



ACM SIGGRAPH EDUCATION COMMITTEE

IEEE  
**Computer Graphics**  
AND APPLICATIONS

Bridging the theory and practice of computer graphics

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## SUMMARY OF THE SIGGRAPH 2011 Birds of a Feather

### “Call for Contributions for the IEEE Computer Graphics and Applications' New Education Department”

Co-Chairs Gitta Domik and Scott Owen

Tuesday, 9 August 2011, 2:00 pm - 4:00 pm  
Vancouver Convention Centre - West Building, Room 116

**Motivation for this BOF:** Computer graphics is a key technology stimulating research and feeding industrial applications. As technology has advanced over the past 50 years, computer graphics has undergone profound changes that must be reflected in how and what we teach. With students staying only a few years in our undergraduate or graduate program, we need them to graduate with current knowledge so that they are appealing to employers. We can't always wait for textbooks to catch up, so we must turn to other sources for new knowledge, which is why CG&A's new Education Department was founded.

CG&A's new Education Department provides a forum for educators to exchange best-practice examples of innovative instructional methods in computer graphics and interactive techniques. The primary focus is on courses that are taught from a Computer Science perspective, although courses that are cross-disciplinary are also welcome. The Birds of a Feather meeting invited readers and authors to join and voice their opinion on what contributions this department should consider in its future.

#### Agenda of the meeting:

1. Welcome from the Co-Chairs
2. Scott Owen reports on the first 5 papers of this new Department
3. Everyone is invited to discuss
  - a. Possible contributions of their own
  - b. Contributions they would like to see from others

#### Summary of Discussion:

Most participants voiced their opinion on what they would need for their teaching of computer graphics but can not find in current textbooks. Here is a list of desired topics:

1. OpenGL working with OpenCL
2. Using WebGL

3. Raytracing based on GPU instead of OpenGL
4. Flow Visualization – methods and techniques
5. How to best integrate Computer Vision into rendering course
6. Integrating different interaction techniques
7. How to teach computer graphics to non-technical students
8. How to deal with interdisciplinary students in graphics course
9. How to teach “Shaders for Games” as a motivational extension to an Advanced Rendering Course

Additionally, there was a report of a successful project of setting up internships for computer graphics students in industry. It was agreed that this could also turn into an article.

There were requests for a Special Issue on education, to bundle several useful teaching resources at once.