

# NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

## C S S E M I N A R

**Title:           Programming Languages for Children**

Speaker:       Dr Ken Kahn  
                  Senior Researcher  
                  Academic IT Services  
                  University of Oxford

Date/Time:     17 March 2015, Tuesday, 02:00 PM to 03:30 PM

Venue:         Video Conference Room, COM1-02-13

Chaired by:   Dr Henz, Martin, Associate Professor, School of Computing  
                  (henz@comp.nus.edu.sg)

### Abstract:

Programming languages designed for use by children (Basic, Logo, Smalltalk) have a nearly fifty year history. Recent renewed interest in enabling children to program has resulted in new languages such as Scratch and Snap!. Web sites that introduce programming such as code.org have had almost 100,000,000 people spend at least an hour exploring programming. Programming systems for children are also leaving the desktop moving to tablets and phones.

ToonTalk is a programming language for children that was developed by the speaker from 1992 to 2007. ToonTalk looks and feels like a video game inside of which children build concurrent constraint programs. It was the basis of two large-scale European research projects. Most recently the speaker has been re-conceptualizing and re-implementing ToonTalk for the web. See <https://github.com/ToonTalk/ToonTalk/wiki>

Live demonstrations of all these systems will be presented.

### Biodata:

Ken Kahn as a doctoral students at the MIT AI Lab worked with Seymour Papert and the Logo Group in the 1970s. After more than a decade as a researcher in AI, programming languages, and concurrent computation he changed his focus to programming languages for children and pedagogic uses of computational models. Ken is visiting NUS this term and teaching a USP course on computational thinking and modelling.

