Surely you can't teach acupuncture online?

An matrix for evaluating
online systems for acupuncture learning and teaching

BAAB British Acupuncture Accreditation Board

"Surely you can't teach acupuncture online?"

The British Acupuncture Accreditation Board (BAAB) fosters and monitors high quality educational standards, so that the general public can be assured that graduates from BAAB-accredited programmes are knowledgeable, reflective, competent and safe acupuncture practitioners.

In June 2015, the BAAB ran a two-day training event to develop skills in online learning for our staff, committee and Board members. We wanted to ensure that we understood all the elements of online systems so we could quality-assure them effectively, and support our accredited teaching institutions in their development.

Prior to the event, the participants were given access to some online learning so we could experience it for ourselves as students. We also produced some teaching content, which provided insight into how teachers might feel about moving some of their teaching online, and we undertook a planning exercise which demonstrated the complexities faced by training institutions (TIs) moving into this area. We looked at all the elements needed to provide an online teaching environment, and explored the value, strengths and weaknesses of different approaches. Course leaders, teachers and students came to talk to us about their work with online systems and shared their experiences with us.

The overall goal of the training was to draw up an Online Learning Matrix (OLM), a useful tool owned by all accreditation personnel, and embedded in BAAB's processes, to use during accreditation visits. This guide is the result of our work, and contains both the OLM itself and guidance notes for its use, providing both the BAAB and its stakeholders with a useful tool to support their work. It is written in clear, accessible language and aims to de-mystify concepts and issues of online learning.

We are now sharing the Online Learning Matrix with TIs as part of our ongoing partnership approach to accrediting high-quality acupuncture training in the UK. We hope that acupuncture training institutions find this guide helpful and supportive of their endeavours to develop high-quality virtual learning environments for teaching and learning acupuncture.

Harriet Lansdown

Harriet Lansdown
Lead Accreditation Officer
British Acupuncture Accreditation Board

Table of contents

Section One A very brief introduction to online learning

There are many milestones in the development of online learning, but some of the most significant are outlined below.

The very first "online" learning system (although the concept of "online" was yet to be invented) is popularly thought to have been the University of Houston's televised college classes, broadcast on state public television at night in the early 1950s. In the UK, the Open University followed suit in 1971. With the advent of the personal computer, by the late 1990s many businesses in Europe and the USA were using computer-based training (CBT) to train employees, with some courses being delivered over the nascent internet by the early 2000s. The first MOOC (Massive Open Online Course) was introduced by the University of Manitoba in 2008, enrolling 2,300 online students. In 2012 Coursera was launched: an online repository offering MOOCs from worldwide educational providers including Yale and top European universities, together with non-educational partners such as MoMA and National Geographic.

In 2015, online learning is big business. It is not restricted to educational providers, nor yet to "students" in a traditional sense: many members of the public have dipped a toe in the online learning waters. There is a flourishing range of publicly-available commercial online learning organisations such as Khan Academy, Peer-to-Peer University, Udemy and more, offering the opportunity both to create online learning materials as a teacher, and to access those materials as a learner.

Most higher education (HE) institutions incorporate some form of online teaching and learning into their courses – from simple distribution of materials via systems such as Blackboard and Moodle, to fully-functional systems that replace classroom-taught sessions with **learning objects** featuring **assets** such as video, audio, animations, interactive quizzes, chat rooms and other devices. These systems often have an associated level of ancillary online functionality, such as allowing students to track their progress, submit work, create assessed work and communicate with their teachers. Such systems may also provide facilities for teachers, such as online marking, feedback and distribution of pre- and post-lesson materials, attendance monitoring and more.

ACUPUNCTURE COURSES ONLINE

In acupuncture teaching and learning in the UK, all the BAAB-accredited TIs are using some form of blended approach, combining online with classroom teaching. There are broadly three types of online learning system (OLS) in use, with some overlap within each TI:

1 those that **supplement** classroom teaching by distributing material to support a classroom lesson;
2 those that **substitute** online learning for classroom teaching, making entire lessons, topics or even modules into virtual online equivalents;
3 those that **extend** classroom activity by using technology to assist self-directed learning outside the classroom, extra to and independent of (although informed by and integrated with) the work done in the classroom. One example of this is the TI that requires students to submit a summative self-development portfolio, constructed and stored in a cloud-based application (an application running over the internet rather than locally on a user's computer), demonstrating evidence of personal development throughout the course.

It is also worth noting that, while the popular conception of an OLS is the substitution system defined above, by contrast, JISC (the UK's non-government agency for digital technology in education – **jisc.ac.uk**) defines an online learning system as "a collection of integrated tools enabling the management of online learning" (2014). By this definition, *all* the BAAB-accredited acupuncture TIs in the UK are, in fact, using online learning systems.

The following pages are intended as a general overview of the issues involved in developing and operating OLSs. If you have any questions about the material in this guide, please contact the Lead Accreditation Officer at BAAB, Harriet Lansdown, via **baab@acupuncture.org.uk**.

Section Two Some basic concepts in online learning

The world of online learning moves fast. Technology, pedagogic theory and systems theory are all currently undergoing rapid expansion to encompass new ways of learning. One of the consequences of this is that it is often difficult to understand concepts, not least because terminology is apt to vary across the sector. For this reason, it is worth taking a moment to define some basic concepts and the terminology used by this guide to describe them. You may find these concepts under different names elsewhere, but the concepts themselves will remain similar.

STRUCTURE, CONTENT, FUNCTIONALITY

The "core" OLS can be defined in these three terms.

Structure is a general term for the architecture of the core OLS, as distinct from its content or functionality. Think of the structure of a house, with its arrangement of walls, ceilings, windows and floors, creating rooms and passageways.

Content is any item that resides in or is delivered by an OLS, as distinct from the structure that houses it. Content can be any discrete entity, from a single document to an entire online lesson or module. Also see **Learning Objects**, below.

Functionality is basically how a core OLS works! Think of functionality as the engine of the machine: the collection of moving parts that drives it. In the case of an OLS, the functionality is the software and hardware that enables the system to 'deliver' its content. See ***Figure 1***, right.

To understand the intertwined concepts of structure, content and functionality, one useful analogy is that of a vending machine. The **structure** is the arrangement of metal, plastic and glass parts that makes up the vending machine; the **content** is the drinks and snacks that the machine contains; and the **functionality** is the collection of moving parts that dispenses the drink or snack requested.

