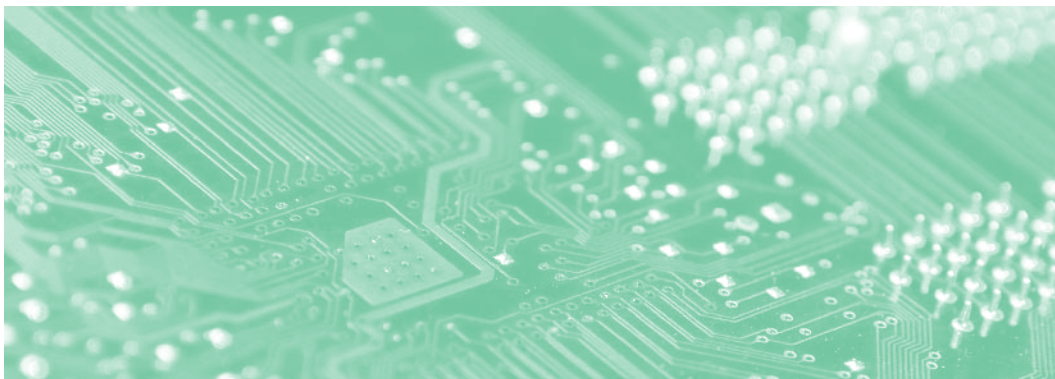




JISC

Enhancing learning through technology
**A guide to resources provided by the
Academy and JISC Collaboration Network**



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Foreword

The issue of enhancing learning and teaching through technology is one of enduring and rising salience for individual academics, students, subject communities, education institutions and for wider educational policy. Technology offers many opportunities for enriching education, but also poses challenges which the Higher Education Academy and JISC are well placed to help the sector address. We each offer a comprehensive range of resources and access to networks to support activities in this area. Many of these are detailed in this publication. The Collaboration Initiative has built on these strong foundations by facilitating a multiple level and focussed partnership working between the two organisations. Through this we are able to significantly enhance the resources we jointly offer to our users and communities. The partnership between JISC and the Higher Education Academy is strong and sustainable. It will continue to be a key way in which the opportunities of technology for teaching and learning can be realised and the challenges overcome.

David Sadler
Director (Networks)
The Higher Education Academy

Introduction

This publication celebrates the work of the Higher Education Academy and JISC Collaboration Initiative from 2007–2009 and presents a summary of some of the resources for enhancing learning and teaching through technology that are provided by the organisations and agencies that make up the Collaboration Network.

“The Collaboration Initiative has been a great success from JISC’s perspective. It has brought clarity to the sector that the two organisations are indeed working together to deliver technology advances to enhance to work of academics and students. Not least of its achievements is the comprehensive wealth of valuable resources in a number of important areas, gathered from a range of services and centres, that are described in this publication. Of equal significance, though, is the way that the Initiative has brought the two organisations themselves together in a confident partnership that will sustain into the future, to continue to deliver more value to the sector through such programmes as Open Educational Resources.”

— Norman Wiseman, JISC Head of Services and Outreach

Dr Simon Ball, who leads the work of the JISC TechDis Service in Higher Education, reflects on the successes of the Collaboration Initiative from the perspective of the JISC Services

“For me, the three big successes of the Collaboration Initiative are summed up in the title of one of the early events: Exchanging knowledge, respecting individual strengths and recognising collaborative opportunities.

One of the great achievements of the Initiative has been facilitating the exchange of knowledge on the key themes of assessment, supporting academic staff, work-related learning and the student learning experience. All Academy and JISC activities and programmes are designed to have aims that to some degree ultimately impact upon ‘the student learning experience’ – but each of us cannot sift through to find the right people or information we need. The Collaboration Initiative has given us a route to finding the shared expertise and information.

It has also enabled us to highlight our strengths as services to the wider Academy/JISC community, and helped us to identify collaborative opportunities that might otherwise have gone unexploited. One of the primary successes has been the ability for people from the various parts of the Academy/JISC community to make contact and network with a range of people with a common interest and similar goals. It has helped us all to join the dots and bridge the gaps, and get a better picture of what goes on elsewhere in the wider Academy/JISC community. We have a better understanding of each other’s work and the organisational structures in which we operate.

