

SHARING SCIENCE THROUGH FREE AND OPEN ELECTRONIC LABORATORY NOTEBOOKS – A GITHUB CASE STUDY

Kymerberley R. Scroggie, Alice Motion

Presenting Author: Kymerberley Scroggie (kymerberley.scroggie@sydney.edu.au)
SCOPE Group, School of Chemistry, The University of Sydney, Sydney NSW 2006, Australia

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Electronic laboratory notebooks (ELN) are widely used in industry due to the many advantages offered including version-control, security and shareability.

For over five years, through the Breaking Good Initiative (<https://www.breakinggoodproject.com>), we have been working with high school students and undergraduates across three continents and involving young people in a crowdsourced citizen science project where they make molecules that matter. One of the key challenges for the project has been finding a single appropriate platform that enables students to both share results and data, and talk to members of the open source community.

For years we successfully used the open source LabTrove platform for research and crowdsourced projects (Badiola et al., 2014) and have used LabArchives for several years within our teaching and research at the University of Sydney. We now report our experiences using GitHub, a web-based platform originally developed for coders that enables version control (<https://github.com>). In this talk we will describe the use of GitHub as an open ELN and discussion platform that enables researchers, students and citizen scientists to collaborate in real time, and discuss how this platform can be used as a tool to enhance the learning experience for students in both formal and informal settings.

REFERENCES

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