STREET ARTISTS IN A VIRTUAL SPACE

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ABSTRACT. Information and communication technologies have great potential for knowledge dissemination, effective learning and the development of more efficient education services. The Information and communication systems, whether networked or not, serve as specific media to implement the learning process.
The present paper will give a general overview of a new integrated learning methodology that combines an e-learning platform and a 3D virtual world and that aims at encouraging students participation as well as creative teaching and learning. It will show how this new methodology has been applied through the project ST.ART in the European partner schools. The learning takes place within technology-supported community of learners involved in the creation as well as consumption of content.

KEYWORDS: *E-learning; Virtual 3D worlds; Collaborative learning; Street art*

ST.ART (STreet ARTists in a virtual space) project aims at providing an innovative learning platform as a laboratory where contemporary art works can be carried out by young students in particular of visual art schools. ST.ART project embraces the best of the new possibilities offered by modern technologies as a support to education in order to break down the barriers between formal and informal education. Allowing the users to have a voice and to actively participate to the learning process is a very powerful way to keep them engaged and to have them reflect upon what they are constructing and eventually learning.

Today's students learn differently from those of previous generations, they are equipped with different attitudes toward education. The use of technological tools can create an alternative to traditional education, that blends together games and learning. The functionalities of the technological system are designed to facilitate the pedagogical model implementation in a wide range of educational settings both formal and informal. The didactic environments involve the users with user-generated contents, transforming people from content readers into publishers thus participating in the knowledge construction. The use of multimedia

tools offers the possibility to use different communication codes at the same time.

ST.ART project

As the title suggests the pivotal topic around which the project unfold is street art. Street art is art made in public spaces and includes: graffiti, stickers, stencil art and wheat pasting. It has developed out of the graffiti tradition of the 1980s and over the last decade it has become one of the most popular and controversial art form in the contemporary scene, reaching also the mainstream. Given its background and origins Street art gives rise to a variety of interpretations: it is considered by some as a plague while for others it is an artistic expression or a tool to communicate dissent and expressing concerns. For these reasons most of the young people do not know the nuances of street art forms and they are not totally aware of the liable boundaries existing between street art and vandalism. In this context the main aim of ST.ART project is to have students (16 to 18 year old students in secondary school, especially in art schools) better know street art, its origins, roots and latest developments and understand the difference between aesthetics, street art forms and vandalism. ST.ART wants to produce innovative learning materials which deal with curricular topics but go more in details and merge together the theoretical and the practical aspects: i.e. the contents, that integrate the latest art trends with current art curricula and an innovative technological system, which creates a new Virtual Learning Environment. The pedagogical tools are developed in the form of attractive and fun contents delivered in virtual environments (i.e. e-learning platform and 3D virtual world).

ST.ART background

As first step, ST.ART partnership carried out a Comparative research on current art curricula, defined by the Ministry of Education (or any other relevant institution) in the countries involved in the project i.e. Italy, Austria, Malta and Lithuania. The research aimed at defining whether in the schools addressed, Street art is a topic included

in official modules within the curricular planning of contemporary art history classes. The research wanted to point out similarities and differences existing in legislative/education frameworks about street art forms. What came out as outstanding issue is that there are no special street art school programmes or express references in contemporary art curricula of all inquiring countries. However street art is close to students interests and there are a number of experiences in extracurricular activities. On the other hand there are no education programmes and activities aimed at preventing vandalism.

Training path

At methodological level, the objective of the ST.ART project is to put the school teachers in a position to pursue a flexible teaching, using appropriate resources and completely friendly technology. The teaching is flexible if it is able to adjust better to the learning levels of students to allow them to activate a cognitive complexity appropriate to their actual potential.
ST.ART's educational objectives are to improve students' basic and transversal skills as for example:

1. communication in English with their peers;
2. digital, social and civic competencies, sense of initiative and entrepreneurship, cultural awareness and expression;
3. creativity thanks to the development of the art project work in Open sim.

The processes of learning are complex and multifaceted and they undergo changes over the time. The most advanced education methodologies are focusing on flexibility, risk-taking, creativity and problem solving through modern methods of teaching and so called "atypical" forms of learning, such as co-operative learning, and through the use of multilateral clusters, community networks and ICT in teaching. The breakthrough of cognitive and constructivist approaches shifted the focus of education methodologies from teaching to learning. According to this paradigm teaching and learning in schools should be viewed as systemic processes that rely on principles of active participation (experiential learning), social

interaction, dialogue and reflection. In this context the teachers are more like facilitators who help the learners to get to their own understanding of the content.

Based on these assumptions ST.ART learning process has been implemented in three different and parallel sessions:

- the first one is the e-learning environment where the students have access to the theoretical information about the relevant topic, street art. The course is structured around three core modules: aesthetics and creativity of street art forms and their relationship with vandalism; entrepreneurship; and digital competencies in web 2.0 and virtual words. The lectures are mediated by the teachers who can apply several methods to keep the students actively involved in the course: course e.g. reciprocal questioning (students work together to ask and answer questions); jigsaw classroom (students become "experts" on one part of a group project and teach it to the others in their group); or structured controversies (students work together to research a particular controversy). All the learning objects (included audiolessons and lecture notes) are in English and this makes these educational tools usable as interdisciplinary material for English language and art teachers. Within the learning platform is foreseen a forum area where teachers can access to exchange ideas, opinions or talk about different learning methodologies with their peers in the other European countries involved in the project.