Last but not least, and an unintended benefit perhaps, the Initiative has also helped JISC Services to do better what we do already, in using the insights gained from working on the collaboration themes to broaden and enhance the services we provide to our users and communities.”

The Academy and JISC Collaboration Initiative

The Academy and JISC Collaboration Initiative was first established in 2005. Its aim was to support the two organisations in providing coherent support for the sector for the implementation of the Higher Education Funding Council for England (HEFCE) Strategy for e-Learning. This overarching aim was to be achieved through:

- closer inter-working between Academy and JISC and their respective networks
- simplifying access to Academy/JISC resources
- providing strategic advice and guidance to inform the activities of both partners.

The Initiative was funded until March 2009. JISC and the Academy each appointed an individual who together formed the Collaboration Team. The Team developed and implemented a series of events and campaigns for a Collaboration Network of representatives from the 24 Academy Subject Centres, JISC Services, 13 JISC Regional Support Centres (RSCs), along with the JISC Executive and the Academy in York.

An evaluation of the Collaboration Initiative commissioned by JISC and the Academy confirmed that the Initiative had provided a platform for disseminating areas of strength to the wider Academy/JISC community and raise the awareness of the broad base of expertise in the partner organisations. Collaborative opportunities have been identified that might otherwise have gone unexploited, lasting partnerships and sustainable collaborative developments have been instigated. Most importantly, the Collaboration Initiative has helped the organisations in the Academy/JISC network to broaden and enhance the services they provide to users and communities.

Quotations and comments used in this publication to illustrate key points and aspects of the work of the Collaboration Initiative are taken from interviews with key respondents from the Network organisations in the course of the evaluation.

Collaboration Network Resources

An important part of the Collaboration Initiative was gathering together the resources that are available from the agencies and organisations in the Network. This work aimed to present a comprehensive and coherent picture of the resources available and the wider development landscape for technology-enhanced learning and teaching, in order to help learning and teaching professionals make the best use of new technologies in their practice.

The Collaboration Initiative undertook four specific campaigns with a view to identifying good practice, maximising the impact and usefulness of existing resources, avoiding possible duplication and overlap, and providing strategic advice and guidance to JISC and the Academy on future development areas. Each campaign followed a process of information gathering, synthesis and gap analysis, developing appropriate information vehicles and providing strategic advice. The Collaboration Team gathered information and intelligence from focus groups in institutions, and brought together external experts as well as expertise from JISC Services and the JISC Innovation Group, the Academy and its Subject Centres to explore the use of technology. The campaign themes were:

- Assessment
- Supporting Academic Staff
- Work-Related Learning
- The Student Learning Experience

The series of campaigns provided opportunities to strengthen the inter-working between JISC Services, Subject Centres and the JISC RSCs, thus enhancing support for higher education institutions. They presented a focus for identifying and sharing resources, eliciting a wide range of viewpoints and highlighting synergies. The campaigns helped to raise the profile of existing resources from the Academy and JISC relating to the use of technology to enhance learning, teaching and assessment. They also served to produce a number of additional resources, including an overview paper for each campaign, online tutorials and podcasts, workshops and guides on a range of topics.

The resources that were identified include background reports and investigations, tools and techniques, case studies and practical guides to assist practitioners across all levels and discipline areas in higher education. A range of skills levels are catered for, from experienced innovators to those relatively new to using technology to support learning and teaching.

“These resources are just what teachers need when they are thinking about how best to use technology to enhance their practice and help students to a better learning experience.”

“The Collaboration campaigns and the regional workshops did a lot to bring the different services together to enable us to build on common expertise and present a coherent set of supports in key areas to the sector.”

“These are resources that the Subject Networks can directly promote to their constituencies, or use with practitioners to help to develop technology-enhanced learning.”

The campaigns also served to produce a number of additional resources, including an overview paper and podcast for each theme, plus online tutorials, workshops and guides on a range of topics.

