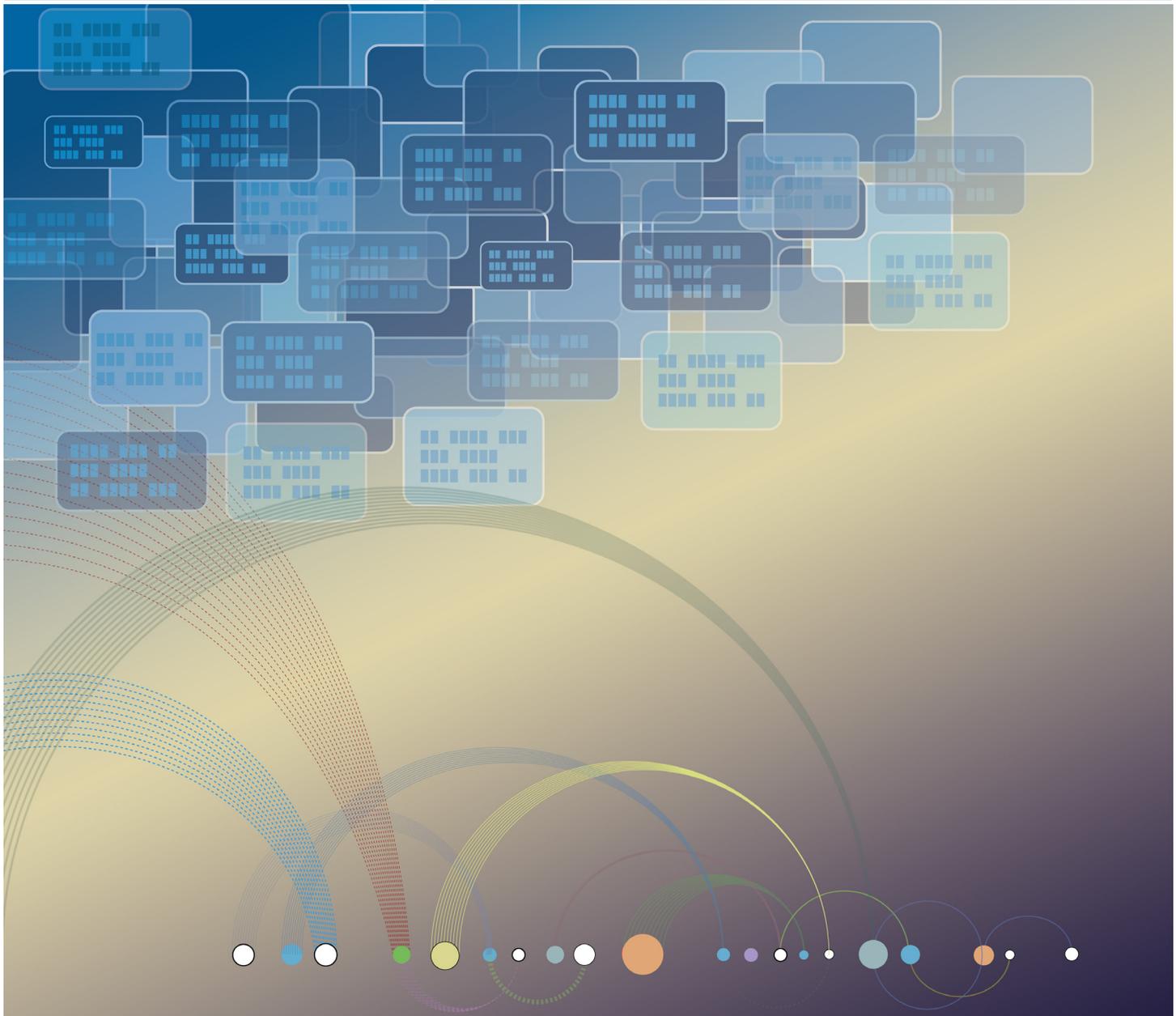


# Assessing with e-Ase



**Dr. Deeba Gallacher, Caroline Reid,  
Mike Mimirinis, Alex Chapman,  
Dr. Nicky Torrance & Agi Ryder  
The Educational Development Unit  
Middlesex University**

## How to use this guide

This guide provides information to support academic staff in transforming assessment practices underpinned by technology. It highlights how technology combined with sound pedagogy has the potential to enhance the student experience of learning, teaching and assessment, whilst recognising that in some cases the use of e-assessment may not be appropriate.

Drawing on the experiences, knowledge and understanding of the e-assessment project at Middlesex University, it offers a consideration of contextual, procedural and logistical factors that may impact when using e-assessment practices. Key issues for consideration when developing and implementing e-assessment are included along with the part played by policy and strategy. Examples of departmental case studies, an outline of the support available to staff and links to resources that may provide useful additional information are also included.

It is hoped this guide will support and encourage staff when they are considering how to transform current assessment practices using contemporary technology. The e-assessment project has been led and co-ordinated by the Educational Development Unit who have worked with academics from every Department and a number of University Services in rolling out and evaluating the impact of the introduction of e-assessment. The material contained within this guide therefore is a synthesis of experiences derived from multiple perspectives at the midpoint of the project and as such is a work in progress. We are keen to receive feedback from those who read and use this material to enable us to adapt future versions.

If you require further information please contact [elarning@mdx.ac.uk](mailto:elarning@mdx.ac.uk).

Design: John Parkinson

For more information contact:  
Deeba Gallacher  
[d.gallacher@mdx.ac.uk](mailto:d.gallacher@mdx.ac.uk)

# Contents

<b>SECTION 1 E-assessment: the context for change</b>	<b>1</b>
<ul style="list-style-type: none"><li>• Drivers for assessment change</li><li>• E-assessment processes</li><li>• Embedding and developing digital literacies</li></ul>	
<b>SECTION 2 Preparing students for e-submission</b>	<b>5</b>
<ul style="list-style-type: none"><li>• Modes of submission<ul style="list-style-type: none"><li>• Turnitin</li><li>• Oasisplus</li><li>• PebblePad</li><li>• Wikis</li><li>• Discussion board</li><li>• Learning journal</li><li>• Audio feedback</li></ul></li></ul>	
<b>SECTION 3 E-feedback</b>	<b>13</b>
<ul style="list-style-type: none"><li>• Capturing feedback outside e-submission</li><li>• E-reflection and feed-forward</li></ul>	
<b>SECTION 4 Preparing for the future</b>	<b>15</b>
<ul style="list-style-type: none"><li>• Validation of distance education programmes: curriculum and (e-) assessment</li><li>• Future trends</li></ul>	
<b>SECTION 5 Accessing resources</b>	<b>18</b>
<ul style="list-style-type: none"><li>• Educational Development Unit (EDU)</li><li>• Learning Development Unit (LDU)</li><li>• Library &amp; Student Support (LSS)</li><li>• Student Learning Assistants (SLAs)</li><li>• Graduate Teaching Assistants (GTAs)</li><li>• Toolkit</li></ul>	
<b>SECTION 6 Useful resources and references</b>	<b>20</b>
<b>SECTION 7 Glossary</b>	<b>22</b>



## E-assessment: the context for change

The move to e-assessment processes has been 'scaled up' considerably across the higher education sector in the last few years and this move inevitably raises two important questions: why e-assessment and why now?

Enhancement of the student experience was the key driver for the Academic Board's 2010 directive for Middlesex's institution-wide adoption of e-assessment practice, with the aim of enhancing:

- the feedback received by students
- student engagement with feedback
- students' accessibility of feedback records of student achievement through the use of online recording of coursework, feedback and reflections
- administrative processes through e-submission, receipting and storing coursework, and recording, accessing and storing feedback
- quality standards and processes.

Since 2010 a 'phased-in' approach to e-submission, e-marking and e-feedback of students' work has taken place, commonly known as the e-Assessment Project. This project aimed to move beyond the pockets of good e-assessment practice that were scattered across the institution, to a position where all students were given the opportunity to submit and receive feedback electronically.

Phase one of the project consisted of piloting these new arrangements with 64 programmes across all 24 departments, predominantly at Level 4, all undertaking forms of e-submission and e-feedback.

Phase two began in 2011/12 with all modules at Level 4 using technology to support the submission and feedback processes. During 2012/13 this has been extended to Level 5 and it is anticipated that by the end of 2013/14 all undergraduate programmes assessment processes will be supported by technology, as appropriate.

As modules have moved to using e-assessment academic staff have taken the time to consider the currency of their assessment methods and in some cases have adapted these so that they are more closely aligned with module learning outcomes, and learning and teaching strategies. They have been supported in the process by staff from the Educational and Learner Development Unit (EDU and

LDU) as well as the Library and Student Support (LSS). The student and academic voices have been important within this project, with feedback being sought during and at the end of every phase. This has enabled the experiences of both academic staff and students to shape and inform the next stage of the project as it has moved forward.

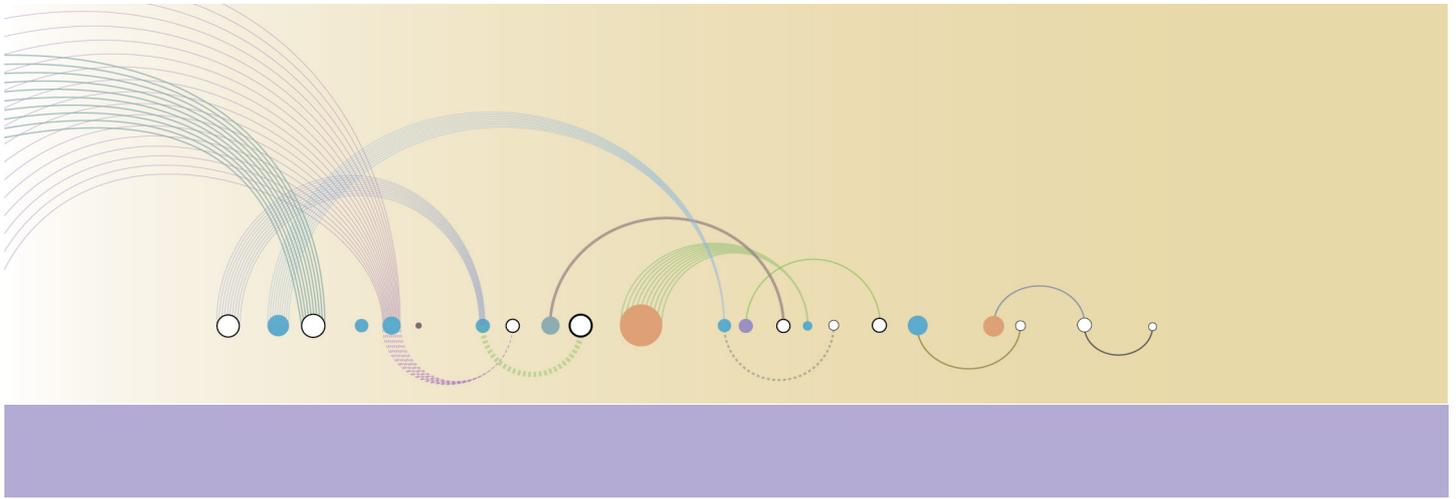
### The case for e-assessment

The University decided to implement e-assessment in response to a range of evidence and drivers for change. Several cycles of National Student Survey (NSS) results – across a majority of universities – demonstrate on-going student dissatisfaction with assessment and feedback practices. Institutions seek to address these issues by embracing a collective move towards e-assessments, as evidenced in pan-institutional projects such as the Re-engineering Assessment Practices in Higher Education (REAP, 2007), available at: <http://www.reap.ac.uk/>

With assessment at the heart of the student experience shaping their engagement with the curriculum, it is necessary for institutions to consider the ways in which learning technologies can be utilised to enhance the learning experience. A large-scale JISC (2009) survey of students' experiences of e-learning demonstrated that students are a key driver for adopting greater engagement with e-learning, a finding also echoed in Newland et al.'s (2012) study on e-submission, e-marking and e-feedback.

Students indicate that for them the benefits of e-assessment are the convenience of both submitting and receiving feedback online and helping them to store electronic records of feedback to view and reflect their learning. Additional benefits for students include using technologies in ways to develop students' existing digital literacy skills, essential to enhancing their employability (CBI, 2010). It cannot be assumed that all students are confident in using technologies. By incorporating technology in learning and assessment, the consequent engagement and therefore familiarity, can help to enhance these students' technological skills.