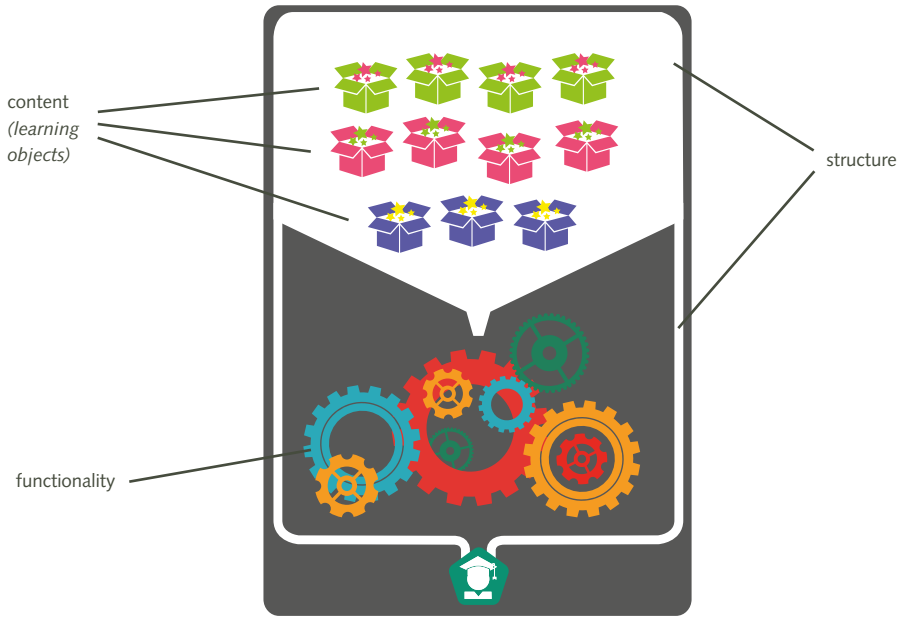

Figure 1: *Structure, content and functionality in a core OLS.*

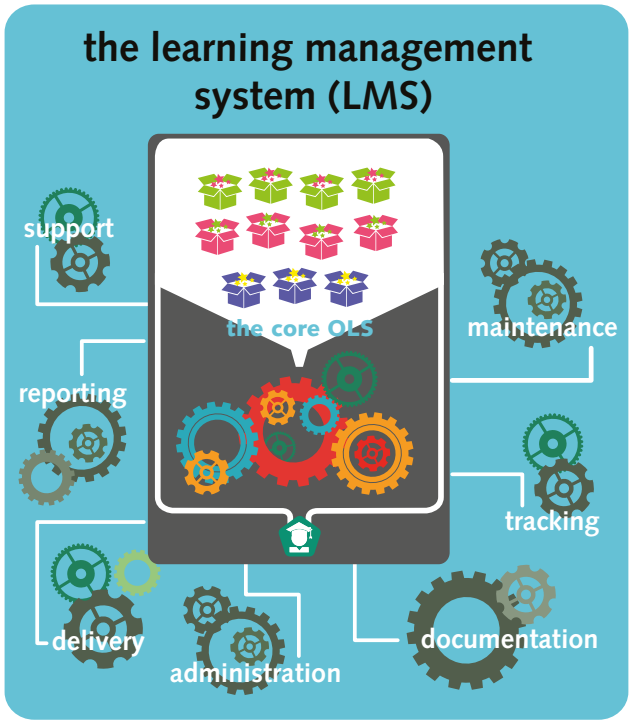

Figure 2: *The core OLS in the context of the Learning Management System*

LEARNING MANAGEMENT SYSTEM

A Learning Management System (LMS) is an overarching system that handles some or all of the peripheral functions of a "core" OLS – those functions that are not directly concerned with actual learning and teaching. This may be various functions such as administration, documentation, support, tracking, reporting, delivery and maintenance. Going back to the vending machine analogy, the LMS could be seen as the company or supplier that installs the machine and is responsible for its smooth operation.

Note that an LMS may not necessarily be automated. The word 'system' could refer to the co-ordinated activites of a number of people (teaching, technical, administrative, management, etc), either as an entirely manual process or one that incorporates some elements of automation.

Figure 2 illustrates the Learning Management System in relation to the core OLS.

LEARNING OBJECTS

A learning object (LO) is any discrete item, designed to support or facilitate learning, that a student engages with. It may be a single asset (see below for a definition of this term) or a collection of assets arranged to work together. Other terms for an LO include *learning session*, *item*, *activity*, and more traditional educational terms such as *lesson*, *seminar*, *tutorial*, *lecture*, etc. In ***Figure 2***, the LOs are indicated by the small boxes in the top section of the core OLS, dispensed to the student; in the vending machine analogy, the LO can be seen as the drink or snack dispensed by the machine.

ASSETS

Assets are the functional units that are put together to make up a learning object, including written text, animations or images, video, audio, hyperlinks, non-interactive documents, synchronous discussion forums, non-synchronous chat rooms, interactive documents such as PDFs and apps. Also sometimes known as *devices* or *activities*. In ***Figure 3***, right, the assets are represented by the stars in the top section of the **Learning Content Management System**. Assets can be thought of as the raw materials used to manufacture the drinks and snacks dispensed by the vending machine.

LEARNING CONTENT MANAGEMENT SYSTEM

The LCMS is a system for the creation of **learning objects** and for managing the storage, use and re-use of individual **assets**. The LCMS is not concerned with actual learning and teaching activity; more with providing content (learning objects) for learning and teaching activity. Again using the vending machine analogy, the LCMS could be seen as the manufacturer of the drinks/snacks dispensed by the machine.

Like the **LMS** above, the LCMS may not necessarily be an automated system. Because of the bespoke nature of creating learning objects, the LCMS is likely to be a manual system, run without any elements of automation.

Figure 3 shows the LCMS in the context of the core OLS and the LMS.

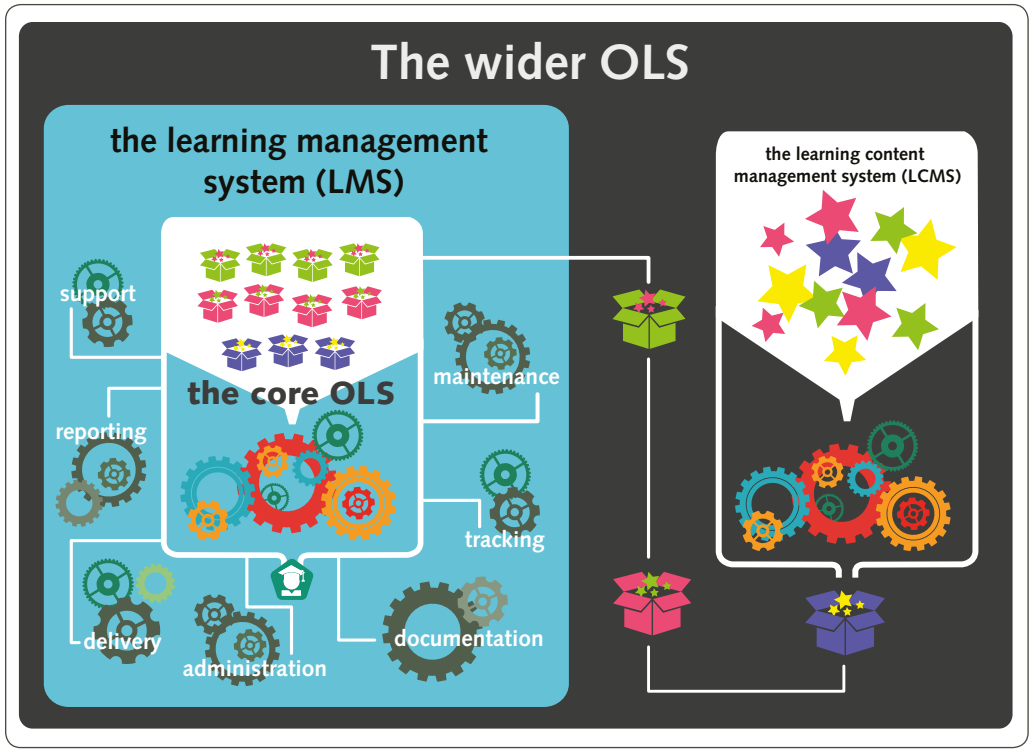

Figure 3: *The core OLS in the context of the wider OLS: the Learning Management System and the Learning Content Management System*

Some further reading

Beetham, H. and Sharpe, R. (2013) *Rethinking Pedagogy for a Digital Age*. London, Routledge.

Luskin, B. (2010) *Think "Exciting": E-learning and the Big "E"* [online]. Available at: http://www.educause.edu/ero/article/think-exciting-e-learning-and-big-e [Accessed 2/2/15]

Major, Claire Howell (2015) *Teaching Online: a guide to theory, research, and practice*. Baltimore, Johns Hopkins University Press.

