Demystifying and Degeekifying Computing through K-12 Outreach

Workshop #21
Introduction: Why do outreach?
Introduction: Why do outreach?
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What price are you paying to get your assignments done?

At a student-friendly $199
Outreach at IU: Just Be
Our Presentation

We have 5 different types of slides:

- Personal
- Perspective
- Interaction
- Research
- Now what?

SIGCSE 2007 Demystifying and Degeekifying Computing through K-12 Outreach Workshop
Goal: We want the students to be able to relate to us.

- Story about you being “their age”
- How you got into computing
- Something you have done in computing
- What you like to do for fun
Perspective

Goal: Find out what the stereotypes are

• Perceptions of people in computing professions
• Perceptions of computers and computer applications
Interaction

Goal: Keep them involved and lively. We use the CPS system to dispel myths.
Goal: Highlight exciting, accessible research being done at IU

- What the research is, who did it
- What kinds of people use it, helped to create it
- What skills are needed to do something like this
Now What?

Goal: Give them ideas about how to start exploring computing now. Reemphasize that anyone can do computing, it is highly interdisciplinary and we need all kinds of people in computing.

What can we do now?

- School/Local Clubs
  - Multimedia Club
  - Web Club
  - Computing Club
  - Art Club
  - Lego challenges
- Summer Camps
- Talk to teachers & counselors
Questions?

- Samantha Foley (ssfoley@indiana.edu)
- Jennifer Franko (jefranko@indiana.edu)
- WIC@IU
  http://www.cs.indiana.edu/wic/
- Just Be
  http://www.cs.indiana.edu/cgi-pub/wic/outreach/
- COIN
  http://www.cs.indiana.edu/cgi-pub/wic/outreach/COIN.php
- Bring IT On!
  http://www.cs.indiana.edu/bringiton/
Outreach at CU: Beyond Computing...
About Our Presentation

• Started Fall 2006
• Diversity Task Force (3 professors)
• Presenters: 5 professors, 3 students
• Over 70% of faculty participation to help in development
• 2 professors do scheduling
• Budget $0
Connect with the students…
Tell them what they can do soon…
Tell them what they can do later...

**Senior Projects: Growth**
- Worked with a professor in computer science
- Creating application where students can create botanical shapes
- Create real life botanical shape with 3D printer

**Senior Projects: Forge**
- Worked with a drug discovery company
- Creating chemical compounds in a lab is expensive
- Scientists could use the application to create compounds
Guess the CS person... low tech

Who are the people in computing?

A  B  C  D
Research Examples Interaction

Health Informatics

Someone mixed up the labels on the boxes of food

Cheetos
Candy Bars
Cheetos & Candy Bars

All of the boxes are incorrectly labeled.
You can only pick from one box to determine how to correctly label all of the boxes.
Contact Info

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• Sponsors: iClicker
Brainstorming Session

• Intended audience
• Goal of presentation
• Who are the presenters?
• Where will you present?
• How to give the presentation?
• Content of presentation
Intended Audience

- 10-12th graders science/math
- 10th grade career
- 5th grade
- Middle school minorities
- Inner-city
- Girls only
- Musicians & artists
- Science club
- Home schoolers
- Everybody in middle school
- Parents and teachers and guidance counselors and school board
- Girl scouts/ boy scouts
- Gifted and talented programs
Goals of Presentation

• Deliver a message
  – CS is a viable/exciting/fun career
  – Social career
  – You CAN do it!
  – Lots of jobs $$$$$$
  – Variety, always changing
  – CS people are REAL and have lives
  – Broaden view

• Increased enrollment
Who are the Presenters?

- ACM students
- Female and minorities!
- Faculty
- Variety of students
- Students that WANT to do it
- Good communicators/presenters (funny!!)
- Role models
- Close in age
- Hardworking students who may not be geniuses
- Knowledgeable about the process
Where will you present?
How to give presentation
Content of Presentation

• How it makes the things they think are cool possible (rendering, graphics, video games, computational science, myspace………)
• Student projects (flashy GUIs, esp. freshmen)
• Multimedia highlighting CS fields + music (make sure it is cool/interesting)
• Eye candy <-- ask a teenager!!!
• Low tech, problem solving
• Personal statements
• Watch out for terms… try computing or IT
Create Your Own!

Grab a template here:

Your Catchy Title Here

Subtitle if you would like
or insert a picture/school
logo/mascot
• Remember to change the title of the slide
• You can add some text here or make the pictures bigger.
• Try to use flash pictures, animation, etc. to show how exciting computing is.
• We try to use as little text as possible and instead put the text in the notes area to remind presenter what to say (e.g., using Slide Show->View Presenters Tools)
• Remember to change the title of the slide
• You can add some text here or make the pictures bigger.
• Try to use flash pictures, animation, etc. to show how exciting computing is.
• We try to use as little text as possible and instead put the text in the notes area to remind presenter what to say (e.g., using Slide Show-> View Presenters Tools)
Interaction Slide

• Remember to change the title of the slide
• Create a slide that gets the audience to interact and think like a person in computing
  – A logic problem
  – Popular logical thinking game
  – Example of class project (e.g., hangman - select slideshow to see animation)
Contact Info

- Presenter Name
  - Email address
- Presenter Name
  - Email address
- ...

- Sponsors: [sponsor list - people who gave you money, support, time, to create this presentation]
Thanks for Coming!

Questions? Comments?