Furthermore, expectations from students are growing, with many students having experienced some forms of



e-assessment in a previous educational setting. With students using technologies for various other aspects of their lives, it is understandable that they may expect e-submission and e-feedback to be standard practice. Other benefits of e-assessment have also been identified for the introduction of e-submission (Newland et al., 2012):

- enhanced student experience
- responding to the student voice
- plagiarism detection
- efficiency gains
- green agenda.

There are, however, resources required for the setting up of e-assessment; these include considerations of institutional infrastructure, availability of appropriate equipment as well as investment in staff development. Whilst there is an initial cost, long-term gains in efficiency and student satisfaction are likely to be achieved.

### Defining e-assessment processes

There appears to be a lack of consensus in the literature at present in defining e-assessment, with the term often used to encompass e-submission, e-marking and e-feedback. The JISC guide 'Effective Practice with E-assessment' (2007) defines e-assessment as 'the end-to-end electronic assessment processes where ICT is used for the presentation for assessment activity, and the recording of responses. This includes the end-to-end assessment process from the perspective of learners, tutors, learning establishments, awarding bodies and regulators, and the general public'. In its broadest sense 'e-assessment' is the use of information technology for any assessment-related activity. E-assessment can present in many forms. It may be as simple as an electronic submission, may include e-feedback and, in a more holistic form, will wrap this up in e-reflection and feed-forward.

At Middlesex our vision and focus for the development and implementation of e-assessment is a broader notion of e-assessment, not focusing only on Computer Assisted Assessment and online testing, but on technology-enabled assessment and a range of processes that are involved. For the purpose of development and implementation at



Middlesex we have defined the processes as the following:

#### **e-submission**

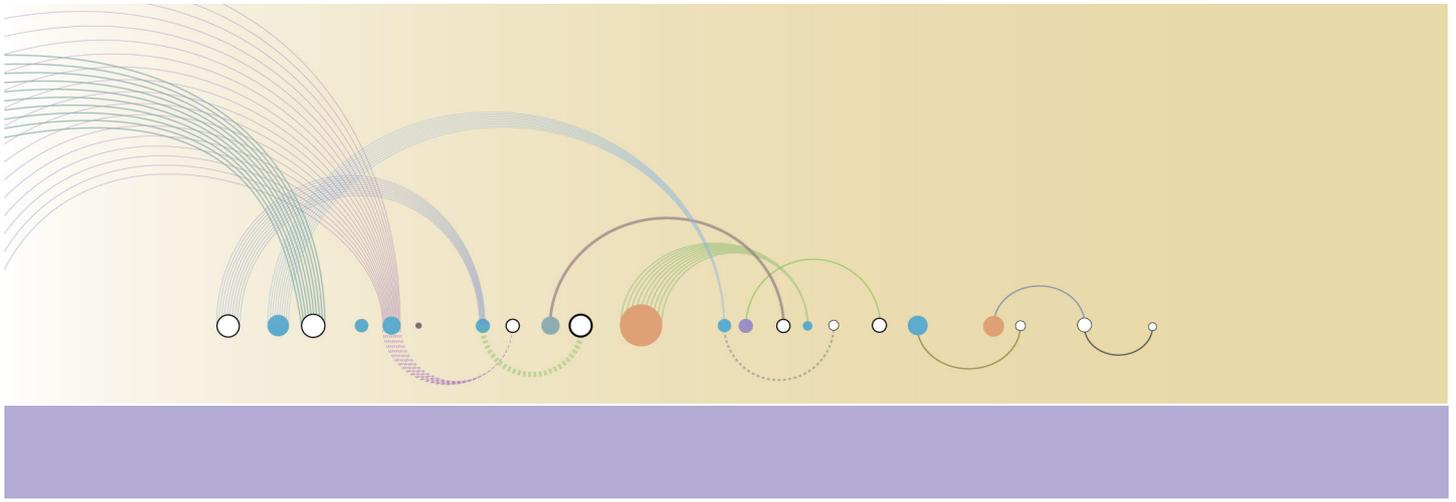
E-submission refers to the electronic submission of coursework, the collecting, receipting, sorting and distributing of coursework for marking. E-submission is module based and is the expected mode of submission of coursework for all modules and all students. Exclusions may apply for types of assessment that do not lend themselves to electronic submission.

#### **e-marking**

E-marking refers to staff utilising online marking tools (e.g., Gradebook, Audisec, etc.) to engage with marking in an online form which has traditionally been undertaken in a paper-based form. E-moderation is also expected with external examiners and access to student work is granted by the module leader.

#### **e-feedback**

E-feedback refers to the provision of feedback on student



work undertaken online through written feedback or using audio and/or video. As per current practice, initial feedback may/should be followed up in tutorials, seminars, one-to-ones, etc. It is intended that all students will receive formative and summative feedback electronically. Minimal requirements for the provision of feedback apply for all summative assessments.

### e-reflection

Reflection on assessment and feedback processes for all students will be structured through the use of learner development profiles and individual records of progression and achievement. At present the focus has been on e-submission, e-marking and e-feedback although it is intended that e-reflection will be introduced. It is also important to highlight at this point that this is not a linear process and each aspect is not dependent on a prior stage as a prerequisite, and each of these aspects of e-assessment may stand alone, for example, e-feedback may be provided in many situations where the work is not submitted electronically.

### Embedding and developing digital literacies

Digital literacies are discussed widely in higher education with the general consensus being that digital literacies should be developed as a part of the skills and attributes of graduates. However, what exactly are digital literacies and how do we develop these skills in our students? JISC (2010) proposes that digital literacies are equipping students with specific digital skills, as well as subject-specific use of technology to enable students to gain the skills and confidence they need to use digital technologies not only to support their learning but in the workplace. However, digital literacies are not only about having confidence and familiarity with digital tools, but also about understanding the context in which these are applied alongside critical thinking and application.

It also must be acknowledged that students come to university with digital literacies which have been developed in a variety of ways. A JISC survey (2009) of 3,500 students found that students have high expectations of digital technology in higher education stating it should be 'robust, flexible, responsive to their personal needs and available anytime and anywhere'.

At Middlesex we have our own digital spaces we encourage our students to engage with (e.g. My Learning, myUniHub etc.), however the ways in which we wish our students to interact with these may or may not be familiar to them. Therefore, a process of learning to learn online is also required. As literacies are not static with an end point, the skills of embedding and utilising digital tools and literacies are to be developed so that students can continue to build upon these lifelong skills. As far as our students' employability is concerned, the Confederation of British Industry (CBI, 2010) highlighted that digital literacies are essential for the workplace with over 90% of jobs requiring some form of IT competency. Higher education has a role to play therefore in helping graduates to develop the skills to be successful in finding employment.

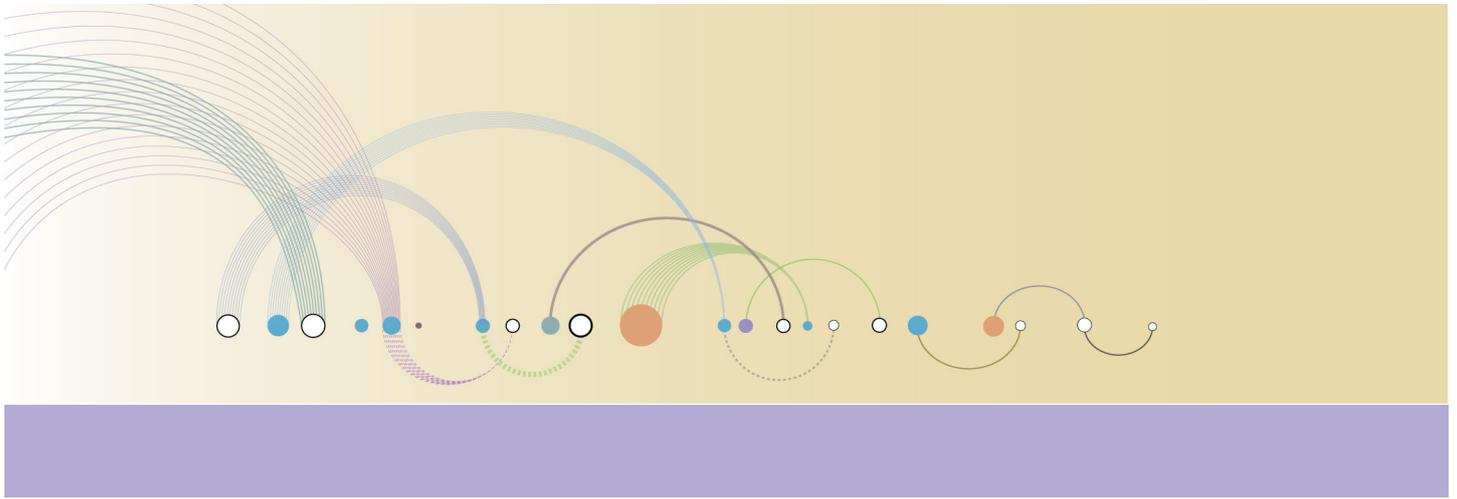
Within their 'Developing Digital Literacies' briefing paper, JISC (2012) state:

"Many learners enter further and higher education lacking the skills needed to apply digital technologies to education.

#### Benefits

The possibilities offered by the various e-assessment tools available provide academics with choice. This allows the choice of tools to be aligned with the learning and teaching strategy of the programme. Benefits of using e-feedback are listed below.

- Feedback can be released to students as soon as it is available in written, audio or video format.
- Students automatically receive their feedback rather than wait to collect it.
- Selective release of grades can be enabled based on students' engagement with the feedback.
- Despite the considerable time and effort put into creating feedback not all students currently receive/collect it. Instead, e-feedback is 'pushed' to students rather than students having to physically collect it.
- Marked scripts can be used to provide examples of the feedback given.
- Some forms of electronic feedback can be qualitatively richer and quicker to produce (e.g. audio feedback) and it is possible to record component grades for summative assessment in one place.
- Students are able to access all their feedback for a module in one place, from anywhere.

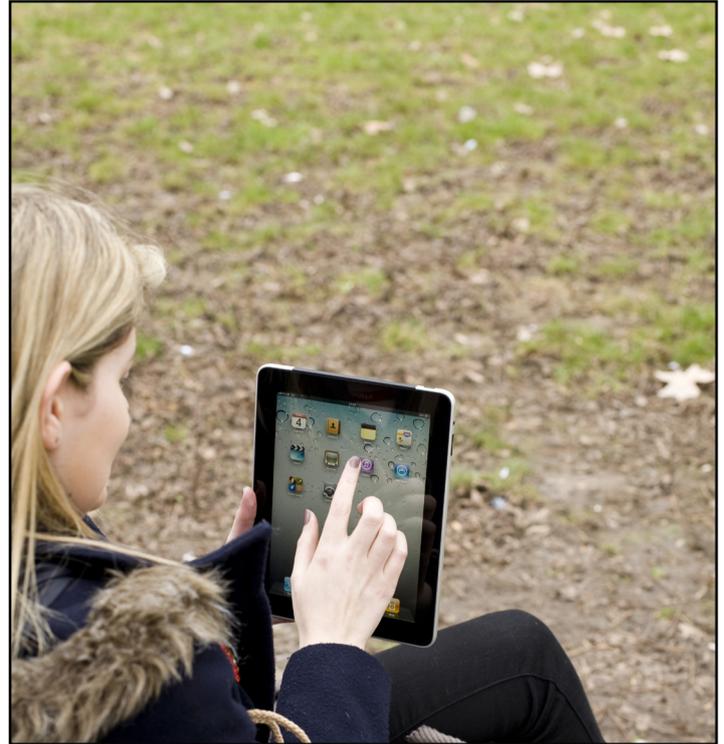


As 90% of new jobs will require excellent digital skills, improving digital literacy is an essential component of developing employable graduates. Courses that embed core digital skills, as well as subject-specific use of technology, enable students to gain the skills and confidence they need to use digital technology not only to support their learning but also in the workplace.”

E-assessment acts as a mechanism whereby the development of digital literacies can be embedded within a curriculum. E-submission tools can enrich digital literacies which should be aligned, addressed and assessed alongside more traditional learning outcomes.

### Policy and frameworks

E-assessment applies to all aspects of University life. We adapt them, however, as an iterative process. Implementing e-assessment therefore requires the development of a clear policy and regulatory framework to guide and establish practice. Embedded within this are the relevant legislation and standards requirements that underpin the quality of higher education assessment practice.



