

Computer Graphics Education Workshop 2009

Teaching Computer Graphics in Context

Sponsored by Eurographics and ACM SIGGRAPH

March 29-30, 2009, Munich, Germany



$$\begin{bmatrix} x(u, v) \\ y(u, v) \\ z(u, v) \end{bmatrix}$$

$$\frac{\partial^2 p}{\partial u \partial v}(0, 0) = 9(p_{00} - p_{01} + p_{10} - p_{11})$$

$$\begin{aligned} p(u) &= c_0 + c_1 u + c_2 u^2 + c_3 u^3 \\ p'(u) &= c_1 + 2c_2 u + 3c_3 u^2 \end{aligned}$$

$$p(u, v) = \begin{bmatrix} x(u, v) \\ y(u, v) \\ z(u, v) \end{bmatrix} = \sum_{i=0}^n \sum_{k=0}^n c_{ik} u^i v^k \quad p(u) =$$

We invite educators from all areas of computer graphics to participate in a workshop on computer graphics education with the focus on teaching computer graphics in context. To participate, you need to submit a position paper, probably of no more than four pages. This may be a description of a course you teach that places graphics in a context, a summary of some ideas you have on how this might be done or what it might mean to the field, or examples of projects that integrate real world problems and include a unique pedagogy or partnership. Workshop attendance will be by invitation only, based on the position papers we receive as evaluated by the co-chairs and a group of jurors. The submission deadline is December 11, 2008, and you should send your position paper to the workshop co-chairs at the addresses at the end of this announcement. We expect to send out invitations by January 19, 2009.

Rationale for this topic

In the early days of computer graphics it was necessary to implement all of the pieces of the graphics pipeline in order to create an image. It is still important to understand these implementations to develop a graphics system or to go into computer graphics research. As a result, many computer graphics courses in computer science and engineering have focused on teaching the algorithms and techniques of the field and have not taken the time to cover what it means to create effective images—images that use computer graphics to increase understanding or convey meaning. Conversely, computer graphics courses in art and design may focus on creating images that affect our understanding but may not cover the scripting and coding skills needed to accomplish these tasks. We are challenged to work with students who see computer graphics everywhere and who need both education and experience with the subject.

The concept of “Teaching Computer Graphics in Context” is a response to this challenge. We take this to mean that computer graphics is taught with examples and projects from a real-world setting so that the student understands both how to do the modeling and rendering needed to create an image and how the images that are created are used in the broader real-world context. This helps students understand the meaning of the technical material and creates bridges between the subject and its applications. Designing experiences in context enhances students’ ability to function in the world.

Goals for the workshop

We want to share examples of creating and using an outside context in computer graphics. We want to consider some courses where contexts have been used and discuss how these courses work, and we hope to identify some additional promising areas where a context can be provided. We believe that this idea is broader than computer science, including courses in areas such as the arts, design, animation, engineering, games, and visualization. We invite anyone who has experience working in these contexts to submit a position paper for the workshop to share your ideas and experience and to take away new ideas for graphics contexts for education.

Eurographics 09 conference education programme

The Eurographics 09 conference includes a full track on computer graphics education. Please see the EG09 conference calls for participation (<http://www.eurographics2009.de/calls/>) for more details. If you have education content that you want to be published, you should submit a paper to that programme; the workshop will not publish any position papers. If your paper fits the theme of the workshop, however, we encourage you also to submit it as a position paper.

How to submit to the workshop

Please send your position papers by December 11, 2008 as email attachments in Word or PDF format to one or both of the workshop co-chairs:

Workshop Co-Chairs

Colleen Case, Schoolcraft College, ccase@schoolcraft.edu

Steve Cunningham, Brown Cunningham Associates, rsc@cs.csustan.edu