



Annual Event 2007

Meeting minutes (by John Bostock)

WP5: Innovation in Teaching

Coordinator: John Bostock
E-mail: j.c.bostock@stir.ac.uk

Name	Institution	Country
John Bostock	University of Stirling	UK
José de Lara Rey	Technical University of Madrid	Spain
Juame Fernández-Borràs	University of Barcelona	Spain
Mike Moulton	Norwegian University of Life Science	Norway
Bernd Ueberschaer	Leibniz Institute of Marine Science	Germany

Attending – John Bostock, José de Lara Rey, Juame Fernández-Borràs, Mike Moulton and Bernd Ueberschaer. Apologies were received from Jean Dhont, Juhani Pirhonen, Stefan Oli Steingrimsson, and Bent Rønsholdt.

John Bostock opened the meeting with a short introduction to the theme and tasks for the meeting. These had been previously discussed among the group using a shared (Google Docs) document.

The first session considered what WP5 members and colleagues would like to see the Aqua-TNET portal provide in 2010 and perhaps by 2020. The following presentations were made to stimulate discussion (presentations available separately):

Juame Fernández-Borràs: Envisaged a dynamic portal that engages teachers, learners, employers and society with the clear educational objective of supporting and improving the teaching-learning process in aquaculture and related sciences. The site should provide access information for all European aquaculture education and training courses and a repository of learning materials to help raise the quality of learning. Tools for assessment should also be provided, with ongoing support from an expert team.

Jaume also provided information on a project he is working on in Barcelona, under a grant from the Ministerio de Educación y Ciencia, Spain entitled “Learning carried-out with educative platforms: analysis of the changes they promote in the process of teaching – learning and its application to the improvement of the higher education”. The aim of the project is to investigate educational platforms used by universities, methodologies and tools including: Presentation and evaluation of content, communication between professors and students, systems of evaluation of students, management of teaching etc. Jaume proposed a parallel study in the field of aquaculture in partnership with Aqua-TNET, probably involving further survey work. It was agreed this would be useful, although further information will be required to take this forward.

Mike Moulton: Reported on consultations held with colleagues and students at the Norwegian University of Life Sciences. Again, a comprehensive site was envisaged that would provide resources for tutors, students and stakeholders. It was felt that presentation could be made more engaging by making information accessible through visual models of aquaculture enterprises etc. Teachers suggestions were: A hierarchical structure - molecular to global (holistic); Course examples: resources, places; Suggestions for learning activities; Integrated with existing websites; Literature

(search tips); Research projects and Industry contacts. Student's suggestions were for: Study programmes; Research – researcher – publications; Literature; Industry: real situations, job market; Network map: interrelationship between subjects. Business interests were reported as: Short, practical and visual learning modules; Equipment and supplies (including consumer ratings); Direct contact with subject matter specialists; Assistance with student recruitment; Information on regulations, laws, policies; National and international projects.

Bernd Ueberschaer: Provided a personal view on the Aqua-TNET portal in 2010 and on the need for more comprehensive aquaculture information services that are more accessible to users. Key tools were seen as: (1) Databases on Fish & Aquaculture - Build on past investments (e.g. Fish- & LarvalBase); (2) Educational (Multimedia)Tools, Curricula - Tools for Courses, E-Learning, Distance-Learning etc.; Content: basic aquaculture knowledge, species-specific etc; CD-ROM, DVD, Internet. Mainly extension worker (Training for Trainer: (3) DSS (Decision supporting System) - Modelling System (with GIS support) for e.g. experienced hatchery manager and decision maker; (4) Simulation-Tools e. g. POND-Software (Oregon State University), TFST (Tilapia farming Support Tool, BMZ, GTZ, FAO). Examples were provided to illustrate key issues such as translation.

José de Lara Rey: Discussed how different types of online content and real-time communications (mainly video) might be combined to provide an Aqua-TNET portal for education and training in 2020. Specific elements envisaged included a mix of simulation, virtual reality, video and other materials.