### Additional resources on digital literacies

<http://www.jisc.ac.uk/publications/programmerelated/2009/respondingtolearners.aspx#downloads> – Developing digital literacies

<http://www.guardian.co.uk/higher-education-network/blog/2012/may/15/digital-literacy-in-universities>

### Relevant legislation and standards to guide e-assessment

- E-assessment strategy
- Learning, Teaching and Assessment strategy
- Curriculum design guidance
- Academic strategy, APS 15, Regs section M 'Code of assessment practice'
- QAA quality code



## Preparing for e-submission

The University supports a variety of technologies designed to facilitate a wide range of learning, teaching and assessment strategies. It must be stressed that technology is not the driver of curriculum design and should not dictate the assessment strategies employed on a programme; the technology is simply a tool to facilitate and support the most pedagogically appropriate method of assessment. The choice of technologies is entirely dependent on the curriculum and the learning, teaching and assessment strategies employed and should not be seen as an 'add on'. On the contrary it should be embedded within the curriculum, and, with this in mind, it should be fully considered as part of the University validation/review process.

### Tools that may be used for e-submission

Support, guidance and training for all the tools is provided by the Educational Development Unit (EDU) at: [elearning@mdx.ac.uk](mailto:elearning@mdx.ac.uk).

### Turnitin

#### What is it?

Turnitin allows the e-submission, e-marking, checking of originality, and provision of e-feedback for individual pieces of written coursework.

#### How can it be used?

Turnitin can be used to facilitate the online submission of a variety of written text-based coursework such as essays, case studies, critical incidents, reports and dissertations.

At Middlesex we have integrated Turnitin with My Learning and a Turnitin submission drop-box can be added to any module or programme area within My Learning.

My Learning is the name students will know their VLE by. Some programmes will have moved to Moodle and others will still be in OasisPlus. Turnitin has different capabilities in Moodle and in Oasisplus but the principle of using Turnitin in a developmental fashion is the same.

Turnitin can be a useful tool in providing a focus for the development of good academic writing skills and as

a deterrent to plagiarism, however it does not offer a solution to plagiarism.

Turnitin is not a replacement for good academic judgment or the teaching of academic writing skills.

The overall % match on a similarity report is not an indication of plagiarised work and there is no set limit for this %.

It is advised that students are given the opportunity to submit as many times as they wish up until the due date of the assignment

It is considered good practice to give students a formative opportunity to submit to Turnitin before they are expected to submit summatively.

In line with the University's developmental approach, open access to Turnitin will be provided to all students through the Learner Development Unit (LDU) and Middlesex University Students' Union (MDXSU).

#### What are its limitations?

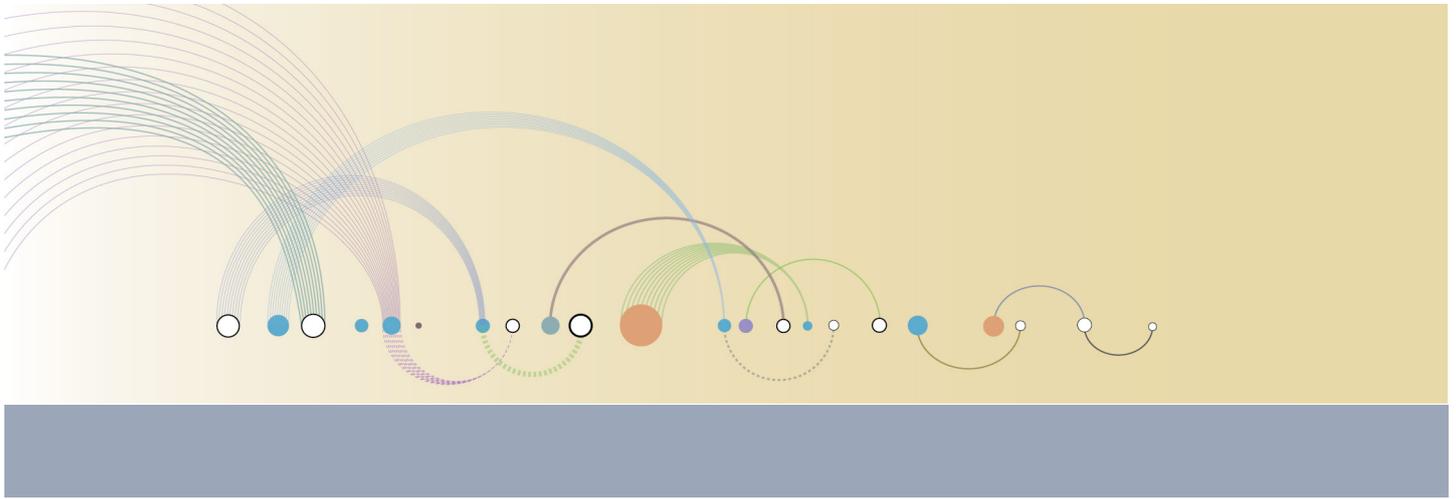
Turnitin currently is not suitable for group work as it only allows an individual student to submit coursework (OasisPlus)

Turnitin will not accept certain document formats such as PowerPoint or Excel (Moodle and OasisPlus).

Turnitin is not capable of taking a collection of documents (OasisPlus).

In addition, Turnitin does not:

- detect plagiarism from hard copy books or sources that are not available online
- search password-protected essay banks
- detect plagiarised work that has been translated from a non-English source
- identify plagiarism of ideas
- detect plagiarised mathematical equations
- identify ghost-written essays that have been specifically written to beat Turnitin.



### **Case study: Integrating Turnitin in Midwifery**

Introducing e-assessment involved students' summative work of a group of Midwifery students in their foundation year. The group consisted of 46 students all submitting their first summative assessment via Turnitin. It was hoped that this method of submission would be a more efficient way of marking in relation to time management, and also the practicalities of being paperless, without having 46 folders to potentially store within the department. It would also be a mechanism of being able to provide instant feedback to the students. The process of e-assessment began by forming a drop box on Turnitin for the students to submit their summative assignment.

The first stage was the formation of a pilot drop box so the students could practise submitting their work prior to submission to allow for learning and any difficulties with the process to be addressed prior to the final drop box and submission. Once the students submitted into the drop box, teaching staff embedded their work on Turnitin. In order to facilitate an effective method of feedback, teaching staff cut and pasted the marking criteria feedback sheet into Turnitin. This enabled them to type straight into the mark sheet which the students were familiar with when submitting an assignment. The completion of the feedback proved to be effective, however transposing of the mark sheet into Turnitin required teaching staff to complete the grids in the previous method of feedback and it proved to be a time consuming exercise. Overall, the students expressed that they found the system to be effective; their positive comments were received verbally and by email.

### **Things to consider**

Each module leader is responsible for creating and managing the Turnitin assignment drop box. It is important to ensure that all those involved in marking know how to interpret originality reports, how to give feedback through Turnitin's GradeMark tool and where to get the appropriate support.

Have you thought about how you are going to introduce students to your assessment and Turnitin? You could speak to the LDU for advice on supporting your students with academic writing skills.

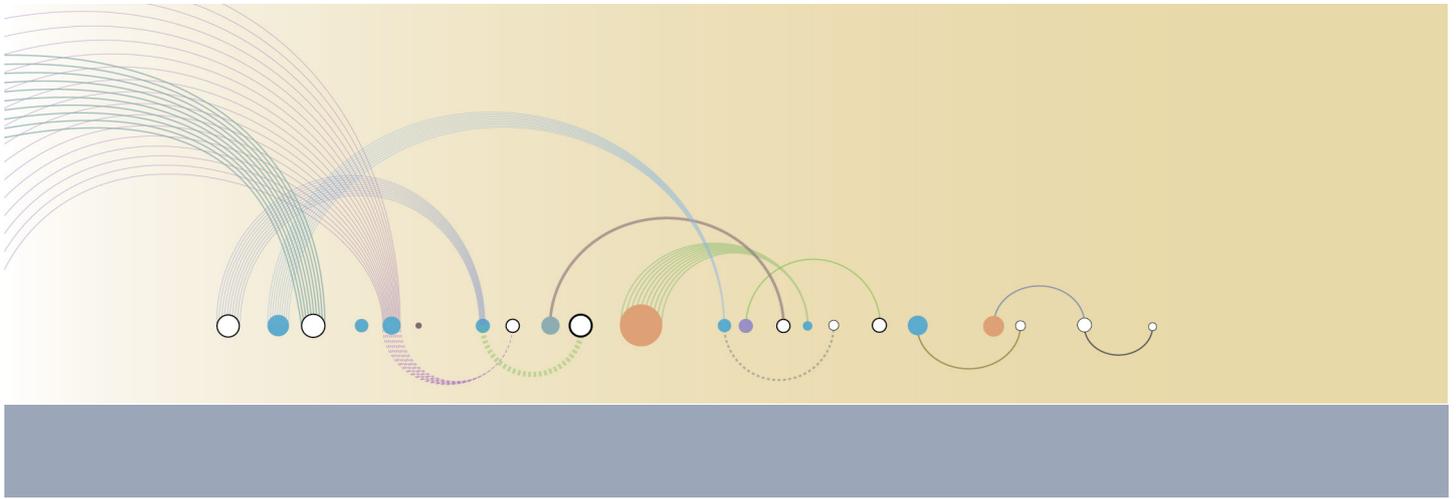
Have you considered how you will deal with students who need to resubmit coursework? You will need to make provision for them to do so through Turnitin.

Academic staff are responsible for introducing assessment to their students and if Turnitin is being used it should form part of that introduction. Students should be guided as to how to submit and access feedback as well as details on where to find the appropriate support.

### **Case study: Summative and self-assessment in Media for Advertising and Marketing**

Second year students enrolled on a Media for Advertising and Marketing programme, were asked to upload their formative and summative assessments to My Learning via Turnitin. In addition, as part of an exercise where the students were asked to undertake research in groups and present their findings in a presentation, the journal entry function was also utilised for self-assessment and tutor feedback. The main reason for using e-assessment was to find a more effective way of delivering high-quality feedback in a timely fashion. The secondary objective was to explore the various functions available through Turnitin for enabling self-assessment. Marking was carried out using Turnitin and GradeMark. Submission and feedback differed only in so far as they were conducted electronically. Feedback followed the same format as previous years insofar as students were provided with formal, written comments on the strengths and weaknesses of their assignments.

Whilst a few students experienced difficulties with uploading their work, it was felt that students benefited from the fact that they actually received feedback, rather than it languishing on lecturers' desks indefinitely.



## Assignment Tool (Oasisplus)

As an alternative to Turnitin, Oasisplus/My Learning can also facilitate the e-submission of coursework.

### What is it?

The 'assignment tool' enables the e-submission, e-marking and provision of e-feedback on both individual and group coursework.

### How can it be used?

The assignment tool allows for the efficient creation and management of group or individual assignments. It also allows students to submit a wide variety of file types from Word, PDF, PowerPoint, Video formats, images, audio and web pages. Unlike Turnitin, the assignment tool also allows the submission of multiple files, so it is suitable for assessments with a number of separate components. The assignment tool allows you to publish student submissions to the entire class, giving students the opportunity to peer review and see examples of good work.

### What are its limitations?

The assignment tool does not check for potential plagiarism and does not have the ability to create 'drag and drop' comment banks to provide feedback.

### Things to consider

The module leader is responsible for setting up and managing the assignment tool.

Make sure that the link to the assignment drop box is clearly labelled and identified to students.

Students should be guided as to how to submit and access feedback as well as details on where to find the appropriate support.

The assessment criteria should be provided to students alongside the assignment drop box; this can be done by either attaching these as a Word document, or by using the description option when setting up the drop-box, or by using a Rubric.

## PebblePad

### What is it?

PebblePad is a personal learning space and an e-portfolio system that allows students to produce a collection of digital assets and then present these for formative or summative assessment, Personal Development Planning (PDP) and employability. Assets may include reflective journals, complete portfolios of work, personal development planning activities, records of work placements etc.

### How can it be used?

PebblePad can be used to record, reflect, review, and share students' thoughts, achievements and plans related to any aspect of their learning both in and out of the University. PebblePad provides scaffolding to help users create records of their learning and achievement. 'Gateways' is the space where learners, organised into groups or sets on workspaces, will typically submit their assets for feedback or peer review. Gateways support activities like external review, grading and assessment archiving. Items can be shared with trusted individuals, published to group pages, or made public. Over time users can create, store, and review multiple assets which can be aggregated into presentational 'e-portfolios' to provide rich stories of learning or achievement.

