

Appendix 1

JOINT APPLICATION TO THE ACADEMY OF FINLAND

Research program: Research on Knowledge (Tiedon tutkimusohjelma)

Project name: Through the Eyes of Media: Illuminating History
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0 Summary

Through the Eyes of Media: Illuminating History, is a project that will combine methodologies and content from the disciplines of archaeology, anthropology, ethnography, and new media to investigate new representations of information in the humanities.

1. Significance of research

Although archeologists utilize artifacts to learn about the past, there is surprisingly little contact between them, and the artists and designers who produce the objects in today's world. Of interest to this proposal, are the questions of how do archeologists look at, and, for example, illustrate ceramics? How does the view of the archeologist differ from that of the designer? Can the archeologist work benefit from understanding the point of view of the artist and designer in issues such as style and form?

Artists and designers working with New Media possess skills and knowledge that are of value to the development of the Information Society. On a concrete level, information and content are, after all, the raw materials that the new media artist utilizes. At a more abstract level, artists are trained in the cognitive skills involved in pattern recognition, and synthesis of forms and structures that are required to produce not only logical but also effective information and communication products. It is not surprising, thus, that from early on experts have recognized the impact that the artist and designer can effect on the Information Society

Of added significance is how the idea of non-linear access to information allows us to redefine century-long concepts such as text and visualization. These new technologies, and non-linear discursive practices, are being used by artists working with New Media to transform the art object into information. The interdisciplinary collaboration elaborated in this proposal re-mapping of these new information/art objects so as to achieve new representations of content in disciplines such as archeology.

2. Background

The Media Lab represents an investment, on a national scale, by the Ministry of Education. It is situated in the University of Art and Design and its focus is on research and education in the new media. Its initiatives are to undertake practical research in the areas of interactive and multimedia communications; to provide resources for the completion of co-operative projects in the area of New Media; and to provide specialists services for the use of other departments of the University and its educational partners.

The Information Society, with its converging media is a complex environment that requires an interdisciplinary approach to design. This interdisciplinarity is reflected in both research and education at the Media Lab.

The interest of the Media Lab in this collaboration is significant. In the spring, of 1995, we accepted our first Ph.D. student. The topic of research of this student, The Artist as Historian, is closely related to many of the areas covered in this proposal. In addition, we have started a pilot project that includes lectures by specialists in these disciplines. This lecture series, Application of New Media in the Humanities, will be offered at the Media Lab's New Media Center facility during the Spring semester of 1996. The lectures are given by professionals in fields such as archaeology and cartography and they are targeted to MA and Ph.D. level, research-oriented audiences.

3. Proposal objectives and goals

The objectives of this proposal are:

3.1 To investigate applications of new media technology and how it can be used to create new representations of knowledge in the humanities that make use of the opportunities available through information infrastructures. A concrete example of this idea is to investigate the application of three-dimensional modeling and animation technology for representation and reconstruction of archeological artifacts.

3.2 To develop interdisciplinary approaches to new media research and education that will impact production of media in the humanities. Specific examples of this concept is researchis the use of time-based media, such as digital video clips, for recording of excavation finds.

3.3 To use the synergy resulting from an interplay of diverse disciplines to define a language of inclusiveness that benefits the development of the Information Society in Finland.

These objectives will be accomplished through research and development of a project Through the Eyes of Media,that uses digital media to illuminate aspects of history of everyday life in Finland.

This project will synthesize knowledge from scholarly and applied disciplines, create new methodologies, and create an interactive environment that optimizes the use of digital media, and information products. These products will make use of existing, and planned, information delivery structures to optimize the process of dissemination of knowledge.

Within this interactive environment, the archeological point of view will provide the both theoretical and material knowledge about artifacts from the past. Anthropological and ethnographic discourses will supply the building blocks from which educational narratives may be built. New media and computer science research and development will allow us to integrate these disparate elements into a cohesive structure.

4. Current Stage of Research

As already mentioned, in the spring of 1995, the Media Lab accepted its first Ph.D. student. The research student, Lily Díaz, has been working for the past five years in developing methodologies for the applications of new media technology to historical research. Some of the results of this research focus on the areas of new paradigms resulting from a "space-as-information" approach to visualization. Among these is the use of the palimpsest as descriptor of the process by which historical discourse is encoded. Diverse discourses share the same boundaries, but it is the manner in which they are represented that favors the legibility of some and the exclusion of others. Based on hypermedia technology, possibilities for developing tools that allow for us to "read" the texts that have been obscured are suggested.

These results are described in an article "A Simultaneous View of History, The Creation of a Hypermedia Database", published in Leonardo, the International Journal of Art and technology in the Fall of 1995.

The current work plan and thesis proposal of the student focuses on development of these themes. The thesis focuses on the use of computer graphics for reconstruction and multimedia for representation of mental models and iconographical comparison of elements in two 16th Century documents.

The student has been active in identifying similar initiatives at a local and international level. In particular, she has concentrated on the international initiatives of the Getty Art History Information Program.

5. Project Description

The project, *Through the Eyes of Media...*, involves a media transfer of archeological, historical and ethnographic data from excavation sites and other repositories in Finland into digital, multimedia, data sets. Some examples of these data sets are digital video clips that visually depict the different stages in an excavation; three-dimensional

models of architectural structures and other artifacts, such as ceramics, that lend themselves to reconstruction and re-interpretation within a virtual reality framework; two dimensional images such as illustrations that have been converted into digital format; recordings of oral information pertaining a site.

