CPATH CB: Performamatics: Connecting Computer Science to the Performing, Fine, and Design Arts

**NSF Org:** CNS Division Of Computer and Network Systems

**Initial Amendment Date:** July 12, 2007

**Latest Amendment Date:** May 26, 2009

**Award Number:** 0722161

**Award Instrument:** Standard Grant

**Program Manager:** Harriet G. Taylor
CNS Division Of Computer and Network Systems
CSE Direct For Computer & Info Scie & Engin

**Start Date:** July 1, 2007

**End Date:** June 30, 2010 (Estimated)

**Awarded Amount to Date:** $421,087.00

**Investigator(s):**
- Jesse Heines heines@cs.uml.edu (Principal Investigator)
- Fred Martin (Co-Principal Investigator)
- Karen Roehr (Co-Principal Investigator)
- James Jeffers (Co-Principal Investigator)
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**NSF Program(s):** CPATH

**Program Reference Code(s):** 9218, HPCC, 9178, 9251, 7218, 7640

**Program Element Code(s):** 7640

**ABSTRACT**

Abstract

CNS-0722161

PI: Jesse Heines
Institution: University of Massachusetts Lowell

Title: CPATH CB: Performatics: Connecting Computer Science to the Performing, Fine, and Design Arts

This CPATH project builds a community engaged in integrating computing with performing and fine arts. Building on an existing infrastructure, the traditional computer science curriculum is revitalized by streamlining the core computer science courses and developing an interdisciplinary major focused on arts and humanities. Artbots and performatics students and faculty work together in a multi-disciplinary teams supported by a regional group of project advisors and collaborations representing active museums, theaters, engineering, computer science professional organizations in the area. The project group centered at Massachusetts Lowell will then reach out to build a community of practitioners through workshops, conference events, and an alliance with the National Center for Women and Information Technology.

The intellectual merit of this project lies in strong project team and the expertise of the collaborative partners participating in the project. The project features an extremely comprehensive assessment plan that should provide concrete insights that are of great value. The project has the potential to articulate the connections between computer science and the arts thus enhancing the overall discipline of computing.

The broader impacts of the project lie with the potential to enhance the education and opportunities of a broader group of students and region. The community outreach component builds capacity nationally to revitalize computing education and thus directly impact the computing education of students and faculty across the nation. The project can serve as a national model for blending computer science with other arts and humanities disciplines.

PUBLICATIONS PRODUCED AS A RESULT OF THIS RESEARCH


CONFERENCE PROCEEDINGS PRODUCED AS A RESULT OF THIS RESEARCH

Ruthmann, A; Heines, JM; Greher, GR; Laidler, P; Saulters, C. "Teaching Computational Thinking through Musical Live Coding in Scratch," in 41st ACM Technical Symposium on Computer Science Education., 2010, p. 351-355. View record at Web of Science


BOOKS/ONE TIME PROCEEDING

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