Outreach and Education

Team 4 – Laura Hunter
March 2013
Main Activities

- ci-water.org
- Symposia
- Broadcast Water Week & Broadcast Promotion
- Curriculum Workshops for Teachers
- Research/Field Experience for High School
- Teacher Toolkits
- Curriculum Resources
- Hydroinformatics Course
- Code Camps
- Social Media, News, Events
Great progress and lots of partnerships established that will support achievement of project goals.

Nice and informative video clips produced.

Good Utah and Wyoming collaboration, website and widgets for partner sites, symposium, toolkit development, water week broadcasts, high school students and diversity activities.

Good use of web site, less engagement with social media (but they have a social media plan). Good use of TV media. We feel this work needs continuation and some expansion.

A plan for adding fresh, dynamic content to website is needed. Teachers and others need clear indication that resources are available on the web site. Many of the products are hidden on other web sites such as hiddenwater.org. What are the plans for integrating data, models, and learning modules on the web site?
“Additional funds need to be allocated to more effectively achieve Objective #4; specifically money to produce original content that aids in the outreach and education components. Repurposing of existing content only is inadequate.”

= Videos to be recorded at next Symposium

New content from BYU

Curricula being designed this summer teacher workshops

@ciwater Twitter
April to December 2012
<table>
<thead>
<tr>
<th>City</th>
<th>Visits</th>
<th>Contribution to total:</th>
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<tbody>
<tr>
<td>Salt Lake City</td>
<td>1,784</td>
<td>44.93%</td>
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<tr>
<td>Provo</td>
<td>345</td>
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<td>Laramie</td>
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Peak Aug-12

- /symposium/education_event.html  681
- Home page  763
- /symposium/index.html  322
- /symposium/symposium_keynote.php  156
Symposium drives web traffic
Prof. relates hip-hop to science

Ainsley Young

by Ainsley Young on September 5, 2012

When most people think of hip-hop, they think of music and dance styles, but Christopher Emdin sees the hip-hop culture as an innovative way to build trust and respect between students and educators.

About 30 people gathered in the Union Theatre hear Emdin, a professor of math, science and technology at Columbia University and director of Secondary School Initiatives at the Urban Science Education Center, speak about the importance of connecting with students as an educator.

“Most people associated hip-hop with deviant stuff, but Dr. Emdin makes use of hip-hop as a way to get kids interested in science,” said Laura Hunter, director of instructional services for the Utah Education Network. “He draws parallels between characteristics of hip-hop and characteristics of science. For example, observation is a key part of both cultures.”

Hip-hop can bridge cultural divides while providing a comfortable beginning space to spark discussions, Emdin said, by using interactions and technology to connect with an audience.

“Hip-hop is a culture ... the culture of young people,” he said.

Emdin said hip-hop as a way of understanding and uniting young people with old people, because of the simplicity of the language used within the music.

“By understanding [the culture of hip-hop], we create ways to communicate with students,” he said.

During his presentation, Emdin used quotes about school from popular hip-hop artists such as Kanye West, Jay-Z, Notorious B.I.G. and Jim Jones. Most of the quotes had negative connotations, which Emdin said educators must work to dispel.
Symposia

- **2012**
  - Broadcast Water Week
  - Industry partners and students
  - About CI-WATER
  - Keynotes: Brad Udall, Director CU-NOAA Western Water Assessment
  - Dr. Chris Emdin, Professor/Author, Columbia University

- **2013**
  - May 29-30, 2013
  - Keynote: Dr. Miriah Meyer, Information Visualization
    - Assistant Professor, School of Computing, University of Utah
    - “Top Innovator” list of young innovators by *Technology Review*
    - #24 of the 100 Most Creative People in Business 2012 by *Fast Company*
    - 2013 TED Fellow
Curriculum Toolboxes

- K-12 schools in Utah and Wyoming
- Collaboratively built with Utah and Wyoming curriculum experts
- Distributed by Utah Museum of Natural History and Wyoming Science Zone
- Hand-on, teaching water science and concepts of modeling
Hydroinformatics Course

- Fall semester 2012
- Curriculum: information management, data modeling, collaboration
- Instruction: co-taught by USU, BYU, UofU, (four professors) cross-listed course
- Delivery: interactive video conferencing, Canvas LMS
“Each professor has a great skill in some specific part of the course, so students can see more diversity and depth.”

“motivating”

“Teaches you to think further outside the classroom”

“We can connect and share information with anyone in the world”

“This course has me thinking about information management from the start of a research project.”
Summer Workshops & Internships

- For Teachers: Genetic Science Learning Center at University of Utah
  - Secondary Earth Science or Environmental Science
  - June 24-28 in Salt Lake City
  - Learn about water science and collaborative draft curricula that explore water modeling for grades 9-12
  - Use of models to guide scientific decisions

- For Students: Summer research apprenticeship program in Wyoming
Do you want to spend the summer away from home, earn money for college, gaining insight into the college experience, and receive a fantastic educational experience? If yes, then you have to participate in the SRAP program at the University of Wyoming in Laramie!

FOR MORE INFORMATION CONTACT:
Lisa Marie Abeysa
University of Wyoming
Wyoming NSF EPSCoR (SRAP)
Dept. 3622 1000 E. University Ave.
Laramie, WY 82071
www.uwyo.edu/SRAP
Phone: 307-766-6039
Fax: 307-766-2061
Email: labeysa@uwyo.edu

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University of Wyoming
2013 Symposium: electronic posters from high schools and graduate students
Watersheds Board Game: be the first to move a quantity of water from the mountains to the valley.

Objective: understand watershed concepts and how water behaves in nature.
Forecaster Card Game: Guess card values using information data of weather conditions the previous day and then challenge opponent card values.

Objective: understand relationship between weather factors and factors that contribute to weather such as topography.
Positives

- Delivering on goals in proposal
- Integrated team
- Innovative solutions
- Communication
  - Videos
  - RSS Feeds
  - Website
  - Social Media – Twitter @ciwater 93 followers
- Integration with iUTAH and Cyberinfrastructure EPSCoR projects
Challenges

- Launching website and project simultaneously
- Continued updates/refresh on website
- Balance during symposia events – internal communication & external informal science education
- Underserved, minorities & women
- Agile project management
- Reporting – Drupal effort with iUTAH being developed