traditional fairy tales.
2. Working with the Magic Palettes
  - Making up tale’s characters using images, making up or recreation of fairy tales and info-graphic making of stories in small groups (4 or 5 children).
  - Fairy tale teller. Projection and narration of stories with all groups together and with parents in the open sessions.
3. Making of an accordion-like book with images made by the children at home or in the school.
4. Playing with Magic Table. An open area to show how the software worked.

The feed back among students, schoolteachers and the 3D workshop team members was vital for the pedagogical and technical adaptation of the project and to open the workshop to other publics.

Conclusions

Through the experience, we realised the potential of the activity as a pedagogical tool adequate to learning processes of reading and writing skills, narrating fictional or real facts, creative expression and artistic language. Additionally, we would like to emphasise the utility of the activity the makes new technologies accessible from an early to late age in an intuitive way.

The 3D workshop allows working in teams with different fields at the same time, such as language, literature, art expression, math, new technologies and education of values. It's also possible to work with groups of different ages mixed together because each child has his/her own role. With no doubt, this is a useful tool for the development of children's knowledge. To conclude, it has to be mentioned that this experience opens up many challenging questions for the research of psychopedagogy.