The content server will be created at the Media Lab. It will be the hub in a network of information that initially is limited to Finland, but that eventually can extend to international cooperation and research. At the present the project pre-supposes cooperation with the following institutions:

University of Art & Design, Media Lab
University of Turku, Department of archeology
Kansallismuseo (National Museum of Finland)

6. Project Methodology

The development of this project involves three main phases. The following paragraphs describe the development of these phases.

6.1 Surveillance and Knowledge Transfer

Execution of this project presupposes a profound transformation from current scholarly, and artistic practices that are usually personal and individual efforts into a collective and communications-oriented process.

With this in mind, the initial objective of the project is to establish a common language. Acquisition of this tool can engender a sophisticated, and intellectually rigorous, interdisciplinary cooperation among all the parties involved. Therefore, the first phase includes a surveillance by all the participants of the diverse disciplines included in the project. This surveillance will be implemented through a series of intensive workshops designed in such a manner so as to allow for an effective transfer of knowledge between all the scholars.

The objective is not to make artists of historians, or vice-versa, but to establish a basic data base of knowledge common to all participants.

With this goal in mind, a series of workshops that include instruction in all the areas covered by the project will be offered at the Media Lab. Since state-of-the art telematic connections are available at the three university sites, these workshops need not be limited to the physical location of the Media Lab in Helsinki. This will allow for beneficial use of an already deployed technology base. Targeted to the participants in the project, the workshops will also be open to a selected number of participants.

6.2 Definition of Scope:

The second stage in the project will be to define the scope of the contents, the extent of its development by the group, the range of the multimedia data sets, and how all these elements will be integrated. Whereas from the scholarly point of view this stage this can involve a critical analysis and definition of parameters of the contents, from the design point of view, it can involve a pre-production analysis. In terms of the new media, this stage also includes interface design and multimedia pre-production.

Initially we have recognized the main area for content-development as the history of everyday life in Finland. In our project, this area can be depicted through a media transfer of archeological remnants of the Raisio archeology sites. This site concentrates, among other things, in history from the point of view of two thousand years of continued habitation. It contains archaeological remnants of diverse typology, such as loom weights, 16th century ceramics, 17th century coins, an inhumation cemetery, a cremation cemetery, and a medieval church. In addition, there are other archival repositories throughout Finland, such as cartographic materials and demographic records, that can allow for a rich ethnographic, visual narrative about the topic of everyday life in Finland.

The final results of this stage will allow for outline of a methodology to optimize the process of design of information products used for representation of knowledge in the humanities. For example, does the artist understand the significance of certain data for the archeologist? Is the archeologist cognizant of the creative capabilities of the media? Ultimately the product designed will reflect this new level of understanding.

6.3 Production

The content server created will exist as a node on the Internet that can be accessed, as a Web site, from multiple locations.

Since thorough records and archived materials will be kept of all the stages in the project, we propose that selected materials be published in electronic, and book format, so that they can be used by those interested in applying the results of the research. With this in mind, we will approach publishers, such as the MIT Press, who output material in the area of technology and art.

In addition, the knowledge acquired can be shared with colleagues in Finland through presentations and workshops.

The materials can also be presented in forums from diverse disciplines such as, the College Art Association Conference, the SIGGRAPH conference, and the Doors of Perception conference in Amsterdam.

Lastly, we propose that a conference should be planned to share the results, and exchange knowledge of this new area of research with local and international colleagues.

Ultimately, the final results of this project will allow for the creation of items such as:

6.3.1 We will create an electronic museum catalog that connects the Kansallismuseo (National Museum of Finland) and its collection to diverse physical sites within Finland, and to other international locations. The catalog will also integrate materials from disparate locations, and further the understanding of the country's historical heritage.

6.3.2 Educational materials targeted for high school instruction that can be transmitted electronically to diverse locations in Finland, and outside, and that provide first-person, interactive experience with historical data.

7. Project Timetable

The present proposal requests support for a two-year period of research and development. During this period, the content server will be created, using the procedures outlined in the preceding sections. At the end of this period, there will be an evaluation of the project. If approval, and subsequent funding is received, we will continue to the final stage. This stage encompasses a five year period and it will include the creation of the electronic museum catalog and the new media educational materials..

7.1 If approved for funding, the initial stage, phase one of surveillance and information transfer will be completed during the months of September through November of 1996. The month of December of 1996 will be utilized for review and organization of all archival materials created. In-depth records of the proceedings and all materials resulting from the courseware will be archived, so that they may be used by others interested in creating similar curricula.

7.2 The second stage, phase two of scope definition and pre-production, will take place in the six months following the completion of phase one. At this point, a complete project outline will be produced. This outline will be an in-depth map of the project. It will include, among other things, a cognitive framework of all the areas and corresponding data to be included in the server. Scenarios in multimedia format that illustrate the development process and functionality of the different tools that will be deployed in the field, storyboards describing program flow of the server's interface and tools, will also be created.

7.3 The third phase of construction of the content server will commence during the summer of 1997, and will last through the remainder of the two-year period budgeted (or until the spring of 1999) It will comprise of the integration of all the research, methods and content materials into the server.

In addition, during this period of time, contact with Kansallismuseo (National Museum of Finland), educational institutions interested in developing curricula with the materials created, and other funding sources will intensify. The objective will be to secure the appropriate funding and conditions to implement the concept of the electronic museum catalogs and educational materials.

7.4 During the fourth phase, we will work with Kansallismuseo (National Museum of Finland) in the creation of a prototype for the electronic catalog. In addition, we will be available for consultation with them in the area of deployment of new technology inside the museum space.

7.5 The final stage of the project involved the creation of a presentation module. This module will be used to demonstrate to an audience of teaching professionals how the tools created, namely the content server and the electronic catalog can be used to generate curriculum material.