Joint Information Systems Committee (2004) *Effective Use of Virtual Learning Environments* [online]. Note that this publication is archived but currently being updated; please check the JISC publications list for a more up-to-date version. You can download the archived version here: **www.xxx.xxx**.

SYNCHRONICITY

This is a key concept in online learning. All OLSs are designed to deliver one, or a combination of, types of synchronicity.

Synchronous learning refers to a learning object conducted with students at a scheduled time. Note that this definition would also include classroom teaching! Examples of assets used for synchronous *online* learning include videoconferencing and live chat. Advantages of synchronous online learning include the sense of community, and immediate feedback from students and staff. Drawbacks include the fact that technology must be understood and employed within a short time-frame, which may challenge some students; and the loss of flexibility in scheduling for both TI and student.

Asynchronous online learning is any learning object conducted with remote students who can engage with the **learning object** at any time. Examples of **assets** used in asynchronous online learning include written text, email, recorded material such as video and audio, and ongoing discussion forums. Advantages include the ability to engage at any time, which facilitates student ease of use; the enablement of time to reflect and respond, and to repeat viewings; and time may be taken to resolve technical issues without pressure. Drawbacks include less of a sense of community for the student; the lack of quick response from teachers; interruption of engagement can lead to longer times to re-engage, or ineffective re-engagement; and potentially diminished tutor involvement.

Semi-synchronous online learning refers to any learning object conducted with remote students who can engage with the **learning object** at any time within a specified period. Any **assets** may be used for semi-synchronous learning. Advantages and drawbacks include those mentioned above for asynchronous learning.

THE WIDER CONTEXT

No OLS exists in a vacuum. Indeed, much of this guide is intended to emphasise the context in which any acupuncture OLS exists, and to help TIs consider how best to fit the OLS within its context, (and vice versa).

The most obvious and immediate context in which an OLS exists is the TI itself. The TI's vision and mission statements, overall governance, strategies, policies and procedures should all align with the OLS, just as it aligns with its classroom teaching.

An even wider context is that within which the TI itself exists, which is a varied cultural, social and legislative environment including (amongst others):

- **Government** HE policy;
- **Legal framework**, including Data Protection legislation and other relevant statute;
- **Requirements** of national statutory bodies, including H&SE, HEFCE, QAA, etc; also the requirements of BAAB and the BAcC;
- **Requirements** of any affiliated HE institution or the wider HE institution in which the TI/department exists;

- **Cultural and social norms**, including existing healthcare provision, the public perception of acupuncture, and jobs and employment opportunities including transferrable skills;
- **The influence** of legislative and regulatory requirements;
- **Competition** between acupuncture courses;
- **Financial issues**, including funding and fees.

All these issues have an impact on the OLS, however indirectly. ***Figure 4*** shows the OLS in relation to the TI and the TI in relation to some of the issues in its wider context.

Figure 4: *The OLS in the context of the TI, and the TI in the wider social, cultural, political and legal context*

Section Three

The Online Learning Matrix

The Online Learning Matrix (OLM) sets out the major issues, illustrating these with three levels of practice: Aspirational (green), Effective (amber) and Poor (red). TIs may wish to use the OLM to self-assess their online learning system (OLS) and improve it where necessary by noting the examples given in the higher levels.

The issues outlined in the Online Learning Matrix fall into two categories: REQUIREMENTS and ADVISORY ISSUES.

The REQUIREMENTS section sets out the four issues, each marked with the symbol ⚠, that BAAB considers essential for a TI to implement at an "Effective" level, according to the levels of practice set out in the matrix. Some of these issues have legal implications, while others are important to ensure swift recovery in the case of system breakdown, avoiding disruption to students and staff. Note that ALL the REQUIREMENTS can be considered to apply to EVERY type and level of online learning system in use.

The ADVISORY ISSUES section covers the issues that BAAB considers to be important, but not essential, for a TI to implement at an "Acceptable" level. Note that not all the ADVISORY ISSUES will apply to every type and level of online learning system; TIs may judge for themselves which apply and which do not.

For ease of use, the ADVISORY ISSUES are grouped under sections – please see the table of contents on page 3 for more information.

In order to provide a degree of futureproofing in a fast-moving area, the approach and language of the OLM is necessarily "high-level" in that it deals with concepts and approaches rather than specifics. Therefore, it is to be expected that each TI and each OLS will have particular circumstances and questions that are beyond the scope of this document to detail. **In such a case, TIs are advised to consult their local IT or online learning specialist or legal advisor, who will be able to provide up-to-date advice tailored to the TI's specific questions.**

Defining online learning

As can be seen in Section One, for the purposes of applying the OLM, "online learning" can be defined as any system that is used to:

Supplement classroom teaching by distributing material to support a classroom lesson;

Substitute for classroom teaching by making entire lessons, topics or even modules into virtual online equivalents;

Extend classroom teaching by using technology to assist self-directed learning outside the classroom, extra to and independent of (although informed by and integrated with) the work done in the classroom.

Therefore the REQUIREMENTS section of the OLM can be seen to be applicable to ALL online learning systems in use in acupuncture teaching in the UK. By contrast, the ADVISORY ISSUES may not apply to every online learning system; TIs may judge for themselves which of the advisory issues apply and which do not.

The Online Learning Matrix | REQUIREMENTS

PLANNING, DESIGN AND GENERAL ISSUES **Accessibility** *Any website hosted in the UK should comply with the requirements of the Disability Discrimination Act (DDA) 2005 and the Equality Act 2010. Additionally, the World Wide Web Consortium stipulates that online learning should make provision for users with disabilities at least to the AA level specified by its Content Accessibility Guidelines. See links below for further information.*

requirement	aspirational	effective	poor
3.1 Accessibility 	**The OLS exceeds** the requirements of the Disability Discrimination Act (DDA) 2005 and the Equality Act 2010. **Provision for users** with disabilities is made in excess of the AA level specified by the W3C Web Content Accessibility Guidelines.	**The OLS meets** the requirements of the Disability Discrimination Act (DDA) 2005 and the Equality Act 2010. **Provision for users** with disabilities is made at least to the AA level specified by the W3C Web Content Accessibility Guidelines.	**The OLS does not meet** the requirements of the Disability Discrimination Act (DDA) 2005 and the Equality Act 2010. **Provision for users** with disabilities is not made to the AA level specified by the W3C Web Content Accessibility Guidelines.

Government Digital Service (2014) *Accessibility*. https://www.gov.uk/service-manual/user-centred-design/accessibility
World Wide Web Consortium (W3C) (2008) *Web Content Accessibility Guidelines (WCAG)*. http://www.w3.org/TR/WCAG20/

LEARNING MANAGEMENT SYSTEM **Licensing** *Every part of an OLS should be suitably licensed for use, including content, software, hardware, online services and software-as-a-service (software that does not run locally but is hosted on a remote server and accessed by users via the internet).*

requirement	aspirational	effective	poor
3.2 Licensing 	**All content used** in the OLS is permitted under the terms of a suitable licence (CLA or similar). **All software, hardware** and online services used in the creation and delivery of online learning are similarly licensed and licenses are futureproofed to exceed maximum usage levels.	**All content used** in the OLS is permitted under the terms of a suitable licence (CLA or similar). **Most software, hardware** and online services used in the creation and delivery of online learning are similarly licensed and licenses correspond with maximum usage levels.	**Content used** in the OLS is not licensed, or insufficiently licensed for usage level and type. **Software, hardware** and online services used in the creation and delivery of online learning is not licensed or is only partially licensed; licenses may not correspond with maximum usage levels.

