Abstract
Computer-Assisted Instruction (CAI) developed from a need to engage students in a one-on-one interactive teaching paradigm. While materials may be presented from a multi-user classroom or distance-learning situation, the most important concept is that students learn at their own pace.

The Internet has provided not only sources of reference and research, but also means of personal support for many women. Because the Internet offers an environment in which gender is hidden, women are capable of thriving both economically and socially as well as men. Traits such as age, sex, race, and gender may remain anonymous when using the Internet, so discussion may focus on content, ideas, and meaning (Sinclair 1996). As a group, women comprise some 25–30% of those using commercial online services among users in the United States. More web-based resources for electro-acoustic composition and multimedia technology are being developed in order to meet the growing needs of female artists. It is with this in mind that WOW’EM (Women On the Web—ElectronMedia) was developed.

History
Early CAI programs such as Ars Nova Software’s Practica Musica and MacGAMUT Music Software International’s MacGamut focused on rote drills for college-level ear training. More recent tools have concentrated on developmental learning among younger students in musicianship, composition, and even electro-acoustic music. Morton Subotnick’s Making Music (1995) and Making More Music (1998) are CD-ROMs designed to teach very young students fundamentals music notation and basic ear training skills. NOTAM’s DSP for Children (Rudi 1997) guides students through basic principles of sound synthesis and electro-acoustic composition. Courseware such as Jeffrey Stolet’s Electronic Music Primer provides college students with an interactive on-line environment for electro-acoustic composition that includes text and audio examples.

Inspired by this new online educational philosophy and tools such as these, the WOW’EM World Wide Web site was created to fill a void in the education and support of young women with interests in digital media arts, audio, and video. WOW’EM has a twofold purpose: (1) to creatively engage students in learning about
electro-acoustic music, digital video, and digital imaging; and (2) to foster a sense of community and support among young women with interests in these interrelated fields.

**Overview**

Released in December 1996, WOW’EM (Women On the Web—ElectronMedia) provides information for students with interests in music and visual art, including primary and secondary school subjects such as orchestra or chorus, painting or pottery, and math, science, or computers.

The site demonstrates that the audio and visual arts may indeed be integrated into a hybrid artform. With the arrival of inexpensive computer hardware and software, multimedia has garnered much attention in recent years. Students today are the first generation to grow up with media such as music videos and computer games. While students are familiar with intermedia arts, what they are often lacking is a sense of artistic guidance and education. Second, WOW’EM provides information of special interest to young women, thereby creating a kind of “cybercommunity.” The site includes discussions on numerous topics in technology, interviews with women and men working in technology, as well as young women’s Internet sites. Now that so many families own computers, especially in the United States, an increased number of children know much more about the Internet than do their parents. Distributing the information is not the problem; the dilemma is showing these young women that they, too, may have every ability that young men do in arts and technology.

WOW’EM is divided into eight sections: Interviews and Viewpoints, Schools, Homework, Hardware and Software, ElectronMedia, TeleTalk, In-Forms, and No Boys Allowed!

*Interviews/Viewpoints* features prominent women and men in the intermedia arts. These pages include conversations with professionals from the fields of recording engineering, electro-acoustic composition, graphic design, and video art. Experts tell their stories: what they do for a living, how they got started, and their educational background.

Under the *Schools* section, users can explore topics such as choosing a high school or college, summer workshops, and international research centers. Departmental contact information is provided whenever possible.

*Homework* provides information on applying for internships and writing a résumé. Short articles appear in the “What Do I Do” section. Professionals of all ages—from recent college graduates to widely respected international figures—have described their jobs and backgrounds.

*Software/Hardware* begins with an extensive list of major audio and video hardware companies and includes contact information and product listings. This section also lists software and applications in the sections called “Digital Audio,” “MIDI,” “Software Sound Synthesis,” “Digital Video and Imaging,” and “Authoring Tools.” These sections also contain articles explaining basic concepts of these software categories.

*ElectronMedia* provides information from many areas, including books, recordings,
museums, scores, and educational and artistic videos and DVDs. The section “Electronic Music” covers the history of electro-acoustic music, significant books (including history and aesthetics, composition, MIDI, sound synthesis, and various composers), recordings, and scores. The “Visual Media” pages focus on fundamentals such as multimedia history, along with performance spaces, festivals, and museums (both online and traditional). “Related Areas” include subsections on “Dance,” “CD-ROM,” and “Film.”

TeleTalk teaches students how to use the Internet. Beginning with a brief overview of the Internet, the pages also define basic principles of electronic mail and file transfer protocol (FTP). This section also discusses the design of personal web pages, plug-ins, and other current developments.

In-Forms addresses five main areas: professional organizations, magazines, distributors, festivals, and web sites. No Boys Allowed! is a section devoted exclusively to women’s issues. Articles by and about women working in music and visual art, as well as women’s studies and gender areas, appear in this section. This section also includes biographies of women composers and visual artists, competitions, study grants, and other material on women’s issues. Additionally, a reprint of Pauline Oliveros’ article “And Don’t Call Them ‘Lady’ Composers” appears in this section.

Conclusion
The majority of information contained in WOW’EM may benefit anyone and is not necessarily gender-specific. While the site as a whole is intended for young women, it is not meant to segregate. Both boys and girls, women and men, will find many similar areas of interest. The philosophy of the site is not to separate, but to integrate.

References