Overview papers

Assessment

↳ www.jisc.ac.uk/publications/documents/jisceassessmentresources.aspx

Supporting Academic Staff

↳ www.jisc.ac.uk/publications/documents/jisceasupportingacademicstaff.aspx

Work-related Learning

↳ www.jisc.ac.uk/publications/documents/jisceaworkrelatedlearning.aspx

The Student Learning Experience

↳ www.jisc.ac.uk/publications/documents/jisceastudentlearningexperience.aspx

Podcasts

Find your way around e-assessment

↳ www.jisc.ac.uk/news/stories/2008/02/podcast32assessment.aspx

Supporting Academic Staff

↳ www.jisc.ac.uk/news/stories/2008/09/podcast57supportingacademicstaff.aspx

Work-related Learning

↳ www.jisc.ac.uk/news/stories/2008/11/podcast61workrelatedlearning.aspx

Student Learning Experience

↳ www.jisc.ac.uk/news/stories/2008/10/podcast58studentlearningexperience.aspx

Online resources

↳ www.jisc.ac.uk/academyjiscresources

Guides

Tackling online academic misconduct and internet plagiarism

Using video walkthroughs as an aid to teacher education research

Tutorials

Creating your own online learning materials

Supporting inclusivity in learning and teaching

Using the internet for image searching

Webcasts

Introducing Simulation Based Learning (SIMPLE)

Workshop materials

Topics include assessment, technology to enhanced learning and work-related learning.

*“You need a focus for collaboration, it doesn’t happen in a vacuum.
The campaigns were based on themes in the HEFCE strategy,
with activities that produced tangible outcomes to support the*

sector in taking forward technology-enhanced learning”

“The campaign themes focused on key areas that were common to the strategic priorities of both JISC and the Academy.”

“The campaign podcasts have generated a lot of interest and were some of most popular downloads from the JISC website for several months.”

Accessing resources

The following sections offer an overview of some of the key resources that were highlighted by the Collaboration Network through the four Collaboration campaigns. The compilation is by no means exhaustive and the Network organisations are constantly adding to and developing the resources they provide to support the sector in the use of technology to enhance learning, teaching and assessment. We hope that this overview will encourage readers to explore the wealth of resources available from organisations in the Collaboration Network.

The Academy’s work on enhancing learning and teaching reflects a growing awareness in institutions of the need for an overarching approach to the use of technology in support of core activities.

↳ www.heacademy.ac.uk/ourwork/learning/ELT

The Academy provides subject-specific support for enhancing learning, teaching and the student learning experience through a nationwide network of 24 Subject Centres.

↳ www.heacademy.ac.uk/ourwork/networks/subjectcentres

The Subject Centres have supported the development of a range of tools and resources to help practitioners in the subject communities to develop their skills with using technology to enhance teaching. These resources are summarised in the e-Learning in the Disciplines publication (www.heacademy.ac.uk/elt) and can be browsed by academic area, technology theme and resource type at:

↳ delicious.com/disciplines

The JISC e-Learning Programme supports a wide-ranging set of initiatives aiming to identify how e-learning can benefit learners, practitioners and educational institutions, and advise on its implementation.

↳ www.jisc.ac.uk/whatwedo/themes/elearning/programmelearning.aspx

JISC Services provide expertise, independent advice, guidance and resources to promote the effective and innovative use of Information and Communications Technology (ICT) for further and higher education.

↳ www.jisc.ac.uk/whatwedo/services/about.aspx

The 13 JISC Regional Support Centres (RSCs) act as a gateway to expert advice, information and research outcomes. They facilitate knowledge brokering and offer advice and guidance to further and higher education institutions to help them develop and achieve their organisational mission through the deployment of digital technologies.

↳ www.jisc.ac.uk/rsc

Assessment

Assessment was the first theme that was identified as a focus of activity for the Collaboration Initiative. The resources that were identified confirm that the effective use of technology to enhance assessment for learning as well as the assessment of learning can improve the effectiveness of teaching approaches and enhance the student learning experience. Technology has extended the range of assessment techniques available. Assessments can be made more realistic and hence more valid, particularly in applied disciplines. Marking can be automated and feedback delivered more promptly. Students can be presented with multimedia questions, simulations of real-life and work-related experiences. Interactive feedback mechanisms can improve learner engagement and understanding of their own learning processes. Online tools are making the assessment of group work both easier and more reliable.

