COMPUTING IN THE ARTS (CITA) – A NEW MAJOR FOR CREATIVE PEOPLE

presented by

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Abstract:
Computing in the Arts (CITA) is an innovative interdisciplinary major, which combines computer science with artistic theory and practice. CITA is relatively easy to implement because it repurposes existing courses and resources. At the College of Charleston, this involves three tracks (music, studio art, and theatre). CITA incorporates four synthesis courses, one per academic year, to help students interweave the two distinct curricular experiences. In the four years of its existence, CITA has increased participation in computing by 23% mainly from an underserved population (students interested in the arts). Approximately 49% of these students are women. These students tend to be strong in design and creativity, thus enriching the field with professionals who can envision new technologies and surprising innovations. This talk will provide inspiration behind CITA, discuss implementation highlights at the College of Charleston, and present several projects that have emerged as a result of CITA. These include a Laptop Orchestra, Monterey Mirror (a computer musician that listens to humans and responds with new material in real-time), Jython Music (a Python environment for music making and creative programming activities, intended for musicians and programmers), Harmonic Navigator (a system for exploring harmonic spaces in J.S. Bach Chorales and other music in real-time), Time Jitters (a four-projector interactive gallery installation synthesizing artificial intelligence and human-computer interaction with music and visual art), and Diving into Infinity (a motion-based interface for navigating M.C. Escher's works).

Bio:
Bill Manaris is a computer science researcher, educator, and musician. He is Professor of Computer Science, and Director of the Computing in the Arts program, at the College of Charleston. His interests include computer music, human-computer interaction and artificial intelligence. He explores interaction design and modeling of aesthetics and creativity using statistical, connectionist, and evolutionary techniques. He designs systems for computer-aided analysis, composition, and performance in music and art. Manaris is Associate Editor of the International Journal on Artificial Intelligence Tools, and has recently published a textbook in Computer Music and Creative Computing. He studied computer science and music at the University of New Orleans, and holds an M.S. and Ph.D. degrees in Computer Science from the Center for Advanced Computer Studies, University of Louisiana. He has been supported by the National Science Foundation, Google, and the Louisiana Board of Regents. For more info, see http://manaris.com