

## **Experiential Technology Center (ETC): An Overview**

The ETC promotes the use of new technologies for experiential research in diverse disciplines including architecture, the performing arts, classics, archaeology, foreign language studies, and education, among others. Projects at the center explore a wide range of phenomenological issues, including movement, sequencing, sonification, and visualization. With past grants, the ETC team has distinguished itself in the spatial modeling of comprehensive environments, from natural and artificial landscapes, urban environments and other material culture, to the scientific visualization of surfaces and data. Comprehensive simulations of historical environments allow scholars to study various reconstruction issues and provide new spatial gateways into research and teaching about the broader cultural, social, economic, and political aspects of civilizations – both ancient and contemporary.

A focus on experiential historical architectural research distinguishes the ETC from other digital media centers by expanding upon current scholarly investigations and technology investments in virtual reality (VR) and sonification.

## **Institute for Digital Research and Education (IDRE): An Overview**

Computational science and engineering is a multidisciplinary field intersecting the domain sciences, engineering, mathematics and computer science. It is a critical path to understanding dynamic processes, exemplified by the grand scientific and social challenges of the 21st century; climate change, fundamental biological processes and interactions, nanoscience and technology, sustainable energy sources, information systems and new media.

At UCLA we have many strong world class individual research group efforts in scientific computing, in medical imaging, and in data analysis of laboratory experiments. These efforts involve researchers across the professional schools and the College. However, few individuals and groups possess all of the requisite collection of skills to function optimally in computational science. Success requires engaged interdisciplinary teams working together in a focused environment supported by a robust technical infrastructure.

The Institute for Digital Research and Education will be a convergence point for expertise, perspectives and methodologies in mathematics, engineering, computer science, statistics and domain sciences in a unified approach to computation and visualization. It will take advantage of the existing body of knowledge and expertise at UCLA and will support, advance and guide a campus wide program to make UCLA a world leader in high performance computing and visualization research and education.

Specifically, IDRE will:

- Act as a catalyst for faculty across departments and schools to form teams focused on solving scientific problems of national significance
- Establish innovative new models that will provide the unique technical foundation required for computational science and engineering research by building bridges across research disciplines
- Provide a strong intellectual environment for faculty, researchers, and students through international workshops, seminar series, and conferences
- Provide a facility for code sharing, development, and maintenance
- Build up computational resources through networked local clusters and central computing facilities as well as better access to national high-end computational platforms
- Develop and coordinate curriculum across UCLA in the areas of computation, simulation

## **UCLA's Digital Humanities Incubator Group (UDHIG)**

UDHIG's purposes are:

To incubate humanities research projects by:

-Giving faculty members, both individuals and groups, support for writing grant proposals, researching technologies, providing the information needed to formulate the technical portions, and by contributing a certain degree of programming and designer support to produce demo's or website mock-ups, enhancing the grant proposal.

-Designing software solutions in such a way that multiple projects can benefit from them. This requires close cooperation with the PI's of the various ongoing projects.

To foster, support and promote research through:

-Having regular meetings where UCLA faculty, and specialists from other institutions exchange information on ongoing projects and developments, to benefit from a wide range of experiences.

-Keeping abreast with and contributing to the rapid development of digital humanities research and education.

-Creating a platform where new ideas and approaches can be developed and tested.

-Discussing the consequences of newly developed forms of publication for merit reviews and tenure cases and define what constitutes high quality digital humanities research.

-Embarking on any other activities that will stimulate the development of digital humanities at UCLA.