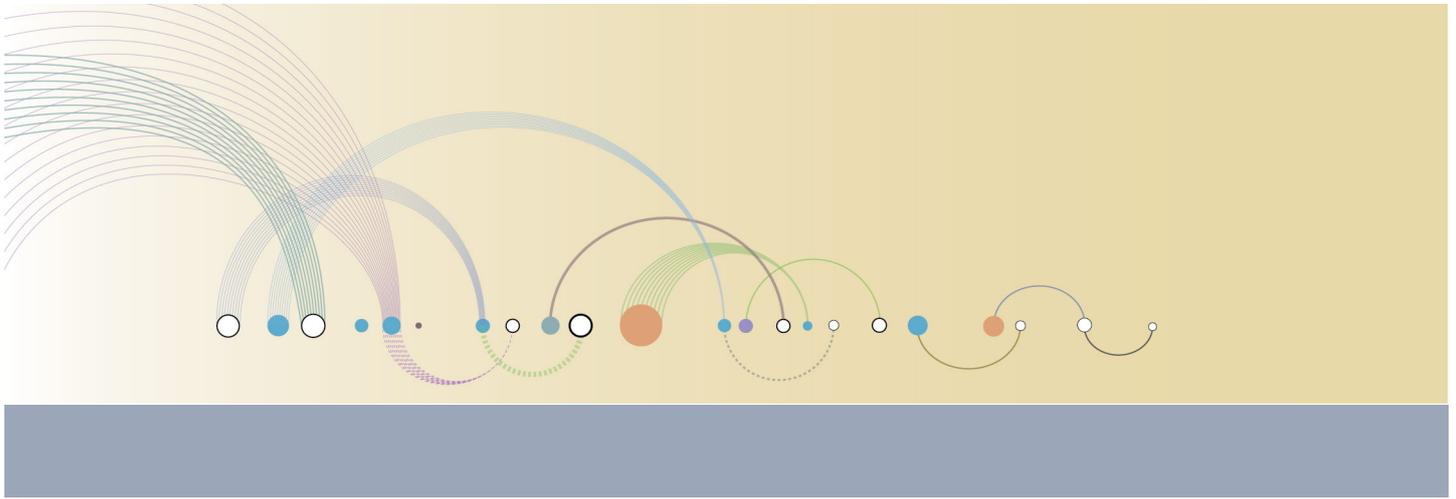
### What are its limitations?

Teaching that relies on making large amounts of content available to students may not be adequately supported by a portfolio-based approach.

### Things to consider

More than a technology tool, portfolios are also a pedagogical approach.

- Will it be used for formative or summative assessment?
- What content is private and what is made public?
- Will peer assessment within PebblePad be beneficial for your students?



## Wikis

A wiki is a type of website that allows people to work together on a document or a project. A wiki has a simple built-in web page editor and its core application is that of being a collaborative tool. Wiki pages are asynchronous in nature and can only be edited by one person at a time. Unlike email and more like discussion boards, the content of a user's work is disseminated to all members of the group or, if fully public, to the public domain.

### How can it be used?

Wikis are ideal for facilitating group work and can be used in a variety of learning, teaching and assessment scenarios. Student collaboration is an ideal scenario to employ a wiki; for example a group assignment could be set so that students in groups develop their assignment submission

### Case study: Enhancing student learning with wikis

Wikis were adopted in the teaching of final year Biosciences students with the aim of developing online presentations. Students' contributions gradually evolved into a growing textbook with each new cohort adding new material. The use of the wiki as an assessment tool contributed greatly to improved student satisfaction and achievement, and resulted in a change to the learning culture on the module. Making a wiki effectively for students required the following:

- tutor as well as student commitment
- designing an appropriate assignment conducive to (online) group work
- aligning the task to learning objectives and assessment
- allowing a sufficiently long time frame for the assignment to be executed
- describing the assignment, putting students into groups, setting out rules, deadlines and providing motivation and encouragement
- weekly monitoring of student activities
- providing timely feedback.

Watch the video:

<http://www.play.mdx.ac.uk/videos/4jk0>



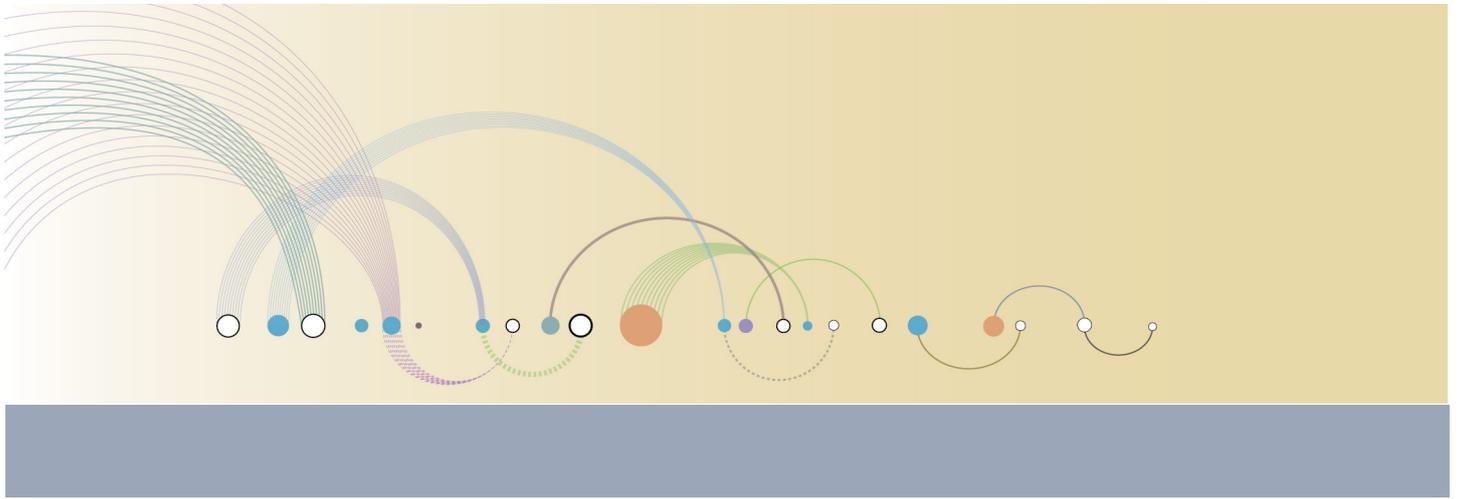
on a wiki page, groups in the cohort can be given different assignments to work on and students can view and learn from each other's knowledge and experience.

Wiki-based assignments or exercises may not achieve a desired outcome if any of the above elements in the case study are not given adequate attention. It is important for the tutor to evaluate the effectiveness of the activity and to decide if it achieves its intended outcomes in helping students to learn and reflect, and to evaluate if the students find using a wiki a useful tool to support their learning.

### Things to consider

You may wish to consider the following questions prior to using wikis for your teaching:

- What is the difference between a wiki and a blog? Which one is more appropriate in your case?
- What kind of academic work is appropriate for collaborative editing with a wiki?
- What will be the level of permissions given to various user groups in a cohort or group?



## Discussion board

### What is it?

A discussion board is a simple-to-use tool which allows for the construction or continuation of a dialogue between persons studying on a particular module or course.

### How can it be used?

Within a tutor-led discussion, a tutor will construct topics under which students discuss and explore specific areas of the curriculum. Using online discussions, for example, with traditional learning activities such as reading, literature searching, reflecting on practice etc., can be a powerful way of enabling students to reflect outwardly and develop effective collaboration and teamwork skills. Student-led discussions will typically be more open and act as a mechanism for students to share resources and ask questions of their peers and tutors. Discussion boards can be used as an excellent medium through which to encourage and enhance students' peer marking, mentoring and reviewing as well as their collaboration skills.

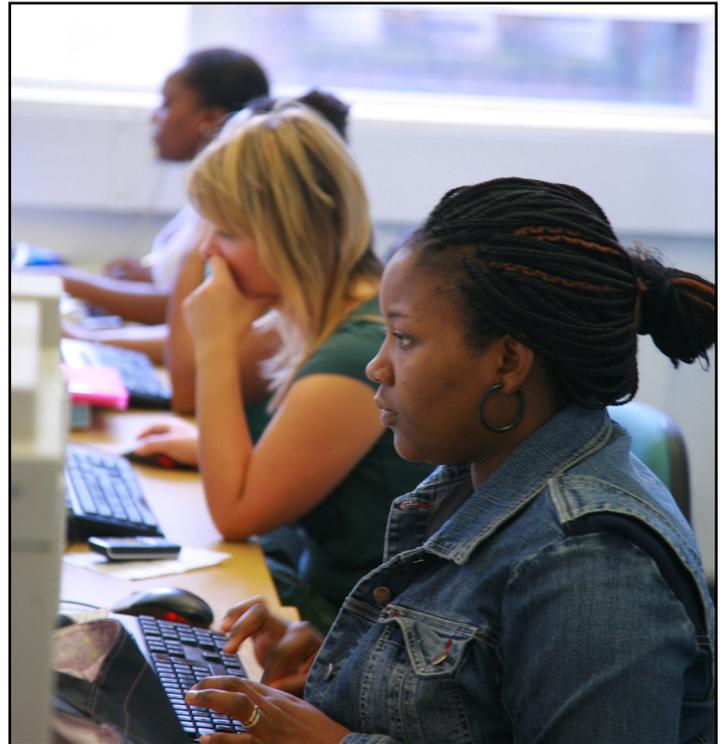
*Guldberg and Pilkington (2007) found that the manner in which the discussion question is posed determines the pattern of discussion. Linking discussion topics closely to learning outcomes could ensure that discussions culminate in developing desired skills and knowledge. Moreover they claim that developing discussion skills among students could reduce the need for tutor intervention.*

### What are its limitations?

The main limitation of the online discussion board is the same as within face-to-face discussions - participation. Not all students will be ready or willing to actively participate in a discussion in which their views are recorded and can potentially be critiqued by others. Some students may feel that the point they were wishing to raise has already been offered by a peer and so do not contribute to a certain topic. In order to mitigate this it is possible to keep replies private until all students have offered a post.

### Things to consider

If used in assessment think about how marks will be allocated. Quantitative marking (marks for making x amount of posts) may encourage initial interaction upon the discussion board but may also motivate surface



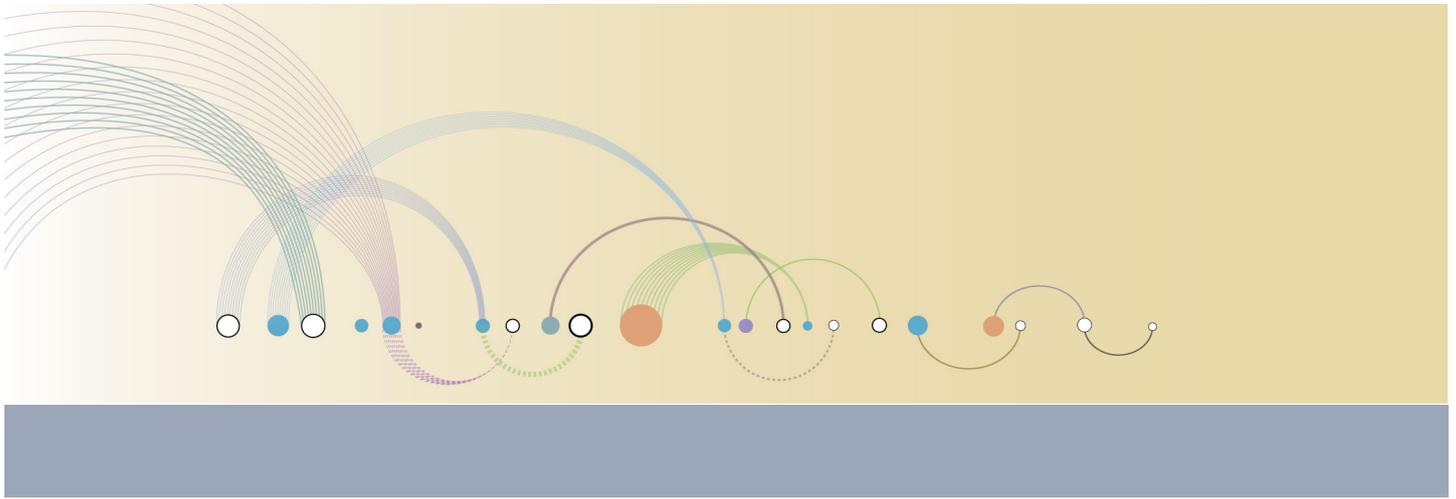
learning. Qualitative marking (marks allocated for quality of post within the context of the dialogue), should mitigate this and encourage students to reflect upon their learning. The following questions are important:

- What is the purpose of the discussion board?
- Will it be used for assessment or purely to facilitate dialogue?
- Will it allow public discussion or will posts be private?
- If assessed, how will marks be allocated?
- Will the discussion board be tutor or student led?

