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WHAT CAN THE LEARNING AND TEACHING SUPPORT NETWORK OFFER YOU?

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What can the Learning and Teaching Support Network offer you?

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Abstract

The Atkins Report acknowledges that academics best appreciate, assimilate and implement a pedagogic approach when it is presented to them within their own discipline.

This very successful conference, with a specialised topic as a theme, targets the CAA enthusiast, but the Learning and Teaching Support Network (LTSN) is ideally placed to additionally help you disseminate your activities to a wider audience.

The LTSN is a major network of 24 subject centres and a Generic Centre based in higher education institutions throughout the UK. It aims to promote high quality learning and teaching, to share good practices in learning, teaching and assessment in all subject disciplines, and to provide a focus for learning and teaching resources and information for the HE community.

This paper, presented by LTSN Engineering, will discuss this approach in more detail and invite you to share knowledge with us on how we can disseminate your work effectively, and how you can keep us up to date with your activities efficiently. By working with the LTSN subject centres and the Generic Centre, your activities will (hopefully!) reach a more diverse audience through their subject-based networks.

Introduction

This paper details two of the different types of support systems that are available to the CAA enthusiast. There is subject-based support, of which LTSN Engineering is

an example, and the more obvious specialised CAA support, which not only includes this conference but initiatives such as the CAA Centre. Evidence shows demand for both types of service to exist with people tending to naturally lean towards one or the other.

However, both individuals and funded projects in this area could be confused as to the best place to go for advice and support and this paper is an attempt to clarify the services of each. Obviously neither support system **is** best, the key is enabling both to work together so that duplication of effort is minimised, collaboration is maximised and the community call on one or both as appropriate.

It is hoped that this paper will stimulate discussion as to how the LTSN subject centres can work more closely with topic specific support systems, projects and individuals to provide a more holistic approach. This could not only benefit individuals but also enable subject-based initiated projects to extend to new disciplines and CAA generic projects to be used more widely or adapted for a single discipline.

Subject-based Support

The Learning and Teaching Support Network

The UK-wide Learning and Teaching Support Network (LTSN), launched in January 2000, is funded at over seven million pounds sterling per annum over an initial five-year period. It comprises 24 subject centres and a Generic Centre, one of these centres being LTSN Engineering.

The Network was established following a review¹ of existing learning and teaching initiatives which acknowledged that academics best appreciate, assimilate and implement a pedagogic approach when presented to them within their own discipline. It recommended establishing a subject-based support network with a broad focus across all learning and teaching activity.

The LTSN supports the Teaching Quality Enhancement Fund (TQEF), which delivers the Higher Education Funding Council for England's (HEFCE) Learning and Teaching Strategy through a single integrated fund². HEFCE's Learning and Teaching Strategy has five main purposes:

- Encouragement and reward.
- Co-ordination and collaboration.
- Disseminating and embedding good practice.
- Research and innovation.
- Building capacity for change.

These five purposes of the Learning and Teaching Strategy are delivered through three funding strands: institutional, subject and individual. The institutional strand involves university Learning and Teaching strategies. The subject strand is supported through two streams of funding: the LTSN and the Fund for the

Development of Teaching and Learning (FDTL)³. The individual strand includes the National Teaching Fellowship Scheme⁴.

LTSN Engineering

LTSN Engineering, hosted by Loughborough University, promotes quality learning and teaching by stimulating the sharing of good practice and innovation through the provision of subject-based support. The Centre's three key aims are to:

- Create a national *focus* that is an accepted and essential point of contact for all involved in higher education engineering.
- Collate and disseminate *good practice* and innovation in learning and teaching in higher education engineering.
- Provide co-ordination and *support* for learning and teaching in higher education engineering.

Currently, LTSN Engineering is conducting a major survey of UK higher education engineering issues targeting all the major stakeholders. Questionnaires have been distributed through higher education institutions, professional institution magazines, UK engineering education networks and the World Wide Web. This survey will allow the Centre to develop operational and strategic plans in line with the emerging issues being expressed by the survey.

The first question in the survey asks respondents (over 200 engineering academics to date) to rate the major issues in engineering education. Questions relevant to the use of CAA reveal that:

- 78% of academics believe that assessment of students' learning (knowledge and skills) is 'Important' or 'Very Important'.
- 74% believe that use of IT (including the Internet) in degree programmes is 'Important' or 'Very Important'.

While these weren't rated as the most important issues in engineering education, the high percentages suggest that engineering academics would be open to the idea of using technology to assess student learning and hence would be open to CAA. This is confirmed by a question later on in the survey where 57% of engineering academics suggest that a LTSN Engineering Question Bank would be either 'Useful' or 'Very Useful'. Known use of CAA by engineering academics also supports these findings.

Specialised CAA Support

The CAA Centre seeks to provide a national centre for advice and guidance for all those involved in using CAA in higher education. Through our national survey we identified a wide range of individuals, departments and groups involved in CAA activity and are seeking to meet generic needs through a variety of activities.

The Centre provides both a focal point and maintains an extensive network to which we actively disseminate CAA developments through a variety of mechanisms. These include conducting staff development workshops, maintaining an extensive website, participating in a variety of events and publishing newsletters and more substantive good practice documentation.

