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This blog hosts weekly news about the Texas A&M University Sketch Recognition Lab. SRL is directed by Dr. Tracy Hammond, an associate professor in the Computer Science and Engineering Department. More information about the lab can be found at <http://srl.tamu.edu>

Friday, June 10, 2016

## SRL MS Thesis Defense of Swarna Keshavabhotla. Friday, June 10. Title: PerSketchTivity: Recognition and Progressive Learning Analysis

### Thesis Defense

Friday, June 10

**Title:** PerSketchTivity: Recognition and Progressive Learning Analysis

Swarna Keshavabhotla  
3:30pm Friday, June 10, 2016  
Room 326 Teague Building

### Abstract

Development of novice computing technologies has opened the door for computer- based tutoring systems in areas where it was previously not possible. Sketch-based tutoring systems are being developed for subject domains, which involve diagram- matic representations for problem solving. In this thesis, we present PerSketchTivity, a sketch-based tutoring system for design sketching that allows students to hone their skills in design sketching and self-regulated learning through real-time feedback. Students learn design-sketching fundamentals through drawing exercises of reference shapes starting from basic to complex shapes in all dimensions and subsequently receive real-time feedback assessing their performance.

PerSketchTivity consists of a recognition system, which recognizes the correctness of the sketch on the fly, on completion, feedback system provides real-time feedback and the evaluation system evaluates the sketch based on various features like error, smoothness and speed. The focus of this thesis is to evaluate the performance of the system in terms of the recognition efficiency and also the impact on the drawing skills of the students practicing with this system.

### Biography

Swarna Keshavabhotla is a MS candidate at Texas A&M University department of Computer Science and Engineering. She is a member of Dr. Tracy Hammond's Sketch Recognition Lab. The focus of her research is development of sketch recognition algorithms for assessment in Intelligent Tutoring Systems and feedback mechanisms for enhancing the impact of the system on students' skills. Swarna received her Bachelors degree in India.

Advisor: Dr. Tracy Hammond

Posted by [Anna Stepanova](#) at [3:16 PM](#)



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