

# **Rochester Institute of Technology**

Faculty Learning Community

Summer Cohort 2009

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### **I. Teaching Philosophy**

I am focused on learner-centric pedagogies, with the goal of inspiring every student to become life long learners. I believe that an important part of the instructor's role is to aid each student in finding his or her passion, both academically and in life. Proper teaching propels students to achieve their full potential while connecting their current knowledge and interests with new information and resources necessary to drive their work and research further.

### **II. Teaching Metaphor**

Teaching is a Bridge. This is a metaphor for teaching that I most closely align with. The teacher needs to assess and understand the knowledge base and learning style of each individual they are instructing in order to relate new information to the students. Students internalize information in relation to their existing schemas to deepen their understanding and perspective of new information and how it relates to their world-view. The teacher understands the knowledge students have in a particular content area and where they need to be to achieve a deeper level of understanding.

The "Bridge" enables students to achieve their goals within the content and helps relate information to other content areas to build upon their knowledge autonomously. In a sense, teaching is a "Bridge" the instructor creates or helps illuminate between the knowledge the student already knows and where that individual needs or wants to connect to, to further their interests, research, and knowledge base.

### **III. Project Overview**

The focus of my research is for a new course that I helped create, develop, and implement with my colleague, Stephen Jacobs. The course title is, One Laptop Per Child FOSS Development, Course # 4002-590: Seminar In Ug App Comps, Fall 2009: College of Computing and Information Science Students, for 3<sup>rd</sup> year students and higher.

The course introduces the One Laptop Per Child project goals, mission, and connections with companies such as Sugar Labs and Fedora. The coursework focuses on Free and Open Source Software development to create educational games, specifically for fifth grade math content knowledge, skills, and curricula.

#### **IV. Instruction Problem**

One of the challenges of teaching Free and Open Source Software development is getting the students to communicate with the FOSS community who are volunteering their time and expertise around the world. Clear and continual communication is key for students to identify areas in which they are able to help and also to receive help in their development efforts.

#### **V. Proposed Solution**

One proposed solution is to identify and communicate with key FOSS developers in the “community” before the course begins and introduce the class before they find their development focus. This should help foster communication, instead of relying on students to reach out individually mid-course.

#### **VI. Assessment**

Measurement of success can be assessed in various ways. Monitoring and contributing to conversations through IRC channels is one way to measure the level of interaction. Another means of measurement is to require reports and feedback of discussions from both students and identified FOSS developers. The communication with the FOSS community will be most apparent when students give their progress reports on development problem solving and with the specific outcomes of final code/projects.

#### **VII. Timeline**

OLPC & FOSS research & development: **Spring 2008 – Winter 2008**

Honors Seminar in OLPC & FOSS development: **Spring 2008**

Provost Learning & Innovations Grant course development: **Summer 2009**  
(Develop FOSS community volunteers/mentors)

OLPC & FOSS development course: **Fall, Winter, Spring 2009**  
(Assess proposed solution)

#### **VIII. Partners**

Stephen Jacobs: Course Instructor  
Fredrick Grose: OLPC & FOSS Community Liaison  
Karlie Robinson: Fedora Ambassador

## **IX. Resources**

Technology resources include hardware, such as the One Laptop Per Child XO Laptops. The majority of the resources rely on the Internet, varying from informational websites to wikis, blogs, free downloadable software, books, and communication with the FOSS community. A few of the key resources are listed below.

<http://laptop.org/en/>

[http://wiki.laptop.org/go/The\\_OLPC\\_Wiki](http://wiki.laptop.org/go/The_OLPC_Wiki)

<http://www.sugarlabs.org/>

[http://wiki.sugarlabs.org/go/Welcome\\_to\\_the\\_Sugar\\_Labs\\_wiki](http://wiki.sugarlabs.org/go/Welcome_to_the_Sugar_Labs_wiki)

<http://wiki.sugarlabs.org/go/Math4Team/RIT>

<http://www.mibbit.com/>

<http://producingoss.com/index.html>

<http://www.hfoss.org/symposium09/>

<http://teachingopensource.org/>

<http://aramis.csc.ncsu.edu/csc591w/doku.php>

<http://delicious.com/>

## **X. Reflections**

The Faculty Learning Community was instrumental in connecting me with other adjunct faculty across other disciplines and colleges at RIT who shared their knowledge, expertise, and experiences to inform and enrich my instructional practices as an adjunct faculty member.

The FLC coursework research and resources broadened my pedagogical understanding for college-aged students and offered tips and techniques to enhance course development, preparation, implementation, in-class instruction, course-long goal achievement and momentum, and course and student assessment.

I enjoyed my experiences in RIT's Faculty Learning Community and would welcome the opportunity to participate in a similar program again.