LEARNING CONTENT MANAGEMENT SYSTEM **Copyright and Intellectual Property Rights**

Intellectual property rights is a complex and fast-changing legal area, particularly in the online world. This issue considers some questions of IPR in online learning systems, including students' rights over their material, and ownership of material created by teachers.

requirement

3.3 Copyright and Intellectual Property Rights

aspirational

Where content created by students in material form (written, recorded, photographed) is being re-used, written permission has been given by the student for re-use covering all uses including futureproofing; a policy is in place to ensure that this permission is always obtained prior to use, and this policy is always applied. **Content created by staff** is owned by the TI under a clause in staff contract of employment governing ownership of material created in the course of staff member's work for TI, and this clause has been approved by the TI's legal advisors including futureproofing to ensure rights of use over the material in perpetuity. Any potential conflict with individual's legal right to privacy has been clarified with the TI's solicitor and appropriately incorporated into all staff contracts of employment.

effective

Where content created by students in material form (written, recorded, photographed) is being re-used, written permission has been given by the student for re-use, and a policy is in place to ensure that this permission is always obtained prior to use. **Content created by staff** is owned by the TI under a clause in staff contract of employment governing ownership of material created in the course of staff member's work for TI; any potential conflict with individual's legal right to privacy has been clarified with the TI's solicitor and appropriately incorporated into staff contracts of employment.

poor

Where content created by students in material form is being re-used, written permission has usually been given by the student for re-use; a policy may be in place to ensure that this permission is always obtained prior to use. **Arrangements governing TI's ownership** of content created by staff may not be clear or agreed; any potential conflict with individual's legal right to privacy may not have been clarified with the TI's solicitor and appropriately incorporated into staff contracts of employment, with not every member of staff subject to this clause.

MAINTENANCE AND ONGOING OPERATION **Back-ups**

Perhaps the single most important operational element in any risk-proofing exercise for an OLS. The ability to restore a system quickly and comprehensively in the case of disaster is essential to the smooth progress of learners, and avoids disruption and possible resource-intensive consequence for teachers and administrative staff.

requirement

3.4 Back-ups

aspirational

A rigorous, comprehensive back-up routine is executed on a regular, frequent and timely basis, with world-class procedures in place for version control and the invulnerable storage of some successive iterations in addition to the current, enabling restoration of all major versions of the system should occasion arise. **Archives** are internally indexed and restoration procedures simple and fast. **Back-up scope and intervals** are determined in line with (i) strategic importance of the OLS; (ii) peaks and troughs of activity; and (iii) to enable repopulation of the OLS in the event of rebuild, as described in System specification, above). **Where back-up is carried out** using software-as-a-service provided by a third-party provider, content is acknowledged in contracts as being securely and robustly owned by the TI, and any iterations beyond those described above are destroyed securely (see **Security** section).

effective

A rigorous back-up routine is executed on a timely basis, with strict version control. **Archives** may be internally indexed and restoration procedures may be simple and fast. **Back-up scope and intervals** are determined in the light of those factors described in Effective practice column, left. **Where back-up is carried out** using software-as-a-service provided by a third-party provider, content is acknowledged in contracts as being securely and robustly owned by the TI, and any iterations are stored and destroyed securely (see **Security** section).

poor

A back-up routine is executed infrequently and/or partially, without strict version control. **Archives** are not internally indexed and restoration procedures are complex and/or lengthy. **Back-up scope and intervals** are not determined in the light of those factors described in 'Effective', left. **Where back-up is carried out** using software-as-a-service provided by a third-party provider, content is not acknowledged in contracts as being owned by the TI, and any iterations are not stored and destroyed securely.

The Online Learning Matrix | ADVISORY ISSUES

PLANNING, DESIGN AND GENERAL ISSUES **Integration of OLS at strategic level**

The role of overall organisational strategy at the planning stage of an OLS is often overlooked. This issue considers how to integrate the OLS at the highest strategic levels of an organisation, and how to embed responsibilities within the organisation for both strategic and procedural-level activity.

advisory issue

3.5 Integration of OLS at strategic level

aspirational

Written statement exists detailing the place of the OLS in the TI's overall strategic objectives, including vision and mission statements, and overarching strategy (including such documents as an Annual Review, etc) as well as teaching/learning/assessment strategy. **OLS is embedded** in TI's policy and operating procedures (including all relevant guidance documents for students and teachers such as college/university handbook; student handbook; programme handbook). **Management structures** include clear lines of responsibility for both the initial design/development of an OLS and for its ongoing day-to-day operation, including emergency situations.

effective

Written statement exists, partially detailing the place of the OLS in the TI's overall strategic objectives, including vision and mission statements, and overarching strategy (including such documents as an Annual Review, etc) as well as teaching/learning/assessment strategy. **OLS is partially** embedded in TI's policy and operating procedures (including all relevant guidance documents for students and teachers such as college/university handbook; student handbook; programme handbook). **Management structures** include partial lines of responsibility for the OLS.

poor

Written statement does not exist. **OLS is not** embedded in TI's policy and operating procedures. **Management structures** do not include lines of responsibility for the OLS.

PLANNING, DESIGN AND GENERAL ISSUES **Content design: overarching principles**

A variety of learning styles (visual, auditory, kinaesthetic), aligned with good pedagogic theory for online learning, is likely to elicit good learning outcomes from online learning, but it is important not to overwhelm teachers, learners or programme resources with such issues. It is wise to enfranchise teachers and students from the earliest days by soliciting their feedback on content design (see also "Feedback", below).

advisory issue

3.6 Content design: overarching principles

aspirational

Design of the OLS content should reflect, as far as possible within the limits of the development plan and resourcing, a variety of learning styles. Provision should be made for a variety of asset types, including written text, animations and images, video and audio, hyperlinks, attached documents in formats such as Microsoft Word, PDF, Excel spreadsheets (noted in the student-facing minimum specification detailed elsewhere in this document), in-app functionality, discussion forums, chat rooms, etc; use of such asset types is congruent with learner profile and programme resources. **Principles of good pedagogic** theory for online learning are incorporated within the overall content design principles. **Feedback is sought** from all users on the development process and likely products, with structured User Acceptance Testing built into the process.

effective

Design of the OLS content partially reflects a variety of learning styles. Provision is inconsistently made for a variety of asset types; use of such asset types may be congruent with learner profile. **Principles of good pedagogic** theory for online learning may be incorporated within the overall content design principles. **Feedback may be sought** from some users on the development process and likely products; User Acceptance Testing may be part of the process.

poor

Design of the OLS content does not reflect a variety of learning styles. Provision is not made for a variety of asset types; use of such asset types is not congruent with learner profile (learner profile may not exist). **Principles of good pedagogic** theory for online learning are not incorporated within the overall content design principles. **Feedback is not sought** from users on the development process and likely products; User Acceptance Testing is not part of the process.

