Goal: The ChemWiki project is a collaborative approach toward chemistry education where an Open Access textbook environment is constantly being written and re-written partly by students and partly by faculty members resulting in a free Chemistry textbook to supplement conventional paper-based books. Success of the project will be gauged by the number of courses that eventually adopt the ChemWiki as the sole textbook for class needs.

Reasons for Contributing: Federal grants (e.g., NSF) often require that all research proposals demonstrate a broader impact that addresses outreach or curriculum development. Participating in the ChemWiki development provides a convenient and established framework to address this requirement. Furthermore, the collaborative nature of the ChemWiki provides an additional feature of allowing multi-PI grants to pursue a consolidated broader impact effort often desired by reviewers and program officers whereby each PI can contribute to a single integrated effort.

Progress: Since Nov. 1st, 2008, the ChemWiki had 869,634 pageviews, 353,927 visits (283,518 unique visitors) and a total of 12,950 hours of online student reading and writing (not counting the six months of activity when the ChemWiki was hosted by an internal UCD system with no access from off-campus users). Currently, over 35 hours of confirmed reading occurs (a very conservative estimate) each day of the ChemWiki’s 3,289 existing Modules. For comparison, MIT’s open CourseWare (OCW) system had 15 M visits last year for all fields of study.

Support: The development of the ChemWiki requires support, both financial and effort, from multiple contributors. The ChemWiki to date, has been supported with a limited amount of funds ($8k) from UC Davis internal grants; additionally, the Human Frontiers Science Organization sponsored the server since it doubles as the LarsenLab internal server and website. This progress, given our limited resources, is great, however, proper funding sufficient to complete the project is being sought. To this end we have two proposals that are currently pending: one to the TUES program at the NSF DUE and a second larger proposal to the FIPSE program at the Department of Education.

Contributors: We are taking a more measured effort in requesting contributors to the ChemWiki as the number of students needed to integrate all of the desired existing content to the ChemWiki is limited without the financial support we are looking for. Despite this, we have started to integrated the content from several major contributors into the ChemWiki (found at http://chemwiki.ucdavis.edu/Wikitexts/Development_Details). The most recent major contributors include Laurence Peterson (Kennesaw State. U.) and his ChemCases pedagogy (http://chemcases.com/) and Liina Landon (Towson University) and her extensive General Chemistry exercises infrastructure(http://www.towson.edu/~ladon).
Upgrade: Matt Barkovich, the genius behind setting up the hardware and software behind the ChemWiki, upgraded the server Operating System and the Wiki engine (10.0.1). So you may notice some differences and improvements in the project if you haven’t logged on for a few months.

Advisory Board: A local advisory board was setup in part to aid in the development of the ChemWiki. The board currently consists of:

- **Prof. William G. Golden** (professor at Humboldt State University)
- **Prof. Steve Farmer** (associate professor at Sonoma State University)
- **Prof. Ana de Bettencourt-Dias** (Professor at the University of Nevada, Reno)
- **Prof. Sési M. McCullough** (Senior Lecturer and General Chemistry Coordinator at the University of Nevada, Reno)
- **Prof. Kent M. Ervin** (the University of Nevada, Reno)
- **Prof. Susan Crawford** (Chair and Professor of Chemistry at Sacramento State University)
- **Dr. Rhiannon Porter** (Instructor, Folsom Lake and Sierra Colleges)
- **Dr. Andy Jones** (Continuing Lecturer and Faculty Liaison at The Teaching Resources Center at UC Davis)
- **Prof. Sean Casey**, Associate Professor (Professor at the University of Nevada, Reno)

Publicity: Although no active publicity program has been enacted over the past quarters, that did not stop the passive spreading of the ChemWiki’s existence. The ChemWiki was recognized in several sites of interest including the San Diego Biotechnology Network (SDBN): (The Wonderful World of Wikis for Life Scientists), a Dutch Chemistry Site (Wiki’s voor chemici (Dutch), and the Free-Ed.net site. More publicity information can be found here: [http://chemwiki.ucdavis.edu/pr](http://chemwiki.ucdavis.edu/pr). Currently, we submitted a manuscript outlining the ChemWiki project to the J. of Chem. Ed. This will be the first national announcement of the ChemWiki to the chemistry education community at large and we have high hopes for its success in getting the ChemWiki noticed.

Expansion: The ChemWiki approach is being evaluated as a mechanism for other science education fields. You may notice that five other “Complete Textbooks” have been generated and are hosted on the ChemWiki server. These are meant to be operated and developed by motivated students and faculty, spearheaded by Liz Walz, a ASUCD senator, with an interest in reducing textbook costs across the board. These new Wikis include: MathWiki.ucdavis.edu, StatWiki.ucdavis.edu, PhysWiki.ucdavis.edu, GeoWiki.ucdavis.edu and BioWiki.ucdavis.edu. I hope to use them as a template for fine-tuning a new and more powerful skin (interface) for viewing the ChemWiki.

SARIS: We are working on integrating the Moodle system into the platform of choice for the SARIS homework system. A new link has been put on the ChemWiki and over 100 questions have been introduced into the SARIS database, however, this is still closed to outside visitors. Stay tuned on its development.

JMOL: Matt Barkovich, worked up the infrastructure to use JMOL, which is an open-source Java viewer for chemical structures in 3D, into the ChemWiki. For a check of this powerful extension check here: [http://chemwiki.ucdavis.edu/Biological_Chemistry/Metabolism/Caffeine](http://chemwiki.ucdavis.edu/Biological_Chemistry/Metabolism/Caffeine) or [http://chemwiki.ucdavis.edu/Inorganic_Chemistry/Coordination_Chemistry/Coordination_Numbers/Molecular_Examples](http://chemwiki.ucdavis.edu/Inorganic_Chemistry/Coordination_Chemistry/Coordination_Numbers/Molecular_Examples)

More detailed updates on the ChemWiki development be found on its [facebook page](http://facebook.com/chemwiki) or via the ChemWiki [twitter account](http://twitter.com/chemwiki).