General background and resources

JISC has funded the development and implementation of a wide range of assessment technologies, tools and processes. The guide to Effective Practice with e-Assessment provides an introduction for a mainly non-technical audience to the main technologies, policies and practice for enhancing learning through assessment.

↳ www.jisc.ac.uk/whatwedo/themes/elearning/assessment.aspx

e-Assessment: An Overview of JISC Activities provides a comprehensive summary of JISC's work in the area of e-assessment, including tools and technologies, technical specifications and emerging standards.

↳ www.jisc.ac.uk/publications/documents/bpeassessoverviewv2.aspx

The Academy provides advice on policy, develops resources, and coordinates a series of activities to help share and recognise good practice in the assessment of student learning in higher education, with an increasing focus on the effective use of technology.

↳ www.heacademy.ac.uk/ourwork/learning/assessment

The Academy has commissioned an analytical review of the rich and varied UK literature on 'innovative assessment' which includes the use of technology to enhance assessment. The articles reviewed include guidance material, practitioners' accounts,

reports of empirical research and pedagogical perspectives.

↳ www.heacademy.ac.uk/assets/York/documents/ourwork/research/Innovative_assessment_LR.pdf

Advice and guidance

There is guidance and information on technology-enhanced assessment in several of the publications and resources produced by JISC infoNet:

The Effective use of Virtual Learning Environments infoKit includes guidance on choosing, designing and using e-assessment tools and links to useful follow-up resources.

↳ www.jiscinfonet.ac.uk/InfoKits/effective-use-of-VLEs

The Supporting Flexible Delivery infoKit, developed as part of the Quality Enhancement Framework for higher education in Scotland, has links to resources supporting the use of a variety of assessment methods to meet the needs of a diverse student body.

↳ www.jiscinfonet.ac.uk/Resources/flexible-delivery/assessment

JISC Netskills provides a range of training, materials and accreditation to underpin the area of e-assessment.

↳ www.netskills.ac.uk

JISC TechDis has comprehensive information for academic practitioners and developers on making assessments accessible.

↳ www.techdis.ac.uk/geteassessment

Subject resources

The Academy Subject Centres provide resources and guidance on technology-enhanced assessment tailored to the needs of specific academic communities. Subject Centre activities include supporting small software development projects and studies of innovative practice as well as publishing good practice guidance and case studies. The broad area of technology-enhanced assessment includes plagiarism and feedback, with a focus on assessment for learning as well as the assessment of learning.

Many of the Subject Centres have collaborated with their discipline communities to produce resources and advice on the use of technology to enhance assessment in a way that is relevant to the teaching and learning within the discipline. They provide support which is directly relevant to professional practice and grounded in pedagogical theory. Resources include tools typically associated with assessing declarative knowledge such as multiple choice question banks, interactive assessments through online simulations. Evaluations of game-based learning applications show how they can be used to develop problem-solving skills, while case studies provide valuable insights into the effectiveness of a range of different technologies such as personal response systems which can be used in the classroom with large numbers of students to encourage participation and provide teachers with immediate feedback on students' progress.

Subject-based resources relating to the use of technology to enhance assessment have been collated in a browsable resource base at:

↳ delicious.com/disciplines/assessment

Tools and technologies

JISC CETIS provides information about tools developed by JISC-funded projects and links to many additional resources for technical developers. JISC CETIS hosts a Special Interest Group on assessment, and provides links to relevant resources.

↳ jisc.cetis.ac.uk/domain/assessment

Plagiarism

PlagiarismAdvice.org (formerly the JISC Plagiarism Advisory Service) offers a wide variety of resources, including a Good Practice Guide and briefing papers which cover assessment design, advice for students and data protection issues.

Plagiarism detection software to tackle 'cut and paste' plagiarism and provide formative support for students is now widely available, including Turnitin which is endorsed by JISC. A range of support materials and case studies are available.