PLANNING, DESIGN AND GENERAL ISSUES **Ongoing system development** *Once an OLS is operational, there is an ongoing requirement to continually improve its functionality, structure and content. This looks at how such improvements should be planned, implemented and embedded within all parts of the OLS.*

advisory issue

3.7 Ongoing system development

aspirational

Significant developments in the OLS's functionality, structure or content are tested for cost-effectiveness and user benefit, and comply with the guidelines set out in **Integration of OLS at TI's strategic level** (Effective level) and, where appropriate, in **Content design – overarching principles** (Effective level). **Developments are mooted** with all stakeholders; feedback is noted and incorporated into designs and implementation plans. **Implementations are planned** within the resources and skills of the involved staff; training for staff, and resources, are both extended as necessary to allow implementation to take place smoothly, and with minimum disruption for all users, without undue imposition on key involved staff or jeopardy of the existing OLS. **Developments are incorporated** into all documentation, learning support and technical support processes. **All developments comply** with Effective level of all guidelines set out in this document, particularly those on security, licensing, copyright and IPR, and business continuity.

effective

Most significant developments in the OLS's functionality, structure or content are partially tested for cost-effectiveness and user benefit, and mostly comply with the guidelines set out in **Integration of OLS at TI's strategic level** (Acceptable level) and, where appropriate, in **Content design – overarching principles** (Acceptable level) set out above. **Developments are mooted** with most stakeholders; feedback is noted and mostly incorporated into designs and implementation plans. **Implementations are mostly planned** within the resources and skills of the involved staff; training for staff, and resources, may be extended as necessary to allow implementation to take place smoothly, and with only moderate disruption for most users, without undue imposition on key involved staff or jeopardy of the existing OLS. **Developments are incorporated** into most documentation, learning support and technical support processes. **All developments comply** with Acceptable level of all guidelines set out in this document, particularly those on security, licensing, copyright and IPR, and business continuity.

poor

No developments in the OLS are tested for cost-effectiveness and/or user benefit, and do not comply with guidelines set out in **Integration of OLS at TI's strategic level** or **Content design – overarching principles** set out above. **Developments are not mooted** with stakeholders. **Implementations are not planned** within the resources and skills of the involved staff; training for staff, and resources, are not extended to allow implementation to take place relatively smoothly, with only moderate disruption for users, without undue imposition on key involved staff or jeopardy of the existing OLS. **Developments are not incorporated** into documentation, learning support and technical support processes. **No developments comply** with guidelines set out in this document.

PLANNING, DESIGN AND GENERAL ISSUES **System capacity** *An OLS should ideally be specified to handle peaks of demand where these may be reasonably anticipated. All users should be able to access all areas of the system at all times without delay and with a high standard of performance (allowing for remote bandwidth issues beyond the TI's control). Planning system capacity should be done with regard to the number and mix of asset types: for instance, a system with a high proportion of video should be more highly specified than a system that delivers only text and static images.*

advisory issue

3.8 System capacity

aspirational

OLS and all supporting components are sufficiently specified and capable of handling peak demand at all times.

effective

OLS and all supporting components are mostly sufficiently specified and capable of handling peak demand at most times.

poor

OLS and all supporting components are insufficiently specified and incapable of handling peak demand.

PLANNING, DESIGN AND GENERAL ISSUES **Interoperability** *Interoperability can be defined as the capacity of systems to work together, passing information back and forth; in highly advanced OLSs, this process may be highly automated. In acupuncture TIs, however, OLSs are likely to be less automated and more reliant on human input. But even then, interoperability is still an issue – there is an equal requirement to make sure that all elements of the system are reliable and that data is not lost or misinterpreted while passing between different elements, whether computerised or human.*

advisory issue	aspirational	effective	poor
3.9 Interoperability	**All parts of the OLS** have a high level of interoperability and are capable of passing information between them reliably, preserving integrity of data. Where the system relies on human input/use, this incorporates thorough checks/failsafes, comprehensively applied, to ensure nothing slips through the net.	**Some parts of the OLS** have a level of interoperability capable of passing information between them reliably, preserving integrity of data. Where the system relies on human input/use, this incorporates some checks/failsafes, inconsistently applied.	**No parts of the OLS** have any level of interoperability capable of passing information between them reliably, preserving integrity of data. Where the system relies on human input/use, this does not incorporate checks/failsafes.

LEARNING MANAGEMENT SYSTEM **Notifications** *It is fundamental to learners' experience of engaging with an OLS that all notifications are timely, clear and comprehensive. This includes notifications of deadlines, upcoming events and other learning-related obligations. It is important to maintain an up-to-date record of all users' contact details (administrative staff, teachers and learners) so that all users can be contacted as necessary, especially in cases of system outage or other disruptive events.*

advisory issue	aspirational	effective	poor
3.10 Notifications	**Notifications are timely**, clear and comprehensive for all users on all types of item relevant to those users. **A record of all users'** contact details is kept and maintained in an up-to-date state at all times.	**Notifications are mostly timely**, clear and comprehensive, for most users on most types of item relevant to those users. A record of most users' contact details is kept and maintained in a mostly up-to-date state.	**Notifications are not timely**, clear or comprehensive for any users on most types of item relevant to those users. No record of users' contact details is kept.

LEARNING MANAGEMENT SYSTEM **Student tracking** *Where learning objects are delivered online, it is important that learners' progress is tracked by the system, and that any progress reports and status are made available to the learner in a way that is clear and easy to understand.*

advisory issue	aspirational	effective	poor
3.11 Student tracking	**Students are able** at all times to access a clear and up-to-date status report on their progress with all online learning objects, modules or components.	**Students may be able** to access status reports for some of their progress, and/or for some online learning objects, modules or components.	**Students are unable** to access status reports on their progress with any aspect of online learning.

LEARNING MANAGEMENT SYSTEM **General administration** *These include general functions such as payroll, timetabling, results dissemination, etc. Note this is also an issue of interoperability: where computer/human interface is involved in carrying out these functions, administrative staff should be sufficiently trained to understand the system and to obtain reliable data from all relevant areas of the OLS.*

advisory issue	aspirational	effective	poor
3.12 General administration	**The OLS** provides sufficient information and functionality to support all relevant administrative functions efficiently and effectively, and in a timely manner.	**The OLS** provides partial information and functionality to support relevant administrative functions.	**The OLS** does not provide sufficient information or functionality to support relevant administrative functions.

LEARNING MANAGEMENT SYSTEM **Appearance of content** *The look-and-feel of the general content should be consistent across all asset types – it helps to reassure learners and to reinforce the quality of the system as a whole. This may require an editor to take responsibility for all assets, or content creators may be able to follow a style guide. If the TI has a style guide for other areas of its business, this may need amending to take account of the OLS requirements. This is not to deny teachers their individual styles; only to give consistency and correction of writing errors.*

advisory issue	aspirational	effective	poor
3.13 Appearance of content	**A clear style** is applied to all content, giving visual consistency and correcting errors in writing. This house style is consistent with any overarching style guide, including any branding guidelines used by the TI as a whole.	**A style** is inconsistently applied to content, and there is some visual consistency and/or correction of errors. This style may not be consistent with any overarching house style, or with any branding guidelines used by the TI as a whole.	**A style** does not exist or is not applied to any content, and errors are not corrected. House style is not consistent with any overarching house style guide or branding guidelines.

LEARNING MANAGEMENT SYSTEM **Control of structure and content placement** *Multiple administrative users of an OLS can create difficulties for all users, by placing material in inappropriate locations. This can damage learner confidence in the OLS, deter engagement with LOs and prevent effective learning. It is good practice to make sure that all items are placed appropriately, and that placement is done according to clearly-defined rules.*

advisory issue	aspirational	effective	poor
3.14 Control of structure and content placement	**Clear guidelines** are available to all users of the system, indicating where all types of material should be posted, with illustrative examples. **At least one** member of staff charged with oversight of system to ensure that rogue items are relocated (and all relevant parties informed).	**Partial guidelines** available to most users of the system, indicating where most types of material should be posted. **Partial procedure in place** for monitoring and relocating rogue items and informing relevant parties.	**No guidelines** available indicating where types of material should be posted. **No procedure** in place for monitoring and relocating rogue items and informing relevant parties.