Figure 1: E-course platform

In the 3D virtual world, which is the second session, students carry out a project artwork. Open Sim is a 3D world that tries to reproduce the real one, including the development of new rules. Students are represented by avatars and they communicate mainly through written text. This virtual world has the potential to develop a simulation of "real life" skills and competencies. It can enhance an experiential learning through activities such as simulations. As first steps they have to create their own avatar and go around the city, Metropolis. The access to the 3D virtual world is autonomous but the students can also choose to work in small groups with their classmates. They have to learn how to use all the tools that the 3D virtual world provide them with, and start working on the practical art work project. The activities in the city foresee some synchronous lectures to be held by the Mayor of the city. The lectures are mainly discussion groups through which the Mayor gives students insights for discussion about correct behaviour in the city, a draft legislation, how to perform street art legally. The discussions on the correct behaviour in Metropolis turned out to be a common denominator in the live sessions in Open sim.

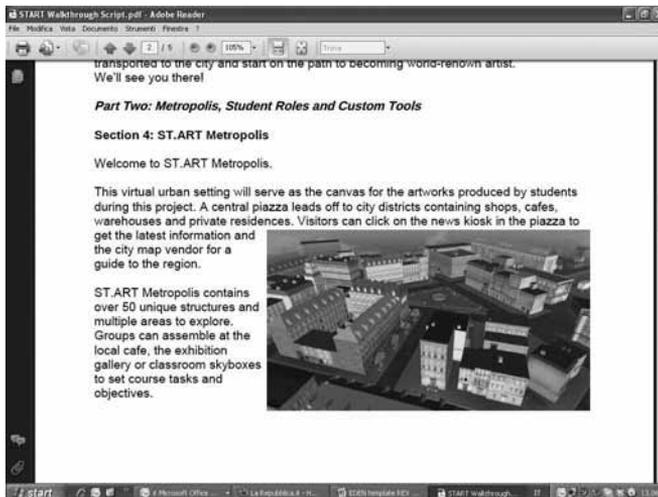Figure 2: Virtual classroom in Metropolis

Figure 3: Overview of the city: Metropolis

These discussions gave birth to the "Law for the Regulation of Street Art in Urban Areas" in its own terms the Law regulates "static inanimate artistic forms of expression in urban areas of the City of Metro, the issue of licenses and establishment of the regulatory authorities". The discussion engaged the students thus favouring social interaction within Open sim. They saw the law changing from a draft into a final document to be used in Metropolis and this made them more committed to the design of contents and implementation of activities. The Law has been uploaded in the Art gallery as a memorandum.

Figure 4 and 5. Law for the Regulation of Street Art in Urban Areas
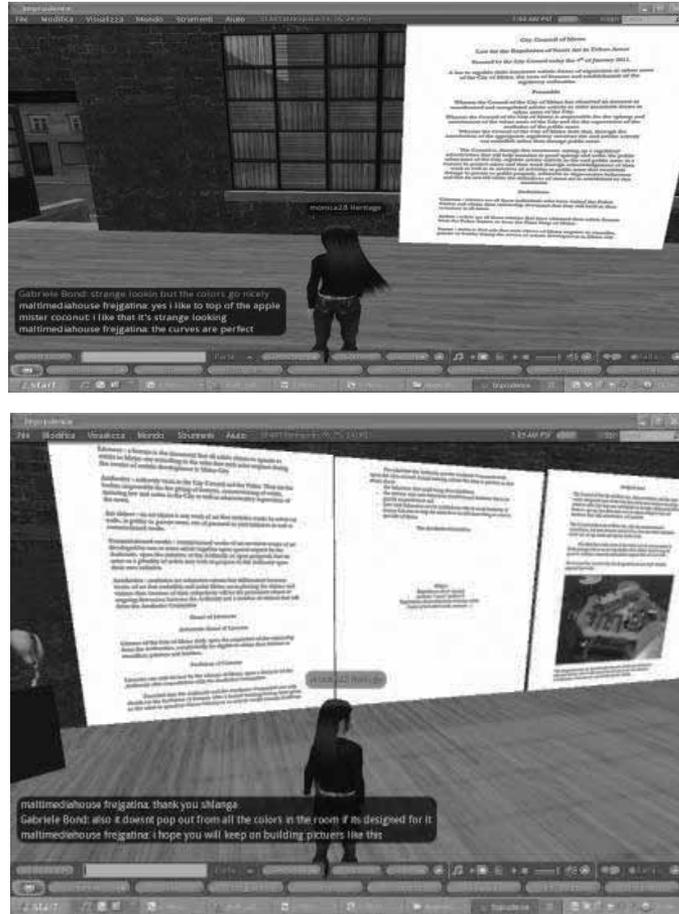
While virtual worlds with their three-dimensional landscapes and customizable avatars seem similar to popular Online Games, they do not adhere to the traditional definition of a game. Virtual worlds are more focused on socializing, exploring, and building. As a consequence, one of ST.ART's expected results was to create an active educational community in Metropolis. In order to encourage students from different countries and different schools to interact with their peers and behave in compliance with the regulation agreed upon, Metropolis has been divided in 5 different areas: each area is characterised by a colour and a background theme. The students had to choose an area in which they wanted to operate: therefore they are called to make research, build their own artwork or upload pictures related to the theme of the area and they become part of a multinational and multicultural group.