↳ www.plagiarismadvice.org

The Academy provides links to a range of assessment resources focusing on the use of technology to address plagiarism and promote academic integrity.

↳ www.heacademy.ac.uk/ourwork/learning/assessment/plagiarism

The Academy and JISC have established the Academy JISC Academic Integrity Service (AJAIS) to help promote a culture of academic integrity in UK higher education.

↳ www.heacademy.ac.uk/ourwork/learning/collaboration/academic_integrity

Case studies and examples of practice

Many of the e-assessment resources and publications produced by organisations in the Collaboration Network and highlighted above include case studies illustrating new assessment practices in a range of institutional, discipline and practitioner contexts.

A series of 13 case studies from Welsh educational institutions on the theme of e-assessment include projects on e-submission, interactive voting systems, formative assessment, peer assessment, phased online summative assessment and designing out plagiarism.

↳ www.heacademy.ac.uk/resources/detail/resources/casestudies/welsh_case_studies_eassessment

Exploring Tangible Benefits of e-Learning, developed by JISC infoNet, the Higher Education Academy and the Association for Learning Technology (ALT), includes a number of case studies relating to e-assessment.

↳ www.jiscinfonet.ac.uk/case-studies/tangible/cs-e-assessment

“The work of the Collaboration Initiative helped to raise awareness in the subject communities of the possibilities that technology presents to enhance learning through assessment.”

“It helped us to realise that there is much more to e-assessment than the automatic marking of multiple choice questions.”

Supporting academic staff

The Collaboration Network recognised a growing demand for access to a range of resources supporting the professional development and capacity enhancement of academic practitioners in the sector.

Effective practice

JISC has published a series of publications for practitioners in post-compulsory education and training with an interesting in using technology to enhance the quality of teaching and learning in their institutions. Each of the publications presents an overview of the area, with practical advice and guidance, resources to support staff in implementing changes to their current practice, and illustrative case studies from a range of institutional and practitioner contexts. These publications include:

Innovative Practice with e-Learning: A good practice guide to embedding mobile and wireless technologies into everyday practice

↳ www.jisc.ac.uk/publications/documents/pub_innovativepe.aspx

Effective Practice in a Digital Age takes a fresh look at design for learning in a technology-enhanced context, focusing on scenarios commonly experienced in learning and teaching today.

↳ www.jisc.ac.uk/publications/documents/effectivepracticedigitalage.aspx

Effective Practice with e-Portfolios investigates current good practice in the use of e-portfolios as a support to learning and as an aid to progression to the next stage of education or to employment.

↳ www.jisc.ac.uk/whatwedo/themes/elearning/eportfolios/effectivepracticeeportfolios

Designing Spaces for Effective Learning is a visually rich publication designed to promote better understanding of what makes an effective design for the 21st century and to summarise the key points to consider when approaching a refurbishment or new-build project.

↳ www.jisc.ac.uk/publications/documents/pub_spaces.aspx

Advice and guidance

The JISC infoNet infoKits on e-Portfolios and Effective Use of Virtual Learning Environments (VLEs) are designed to support academic staff in realising the benefits of these tools within their own practice.

↳ www.jiscinfonet.ac.uk/infokits/e-portfolios

↳ www.jiscinfonet.ac.uk/InfoKits/effective-use-of-VLEs

Intute is a free national service providing access to web resources for education and research. Intute also offers training services to help students develop Internet research skills for academic work.

↳ www.jisc.ac.uk/whatwedo/services/mimas/intute.aspx

JISC TechDis provides a range of staff development and guidance materials on using technology to create a more inclusive learning experience.

↳ www.techdis.ac.uk

JISC Digital Media (formerly TASI) provides information and guidance on sourcing, creating, managing and using digital media resources. A tutorial on Finding Free-to-Use Images was developed as part of the Collaboration Campaign, and focuses on the use of copyright-cleared images for use in a range of curriculum contexts.

↳ www.jiscdigitalmedia.ac.uk

EDINA provides access to key information resources in order to enhance the productivity of research, learning and teaching. Generally the outputs of these resources can be used freely for everyday academic purposes.

