

Assessing blogs, podcasts, wikis and videos

Will Rifkin

Science Communication Program, University of New South Wales, willrifkin@unsw.edu.au

Nancy Longnecker

Science Communication Program, University of Western Australia, longneck@cyllene.uwa.edu.au

Joan Leach

Science Communication Program, University of Queensland, j.leach@uq.edu.au

Lloyd Davis

Centre for Science Communication, University of Otago, adelie@stonebow.otago.ac.nz

Web 2.0 is creeping into assessment in science and other fields. The Australian Learning and Teaching Council–funded project New Media for Science explores ways of engaging science students in authentic assessment tasks – to enhance both their content knowledge and their graduate attributes – through science communication. The authors are developing assessment tasks in which science students produce multimedia materials for publication on the web. This requires determining assessment criteria for self-evaluation, peer evaluation, marking by lecturers and evaluation of the impact on target audiences. This workshop uses small-group discussion and hands-on activities with ‘new media’ to explore 20 examples of new media assignments for science students, including the production of blogs, wikis, podcasts and videos. The authors’ generic materials will also be reviewed, such as instructions on how to make a storyboard and how to protect students’ privacy when they publish on the web. The workshop caters to participants who wish to explore the possibility of using multimedia in student assignments; those who are already doing so and wish to share or expand their knowledge; and those who are ‘sitting on the fence’, wondering what Web 2.0 and associated new media might offer them. It is designed to reveal the attractions of new media assignments as well as the difficulties in conducting and assessing new media projects. Participants will be invited to engage in ongoing liaison with project principals and early adopters, who can help to make implementation of such assessment tasks a success.

Keywords: authentic assessment; multimedia; new media; science; Web 2.0

Theme: innovative assessment: opportunities and challenges

Introduction and background literature

Web 2.0 is creeping into assessment, providing both opportunities and challenges (Kennedy et al., 2008). Methods for such innovative assessment are being explored in the Australian Learning and Teaching Council–funded project New Media for Science. We are looking at ways to engage science students in authentic and sustainable learning – to develop both their content knowledge and their graduate attributes – via science communication in new media. Specifically, we are looking at ways for students to create multimedia publications, including blogs, podcasts, videos and wikis, as well as evaluating the effectiveness of such learning activities (Rifkin et al., 2009; Rifkin et al., 2010). Our efforts will have implications for new media yet to be imagined, media that today’s and tomorrow’s graduates will be required to employ.

Examples of student-created multimedia projects vary from a one-minute video introducing the student to the class to a podcast giving a pitch for a project topic, or a group blog or wiki maintained over the duration of a semester. Students can also create a radio or television show addressing the content of their class. We have gathered examples of multimedia assignments that students are already completing for university classes in Australia and overseas, and broadened them into a set of 20 suggested assessment tasks that may be employed by lecturers in science or other fields of study.

In the face of this range of possibilities, we must acknowledge that many of today’s university students are lacking in the technical abilities (Kennedy et al., 2009) as well as the composition abilities required for new media (Rifkin et al., 2010).

For example, many do not yet know how to employ hyperlinks effectively or how to structure an audio segment. Guidelines for instruction and assessment thus need to be developed.

Using examples from our list of new media assignments, participants in this workshop will examine:

- choice of suitable forms of digital media and student assignments
- how to create student media and selection of publishing platforms
- assessment of assignments by student reflection as well as by peers, by the lecturer and by a public audience
- reported and perceived difficulties in conducting and assessing new media projects.

We invite participants who wish to explore the possibility of assigning students to create multimedia, as well as those who are already doing so and wish to share their knowledge and/or expand their use of such new media assessment tasks.

Workshop structure

- 1 A brief introduction to the various modes of new media and Web 2.0 will be followed by participants identifying what they see as the benefits and hurdles of assessment tasks where students create new media. They will first have a discussion in pairs and then report their impressions for general discussion.
- 2 Participants will then form small groups to critique new media assessment tasks, such as a podcasting assignment for first-year chemistry or video production for biology (along with data on outcomes). Some groups will focus on marking criteria, an area in need of development. Each group will be asked to identify strengths and shortcomings and to evaluate suitability for particular disciplines, year levels and learning aims.
- 3 Groups will prepare a two-minute report summarising what they have found, with each group making a ‘cheap, quick and dirty’ video or podcast using their mobile phone, iPod or laptop – a hands-on element that will be guided by an ‘expert’ within the group. Where no expert is present in a group, participants will follow an instruction sheet on how to create a four- to six-panel storyboard that would be used to guide the production of a video or podcast to represent their conclusions.
- 4 Participants will view or hear each group’s report.
- 5 Participants will be asked to reflect and complete a survey form indicating their level of interest in the project – whether they wish merely to be kept informed; to evaluate, test or contribute materials; refer us to colleagues who are using such approaches; or alternatively encourage colleagues to try new media approaches.

Small-group and general discussion will be guided to address topics such as student practice of multimedia composition and technical skills, designing assignments to assess understanding of class content as well as developing insights into teamwork or ethics, and strategies for gaining attention for online publications and feedback from the target audience.

As evident from the workshop structure shown above, participants will be exposed to a few basics about creating multimedia to help them to feel more confident in assigning such tasks to their students. Difficulties that they face can be addressed by the facilitator or by other, more media-savvy, participants.

The elements of this workshop have been run successfully at previous conferences (for example, UniServe Science 2009; HERDSA 2010; Perth T&L Forum 2010) and at other universities as a key part of our Australian Learning and Teaching Council project.

Implications for theory, practice and policy

Our Australian Learning and Teaching Council project New Media for Science is developing a community of practice to provide ongoing liaison and support for workshop participants to enable the successful implementation and assessment of student multimedia tasks. We will follow the progress of these endeavours to evaluate the ease or difficulties encountered so as to report on practical and theoretical aspects of the impact and potential for use of Web 2.0 in assessment.

Participants in this workshop who decide to experiment with assigning and assessing student work in new media can consider themselves 'early adopters' among lecturers of science-based subjects. They will be assisting in testing eight hypotheses being explored in our project, as laid out in our recent article (Rifkin, Longnecker, Leach, David & Orthia, 2010).

The authentic assessment aspect of new media assignments has already shown promise in enhancing graduate attributes such as communication skills, teamwork, critical thinking and ethics (Rifkin et al., 2009). Through such assignments, students are gaining practice in using media that will enable them to represent themselves, their organisation or their cause as professionals. Further, they are learning to adapt to new technology, a skill in adaptation that is crucial as such technology is likely to continue to change throughout their lives.

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