## Learning journal

### What is it?

A learning journal is an online tool through which students can collect assets (feedback, pieces of work external evidence) and reflect upon how these fit with their learning processes. It is usually used by a student to record and reflect upon their progress, for instance, any thoughts or questions that arise from their learning, any problems, solutions, ideas and both good and bad experiences encountered.



*Reflective journal writing increases the learners' awareness of their own thought processes, increases their mindfulness of the situations they find themselves in and helps them to develop strategies to handle situations more efficiently and become independent learners.*

**How can it be used?**

In higher education, critical reflection on daily practice is encouraged to analyse, evaluate and develop deeper understanding of the knowledge being constructed and its 'fit' into the wider context. It helps to link theory to practice, learn from experience and is a vehicle for personal development over time. Although reflective journals encourage independent learning, they are sometimes shared with teachers for guidance and feedback. Learning journals can be student led whereby the student curates the journal in a manner they see fit and reflect upon any element of their learning they wish. A learning journal can also be focused through a tutor-given directive in order to encourage students to reflect upon their learning for a particular purpose e.g. employability.

**What are its limitations?**

The main limitations with using online journals relate to the students' technical knowledge. Students need to be able to upload and curate different forms of media in order to create a holistic journal. Reflection is also a higher order skill which some students may need help and support in developing. This should be appreciated when thinking how and when to embed a learning journal within a course.

**Things to consider**

You may find the following questions useful.

- What is the purpose of the learning journal?
- How often will I be contributing and offering feedback?
- How does this reflection fit into the work I am asking of my students?
- Will reflections be assessed?
- How will I ensure that my students feel technically able to use their learning journal?



**Audio feedback**

**What is it?**

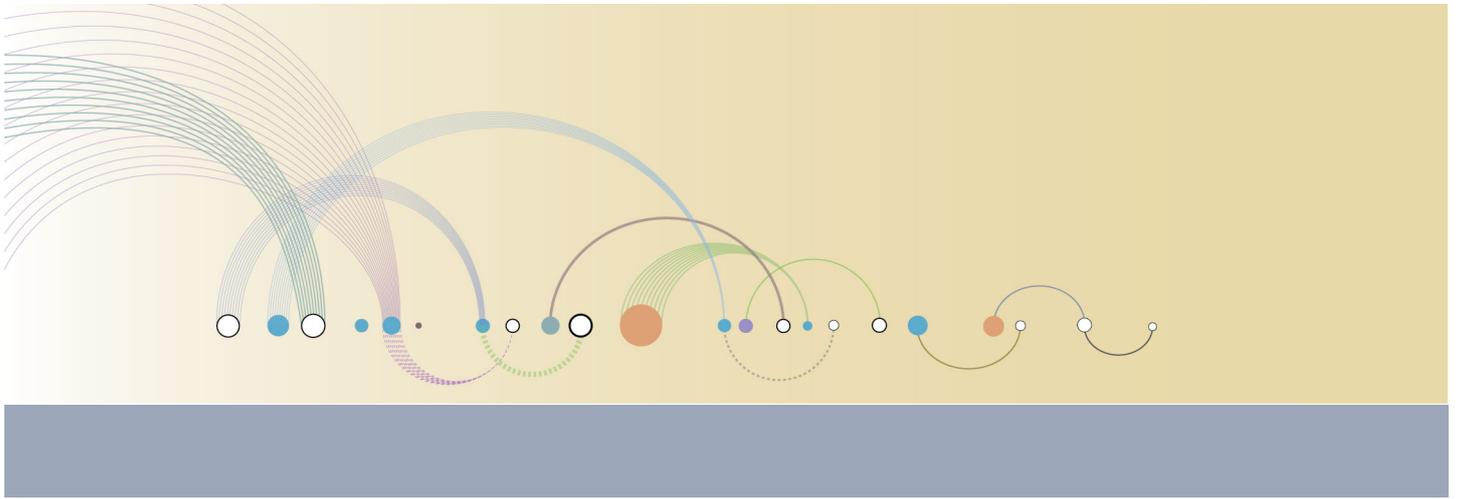
Feedback is recorded and delivered to students as an audio file, instead of delivering feedback upon assessments (both formative and summative) in the written form.

**How can it be used?**

Face-to-face individual feedback is usually not possible due to time and organisational issues. Results from the NSS student experience report 2008 suggests "only 25 per cent of students receive individual verbal feedback on their assessments, compared with 71 per cent who want individual verbal feedback" (NUS, 2008). In instances where face-to-face meetings are not possible, audio feedback provides an opportunity to meet this expectation of individual verbal feedback.

**What are its limitations?**

The main limitation to audio feedback relates to access. The tutor needs to record and make available the files in a format which will be easy to access and listen to on readily

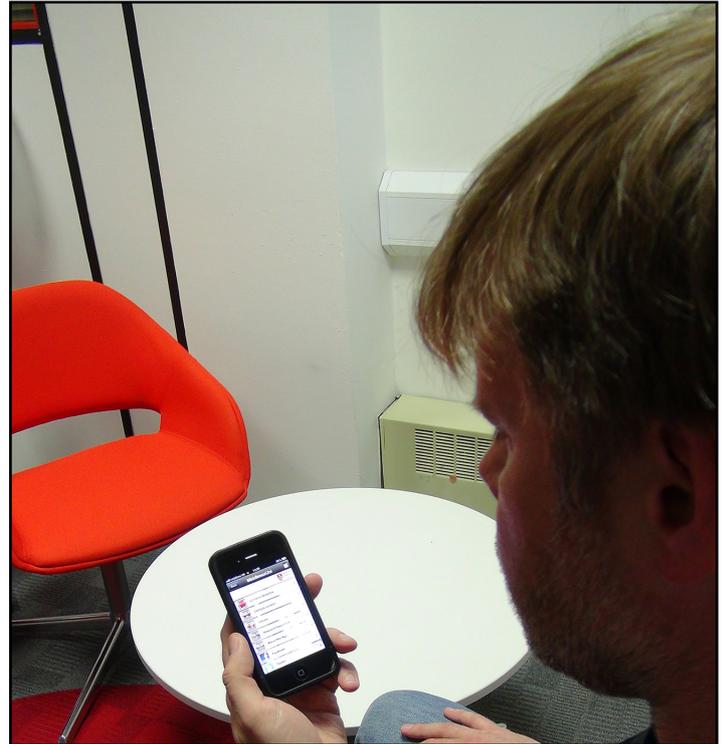


available computers. The tutor should not expect students to need to purchase new hardware in order to access and listen to obscure file types. The tutor should also be clear regarding the content of the feedback. This will lead to a more natural delivery with fewer pauses and mistakes.

### Things to consider

Prior to introducing audio feedback, consider the following questions.

- In which format will I record the feedback?
- How will my students receive and access their feedback?
- Do I need to return marked-up scripts as well?



### Case study: Audio feedback for the Postgraduate Certificate in Higher Education

Audio feedback was given to students of the Postgraduate Certificate in Higher Education with the aim of improving the practice of teaching observation feedback. The programme team explored the potential of audio feedback post teaching observation as well as audio feedback as a vehicle for enhancing the reflective process in a way that the written word does not. The catalyst for this change of practice came from a desire to save time while also seeking to explore alternative approaches to giving feedback through the use of technology. Following the teaching observation and ensuing discussion the audio feedback was recorded and made available to the participant within an average of 2-4 days. Audio feedback sought to capture both the observer's feedback and the discussion that took place between observer and observee. A brief written report was given to the observee immediately after the observation which was referred to in the audio feedback. The following benefits emerged from students' evaluations.

**Meaning:** All the staff agreed that audio feedback allows for nuances of meaning to be conveyed thus giving it an advantage over written feedback.

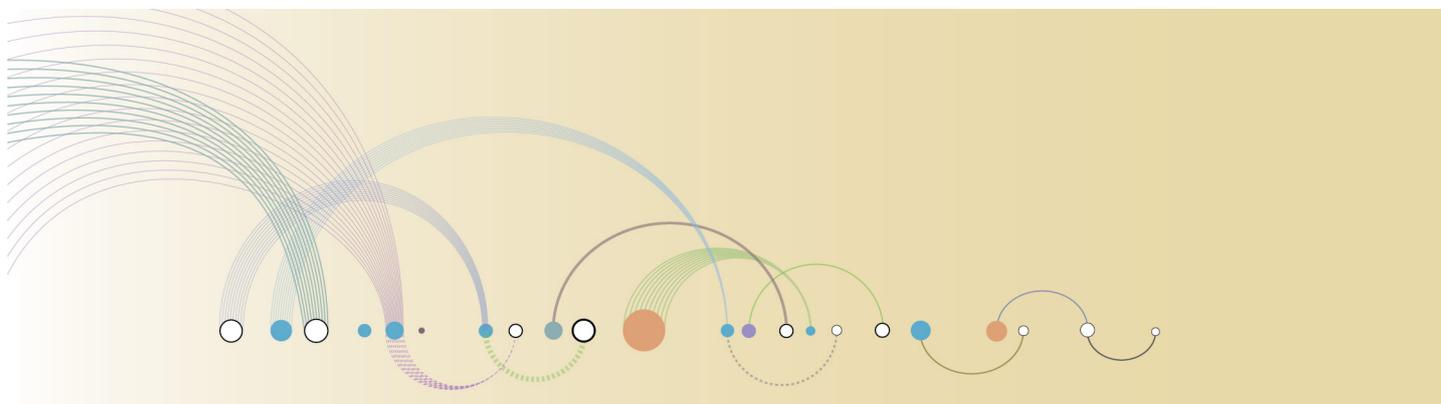
**Flexibility:** Audio offers the possibility of listening to it anytime, anywhere.

**Longevity:** Audio files are regarded as having better storage potential than paper and offer opportunities to listen to over and over again.

**More in-depth feedback experience:** Participants could and often did listen to it again, pause and think about what was said and take notes.

**Engagement:** Good quality of the audio recording which made it easy to listen to as this rendered the voice clear and audible. Individual and personalised feedback resulted in more intimate person-to-person communication.

**Ensuring deeper reflection:** a succinct and precise chronological narration recreated the experience which made participants evaluate and re-think how they give feedback to their own students.



## Overview of assessment tasks and e-submission, e-marking and e-feedback processes

The table below represents an overview of assessment tasks and the technologies used to facilitate e-submission, e-marking and e-feedback.

Assessment task	e-submission	e-marking	e-feedback
Written text format, Essay, Case study, Critical incident report, Lab report, Book review, Research reports	Turnitin	GradeMark, Rubric	Turnitin GradeMark
	My Learning assignment drop box	Track changes in Word, Feedback sheet, My Learning Rubric, Notability in PDF, Audio	My Learning assignment drop box
	Email	Track changes/comments in Word, Attached feedback sheet, Notability in PDF, Audio	Email
Reflective account	My Learning journal tool, My Learning Blog tool, Webfolio PebblePad, External blog tool, Blogger, Wordpress		
Learning log	My Learning journal tool, My Learning Blog tool, Webfolio PebblePad, External blog tool, blogger, Wordpress		
Dissertation	Turnitin	GradeMark, Rubric	Turnitin GradeMark
	My Learning assignment drop box	Track changes/comments in word, Feedback sheet, Notability in PDF, Audio	My Learning assignment drop box
<b>Practical</b>			
Presentation	My Learning assignment drop box	Audio, Feedback sheet	Email, My Learning drop box
Demonstration		Audio, Feedback sheet	Email, My Learning drop box
Performance		Audio, Feedback sheet	Email, My Learning drop box
OSCE		Audio, Feedback sheet	Email, My Learning drop box
Poster presentation	My Learning assignment drop box	Audio, Feedback sheet	My Learning drop box, Email
Group work	My Learning assignment drop box	Track changes in Word, Feedback sheet, My Learning Rubric, Notability in PDF, Audio	My Learning assignment drop box
Portfolios	PebblePad	PebblePad	PebblePad gateway
Placements	PebblePad, Oasisplus learning journal	PebblePad gateway, My Learning learning journal	PebblePad gateway, My Learning learning journal
Discussions	My Learning discussion board	Graded discussions/comments on My Learning discussion board	Graded discussions/comments on My Learning discussion board
Artefacts/Products		Audio, Feedback sheet	Email, My Learning mail tool
Teaching observation		Audio, Feedback sheet	Email, My Learning mail tool
Multiple choice questions (MCQ)	My Learning assessment tool	My Learning assessment tool and Gradebook	My Learning assessment tool and Gradebook



## E-feedback

### Capturing feedback outside of e-submission

Due to the value of rich timely feedback in the student's learning journey it is of importance to realise that an exemption from e-submission should not be seen as an exemption from the entire process. The benefits of e-feedback and the opportunity to support e-reflection are still open within assessment processes in which e-submission of work is not an option for example: presentations, critiques, OSCEs etc.

