



Geotechnical, Rock and Water Resources Library (GROW)

towards a National Civil Engineering Education Resource Library



PAST



Project started: September 2001
Site launched: December 2002
900 resources catalogued

PRESENT



31,000 (avg.) visitors per month
100 registered users
1,000+ new resources in 2003

FUTURE



Multiple funding channels
Increase collection
Increase site usage

MISSION

Our mission is to encourage and promote interest, exploration and learning in Civil Engineering through the development, collection, and dissemination of reviewed and ranked digital learning resources continuously enhanced by new technological innovations.

GOALS

- * Develop a digital library for students, independent learners and professionals.
- * Provide free, high-quality, interactive, digital learning objects .
- * Promote the contribution of resources.
- * Demonstrate the impact of Civil Engineering on our daily activities.
- * Review submitted material for quality.
- * Provide a structure that identifies user satisfaction.

ACCOMPLISHMENTS

- * Metadata seamlessly harvested by NSDL
- * Catalogued & developed interactive digital resources
- * Developed expert review process and workflow
- * Implemented user reviews
- * Created award-winning Digital Library
- * Added news feed to site
- * Created browse functionality
- * Simplified resource contribution

SUSTAINABILITY

- o Created marketing plan and business objectives
- o Contacting professional societies for partnership
- o Partnering with similar UA projects
- o Creating sponsorships for corporations & individuals
- o Mobilizing UA, ASU & NAU engineering alumni
- o Promoting site & project through ads & contests

UNIQUENESS

GROW investigators are collecting and cataloging available resources and creating:

- o High quality, media rich, interactive simulations of fundamental concepts story-booked to meet learning outcomes.
- o Virtual laboratories for users to conduct experiments as if he/she were in a real lab.
- o A number of interactive simulations describing natural phenomena, e.g., flash floods, for better public information in the three collection areas.



NEXT STEPS

- o Usability studies
- o Funding and sustainability
- o Evaluate and revise back-end architecture
- o Collect & catalog additional resources
- o Create interactive learning objects
- o Improve site based on user feedback
- o Increase expert reviewer's panel
- o Redesign site to use a directory structure
- o Improve browse vocabulary
- o Increase external resource contributions
- o Add additional subject areas: Materials, Transportation & Highway (MATS)
- o Improve site accessibility including text-only version and audio narration for learning objects

PARTICIPANTS

University of Arizona

- Muniram Budhu - Project Director - Professor
- John Kerner - Associate Professor
- William Rasmussen - Associate Professor
- Malaca Onam - Engineering Librarian
- Wayne Brent - Mgr. Instructional Applications
- Jeremy Frumkin - Systems Librarian
- Anita Coleman - Associate Professor
- Janice Lodato - Project Manager
- Leo Przybylski - Systems Developer
- Srinivas Medepati - Flash Developer
- Malissa Cox - Student
- Nate Delage - Student
- Laurel Duncan - Student
- Sandeep Mahajan - Doctoral Student
- Ian Musil - Student
- Gillian O'Brien - Student

- Civil Engineering & Engineering Mechanics
- Mining and Geological Engineering
- Agriculture and Biosystems Engineering
- University of Arizona Library
- Center for Computing & Information Technology
- University of Arizona Library
- School of Information Resources & Library Science
- Civil Engineering & Engineering Mechanics
- Civil Engineering & Engineering Mechanics
- Civil Engineering & Engineering Mechanics
- Civil Engineering & Engineering Mechanics
- Geological Engineering & Mines
- Geological Engineering
- Civil Engineering & Engineering Mechanics
- Molecular & Cellular Biology
- Geological Engineering

External Partners

- Macromedia
- John Wiley & Sons
- Geo-Institute (ASCE)