Colorado State University's
Information Science and Technology Center (ISTeC)
presents two lectures by

Matt MacLaurin
Principal Program Manager
Creative Systems Team
Microsoft Research

ISTeC Distinguished Lecture
in conjunction with the
Electrical and Computer Engineering Department and
Computer Science Department Seminar Series

"Kodu - End-User Programming and Design for Games"
Monday, November 2, 2009
Reception: 10:30 a.m.
Lecture: 11:00 – 12:00 noon
Location: LSC 228

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ISTeC Special Lecture

"Designing and Building Kodu: a Graphics, Simulation, and Design Tool for Children"
Monday, November 2, 2009
Lecture: 9:00 – 10:00 a.m.
Location: CS130

ABSTRACTS

"Kodu - End-User Programming and Design for Games"

Project Kodu is a kid-friendly game design and programming environment which enables non-technical users to create complete games - including "AI" behaviors - using only an XBox 360 controller for input. Kodu includes a novel graphical programming environment based on a concurrent rule system derived from contemporary robotics practice. This language is approachable - it can be mastered by 10-year-olds - yet expressive, and can be used to implement a broad array of game genres. In addition to behavior editing, Kodu integrates terrain and level design - providing a full-spectrum game design system that is accessible to 9-year-olds (and their parents) running on the XBox 360 or a Windows PC.

Kodu has been developed over two years in Microsoft Research in collaboration with the XNA Team. It has been studied in pilots with children as young as 9 for over a year and undergone hundreds of hours of usability testing on both the user interface and the language itself. In this talk, we will provide an in-depth look at Kodu including the design of the programming language, pilot programs with Kodu in schools around the world, and the motivations of the Project Kodu team at Microsoft Research.

"Designing and Building Kodu: a Graphics, Simulation, and Design Tool for Children"

Kodu is a first programming experience for children. It runs on the Xbox 360 and lets kids make their own games. In this seminar, we will talk about the design and construction of Kodu, with particular attention to tradeoffs made in the implementation. Kodu is built on the XNA Game Studio Framework and written entirely in C# with a very healthy layer of HLSL shaders. We will talk about the art process, the design of a 3D scene editing tool intended for children, the tradeoffs of building in the secure Xbox environment, and take a close-up look at some of the graphics flourishes that make Kodu feel at home on a HDTV display.

SPEAKER BIOGRAPHY

Matt MacLaurin is the instigator and leader of the Kodu project. As Principal Program Manager in the Creative Systems team at Microsoft Research, MacLaurin investigates the intersection of creativity, entertainment, and social media, with a particular emphasis on how sharing affects creativity and the different roles that form naturally within online creative communities. Previously at Microsoft, MacLaurin ran a team within the Windows organization responsible for key innovations in user interface, search, and animation in the Windows Shell for Vista and Windows 7.

Prior to Microsoft, MacLaurin worked as a senior engineer / scientist at Apple Computer where he studied advanced interactive media authoring environments, invented a new formal grammar for user interface, and wrote the user interface framework for the Dylan-based version of Newton - one of the first consumer-focused operating systems written in managed code.

Between Apple and Microsoft, MacLaurin founded and ran a successful interactive media consulting agency conducting advanced research and product development for clients such as New Line Cinema, Apple, Creative Systems, MCA, Silicon Graphics, Thorne EMI, Paramount, Dreamworks, Capitol Records and Virgin Interactive, including the brand introduction campaign for Mac OS, the first large-scale social media systems for the music industry, and advanced character animation systems for 3D environments. He is named as an inventor on over 60 patent filings.

To arrange a meeting with the speaker, please contact MaryAnn Stroub at 970-491-2708 or mstroub@engr.colostate.edu.

ISTeC (Information Science and Technology Center) is a university-wide organization for promoting, facilitating, and enhancing CSU's research, education, and outreach activities pertaining to the design and innovative application of computer, communication, and information systems. For more information please see ISTeC.ColoState.edu.

Both lectures are open to the public.