The use of electronic forms of feedback, be it written – leveraging such technologies as apps on a tablet, or audio-recording either tutor comments or a feedback conversation between tutor and student, can be extremely valuable in creating a receipt of the feedback, as well as offering feedback to students in a medium to which they can return for reflection purposes at a time and within a location which suits them.

### E-reflection and feed-forward

#### E-reflection

E-reflection in the context of this guide means the development of student-centred processes for reflection on feedback. The aim of promoting e-reflection is to develop students who reflect and act on the feedback received in order to improve their performance and achievement. In this sense the process of assessment and feedback can be conceived as a conversation between students and their tutors.

#### Feed-forward

Feed-forward is often used to describe feedback that points towards what to do next, how to improve work in future rather than simply looking back at what has or has not been achieved. Feed-forward can be regarded as a type of formative assessment as it is concerned with improving future work often received while the work is still in progress and thus the student can make appropriate adjustments. The timeliness of such feedback can help students improve and adjust their work and thus maximise the impact/benefit of feedback on their learning.



### Examples

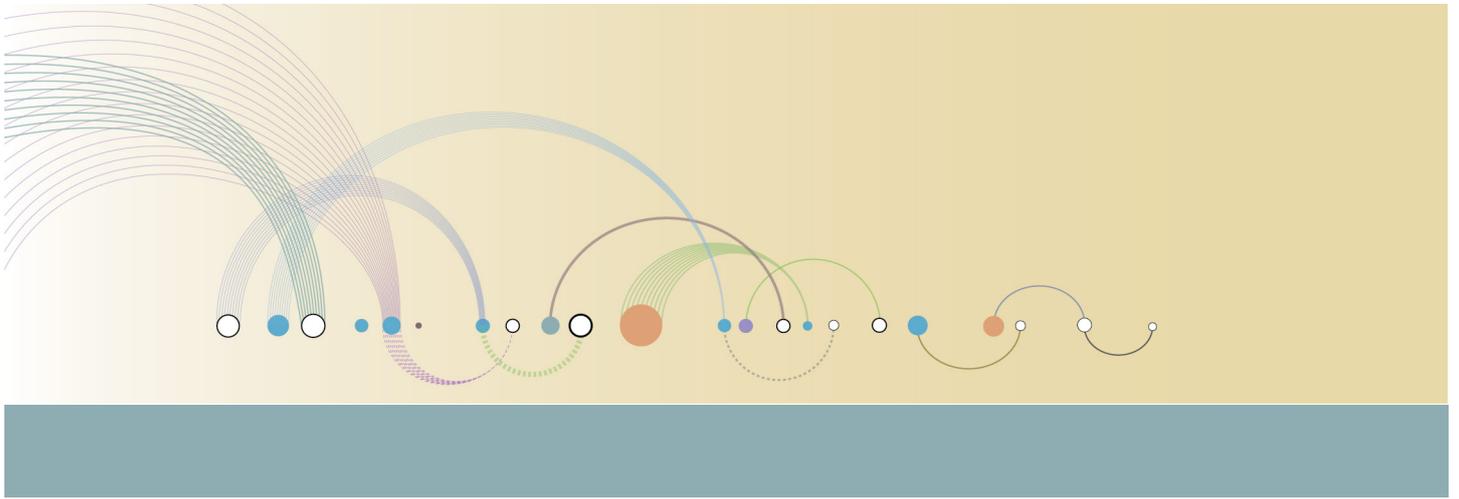
Westminster University's project Making Assessment Count (MAC) that aims to engage students more with the feedback they receive in order to maximise its benefit to their learning. More information is available at: <https://sites.google.com/a/staff.westminster.ac.uk/mac/>

Their eReflect process uses the SOS model of feedback centred around reflection and discussion leading to action and development and it consists of three stages: 1. Subject specific 2. Operational 3. Strategic.

It contains steps listed below.

#### Subject specific

- Students submit a piece of coursework to the module team.
- The coursework is graded and feedback is provided on the scripts.



### Operational

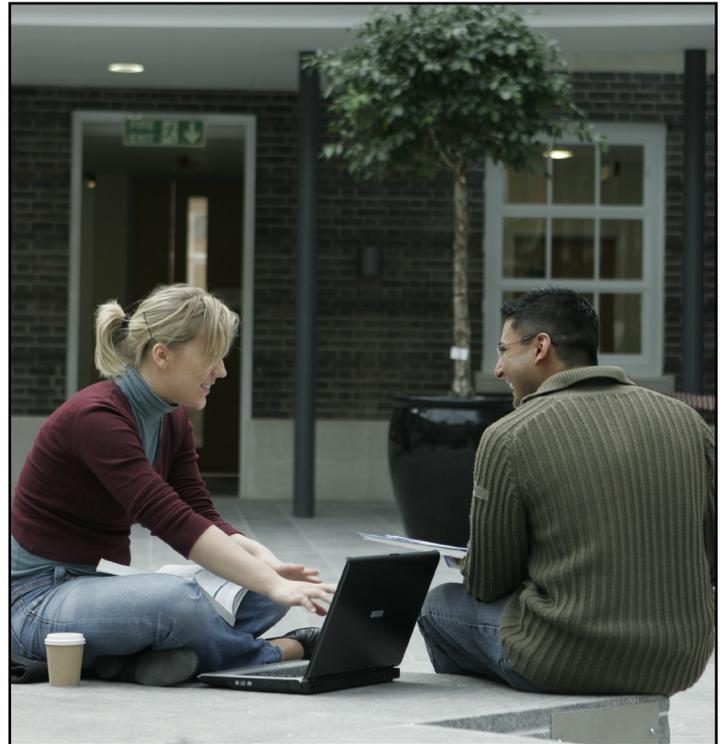
- After coursework return, students complete an online questionnaire about the coursework which poses a range of questions around how the students approached doing the coursework and what they did/ plan to do with the feedback received.
- Within 48hrs of submitting the questionnaire students receive a report via email which summarises their responses to the questionnaire and gives them advice on how to approach their coursework, including the use of feedback, in the future.
- The student are then expected to use the report as a 'prompt' to write a short reflective account about the coursework and the feedback in which they should detail their ideas for future actions.

### Strategic

- This reflective account is shared with their tutor who monitors progress, identifies areas of concern and helps the student address any problem. It is used as a basis to inform a face-to-face meeting where they agree an action plan. The student also records this in their reflective diary.

While this model feedback doesn't prescribe methods of giving feedback, it prompts reflection on feedback received at different points of the learning/ assessment cycle.

Another example is the Edinburgh College of Art project that puts into practice the concept of mutually constructed feedback. Students need to engage with and understand the feedback received in order to make use of it.



"One way to achieve this is for students to 'write-up' and record their own understanding of the feedback given in response to critique and tutorial discourse; to reflect upon this discourse and formulate their own subsequent/ consequent actions in addition to those recommended by their tutor. The tutor's responsibility is to stimulate the discussion, provide their feedback, and to 'write-up' and record what was said to the student succinctly. Subsequently, the tutor validates the accuracy and understanding (or lack) of the student's version of the feedback record. Where it is clear that the student has not fully understood what was meant additional tutorials and guidance can be put in place."

(Cordiner, Pirie & Triggs, 2011:9)



## Preparing for the future

### Transforming the curriculum

The one certainty is that the rate of development of tools to support learning, teaching and assessment practices is about to increase and so are student expectations of a technology-supported culture. The learning and understandings derived from the experiences of academics, professional staff and students throughout the e-Assessment Project have helped to influence wider change at Middlesex. In particular a survey undertaken with staff to discover how they perceive their future learning, teaching and assessment practices and the technologies they think they will need to support these, has been key in informing the next steps. The response to this has been to seek new platforms and tools to meet these requirements. The decision to move to Moodle, as outlined in the Moodle Transformation Project, is integrated within the University's student portal UniHub, as the platform to support learning, teaching and assessment. This builds on work undertaken in the e-Assessment Project moving from considerations of 'the module' to integrated learning, teaching and assessment strategies for every University Programme that clearly states how technology will be used in pedagogically sound ways to

#### Moodle Transformation Project

The Moodle project runs over two academic years. The first year of the project (phase one) will focus on creating the following in Moodle:

- new programmes for September 2013
- programmes that will be revalidated or reviewed in 2012/13 and that have a current Oasisplus/My Learning presence to ensure all programmes are moved to Moodle by September 2014.

The second year of the project (phase two) will the focus on all remaining programmes with an Oasisplus/My Learning presence to ensure all programmes are moved to Moodle by September 2014.

Transformation of our online learning is one of the key objectives of the project and with this in mind

the move to Moodle has been aligned closely with the validation and review procedures to ensure key principles from the ELTA strategy, and the use of technology to support learning, teaching and assessment, can be fully embedded within the curriculum.

The documents listed below provide an overview of the project.

- Project background
- What is Moodle?
- Change management
- Project plan (scope, objectives and exclusions)

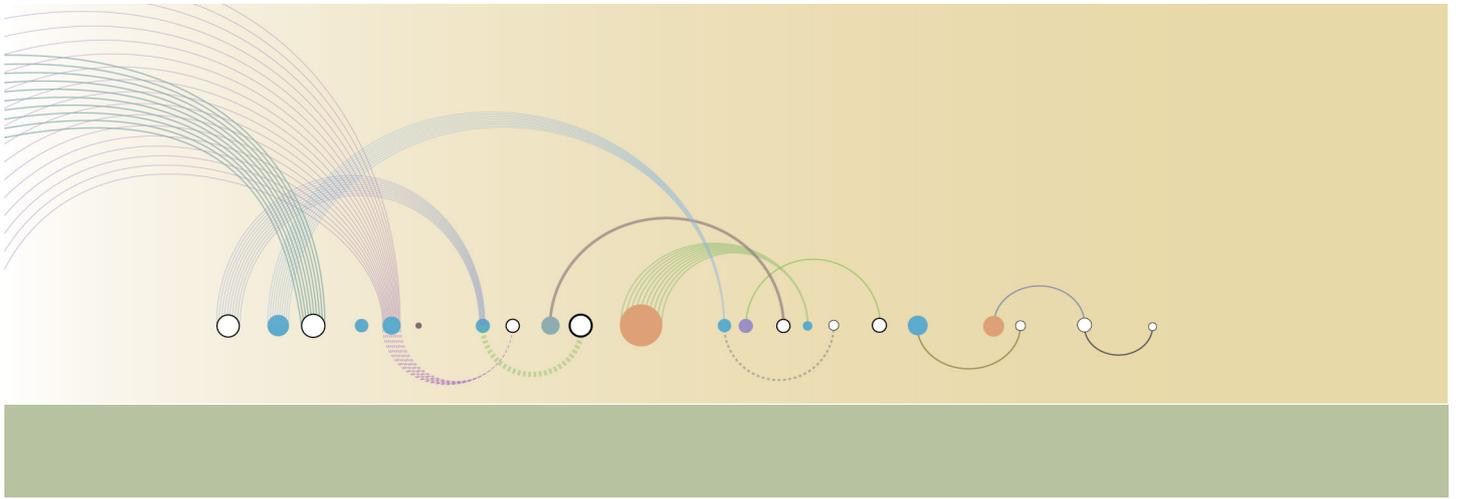
[View the video on MDXPlay](#)

support student learning.