In the second session, John Bostock introduced further discussion on the use of learning object repositories and related standards. These included:

SCORM (Sharable Content Object Reference Model) (<http://adlcommunity.net/course/view.php?id=25>)

Dublin Core

LOM Schema

IMS Global Learning Consortium Inc - Content Packaging Specification (<http://www.imsproject.org/>)

IEEE Standards (<http://ieeeltsc.org/>)

- 1484.12.1: IEEE Standard for Learning Object Metadata
- 1484.12.2: Standard for ISO/IEC 11404 binding for Learning Object Metadata data model
- 1484.12.3: Standard for Learning Technology-Extensible Markup Language (XML) Schema Definition Language Binding for Learning Object Metadata
- 1484.12.4: Standard for Resource Description Framework (RDF) binding for Learning Object Metadata data model

Example object repositories included:

- ARIADNE (<http://www.ariadne-eu.org/>)
- JORUM (<http://www.jorum.ac.uk/>)
- INTUTE (<http://www.intute.ac.uk/>)
- MERLOT (<http://www.merlot.org/merlot/index.htm>)
- ASK (<http://ask.oucs.ox.ac.uk/>)
- Further links at http://www.uwm.edu/Dept/CIE/AOP/LO_collections.html
- Whole courses at: <http://ocw.mit.edu/index.html> and <http://www.open.ac.uk/openlearn/home.php>

It was noted that standards are already well established for learning object metadata, content packaging and delivery within course management software. There are a growing number of learning object repositories organised at institutional, national or EU levels. These potentially offer a wider range and depth of materials than would be possible for a highly subject-specific repository. It was agreed that wherever appropriate, the Aqua-TNET portal should link to existing resources, but provide tools for establishing a repository for materials that might not otherwise be made available to the aquaculture/aquatic resources constituency. The second issue raised was of copyright and the approach of different institutions, individuals and commercial organisations. This is a debate that is likely to intensify as greater amounts of material are made available over the Internet. It is also linked to issues of plagiarism discussed at the previous meeting. It will be important to ensure usage rights is clearly communicated in any repository set up under Aqua-TNET.

In this session, the group also met with the validation committee. Key points arising from this meeting were:

Industry questions

- Taking learning online – Will prior experience be recognised?
- This is an academic rather than learning technology issue, although it was noted that the WAVE project has been concerned with this.

There was confirmation that industry is interested in online learning (continuing education).

There would also be interest in contributing to teaching material development by providing relevant materials – photos, video, case study materials etc. Requests for these would be best channelled through trade associations

Consumer stakeholders – no questions

Student stakeholders -

- Can e-learning replace student mobility? It was suggested that video conferencing and other eLearning technologies are easiest and most successful as supplementary support rather than a replacement for mobility.
- Discussion about the use of new Internet-based learning technologies indicated that students are comfortable with it, but they felt it is important to provide training for tutors in using the new technologies.
- A question was raised as to how to improve use of discussion forums — It was reported that experience from several projects suggests that some level of mandatory participation is necessary for success. This is an issue which requires further consideration.

The research institution stakeholders

- asked what other types of innovation are being examined. The focus is primarily on Information technology – based innovation, but consideration is also being given to recent trends in teaching and learning theory.
- It was noted that staff of applied research institute need regular updating in new development. This may be best approached in a relationship of peer-to-peer complementary relationship rather than conventional tutor-student relationship.

In the third session, the group looked at examples of Web 2.0/Social Networking web sites, and how these were increasing interaction and providing educational tools to everyone with an Internet connection. These are being used by some educators, but are also facilitating informal learning, which could become increasingly important in future years. A mix of popular services can be used at little or no cost to provide content and functionality similar to that of learning repositories and closed virtual learning environments.

In the final session, the group considered conclusions from this meeting and tasks for the future.

1) There is a need to develop a workgroup report - as briefly as possible with weblinks to further information - initially develop collaboratively on Google Docs., and publish when complete on Aqua-Tnet website

2) Some additional information was suggested for inclusion on the Aqua-Tnet portal such as industry links (job situation, contacts) and Aqualex.

3) Develop a guide, either within the existing Aqua-Tnet website, or if necessary, a linked external service (details and costs to be investigated) - based around web links - to most relevant sources of information - particularly exploring the use of Web 2.0 social networking and collaboration tools in education. This might be presented as a new services page, or top level menu link. Also provide suggestions for how to use these tools for learning activities.

4) Propose the development of a structured learning object database that would allow Aqua-Tnet partners to either upload learning objects or links to learning objects. This should use (IEEE) LOM standards for interoperability with other systems. Note - for materials not already available on other

repositories and not subject to restrictive copyright protection (Creative Commons Licensing may provide a suitable framework). Supporting information would provide guidance on how learning objects can be selected, packaged and sequenced for learning outcomes (note standards are available for all of these stages to help ensure interoperability).

5) Encourage the development of more intuitive and engaging (visual) site navigation

6) Continue use of the discussion forum - Changing forums/topics as necessary to keep up to date. The next discussion topic could be on ideas for the Aqua-Tnet portal.

A short presentation was prepared for the final plenary session to be presented by Bernd Ueberschaer.