Proposal to Supercomputing '95 NII Testbed
2/14/95

The Living Textbook: A Prototype Education Information Infrastructure (EII) of the Future

Collaborators:
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Northeast Parallel Architectures Center, Syracuse University School of Education, 20 participating information content providers, software developers, small business organizations, and vendors

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Categories:

Large, single screen projection environment high-end networking application.

Description of NII Application

We will demonstrate The Living Textbook Project, a prototype Education Information Infrastructure (EII). Our project has in place state of the art technology infrastructure (parallel supercomputers and database systems, ATM Gigabit network) student and teacher teams (diverse schools) vendor partners (NYNEX, Apple, Silicon Graphics), information content providers (Discovery Communication, Reuters, Education Showcase consortium of educational publishers, education researchers (Syracuse University School of Education), public access (local county library, CommunityNet) technology researchers and software developers (NPAC, Rome Lab, WorldView Corp).

We are developing a set of innovative software applications including:

an interactive, multimedia journey of New York State based on parallel terrain rendering, a spatially linked multimedia archive, and multi-megabit network delivery;
video-on-demand for the classroom including video from Reuters news service, and "Assignment Discovery" documentaries from the Discovery Channel, both with fine grain text indices;
Kids Web, a collection of Internet resources designed for the classroom; – web collaboration tools for students and teachers supporting on-line discussion and access to mail archives.

We have a rich collection of multimedia information content, and collaborating education researchers. We will demonstrate the above applications on a variety of systems differing in performance (computer power, network bandwidth, storage capacity) and cost by several orders of magnitude.

Partner	Key Contribution
NPAC	application development
teacher teams	classroom integration
SU School of Education	educational assessment
NYSERNet	advanced networking alternatives
NYNEX	ATM Gigabit network
Reuters NewMedia Inc.	video content
Discovery Communication Inc	video content
Education Showcase	web information system for education
ReFlex I/O	interface tools
TextWise	text retrieval
Onondaga County Public Library	public access
WorldView Corp.	3D authoring tool
active negotiation with CD-ROM based text provider to K-12 schools	text, news, document content

Equipment Needs

We will use the fullest range of network services available, emphasizing ATM networks, T1-T3 Internet, and ISDN lines. We will need high-speed workstation, and PowerMacintosh, and PC clients with network, window display, and large screen projection capability.