Glossary of Terms

ATC: The Advanced Technology Center (ATC), formed at the University of Missouri-Columbia, supports creative educational projects through the research and development of virtual reality, scientific visualization, and the promotion of widespread awareness and use of advanced computing technology.

Broadband: A high-speed transmission of digital data, such as computer files, video and sound, from one computer to another utilizing communication channels like the Internet.

C++:   An object-oriented programming language designed by Bjarne Stroustrup to allow software designers to create applications for use on a computer.

CAVE: The Computer Automatic Virtual Environment (CAVE) consists of three walls and a floor upon which high-resolution computer applications are projected.   The room-sized environment immerses its users in three-dimensional content utilizing 3D glasses and a mouse like controller.

COLDEX: Collaborative   Learning   and   Distributed Experimentation (COLDEX) is a European funded research project dedicated to the development of learning environments that follows recent learning theories and technological advances.

Courseinfo: A classroom centered website developed by Blackboard Inc., which can be personalized and employed by university classrooms, allows students to receive assignments, communicate in real-time, and check grades.

Digital Divide: A term that denotes the separation of people who do and do not have access to modern technology such as computers, the Internet, telephones and television. The digital divide exists between people of educated and uneducated backgrounds, rural and urban areas, and between nations of varied economical and industrial development.

EVL: The Electronics Visualization Laboratory (EVL) is a graduate research facility at the University of Illinois at Chicago that specializes in virtual reality and real-time interactive computer graphics.

Harlem Renaissance: A term used to describe the abundant occurrence of African-American art and literature in 1920's Harlem district of New York City.

Harlem Renaissance 2001: (HR2K1) a project organized by the Abyssinian Development Corporation (ADC), in conjunction with 13 other groups to provide citizens of Harlem, New York with access to the educational, cultural, civic and socio-economic opportunities that new technologies make possible.

IEEE: The Institute of Electrical and Electronics Engineers (IEEE) is an organization of engineers, scientists, and students that develop standards for communication and computer technology.

Instructional Technology: Hardware equipment such as the CAVE and software applications such as email used for educating students.

Learning Environment: Refers to the physical or virtual setting where instruction takes place.

Programmer: The title given to individuals who create software applications for use on computer hardware.

Round Earth Project: A virtual reality application of a three-dimensional earth, used inside of the CAVE, to investigate how virtual reality technology can be used to teach concepts that are counterintuitive to students' current mental mode.

Simulation: The mathematical representation of the interaction of real or virtual objects. Also, the representation of the operation or features of one process or system through the use of another, such as computer simulation of an in-flight emergency.

Stereoscopic: Refers to the technology that allows three-dimensional objects to appear away from a screen using special projectors that slightly alter the same images and eyeglasses that permit them to be viewed.

Technology: Term used to describe the practical application of science in commerce, such as electronics and computers.

Technophobia: The fear of technology and its incorporation into everyday life.

Tele-Immersion: Collaborative virtual reality over networks wherein computers allow scientists to communicate and share virtual reality material in real-time.

Virtual: The description of a condition that bares no boundaries

and possesses no constraints. Usually describes a state of simulation.

Virtual Experience: A term that denotes activity in and exposure to a simulation environment.

Virtual Harlem Project: A research effort in which the disciplines of science and the humanities jointly explore alternative educational environments, as well as philosophical and theoretical systems.

Virtual Reality: The artificial reality of projected three-dimensional images created by computers, which are experienced using special eyeglasses and navigated through using a mouse like device.16

Virtual Scenario: The environment in which the virtual reality is set, such as the recreation of 1920's Harlem in New York.

Ygdrasil: Developed as a dissertational piece at the Electronics Visualization Laboratory by Dave Pape, Ygdrasil is a scripting language used to enable non-engineers to program interactive scenarios for the CAVE environment.

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