This newsletter is the 2011 Winter quarter update on the ChemWiki development

**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 students that consult the ChemWiki and the number of Chemistry courses that eventually adopt the ChemWiki as the sole textbook for class needs.

**Progress:** Since Nov. 1\textsuperscript{st}, 2008, the ChemWiki had 2,261,660 pageviews, 1,226,121 visits and a total of 32,015 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 170 hours of confirmed reading occurs (a very conservative estimate) each day of the ChemWiki’s 4,701 existing Modules. Last quarter, the ChemWiki was used in a graduate level spectroscopy class (CHE 205), an upper divisional p-chem class (CHE 107B), an instrumental analysis lab (CHE 115), and a first year honors general Chemistry class (CHE 2BH) at UCD. Outside Davis, the ChemWiki is being used in a biochemistry class at Truman State University and a Wikitext is being constructed for an organic chemistry class at Columbia University (C3443) This Spring quarter will be lighter due to the upcoming tenure packet submission date this summer.

![Visitor Traffic Development profiles for the ChemWiki and MIT’s OpenCourseWare sites. Both projects are started at their respective time zero marks. Dashed line is the linear extrapolation based on the last 6 months of growth.](image)

**Publicity:** Several online chemistry bloggers have referenced or hyperlinked to the ChemWiki. This includes Skellet’s “A Schooner of Science,” ChemJobber’s “ChemJobber” blog, Mich Garcia’s “ChemistryBlog,” “Chem Feeds” and “Chemistry Reddit” sites. In the next month or two, a *Journal of Chemical Education* technical report will be published outlying the basics of the ChemWiki project. Moreover, we have recently been asked by *Nature: Chemistry* to submit a commentary that will no doubt aid significantly in getting the word out on the ChemWiki.
**Contributes/Developers:** The development team is very thankful for the many contributors to the ChemWiki over the past quarter. A page outlining the major contributors is now live (although not fully complete) at [http://chemwiki.ucdavis.edu/Wikitexts/Development_Details/Contributors](http://chemwiki.ucdavis.edu/Wikitexts/Development_Details/Contributors)

**“Organic Chemistry With a Biological Emphasis”:** We are very fortunately to welcome Prof. Tim Soderberg from the University of Minnesota, Morris to the ChemWiki team. Tim has contributed over 200 pages of vetted organic chemistry content with over 2000 figures. His contributions now constitute over 5% of the current visitor traffic to the ChemWiki with approximately 700 hours of student reading per month.

**SARIS:** Prof. Charles Wight at the U. of Utah ([http://www.chem.utah.edu/faculty/wight/](http://www.chem.utah.edu/faculty/wight/)) has graciously spent time and effort implementing his PracticeZone.org homework system to run the SARIS section of the ChemWiki. His software is near perfect for our goals and once fully operational and integrated on our server, we intend to start the process of uploading questions. This is a major step forward in our goals and I encourage all to check out his impressive software. It is partially operational on the ChemWiki and can be found by clicking on the ChemWiki front page.

**The “Dynamic Textbook Project”:** We are leveraging the ChemWiki as a pilot case for this approach to be applied to other science education fields. You may notice that five other “Complete Textbooks” have been generated and are hosted on the ChemWiki server. These new wikis include: MathWiki.ucdavis.edu, StatWiki.ucdavis.edu, PhysWiki.ucdavis.edu, GeoWiki.ucdavis.edu and BioWiki.ucdavis.edu and constitute a starting suite of STEMwikis that are unified under the banner of the “Dynamic Textbook Project.” Although our efforts is still dedicated largely to the success of the ChemWiki, we are also preparing the platform for others to develop these STEMwikis by motivated students and faculty. This effort has been spearheaded by Liz Walz, a motivated ASUCD senator with an interest in reducing textbook costs across all fields at UCD and abroad. Recently, Liz Walz got the ASUCD Senate to pass a formal resolution to endorse the ChemWiki Project. We hope this will be the first step in expanding greater student participation in the project, not only at UCD, but from the rest of the UC system and even abroad. We hope her existing contacts with CalPIRG will further aid in this effort.

**Financial Support:** The ChemWiki to date, has been supported with a limited amount of funds ($8 k) from UC Davis internal grants. Our progress, given our limited resources, is remarkable (Figure on first page). However, proper funding sufficient to complete the project is being sought. We intend to apply one final time to the NSF TUES program in May and to the DOEd. FIPSE program in July (unless the program is gutted by congress). One common comment from proposal reviewers that has halted the funding of the ChemWiki is formal assessment of the educational goals of the project. To this end, we have formal help from Terry Westover to implement this important component in the ChemWiki development.

**Assessment Support:** The UC Davis Center for Education and Evaluation Services (CEES) will provide independent evaluation services for formative and summative evaluation of the project’s educational quality component. A full-service program evaluation center, CEES serves as an external evaluator for many large and small STEM education and initiatives housed both on the UC Davis campus and throughout the state. CEES will develop and implement appropriate approaches to inform the project regarding the educational value to students and faculty of participating in the ChemWiki.