LEARNING MANAGEMENT SYSTEM **Student attendance** *Where online learning forms part of the student's required total of contact hours, the OLS should have a means of monitoring attendance and addressing any issues. This may be part of an overarching attendance policy, and existing attendance policies may need to be rewritten to take the OLS into account.*

advisory issue	aspirational	effective	poor
3.15 Student attendance	**Students are aware** of what actions are necessary to demonstrate attendance at an online learning session, and of the possible consequences (if any) if they do not. **TI has clear policies** in place for detecting and addressing non-attendance at an early stage, consistent with existing attendance policies and procedures.	**Students are partially aware** of what actions are necessary to demonstrate attendance at an online learning session, and of the possible consequences (if any) if they do not. **TI has incomplete policies** in place for detecting and addressing non-attendance, which may not be consistent with existing attendance policies and procedures.	**Students are not aware** of what actions are necessary to demonstrate attendance at an online learning session, or of the possible consequences (if any) if they do not. **TI has no policies** in place for detecting and addressing non-attendance.

LEARNING MANAGEMENT SYSTEM **Assessment** *Online assessment is a complex and fast-evolving area. At present, across the HE sector in the UK, it is largely formative rather than summative due to problems with student identification. The complexities of this subject are beyond the remit of this guide, but below are some general principles to help ensure good practice.*

advisory issue	aspirational	effective	poor
3.16 Assessment	**Online assessment methods** are appropriate to the learning being assessed. Any assessments carried out online incorporates robust proofs of student identity as the author of the work being assessed.	**Online assessment methods** are partially appropriate to the learning being assessed. Online assessments incorporate only partial or inconclusive proofs of student identity.	**Online assessment methods** are not appropriate to the learning being assessed. Online assessments do not incorporate robust proofs of student identity.

LEARNING MANAGEMENT SYSTEM **Provision of learning support** *TIs already provide a programme of learning support to students. With regard to the OLS, it is important to extend existing provision to scope in the difficulties that learners may experience with the OLS.*

advisory issue	aspirational	effective	poor
3.17 Provision of learning support	**All users of the OLS** (college staff, including administrative staff; students; teachers) are provided with appropriate levels and types of learning support for the OLS, adapted as far as reasonable to the individual's needs. **Learning support** is available in a variety of forms, and via a variety of channels. Learning support is **targeted at all aspects** of the OLS, enabling all users to fully access and engage with every area of the system necessary to their purpose in the TI.	**Most users of the OLS** are provided with mostly appropriate levels and types of learning support, unadapted to the individual's needs. **Learning support** may be available in a variety of forms and/or channels. Learning support may be **targeted at many but not all aspects** of the system, and user engagement with the OLS may therefore not be fully facilitated.	**Users of the OLS** are not provided with learning support for the OLS.

LEARNING MANAGEMENT SYSTEM **Provision of technical support** *It is impossible to underestimate the role of technical support in a successful OLS. The quality of technical support – its clarity, timeliness, availability and the approachability of support staff – will play a major role in users' satisfaction with the OLS, and, for learners, in the standard of their learning outcomes. Poor quality technical support will undermine users and hinder engagement with learning.*

advisory issue

3.18 Provision of technical support

aspirational

All users of the OLS (college staff, including administrative staff; students; teachers) are provided with appropriate levels and types of technical support, adapted to the individual's IT technical needs. **Technical support is available** in a timely manner both on-demand and at scheduled intervals in a variety of forms, including workshops, a Knowledge Base and User Guide specific to the type of user and regularly updated, one-to-one provision on the target platform or individual's own platform, and other forms; and via a variety of channels including videoconference, telephone, email and text. Support staff are always approachable and friendly; technical support is uniformly clear and easy to follow. **Targeted** at all key aspects of the system, enabling all users to fully access and engage with every area of the system necessary to their role in the TI.

effective

Most users of the OLS are provided with mostly appropriate levels and types of technical support, unadapted to the individual's IT technical needs. **Technical support is not always available** in a timely manner, or in a variety of forms and channels, including some of those described in Effective Practice. Support staff are mostly approachable and friendly; technical support is mostly clear and easy to follow. Documentation described in Effective Practice may not be specific to the user, may not be regularly updated. **Targeted** at many but not all key aspects of the system and user engagement with the OLS may therefore not be fully facilitated.

poor

Users of the OLS are not provided with technical support.

LEARNING MANAGEMENT SYSTEM **Minimum specification** *This is a clear statement informing all users of the software, hardware and supporting services they will need to use the OLS. TIs may choose to make provision of minimum-specification equipment the student's own responsibility, or to provide suitable equipment for them; whichever choice is made, the minimum specification document is an important part of the learner's contract with the TI.*

advisory issue

3.19 Minimum specification

aspirational

A clearly written statement exists of the necessary minimum specification of computer and/or other device together with software, peripheral hardware and any supporting services (internet access level, etc) necessary to fully access all areas of the OLS. Includes statement of necessary software/hardware skills that a student should possess. **The minimum specification** is kept up-to-date at all times, is subject to rigorous version control, and is jointly owned by the TI's senior management. Changes are clearly notified to all users in a timely manner. The **minimum specification** is given to students in advance of accepting an offer; this 'student-facing' version of the minimum specification is an explicit part of the contract between student and TI. **All IT equipment** provided by the TI to students and staff conforms to this minimum specification. **All learning objects** require use of hardware, software and supporting services congruent with the minimum specification.

effective

A written statement exists partially detailing the necessary minimum specification of computer and/or device, software and peripherals, and supporting services necessary to fully access all areas of the OLS. May include partial statement of student's required software/hardware skills. **May not be up-to-date** at all times; may not be subject to version control; may not be jointly owned by TI's senior management. Changes may be notified to some users without regard to appropriate timeliness. **The minimum specification** may be given to some students without regard to appropriate timeliness in the process of accepting an offer. avaMinimum specification may not be an explicit part of student-TI contract. **Some IT equipment** provided by TI to students and staff may conform to this minimum specification. **Learning objects** require use of hardware, software and supporting services mostly congruent with the minimum specification.

poor

No written statement exists detailing minimum specification of computer/device, software or peripherals and supporting services necessary to access the OLS. **Students are not notified** of minimum specification or required skills. Minimum specification is not an explicit part of student-TI contract. **No IT equipment** provided by TI to students and staff conforms to this minimum specification. **Learning objects** require use of hardware, software and supporting services rarely congruent with the minimum specification.

LEARNING MANAGEMENT SYSTEM **Feedback** *The efficient and effective handling of feedback is crucial to a successful online learning system. It is common for educational establishments to feel that the OLS "just runs itself" and that little or no updating, extension or correction is necessary; in reality, all systems benefit from critical appraisal and prioritsed action aimed at continuous improvement. Well-run systems have resources dedicated to this purpose (time, staff/skills and budget).*

advisory issue

3.20 Feedback

aspirational

Feedback is solicited regularly on all aspects of the OLS (content, functionality, user experience, learning outcomes achieved) from all users (administrative and technical staff, students, teachers and other users), and technical support is monitored for frequently-occurring problems or questions, with results subjected to the ensuing process outlined here. **Evoked feedback is logged**, ie: clarified with users where necessary, dated and documented, with a technical re-description where necessary including a classification of the aspect of the OLS to which they relate and a description of necessary corrective action together with a classification of resource required for corrective action. The log is updated at appropriate intervals. **A written evaluation framework** is in place, outlining clear definitions of levels of urgency of corrective action; forecasts of potential disruption to the OLS; named members of staff with responsibility for sanction and implementation of corrective action; calculation guidelines for resourcing/costing of corrective action. This evaluation framework is applied to evoked feedback to yield a prioritised action plan for corrective action. This framework is kept up-to-date at all times to reflect current resourcing and costing issues. **Corrective action** is implemented according to the evaluation framework results. **All processes associated** with the OLS (those described in this document) are also themselves subjected to the feedback process described here.

effective

Feedback is solicited at irregular intervals on some aspects of the OLS from some users. Technical support is infrequently or partially monitored for frequently-occurring problems or questions; results are partially subjected to logging and prioritised corrective action. **Evoked feedback is partially logged** as described in 'Effective' practice, right. The log is updated infrequently or partially. A **written evaluation framework** is in place detailing some of the items described in Effective Practice. The framework is irregularly or infrequently updated. **Corrective action** is implemented on an ad hoc basis, with only partial reference to the evaluation framework results. **Some processes associated** with the OLS (those described in this document) are also themselves subjected to the feedback process described here.

poor

Feedback is not solicited on any aspect of the OLS from any users. Technical support is not monitored. **Feedback is not logged**. **No evaluation framework** is in place. **Corrective action** is implemented on an ad hoc basis, with no reference to an evaluation framework. **No processes associated** with the OLS are themselves subjected to the feedback processes described here.