Based on the information previously acquired and on their own experiences they undergo a process in which they build up and improve their own knowledge thanks to the active and practical participation in the activities of the virtual world.

- The third session is represented by the social area, within the 3D Virtual world, where the students can interact with peers, in a collaborative way, exchange ideas, opinions, views, teach each other and learn from each other. In the social area and 3D virtual world training sessions the students are engaged

in an active learning process which is student-centred and guided by an expert of content (as moderator/mentor) who interacts with the students. This kind of learning allows an active development of competencies based on evidence as students actively construct new knowledge as they interact with other people.

Methodology

In order to achieve its objectives the ST.ART developed a new and innovative Virtual Learning Environment, made up of two settings:

1) an E-learning environment with a training area that uses the common tools of a modular learning platform to favour students' content learning
2) a virtual 3D world (based on the Open Sim environment) where art works are performed; the 3D world includes a social area where students can have open discussions.

Claroline is the E-Learning platform used for the delivery of the online course. This platform is suitable for the delivery of distance learning, in particular through Internet.

As for the 3D Virtual world ST.ART used the Open Simulator, often referred to as Open Sim, that is an open source server platform for hosting virtual worlds. While it is most recognized for compatibility with the Second Life client, it is also capable of hosting alternative worlds with differing feature sets with multiple protocols.

The friendly interface of the technological tools allows users to connect with one another and to identify themselves with their own avatars, to increase motivation, to reinforce the skills previously acquired and to enhance their overall learning experience. The use of game-based systems format is very effective since it engages the young generation and speak their own language. Positioning students in the role of the main learning character can strike their interest, and at the same time, can lead them to have a deeper engagement with the content. The school teachers play together with the students since it is essential for the teachers to engage themselves in the virtual worlds too. They need to communicate with students in a common language in order to be able to still

lead and shape students' learning. As teachers play, they help the narrative unfold, motivate students with appropriate feedback and highlight key concepts embedded in the virtual scenario.

The collaborative environment of Virtual worlds, provides synchronous communication and interaction among students. This social interaction and the relationships that develop, in this immersive virtual reality, between students and among students and others, create a community of learners. Lev Vygotsky notes that learning is a social process (Vygotsky, 1978), Karen Swan and Peter Shea believe this process is primarily found in the interaction within groups (Swan, Shea, 2005). Virtual worlds promote a greater in-depth knowledge of the content, process, and applications, facilitating an authentic learning experience. The experiential learning processes involve a higher level of interaction, which evolves as student and teacher participate in discussions, collaborations, feedback, and shared content knowledge (Perraton, 1983). According to Jean Lave and Etienne Wenger, the concept of learning is not simply internalizing information and knowledge but is a personal transformation defined by participation in a social community that fosters communication and interaction: Situated Learning: Legitimate Peripheral Participation (Lave, Wenger, 1991). In addition to creating an enjoyable experience, virtual worlds provide students scaffolded spaces that can support practical experimentation, critical thinking, and other information literacy skills.

Results

The main result of our project it to have produced an innovative learning and teaching methodology that merges together the theoretical and the practical aspects i.e. the contents that integrates the latest art trends with current art curricula and an innovative technological system which creates a new Virtual Learning Environment.

The functionalities of the technological system are designed to facilitate the pedagogical model implementation in a wide range of educational settings both formal and informal. The range of applications used to support the chosen topics demonstrate an interest to cross subject boundaries and take learning beyond the

classroom. The access to Metropolis is restricted to the teachers and students who participate in the implementation of the project in order to guarantee a more effective control, a better protection of their privacy and the real development, in a virtual environment, of the school settings.

Conclusions

In conclusion the ST.ART project embraces the best of the new possibilities offered by modern technologies as a support to education in order to break down the barriers between formal and informal education. The technologies used can facilitate the process of creation and rendition of art topics. The pedagogical model related to 3D virtual world provides the students with inputs and tools: the students are then called to interact, through the use of avatars in a virtual role-playing context, reproducing a real life setting. In so doing they can build a community of artists: they have to work together, respect each other, allow space for others, create friendships and try to turn Metropolis into a modern artistic city.

The educational model offered by the project is in fact based on synchronous as well as asynchronous tools with a specific and dedicate focus on group activities. The latter offers a great opportunity for social interaction and it shows how cooperation can produce amazing results.

The current global situation requires new ways of thinking and: the key competences needed in the future have to reflect more than before, flexibility, risk-taking, creativity and innovation. This is a challenge for formal education in general and lifelong learning in particular.

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