↳ www.jisc.ac.uk/whatwedo/services/edina.aspx

JISC Netskills provides a range of resources for staff development, including workshops, online tutorials and on-site training and offers a BTEC-accredited qualification in e-learning.

↳ www.netskills.ac.uk/content/products/accreditation/pdp

JISC Legal provides guidance to prevent legal issues being a barrier to the development and adoption of new information and communications technologies within the education sector.

↳ www.jisclegal.ac.uk

The website provides advice, links to further information and FAQs on topics including Data Protection and Intellectual Property Rights.

↳ www.jisclegal.ac.uk/dataprotection/dataprotection.htm

↳ www.jisclegal.ac.uk/ipr/IntellectualProperty.htm

Subject resources

The Academy Subject Centres have supported the development of a range of tools and resources to help practitioners in the subject communities to develop their skills with using technology to enhance teaching.

↳ delicious.com/disciplines

Many of these resources have a generic application across a range of academic disciplines. Examples include:

The Economics Subject Centre has produced a series of tips including The IT Skills Anorak Test to help teaching staff who are less confident with basic IT skills, such as developing presentation slides or using online services. The test asks twenty questions about IT skills and awareness and provides a bookmarkable, personalised subset of tips for staff to fill in gaps in their knowledge. They have also produced an index of IT skills videos and short podcasts with tips for staff to browse and explore.

↳ www.economicsnetwork.ac.uk/tips

The Centre for Bioscience has produced examples of effective practice with the use of mobile audio and video technologies in a range of topics from Anatomy to Statistics. The project also developed a data repository service which has been used to build resources for Academic coordinators across the whole of the Academy's Subject Centre Network.

↳ www.bioscience.heacademy.ac.uk/resources/guides/elearn.aspx

The Social Policy and Social Work Subject Centre's help sheets provide concise how-to guidance on video conferencing, uses of e-portfolios for reflection and assessment, using online resources and digital images.

↳ www.swap.ac.uk/resources/publs/guides.html#eltep

Using the Virtual Learning Environment from the Legal Education Subject Centre offers a general guide to VLEs including advantages and disadvantages, designing activities, copyright and practical tips for successful delivery of a new VLE-based course.

↳ www.ukcle.ac.uk/research/projects/vles.html

Business, Management, Accountancy and Finance has produced ELSIE: Understanding and Developing Higher Education E-Learning Strategies in International Environments. This focuses on understanding of best practices when developing and delivering courses for delivery in an international context using technology.

↳ www.heacademy.ac.uk/business/projects/detail/elsie_del2

Case studies and examples of practice

The Higher Education Assistive Technologies (HEAT) Scheme includes over 80 examples of the inclusive use of technology by academic staff from a wide range of disciplines.

↳ www.techdis.ac.uk/getheatscheme

Stories from the Regional Pilot Projects, based on the experiences of the JISC Distributed e-Learning Regional Pilot projects, offer perspectives on usability, personalisation and ways of motivating and engaging learners.

↳ www.jisc.ac.uk/media/documents/programmes/distributedelearning/delpilotsbrochure.pdf

The JISC Regional Support Centres regularly contribute case studies of local good practice to the Excellence Gateway.

↳ excellence.qia.org.uk/page.aspx?o=casestudies

Academy Subject Centre case studies include English – Using Wikis to Support Small Group Work

↳ www.english.heacademy.ac.uk/explore/publications/casestudies/technology/wiki_smgp.php

Kevin Brace, HE Co-ordinator with the JISC Regional Support Centre (RSC) West Midlands, considers the impact of the Collaboration Initiative on the development of his professional role and practice in his organisation

“Through the Collaboration Initiative our RSC has developed some real and lasting working relationships with people from other organisations and services. I am now the JISC representative on the Academy’s HE in FE Reference Group – this is good for my professional development, and it helps to give the whole group of JISC RSC HE Advisers a role in a national network. Most importantly, our customers in the sector benefit from these collaborations and the services we are able to provide from working together and sharing our expertise.

