An Astronomical Observatory on the Net: a project of a telescope online.
Anna Auricchio, Astronomical Observatory of Capodimonte, Italy; Enrico Cascone, Astronomical Observatory of Capodimonte, Italy; Gennaro Cretella, Astronomical Observatory of Capodimonte, Italy; Gianfranco Spirito, Astronomical Observatory of Capodimonte, Italy

In order to extend to a wider public our Observatory out-reach facilities, we propose a project of an internet site, whose primary goal is education intended for students and for anyone interested in learning about our universe. The most important aspect of the project is the use a telescope, with digital camera, as a remote network device which will allow to users to acquire and analyze real astronomical images data. Electronics and the presence of an astronomic objects catalogue, permit the location and observation of the major planets as well as hundreds of deep-sky objects. Relevant astronomical and space events images - eclipses, comets, asteroids - will be available for acquisition across Internet. Anyone on the Internet can register and ask the telescope to look at anything in the northern night sky. Observations are automatically prioritized and scheduled and completed by the telescope as time allows. Also the software for image reduction will be available on the site. The official date the telescope became operational was September 2000. We are currently working with a number of schools and institutions in order to establish a preliminary collaborative partnership between Observatory Astronomers and the school system. This project would be unique in Italy, where from a few years there is in progress a strong evolution of the School system towards experimental programs. Broadly defined, the project will be the vehicle for enhancing excellence in science and technology education.

Developing Best Practices for Prospective Teachers and Mentors with Technology
Linda Bennett, University of Missouri-Columbia, USA

The “Mentoring Web Site” http://www.coe.missouri.edu/~esse/mentor began in January, 2000, for teacher certification students in the Teacher Development Center at the University of Missouri-Columbia who are enrolled in elementary social studies and a field experience. This project provides a means for delivering a technology support system for field experience. The project provides the technological and pedagogical resources for university instructors, classroom mentor teachers and university students to develop as professionals within a virtual learning community. The participants develop strategies to incorporate educational technology in the elementary classroom. University students and mentors use technology to communicate, collaborate on projects, research new bodies of knowledge, and design multimedia projects.

As an ongoing project, the mentoring web site is being refined based on feedback from the students and classroom teachers.

ETRDL: a Digital Library for the European IT Community
Stefania Biagioni, IEI - CNR, Italy; Carlo Carlesi, IEI - CNR, Italy; Pasquale Pagano, IEI - CNR, Italy

The ERCIM Technical Reference Digital Library (ETRDL) has been designed to meet the needs of scientists and librarians of the European Research Consortium for Informatics and Mathematics and thus offers a set of services for three distinct user types: information providers, seekers and administrators. ETRDL has been implemented as part of an international federation: NCSTRL (the US Networked Computer Science Technical Reference Library) and adopts the well-known Dienst software. However, in order to meet the specific requirements of a European research community while maintaining compatibility with NCSTRL, Dienst has been adapted by extending the existing functionality (e.g. search and browse), adding new capabilities (multilingual interface and access functions) and implementing new services (on-line document submission and withdrawal, administration). The system is open, providing a core set of services for the entire ERCIM collection which can be further specialized on the collections of the single ERCIM institutions according to local requirements.

The Illusionist, an environment for building pedagogical agents
Eleonora Bilotta, University of Calabria, Arcavacata di Rende (CS) Italy

We should like to propose a conceptual framework in which the design and implementation of life-like pedagogical characters can be grounded, with the aim to overcome the difficulty to program. The system has been designed through a visual language interface, that permits to script the agent behaviours, by dragging and dropping icons in the timeline of the multimedia sequence. Since we think that a pedagogical life-like character is a scaffolding technology that teachers have to learn to design, we propose a methodology to build up a pedagogical agent. The methodology is the following: * study of the character’s appearance, mood and behaviours; * analysis of conversational interfaces and creation of a dialog model between students and the pedagogical agent; * study of the agent’s behaviours in the educational constructivist environment; * organisation of its functions in the learning domain.

The Connections Project
William Bolen, Nebraska ESU 10, US; John LeMay, Nebraska ESU 17, US; Stacy VanBorkum, Nebraska ESU 16, US

The Connections Project is a federally funded Technology Innovation Challenge Grant designed to provide a model to schools across the nation in improving student learning aided by technology, including the use of the web and video production. The schools involved in this project have a variety of characteristics that make education challenging, characteristics that are common to many other schools across the nation.

Web Based Instructional Delivery Systems: The Story of One Program’s Exploration Process
Marty Bray, University of North Carolina at Charlotte, USA; Claudia Flowers, University of North Carolina at Charlotte, USA

This paper describes the planning process that a College of Education faculty used to meet the challenges of delivering coursework using a variety of distance education tools including two-way audio and video, the web, and chat sessions.