LEARNING MANAGEMENT SYSTEM **Security of content** *This issue considers how a system may be protected against unauthorised access. It is also necessary to comply with UK data protection law, and to check that any third-party providers comply also. Ownership of content should be equally secure. Finally, content should be private and not searchable by public-facing search engines.*

advisory issue

3.21 Security of content

aspirational

System provides world-leading, regularly updated protection from unauthorised third-party intervention (internal and external hacking). Where third-party hardware is used, provider has world-leading, unassailable destruction policies in place that are monitored and certified. Where third-party software/software-as-a-service is used, provider exceeds the requirements of UK data protection law, all relevant legislation on privacy, and the TI's own privacy policies. **Content is owned** by the TI on behalf of the students and teachers who have created it, and such ownership is stated clearly in any licensing or similar agreements of use. **OLS is configured** to prevent access by public-facing search engines and/or to disallow sensitive or personal content to be displayed on a public website.

effective

System provides robust, regularly updated protection from unauthorised third-party intervention (internal and external hacking). Where third-party hardware is used, provider has robust destruction policies in place. Where third-party software/software-as-a-service is used, provider complies with UK data protection law, all relevant legislation on privacy, and the TI's own privacy policies. **Content is owned** by the TI on behalf of the students and teachers who have created it, and such ownership is stated clearly in any licensing or similar agreements of use. **OLS is configured** to disallow access by public-facing search engines and/or to disallow sensitive or personal content to be displayed on a public website.

poor

System provides little protection from unauthorised third-party intervention. Where third-party hardware is used, provider does not have robust destruction policies in place. Where third-party software/software-as-a-service is used, provider does not comply with UK data protection law, relevant legislation on privacy, and/or the TI's own privacy policies. **Content is not owned** by the TI on behalf of the students and teachers who have created it, and such ownership is not stated in any licensing or similar agreements of use. **OLS is not configured** to disallow access by public-facing search engines and/or to disallow sensitive or personal content to be displayed on a public website.

LEARNING CONTENT MANAGEMENT SYSTEM **Content planning**

It is sometimes too easy to 'consign' certain curriculum areas to the OLS without considering whether the subject is appropriate to online learning, or whether the teachers involved are fully confident about using the OLS. Both may lead to poor-quality learning objects that can frustrate both teachers and learners.

advisory issue

3.22 Content planning

aspirational

The choice of topics and areas for teaching via the OLS (as opposed to in classroom), and the proportion of online to classroom teaching, is discussed with all relevant colleagues and is in line with the TI's strategic objectives and the overall learning/teaching strategy. **Integration is reviewed** at appropriate intervals as part of the curriculum planning exercise, and existing body of teaching delivered by OLS is reviewed and changed as necessary to maintain alignment with overall learning/teaching and assessment strategy.

effective

Choice of topics and areas for teaching via OLS, and the proportion of online to classroom teaching, is discussed with some colleagues. Choice is substantially aligned with TI's strategic objectives and/or overall learning/teaching strategy. **Integration is reviewed** at irregular or lengthy intervals as part of the curriculum planning exercise, and existing body of teaching delivered by OLS does not maintain consistent alignment with overall learning/teaching and assessment strategy.

poor

Choice of topics and areas for teaching via OLS is not discussed with colleagues. Choice is not aligned with TI's strategic objectives and overall learning/teaching and assessment strategy. **Integration** is not reviewed.

LEARNING CONTENT MANAGEMENT SYSTEM **Support for teachers**

Just as important as support for students! Unsupported teachers who struggle with the technology or the conceptual/emotional difficulties of teaching 'virtually' will produce poor-quality learning objects that do not engage learners and compromise their learning outcomes. Teachers should be resourced properly to create and deliver high-quality online learning objects.

advisory issue

3.23 Support for teachers

aspirational

Teachers are well supported in the creation and delivery of learning objects for online learning, including an institutionally-fostered awareness of good pedagogical skills/techniques for online learning and for the specific characteristics of the TI's particular OLS; good technical support to enable good quality of materials to be produced; good collaborative procedures with colleagues and online learning managers to produce inspiring, engaging materials. **Sufficient time and resource**, including remuneration, is dedicated to the input of staff in creating and delivering e-learning objects.

effective

Teachers are partially supported in the creation and delivery of learning objects for online learning, including an institutionally-fostered partial awareness of good pedagogical skills/techniques for online learning and for the specific characteristics of the TI's particular OLS; partial or inconsistent technical support to enable reasonable quality of materials to be produced; partial or inconsistent collaborative procedures with colleagues and/or online learning managers to produce materials. **The time and resources** (including remuneration) dedicated to the input of staff in creating and delivering e-learning objects may be not adequate or inconsistent.

poor

Teachers are not supported in the creation or delivery of online learning objects. No institutional awareness of good pedagogical skills/techniques for online learning and for the specific characteristics of the TI's particular OLS. No technical support to enable reasonable quality of materials to be produced. No collaborative procedures to produce materials. **No time or resources** are dedicated to the input of staff in creating and delivering e-learning objects.

MAINTENANCE AND ONGOING OPERATION **Risk register** *Good project management discipline insists on keeping a risk register; it is a key document in terms of anticipating possible emergency and disaster scenarios, and its regular updating will be linked with the* ***disaster and emergency recovery plan****.*

advisory issue

3.24 Risk register

aspirational

A written risk register is in place that follows standard risk register practice, tracking all current and all possible anticipated risks and according each a RAG status with mitigations. **The risk register is reviewed** and updated, by senior TI governance personnel where necessary, with actions charged to appropriate individuals, regularly and in a timely manner. **The risk register is owned solely** by the staff member with overall responsibility for the OLS, and its maintenance in an up-to-date state is explicitly the responsibility of this staff member. Risks are fully integrated with the disaster and emergency recovery plan.

effective

A risk register is kept, tracking some current and anticipated risks, with incomplete or partial mitigations. **Risk register is occasionally reviewed** and updated, and actions may not be charged to appropriate individuals. **Risk register is not owned** by a suitable member of staff, who is not explicitly charged with responsibility for its maintenance in a timely fashion. Risks are partially integrated with the disaster and emergency recovery plan.

poor

A risk register is not kept.