Every month I publish a regular electronic bulletin with snippets of information about the work of the different organisations in the Collaboration Network:
<http://kev-brace.blogspot.com/2009/02/podcasting-e-bulletin.html>

People really appreciate the digest of information I am able to pass on through networking with other agencies.

In fact, the collaborative mindset and approach that I have found through working with the Collaboration Initiative has pervaded all aspects of my work, and has set the tone for my efficient working practice. Practitioners need to be confident that we are not reinventing wheels but are working with other agencies to give them the best service we can. The sum is much greater than the parts in terms of the benefits to the HE sector.

The Collaboration Initiative sowed some very important seeds that will bear even more fruit over time. When we are planning events now, we routinely discuss what the Academy is doing in that area and try to include their expertise in our schedule. The importance of collaboration is an increasing priority in our everyday practice, to ensure the long term sustainability of our organisation. Collaboration is part of our strategic vision, but more tellingly perhaps, it’s embedded in the way we think about our work and the services we provide.”

New technologies, social networking and games-based learning

The Collaboration Network identified an emerging and growing interest in resources to support staff in using new technologies both to enhance learning and teaching and for their own professional development.

What is Web 2.0? JISC has published a brief overview and introduction to Web 2.0 and some of the implications of social networking technologies for higher education.

↳ www.jisc.ac.uk/media/documents/publications/web2bp.pdf

Web 2.0 and Social Software: An Introduction presents some of the new concepts that are becoming widely used within the education and research sectors.

↳ www.jisc.ac.uk/publications/publications/web2socialsoftware1

The use of mobile devices in learning has been expanding in recent years. The JISC TechDis Upwardly Mobile initiative provides a 'getting started' staff development resource.

↳ www.techdis.ac.uk/upwardlymobile

The Serious Virtual Worlds report explores 'serious' (as opposed to leisure-based) uses of virtual worlds such as Second Life.

↳ www.jisc.ac.uk/publications/publications/seriousvirtualworldsreport

JISC also offers a more detailed look at the ideas, technologies and implications and an educational perspective on some of the newer services in a TechWatch report.

↳ www.jisc.ac.uk/media/documents/techwatch/tsw0701b.pdf

The JISC infoNet Social Software infoKit offers an introduction and explanation of social software, illustrated with real-life examples, and outlining potential uses for learning and teaching, research and business and community engagement. It also aims to highlight the key issues which those working across the sector may need to consider when implementing such technologies, and to provide pointers for successful use.

↳ www.jiscinfonet.ac.uk/infokits/social-software

Subject Centres have produced resources supporting the use of podcasting for pedagogic purposes in a range of academic disciplines

↳ delicious.com/disciplines/podcasting

The Economics Subject Centre guide to using blogs for teaching economics is also relevant for other subject areas.

↳ www.economicsnetwork.ac.uk/showcase/ayres_blogs.htm

Games-Based Learning is a JISC briefing paper exploring the potential of games-based learning.

↳ www.jisc.ac.uk/media/documents/publications/gamingreportbp.pdf

The use of mobile devices in learning has been expanding in recent years. The JISC TechDis Upwardly Mobile initiative provides a 'getting started' staff development resource.

↳ www.techdis.ac.uk/upwardlymobile

The Serious Virtual Worlds report explores 'serious' (as opposed to leisure-based) uses of virtual worlds such as Second Life.

↳ www.jisc.ac.uk/publications/publications/seriousvirtualworldsreport

Enhancing work-related learning – supporting learners in the workplace and preparing learners for the workplace

Institutions, staff and learners are increasingly interested in the relationship of academic learning to the workplace. The Collaboration Network organisations have produced and shared resources in support of the development of work-based learning. Here learning activities focus on workforce development, with learners in employment learning and enhancing their skills and knowledge for the workplace. The Network has also identified resources focusing on the development of graduate employability skills, and for work-related learning in the curriculum.

General information and resources

The Academy website has a section on work-based and work-related learning with useful resources and links, and a section on employer engagement focusing on research, policy debate and support. The main emphasis of these resources is the quality of the student experience of work-based and work-related learning in higher education.