The annual CAA Conference, hosted by Centre consortium members Loughborough University provides an opportunity for sharing practice, exchanging ideas, generating contacts and disseminating activities for all those involved in CAA. The wide ranging background of participants indicates the depth and variety of this emerging field - this can prove challenging for those seeking to meet generic needs.

In addition, there are an increasing number of CAA specific support personnel being appointed in institutions around the sector. These range from those who are subject-specific (frequently departmentally based) to those who have an institution wide remit.

Current CAA Activity

Current CAA activity can be naturally classified as one of the following types:

- Generic - covering the wider events and topic based networking
- Technical - dealing with technical solutions e.g. infrastructure or metadata, often at institutional or UK-wide level
- Developmental – usually internal or externally funded project-based activity
- Subject Specific – again usually funded project-based activity

Some examples of each type of CAA activity (by no means a comprehensive listing as this is not what this paper is about) are given in Table 1. Often there is some overlap between categories, for example TRIADS which is shown in the developmental category began life in the earth sciences discipline and GLOW is also financed through a subject-based fund.

Type of CAA	Current CAA Activity
Generic	CAA Centre International CAA Conference
Technical	<p>IMS QTI Working Group – <i>This group is exploring the use of the IMS Question & Test Interoperability Specification, which provides proposed standard XML language for describing questions and tests. The specification has been produced to allow the interoperability of content within assessment systems.</i></p> <p>British Standards Working Group on CBA exams – <i>This group is currently developing a code of practice for the use of information technology in the delivery of assessments. Although there is a body of good practice concerning the delivery of paper-based examinations, many of the guidelines do not easily transfer to computer-delivered examinations. The aim is to set out principles</i></p>

	<p><i>and good practice rather than to specific technical requirements.</i></p> <p><i>JISC Web CAA MLE Project - The key features of this project relate to embedding the Question Mark Perception software currently used at Loughborough University into the university infrastructure to create an assessment MLE (Managed Learning Environment). This will encompass technical as well as administrative and pedagogical development to achieve a user-friendly CAA system that is seamless, interactive and student centred. A generic model will be developed and offered to other Higher Education Institutions.</i></p>
Developmental	<p><i>TRIADS - The University of Derby/Tripartite Interactive Assessment Delivery System) is a toolkit for users of Authorware Professional to develop CAA using a wide range of sophisticated question types.</i></p> <p><i>GLOW - An FDTL3 project that is developing tools and procedures to enable specialist postgraduate teaching materials to be delivered via the web with the provision of effective self-assessment tools for the student.</i></p>
Subject Specific	<p><i>E³AN – An FDTL3 project which is identifying and disseminating subject-specific good practice, in both computer based and conventional assessment contexts, in the area of electrical and electronic engineering assessment.</i></p> <p><i>Engineering Mechanics self assessment tutorial – just one example of CAA material developed by individuals. These statics and dynamics tests were developed using the CASTLE assessment engine by a lecturer at Loughborough University.</i></p> <p><i>LTSN Physical Sciences – The LTSN centre for the Physical Sciences has invited bids from their community for funding with one identified area being assessment.</i></p>

Table 1, Examples of Current CAA Activity

The examples given show the very broad range of CAA activity happening at all levels in institutions and across the UK. Some projects involve academics who mainly tend towards subject-based support, others involve large consortiums of centrally based CAA experts who mainly tend towards specialised CAA support.

Marrying it All Together

So, where should we go from here? Both types of support are needed, to cater for the diversity and complexity of our community. We believe that the responsibility for making this dual approach work lies with the different groups providing the support and not the community themselves.

LTSN Engineering needs to work closely with the CAA Centre and vice versa to benefit from each other's knowledge and to avoid duplication of effort. By fully understanding the activities of the CAA Centre, LTSN Engineering will be able to disseminate their work to a wider audience and promote the CAA Centre to academics who could really benefit from the specific help available. By utilising the

extra publicity that is accessible to the CAA Centre through LTSN Engineering the number of engineering academics involved directly with the CAA Centre would increase.

In return, the CAA Centre can help LTSN Engineering to develop subject-specific CAA resources for engineering. The CAA Centre is able to identify good practice developed in other disciplines, which could be successfully used within engineering and therefore promoted through LTSN Engineering. It is also important for LTSN Engineering to be kept up to date with the activities of both individuals involved in CAA and national initiatives and projects in the area of CAA. Other potential for collaboration includes areas such as question banks.

Looking beyond engineering

While this paper has looked at the issues of generic CAA support and subject based support from an engineering viewpoint, it is believed that the issues raised and the outcomes of the session will be applicable to all subject areas.

In addition, there is scope for collaboration across the disciplines to minimise duplication. This sort of activity could be led through either the CAA Centre or groups of LTSN centres. For example, diagnostic maths testing is used in many disciplines, including engineering, physical sciences, business studies and of course mathematics, and further developments to the diagnostic test are being carried out with all the relevant disciplines in mind.

Where next

It is hoped that this paper has helped clarify the different types of support available and introduced you to the LTSN, in particular LTSN Engineering. As attendees of this conference, you are active in the area of CAA and also probably come from a specific subject discipline. Make yourself known to your LTSN subject centre who are keen to find out about your areas of expertise and to work with you to enhance CAA activity in your subject. In the meantime, we hope to form productive relationships between the LTSN and the CAA Centre.

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