MAINTENANCE AND ONGOING OPERATION **Staff skills and knowledge** *The OLS depends on the timely and effective input of key staff. This item considers staff skills and knowledge, and suggests policies to improve and extend the pool of skills/knowledge that supports the OLS.*

advisory issue

3.25 Staff skills and knowledge

aspirational

All IT staff are suitably qualified and/or demonstrably skilled in the disciplines, skills and knowledge necessary to implement and maintain the OLS in good working order and implement development plans, and are appropriately resourced to carry out this work. **Skills and knowledge** are kept up-to-date at all times, and sufficient resource is dedicated to the updating of skills and knowledge. **Recruitment policy** improves upon current skills/knowledge and leaves no key skills gaps. Key IT staff terms of employment, including minimum notice periods and provision for statutory leave including sick leave, compassionate leave and parental leave, are written into staff contracts and reflect strategic importance of the OLS to the TI. **All general staff** using the OLS are suitably qualified and/or demonstrably skilled in the disciplines, skills and knowledge necessary to carry out their work in the OLS efficiently and effectively.

effective

Most IT staff are suitably qualified and/or demonstrably skilled to maintain the OLS in good working order and implement development plans, and are mostly resourced to carry out this work. **Skills and knowledge** are kept mostly up-to-date most of the time, and mostly adequate resource is dedicated to the updating of skills and knowledge. **Recruitment policy** mostly improves upon current skills/knowledge, and leaves no key skills gaps. Key IT staff terms of employment are mostly written into staff contracts and mostly reflect strategic importance of the OLS to the TI. **Most general staff** using the OLS are mostly qualified and/or demonstrably skilled in the disciplines, skills and knowledge necessary to carry out their work in the OLS efficiently and effectively.

poor

IT staff are not suitably qualified and/or demonstrably skilled to maintain the OLS in good working order and/or implement development plans, and/or are not sufficiently resourced to carry out such work. **Skills and knowledge** are not kept up-to-date, and inadequate resource is dedicated to the updating of skills/knowledge. **Recruitment policy** does not improve upon current skills/knowledge, and there may be key skills gaps. Key IT staff terms of employment are not written into staff contracts and do not reflect strategic importance of the OLS to the TI. **General staff** are not qualified and/or demonstrably skilled in the disciplines, skills and knowledge necessary to carry out their work in the OLS efficiently or effectively.

MAINTENANCE AND ONGOING OPERATION **Resourcing of ongoing system operation and maintenance** *A working OLS should have sufficient resource (staff skills and time, budget) to allow it to operate smoothly, in a way that encourages user confidence and satisfaction.*

advisory issue

3.26 Resourcing of ongoing system operation and maintenance

aspirational

Appropriate levels of resource (staff skills and time, finance) are dedicated and ringfenced to allow the OLS to continue day-to-day operation in good working order with minimum disruption to all users. **Content is updated** at appropriate intervals, in a timely fashion, and all content errors are corrected as quickly as possible.

effective

A level of resource (not necessarily corresponding to requirement), including staff skills/time and finance, is dedicated to allow the OLS to continue day-to-day operation in good working order with minimum disruption to most users. **Content is updated** at mostly appropriate intervals, with a degree of timeliness, and most content errors are corrected as quickly as possible.

poor

No resource is dedicated to allow the OLS to continue day-to-day operation in good working order with minimum disruption to users. **Content is not updated**; content errors are corrected without expediency.

MAINTENANCE AND ONGOING OPERATION **System specification** *This is a key part of business continuity for any disaster/emergency recovery plan; analogous to the building plans of a house that would allow it to be rebuilt after burning down. The more detailed a system specification, the more use it will be in a disaster scenario. It is important to keep this document up-to-date to reflect the current system specification.*

advisory issue

3.27 System specification

aspirational

A system specification is in place, using text, video, animated, audio and other means to describe accurately and in detail the structure and functionality of the OLS, including any third-party software or service provision and the integration mechanisms that exist between all different areas of the system. **Actual copies of code** are integrated into the system specification, or held in escrow or other suitable third-party facility, with appropriate provision for access as required. **System specification is comprehensive** enough to enable quick rebuilding of the entire OLS 'from the ground up' should occasion arise. **System specification is owned jointly** by TI senior management staff, kept securely off-site or in a suitably invulnerable location, and is kept up-to-date at all times to reflect the structure and functionality of the actual system in day-to-day operation.

effective

A system specification is in place, describing in detail the structure and functionality of the OLS, including any third-party software or service provision. **System specification is comprehensive** enough to enable rebuilding of the entire OLS 'from the ground up' should occasion arise. **System specification is owned jointly** by TI senior management staff, kept securely off-site or in a suitably invulnerable location, and is kept up-to-date at all times to reflect the structure and functionality of the actual system in day-to-day operation.

poor

A system specification is in place, describing the structure and functionality of the OLS including any third-party software or service provision. **Specification is not comprehensive** enough to enable rebuilding of the OLS. **System specification is not owned jointly** by TI senior management staff, kept off-site or in a reasonably invulnerable location, and is not or is only partially kept up-to-date to reflect the structure and functionality of the actual system in day-to-day operation.

MAINTENANCE AND ONGOING OPERATION

Disaster and emergency recovery plan (DERP) *This is the overarching document that pulls into play all the business continuity elements mentioned in the Advisory Issues section. Like all business continuity tools, it should be kept strictly up-to-date at all times; changes made to it should be reflected in the other business continuity documents, and vice versa.*

advisory issue

3.28 Disaster and emergency recovery plan

aspirational

A written disaster and emergency recovery plan (DERP) is in place, anticipating all possible disaster and emergency scenarios, with a detailed plan of action and corresponding resources for remedial action; such actions are written into staff contracts of employment and suitable provision, including remuneration, is made for the potential activation of such actions, including 'standby' rotas. **Includes a rigorous** and thorough communications plan to notify all users of incidents and progress of remedial action, including specified intervals for communication and corresponding resources for implementation of communication. **The DERP is owned jointly** by senior management staff at the TI, kept securely off-site or in a suitably invulnerable location, and is kept up-to-date at all times to reflect the structure and functionality of the actual system in day-to-day operation; corresponding resources are updated accordingly.

effective

A written disaster and emergency recovery plan (DERP) is in place, anticipating most possible disaster and emergency scenarios, with a detailed plan of action and corresponding resources for remedial action. **Includes a communications plan** to notify all users of incidents and progress of remedial action. **The DERP is owned jointly** by senior management staff at the TI, kept securely off-site or in a suitably invulnerable location, and is kept up-to-date at all times to reflect the structure and functionality of the actual system in day-to-day operation.

poor

A partial, incomplete or poorly thought-through disaster and emergency recovery plan (DERP) is in place, anticipating some possible scenarios, with a partial or incomplete plan of action and/or no corresponding resources for remedial action. **Partial or incomplete communications plan** to notify all users of incidents and/or progress of remedial action. **DERP is not owned jointly** by senior management staff at the TI, is not stored securely, and/or is not kept-up-to-date to reflect the structure and/or functionality of the actual system in day-to-day operation.

"We are stuck with technology when what we really want is just stuff that works."

Adams, D. (2002) *The Salmon of Doubt: Hitchhiking the Galaxy One Last Time.* London, Pan Books

BAAB would like to thank all those involved in producing the OLM:

Lakhbir Bhandal
Alison Gould
Roger Hill
Harriet Lansdown
Kay Leedham
Annie Milles
Felicity Moir
Petra Nannes
Pippa Sequeira
Caroline Squires
Celia Tudor-Evans
Helen Thomas
Frances Turner
Linda Wicks
Jen Winter
Cheng Hao Zhou

With particular thanks to Karen Charlesworth, who facilitated the training with great skill and brought clarity and understanding to a complex topic.

63 Jeddo Road, London W12 9HQ | 020 8735 0466 | www.baab.co.uk | baab@acupuncture.org.uk