

# TEACHING INSTRUMENTAL SCIENCE GLOBALLY USING A COLLABORATIVE ELECTRONIC LABORATORY NOTEBOOK

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## ABSTRACT

In the higher education sector there is a strong push to improve the synergy between research and teaching. To achieve this there is a need to introduce into the undergraduate curriculum the new technologies that support research practice and process. There is no doubt that future scientific practice will increasingly involve collaborations around data and information that is delivered via the web. Our students must be trained in these new developments, and our staff must have access to tools that will facilitate their ability to teach it. New technologies, such as the Electronic Laboratory Notebook (ELN) developed at Southampton University in the UK, exploits the Web2.0 environment and offer the advantages of 1) being able to more readily share research resources, 2) as a digital record of experimental events and 3) a secure archive of data and metadata. We will discuss our initiative to extend the science curriculum in undergraduate chemistry through the introduction of an electronic laboratory notebook where instruments, experiments and data can be shared globally. The ELN is presently being implemented at UNSW, and the proposed project (funded by the Australian Learning and Teaching Council) will allow a multi-university (three in Australia, one in Thailand and one in the UK) exemplar of the ELN. By its nature, the project and its outcomes will be available worldwide for tertiary science training.

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