In order for flexible e-assessment practices to be sustainable and efficient, it is essential to locate developments in a flexible institutional and departmental strategy. A strategic approach to curriculum delivery is likely to be a holistic one, because teaching activities and their associated services and business functions are all interwoven and should ideally work in harmony so that students perceive their experiences in the University from admission to graduation as a coherent process. This section identifies important items in the process of validating and reviewing new distance education programmes which include e-assessment and provides an overview of issues relevant to the development of e-assessment practices in the future.

#### Preparing for validation or review of programmes: curriculum and (e-) assessment

All students enrolled on a programme are covered by all University policies and provisions that describe and define the relationship between the individual student and the University. In that respect, all programmes should include the use of interactive activities and assessed materials to foster deep learning along with strategies to encourage the student to employ reflective learning. In addition, the programme/module should enable and facilitate the



development of graduate employability skills by embedding them in the modules at the appropriate level. Each module will have clear and explicitly stated learning outcomes. It will also be clear that due consideration has been given as to how the learning materials are structured so as to support achievement of these learning outcomes and to encourage successful completion of the programme/module of study. This will include a description of the relationship between teaching strategy, learning outcomes and (e-)assessment.

### External examiners

External examiners should gain access to assessment that has been submitted online according to the following procedure:

- externals are to be given access to the VLE by the Module Leader
- the academic member of staff requests for a password for the external from EDU by emailing [elarning@mdx.ac.uk](mailto:elarning@mdx.ac.uk)
- if any users are having difficulty with this they can contact EDU for support.

### Future trends

E-assessment is an evolving story. As new technologies emerge, and our understanding of the potential of established technologies increases, assessment and feedback will be refined further. In the process, the underlying aims of assessment may themselves change, with the focus likely to fall increasingly on:

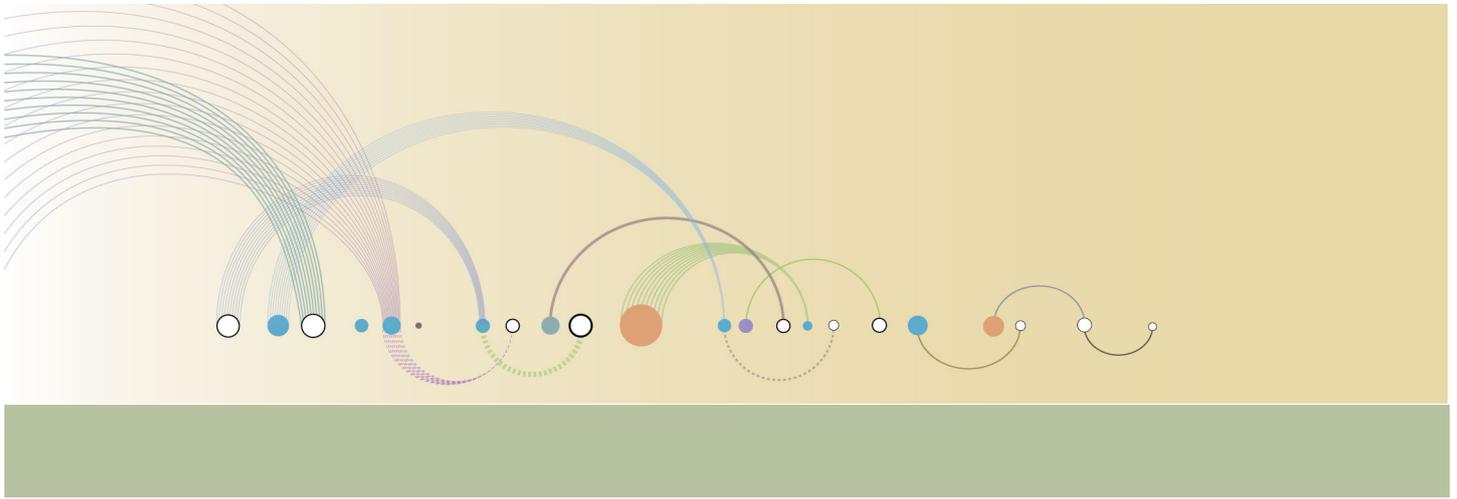
- capturing the processes as well as the outcomes of learning
- supporting learners in self-monitoring and self-assessment
- activating peers to become both drivers and assessors of learning
- involving learners in the design of assessment and feedback.



In addition, assessment and feedback practices are likely to adapt to fit the changing circumstances of higher education. Issues of importance include:

- designing assessment and feedback for distributed and distance learning contexts
- exploring the potential of technology to enable more efficient use to be made of practitioners' time and effort
- developing a seamless digital environment in which all learning- and assessment-related activities take place and in which the evidence from these activities is consolidated.

The table on the following page maps out the likely direction of developments in e-assessment with regards to pedagogy, students and technology (adapted from JISC, 2010).



	<b>Where did we start?</b>	<b>Where are we now?</b>	<b>Where will we be in the future?</b>
<b>Pedagogy</b>	<p>Focus on transmission models of learning and teaching and tutor-led assessment and feedback</p> <p>written assessment formats predominate</p> <p>focus on measuring knowledge and understanding</p>	<p>More varied technology-enabled assessment formats;</p> <p>online peer -and self-assessment increase learner participation in assessment processes</p> <p>a growing number of domain-specific assessment tools</p> <p>technology-enabled capture of processes as well as outcomes of learning</p>	<p>Focus on learning outcomes rather than taught curricula</p> <p>learner choice over assessment format;</p> <p>participation by learners in designing assessment and feedback</p> <p>integration of rich media</p> <p>focus on holistic, authentic assessment opportunities supported by technology</p>
<b>Students</b>	<p>Variable levels of ICT proficiency</p> <p>improving off-campus access to online or VLE-based formative assessments</p> <p>institutionally owned technologies depended on for assignment production</p> <p>evidence of a digital divide</p>	<p>Use of personal technologies in learning, but with traditional modes of assessment and feedback still predominating</p> <p>online submission, marking, moderation and feedback improve timeliness</p> <p>assessment designs that encompass graduate attributes; the digital divide narrower but still evident</p>	<p>Ability to use personal technologies in assessment</p> <p>greater opportunities to use creative media in assignments</p> <p>technology-enabled peer and self-assessment as common as tutor assessment</p> <p>increased choice over timing, format and mode of assessments</p>
<b>Technology</b>	<p>On-screen test delivery and authoring systems</p> <p>electronic voting devices (clickers)</p> <p>VLEs</p> <p>anti-plagiarism software</p> <p>online submission</p>	<p>interactive, adaptive assessments with differentiated feedback</p> <p>increasing use of Web 2.0 technologies and multimedia in assessment</p> <p>process of learning captured and assessed in</p> <p>e-portfolios</p> <p>streamlined computer-assisted marking and data management</p> <p>audio-recorded feedback</p>	<p>Richer, more authentic ways of assessing learning via e-portfolios, simulations and online scenarios</p> <p>personal feedback by video, audio and digital ink annotation</p> <p>large-screen handheld devices used for fast, on-location assessment, marking and feedback</p>



## Accessing resources

There is a variety of support services and individuals who can help you engage with e-assessment and e-feedback practices.

### EDU - Educational Development Unit

<http://eassessment.middlesex.wikispaces.net>

The Unit is responsible for taking the lead in developing and implementing the University's educational development strategies and plans in conjunction with the Schools and the Institute. The Unit also provides staff development, guidance and support in conjunction with Schools, services key learning and teaching committees, and acts as the University's liaison with external bodies such as the Higher Education Academy (HEA). The Unit also provides support for colleagues seeking career advancement. The e-Assessment Project website contains relevant resources and case studies:

<http://eassessment.middlesex.wikispaces.net/home>

The Moodle Project - EDU Team Leaders	
School	Team Leader
Art & Design	John Parkinson j.parkinson@mdx.ac.uk
Business School	Kirsteen MacDonald k.macdonald@mdx.ac.uk
Health & Education	Mike Mimirinis m.mimirinis@mdx.ac.uk
Law	Asanka Dayananda a.dayananda@mdx.ac.uk
Media & Performing Arts	Agi Ryder a.i.ryder@mdx.ac.uk
Science & Technology	Steve Chilton s.chilton@mdx.ac.uk
Work Based Learning	Alex Chapman a.chapman@mdx.ac.uk
<b>Elearning support team</b>	<b>elearning@mdx.ac.uk</b>

### LDU - The Learner Development Unit

<http://unihub.mdx.ac.uk/study/ldu/>

In conjunction with Schools, the Unit leads on the development and implementation of a coherent and strategic approach to the development of learner competencies through the development and implementation of relevant University policies and strategies, and through a substantial direct contribution to the development of student learning and study skills, literacy, numeracy and communication skills. The LDU is also responsible for the University's Student Learning Assistants programme and operates the Learning Lounge (an academic drop-in enquiry point) on the ground floor of the Williams Building.

### LSS - Library and Student Support

<http://unihub.mdx.ac.uk/study/library/>

Library and Student Support complements the academic activities of Schools by providing support for learning, teaching and research – including help and support with information resources and IT and AV for students, all in learning spaces that are conducive to students' needs. Support includes:

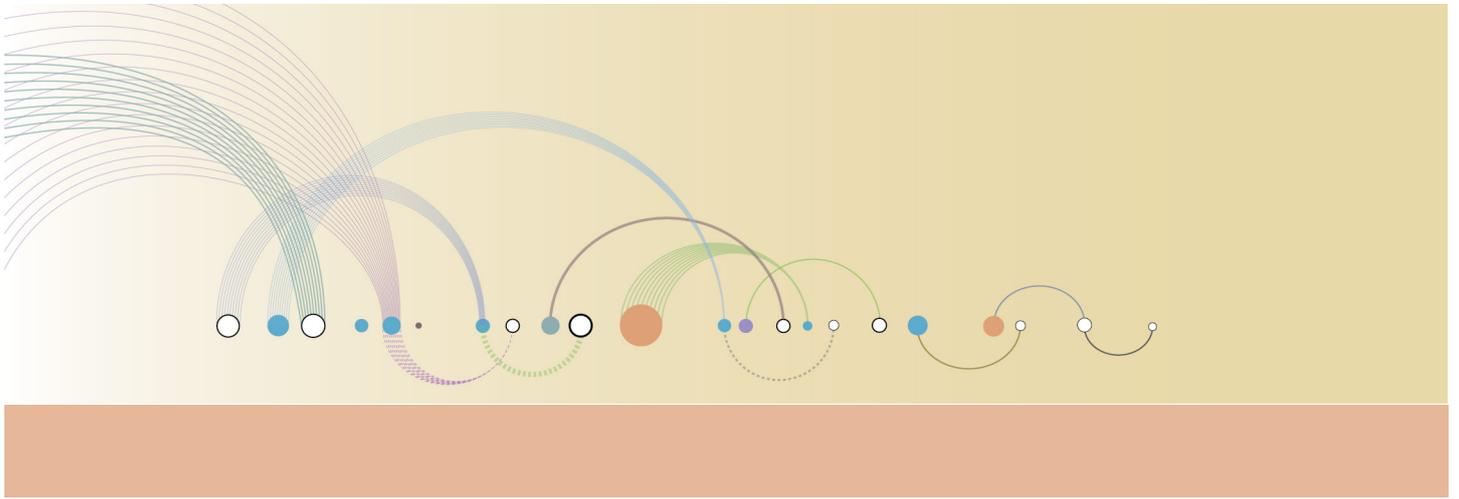
- Library & IT Support
- UniHub Support
- Language and Learning Support
- Research Repository
- Museum of Domestic Design and Architecture

In addition to these services, support by Graduate Teaching Assistants (GTAs) and Student Learning Advisors (SLAs) is also available.

### SLAs

<http://unihub.mdx.ac.uk/study/ldu/facetoface/learning-lounge/sla/index.aspx>

SLAs are part of the University's peer-assisted learning



scheme. SLAs are second/ third-year undergraduates who are trained to work with groups of students on modules that the SLAs have already completed. SLAs are identified by academic staff on the basis of their academic success, approach to study, and communication skills. To learn more about this scheme, please visit: <http://www.sla.mdx.ac.uk>

## GTAs

[www.mdx.ac.uk/Assets/GTASchemeJD.doc](http://www.mdx.ac.uk/Assets/GTASchemeJD.doc)

The Graduate Teaching Assistant Scheme is a part of the University's strategy to provide quality support for student learning as well as the wider student employability strategy. It aims to enhance student progression and achievement whilst providing opportunities for Middlesex graduates to gain employment in a supported way within the University. The GTAs will provide additional support for students that may include facilitation of face-to-face drop in sessions, online support, assisting academic staff in the development, production and delivery of programme materials and the collation of programme and module data and information. GTAs will work under the supervision of an academic member of staff and will not be directly responsible for teaching, marking assignments, giving feedback, developing online materials or pastoral care.

