

artnouveau - On the transition to the digital era of arts and culture

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German Abstract

Das Projekt *artnouveau* zielt darauf ab, neue Ansätze und Visionen für die Präsentation von und für Kunst und Kultur herauszubilden. Als Thematisches Netzwerk geplant, ist es die Aufgabe des Projektes den Austausch von Informationen und Erfahrungen zwischen möglichst allen relevanten Gruppen aus Kunst, Kultur, Forschung und letztendlich Industrie zu fördern. Das angestrebte Ziel ist es, aus den Diskussionen und Erfahrungswerten sowie unterstützt von begleitenden Technologiedemonstratoren für Kunst und Kultur aus dem Umfeld Mixed Reality und Mensch-Maschine-Interaktion einen Vorschlagkatalog zu entwickeln, der für die weitere Entwicklung von Kunst und Kultur wesentliche Strömungen aufzeigt. Gleichzeitig hat das Projekt die Aufgabe interessierte Partner aus unterschiedlichen Bereich für innovative Anwendungen in Kunst und Kultur zusammen zu führen.

Culture and arts are still dominated by traditional forms of presentation. While the digitization of cultural heritage and artistic artifacts is already an issue in the discussion and research of different involved parties, the process of creation or presentation of cultural and artistic exhibits using state-of-the-art technologies is often only a focus of small research groups and initiatives.

The *artnouveau* project is set up as a thematic network in the 8th Call of the Fifth Framework Program of the European Union in order to help, the cultural and arts community, and the community of technology suppliers to exchange their respective views on the application domain of cultural and artistic expression. This includes both the provision of access to cultural and artistic artifacts to the public as well as the process of artistic and cultural creation. Since the interface to create or access such artifacts is an important issue, the thematic network intends to focus on technologies related to Human Computer Interfaces, Mixed Reality and Computer Graphics. While establishing a network consisting of specialists in different related fields is in itself an important objective, the work to be performed inside the network should lead to hands-on recommendations for the utilization of technologies in culture and arts. Therefore, a consortium has been assembled which builds the initial backbone or core group of the network. Consisting of partners with individual strength in their related fields, the network aims at the provision of a generic framework and a set of directives and recommendations on how to

successfully integrate new technologies into cultural and artistic environments and applications.

Because the network is going to take a user- and application-centered perspective, it fits perfectly into the landscape of existing research networks dedicated specifically to methodological advances in culture and arts, to the preservation and digitization of cultural and artistic content, as well as to standardization issues. It will adopt the role of an integrator and offers the potential to interrelate up to now unconnected endeavors.

The objectives of the network can be differentiated into at least two main areas, organizational objectives concerning the network itself and functional objectives concerning the action being undertaken within the network. The most important organizational objective will be the set up of a platform for exchange and discussion about issues related to technology utilization in the area of culture and the arts, bringing together all important players from cultural heritage information and arts and technology providers.



Figure 1: Interactive virtual exhibit.



Figure 2: Children in a virtual environment.

the Cross Action Program 15 in September, 2002. Relationships have been established to existing networks, important partners, and other projects in the domain of cultural and artistic expression, and these relationships will be extended during the project.

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The process of discussion, exchange of knowledge and experience, as well as hands-on experience, will on the one hand foster technology awareness in the cultural heritage and arts community, and on the other hand help to foster understanding and awareness of the demands, conditions and requirements of the cultural and artistic application domain in the community of technology suppliers. Furthermore, the network should be extended toward a network of excellence in the field of technology-enhanced cultural and artistic applications which helps to establish links between the different existing networks and initiatives dedicated to culture and arts and between different IST projects in related fields.

As for the more functional objectives, the intended concrete results of the project will cover surveys on (1) the current situation of cultural and artistic creation and provisions for innovations and (2) experience at the European level concerning the implementation of IST technologies for exhibitions, cultural institutions and archaeological sites. Furthermore, a special focus will be given to possible new forms of interfaces between cultural and artistic exhibits and the end users. The interface for creators and producers of cultural and artistic exhibits will also be determined. This includes the identification of available new technologies in Europe for access by visual arts

and cultural heritage specialists as well as already known technologies such as mixed reality, computer graphics, and human computer interfaces. A possible application of such technologies in a new domain demands an in-depth discussion between all involved parties to identify risks in the utilization of these technologies for cultural and arts applications. Gathering feedback on missing technologies or needed improvements to meet the specific demands of the application domain is crucial.

Finally, *artnouveau* will develop a proposal for future research directions in Computer Graphics, Human Computer Interface, and Mixed Reality and also a list of recommendations for the utilization of innovative technologies in the cultural and artistic domain. These recommendations will take into account various contributions from a wide range of parties dedicated to the subject of culture and the arts. The thematic network will be open to new members who want to participate in the discussion process and the evaluation of existing technologies.

A core group consisting of ZGDV, Fraunhofer IGD, VICOMTech, Universidade do Minho, Foundation of Hellenic World, Universidad de Deusto, Museo San Telmo, Centro de Computação Gráfica and the Museu Alberto Sampaio intends to start the *artnouveau* project, which will be supported by the European Commission in