## Toolkit

The e-assessment toolkit offers useful tools and resources, helping staff to get off to a better start with e-assessment and feedback. The toolkit is available at:

<http://e-assesstoolkit.middlesex.wikispaces.net/>



## Useful resources

### JISC resources

#### **JISC. Technology-enhanced assessment.**

**<http://www.jisc.ac.uk/assessment.html>**

JISC has been working in support of technology-enhanced assessment for over a decade. JISC-funded assessment developments include: Mapping the terrain; Tools and interoperability; Technology-enhanced assessment in an institutional context.

#### **JISC. Report on eAssessment Quality (REAQ).**

**<http://www.jisc.ac.uk/whatwedo/projects/reaq.aspx>**

The project intends to provide a report on the quality assurance of e-assessment in higher education (HE) contexts both in the UK and overseas. The resulting report includes case studies, consolidated conclusions, consolidated findings, and recommendations for future JISC activities to support uptake of e-assessment.

#### **JISC. Scoping a vision for formative e-assessment (FEASST).**

**<http://www.jisc.ac.uk/whatwedo/projects/feasst.aspx>**

This project developed a domain map for formative e-assessment. It contains a brief review of e-assessment-related literature in the HE context. The project outcomes contain some recommendations and a set of case studies.

#### **JISC. (2010). Effective assessment in a digital age: A guide to technology-enhanced assessment and feedback.**

**[http://www.jisc.ac.uk/media/documents/programmes/elearning/digiassass\\_eada.pdf](http://www.jisc.ac.uk/media/documents/programmes/elearning/digiassass_eada.pdf)**

The report draws on recent JISC reports and case studies depicting different contexts and modes of learning to explore the relationship between technology-enabled assessment and feedback practices and meaningful, well-supported learning experiences.

#### **Re-Engineering Assessment Practices in Scottish Higher Education. (2007).**

**<http://www.reap.ac.uk/>**

The project is conducted by the University of Strathclyde (lead), the University of Glasgow and Glasgow Caledonian University and is piloting the redesign of formative assessment and feedback practices in large-enrolment first-year modules across these three institutions. It also aims to develop strategies for embedding new thinking about assessment into institutional policies and quality enhancement processes

#### **eAssessment at the Open University with open source software.**

**<http://labspace.open.ac.uk/course/view.php?id=3484>**

The Open University have open source software designed to elicit various types of questions. These can allow multiple attempts as well as immediate or staggered feedback. This programme is currently being integrated with their VLE (Moodle) grade book and has been used for both formative and summative assessment.



## References

- Angus, S. D. & Watson, J. (2009). Does regular online testing enhance student learning in the numerical sciences? Robust evidence from a large data set. *British Journal of Educational Technology*, 40(2), 255-272.
- Barbera, E. (2009). Mutual feedback in e-portfolio assessment: an approach to the netfolio system. *British Journal of Educational Technology*, 40(2), 342-357.
- Boud, D. (2000). Sustainable assessment: rethinking assessment for the learning society, *Studies in Continuing Education*, 22(2), 151-167.
- CBI (2010). Ready to grow: business priorities for education and skills. Education and skills survey. Available at: <http://www.britishcouncil.org/learning-skillsforemployability-resource-library-cbi-report-employability-skills-2010.pdf>
- Cordiner, S., Pirie, I. & Triggs, J. (2011). Digital Spaces for Learning and Assessment in Art and Design. In: Weiss, S. S. & Kelly, O. (eds.) (2011). *Future Learning Spaces*, Helsinki: Aalto University Publications.
- Dermo, J. (2009). e-Assessment and the student learning experience: A survey of student perceptions of e-assessment. *British Journal of Educational Technology*, 40(2), 203-214.
- Draper, S. W. (2009). Catalytic assessment: understanding how MCQs and EVS can foster deep learning. *British Journal of Educational Technology*, 40(2), 285-293.
- Gibbs, G (1999) Using assessment strategically to change the way students learn in Brown, S and Glasner, A (eds.) *Assessment Matters in Higher Education: Choosing and Using Diverse Approaches*, pp 41-53, Buckingham: Open University Press.
- Guldberg, K. & Pilkington, R. (2007). Tutor Roles in Facilitating Reflection on Practice through Online Discussion. *Educational Technology & Society*, 10(1), 61-72.
- Heinze, A. & Heinze, B. (2009). Blended e-learning skeleton of conversation: Improving formative assessment in undergraduate dissertation supervision. *British Journal of Educational Technology*, 40(2), 294-305.
- Newland, B., Martin, L. & Bird, A. (2012). HeLF Survey on e-Submission, eMarking and eFeedback 2012 Initial Quantitative Summary. Available at: <http://w01.helfcms.wf.ulcc.ac.uk/projects.html>
- Ng'ambi, D. & Brown, I. (2009). Intended and unintended consequences of student use of an online questioning environment. *British Journal of Educational Technology*, 40(2), 316-328.
- Nicol, D. & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: a model and seven principles of good feedback practice, *Studies in Higher Education*, 31(2), 199-216.
- National Union of Students (2008). NUS Student Experience Report. Available at: [http://www.nus.org.uk/PageFiles/4017/NUS\\_StudentExperienceReport.pdf](http://www.nus.org.uk/PageFiles/4017/NUS_StudentExperienceReport.pdf)
- Whitelock, D. (2009). Editorial: e-assessment: developing new dialogues for the digital age. *British Journal of Educational Technology*, 40(2), 199-202.
- Wong, L. (2009). E-assessment: Its implementation and impact on learning outcomes. *Journal of Applied Research in Higher Education*, 1(1), 50.



## Glossary

Drawing on definitions given in the extended version of the JISC/QCA (2006) e-Assessment Glossary.

**Assessment for learning:** The process of seeking and interpreting evidence of performance to identify where learners are in their learning, what their next learning goals should be and how to achieve them.

**Authentication:** Use of specialised software to authenticate the identity of the user of a computer terminal.

**Blog (web log):** An online reflective journal on which other internet users can post comments.

**E-assessment:** E-assessment is sometimes used to refer solely to on-screen assessment but, in its broadest sense, can refer to all technology-enabled assessment activities. See 'computer-assisted assessment' and 'technology-enhanced assessment'.

**E-feedback:** Refers to the provision of feedback on student work undertaken online through written feedback or using audio and/or video. As per current practice initial feedback may/should be followed up in tutorials, seminars, one-to-ones, etc. It is intended that all students will receive formative and summative feedback electronically. Minimal requirements for the provision of feedback will be introduced for all summative assessments.

**E-marking:** Refers to staff utilising online marking tools (e.g., gradebook, audisec, etc) to engage with marking in an online form which has traditionally been undertaken in a paper-based form.

**E-portfolio:** A body of digital evidence assembled by a learner to demonstrate his or her abilities and achievements in which the learner may also reflect on the process as well as the outcomes of learning. Tools and systems for e-portfolio development range from licensed commercial systems to open source and VLE-based tools.

**E-submission:** Refers to student electronic submission of coursework, the collecting, receipting, sorting and distributing of coursework for marking, tasks which are traditionally undertaken by the student offices.

E-submission will be module-based and will be the expected mode of submission of coursework for all modules and all students. Exclusions may apply for types of assessment that do not lend themselves to electronic submission.

**Feedback:** Qualitative information about their performance given to learners after an assessment.

**Feed-forward:** Advice on forthcoming work based on feedback previously given.

**Formative assessment:** Assessment that provides developmental feedback to a learner on his/her current understanding or skills.

**Peer assessment:** Assessment of a learner by fellow learners typically following the same programme of study.

**Podcast:** A recording made available for download from a website or VLE by syndication (a process of making content available to other sites by means of RSS feeds). The term is now also used to cover recordings distributed by email and played back on either a computer or portable MP3 player.

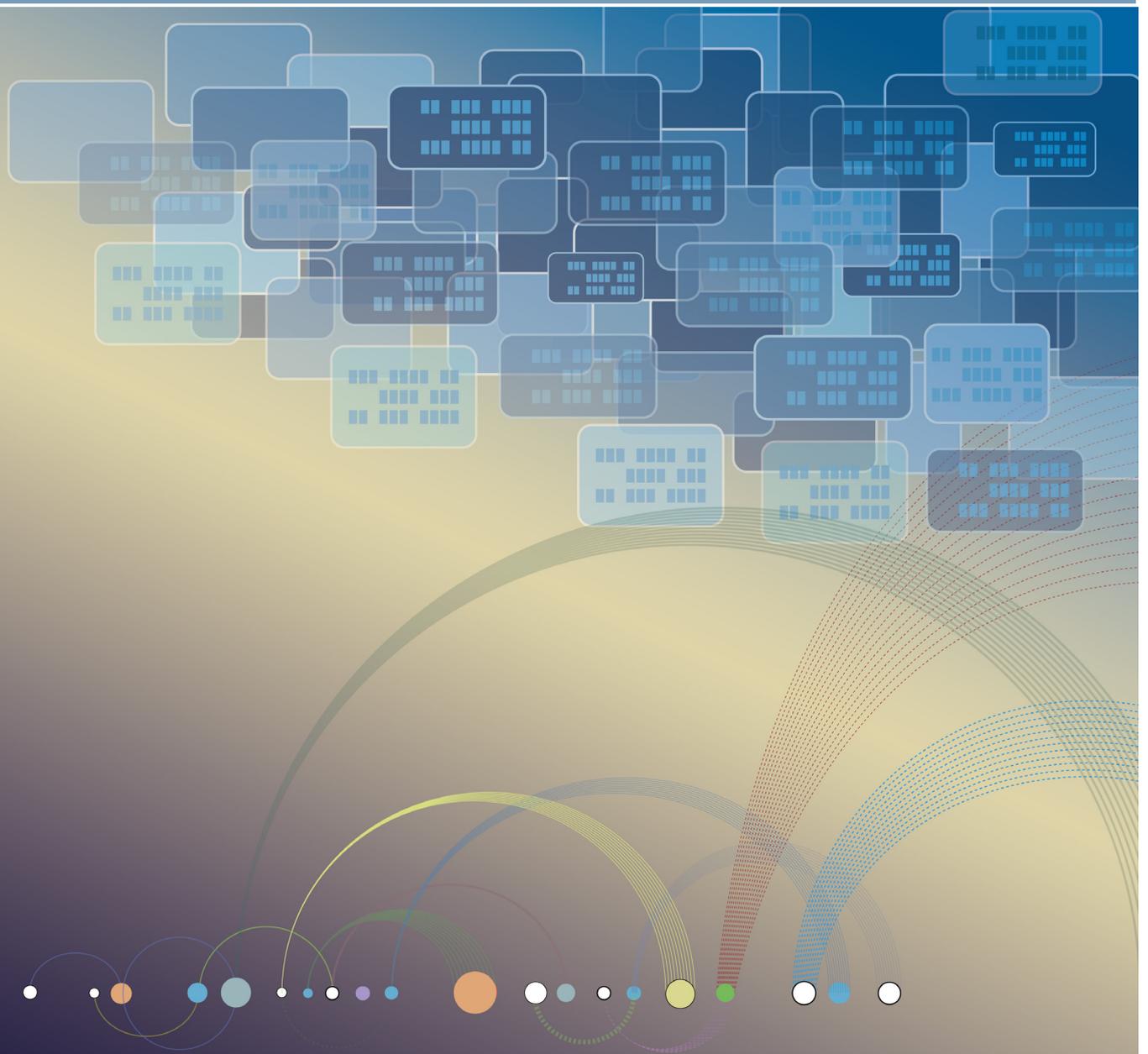
**Self-assessment:** A judgement a learner makes about his or her level of attainment in relation to the stated learning outcomes for the activity or programme.

**Summative assessment:** Final assessment of a learner's achievement, which, if high-stakes, may lead to the awarding of a formal qualification.

**Virtual Learning Environment (VLE):** An online system comprising a range of tools to support learning and the management of learning.

**Web 2.0 technologies:** Online collaborative tools and services: for example, media-sharing sites such as YouTube, social networking sites such as Facebook, collaborative publishing tools such as wikis and blogs, and social bookmarking tools such as Delicious.

**Wiki:** A series of web pages which users can add to or edit via any internet browser.



ISBN: 978 1 85924 328 2