↳ www.heacademy.ac.uk/ourwork/learning/employability/workbasedlearning

↳ www.heacademy.ac.uk/ourwork/institutions/engagement

JISC infoNet provides resources relating to aspects of work-related learning in many of its online resources and links to reports and articles produced by other bodies in the sector. These include resources specifically supporting work-based learning as well as more general areas of work-related learning areas such as placements, vocational spaces, flexibility issues, course design and management.

↳ www.jiscinfonet.ac.uk

Through its programme of Business and Community Engagement activities, JISC supports colleges and universities in the strategic management of external relationships with partners and clients, with a particular focus on workforce development and knowledge exchange.

↳ www.jisc.ac.uk/whatwedo/topics/bce.aspx

The Academy's EvidenceNet promotes and explores the use of practice- and research-based evidence in learning and teaching in higher education. This is a community-driven service which draws together this work and provides a central space in which colleagues in the sector can network and share ideas and resources. One of the current areas of interest is employee learning.

↳ www.heacademy.ac.uk/ourwork/research/evidencenet

JISC infoNet, the Association for Learning Technology (ALT) and the Higher Education Academy collaborated on the Exploring Tangible Benefits of e-Learning initiative to seek out evidence that technology-enhanced learning is delivering tangible benefits for learners, teachers and institutions. There are a number of case studies focusing on aspects of work-related learning in the publication and supporting web pages.

↳ www.jiscinfonet.ac.uk/case-studies/tangible/

The JISC Regional Support Centres (RSC) support English and Welsh work-based learning providers in meeting their business objectives through the use of technology. Online and face-to-face services include advice and guidance, visits, regional networks, events, workshops, email discussion lists and the dissemination of effective practice.

↳ www.jisc.ac.uk/rsc

Innovate is a JISC RSC site supporting work-based learning providers in the use of technology. It includes a frequently updated blog, guidance on strategy and staff development, links to relevant resources and networking opportunities.

↳ rscwbl.jiscinvolve.org

Advice and guidance

JISC Netskills provides a range of staff development services and has identified a range of resources useful for lecturers, learning technologists and educational developers interested in the use of technology to support work-related learning, including work-based learning.

↳ www.netskills.ac.uk/content/projects/jisc-academy-harnessing-assessment/work-related-resources.html

JISC Legal has produced a wide range of guidance material on copyright, liability issues, disability law, data protection and freedom of information, which is all relevant to work-related learning. The Business and Community Engagement section has particularly useful resources.

↳ www.jisclegal.ac.uk/Themes/BusinessandCommunityEngagement.aspx

The JISC TechDis World of Work – Business and Community Engagement initiative has created and supported a wealth of resources and information for individuals

and institutions involved in work-based learning, work-related learning, business and community engagement and workforce development.

↳ www.techdis.ac.uk/index.php?p=2_5

Subject resources

Many of the Academy Subject Centres have funded the development of resources for using technology to enhance student employability and support work-related learning in specific academic disciplines. Subject Centres maintain close relationships with a range of professional areas and bodies, and have supported the development and use of technology for continuing professional development. Some Subject Centres have developed resources that are grounded in work-related examples of applied learning to support the development of high-level analytical and mathematical skills in areas that learners often find challenging.

The SIMulated Professional Learning Environment (SIMPLE) is an open source application consisting of a set of tools with which simulation designers can devise and set up simulations, placing students in an appropriate professional context. Developed by the UK Centre for Legal Education, SIMPLE has the potential to deepen student learning in a range of academic disciplines and professional contexts.

↳ www.ukcle.ac.uk/research/projects/tle.html

The English Subject Centre has produced *A Way with Words*, a DVD for students and graduates to help them make career choices. The site includes a section on why employability is important, from a practitioner's point of view.

↳ www.english.heacademy.ac.uk/explore/resources/careers/enterprise.php

EASIMAP is a web-based tool developed by the Engineering Subject Centre to map outcomes throughout the various levels of an engineering programme to support both programme review and student personal development planning.

↳ www.engsc.ac.uk/er/pdp/easimap.asp

The Art, Design and Media Subject Centre has produced a number of resources relating to work-based learning and employer engagement in professional spheres. These include:

- a collaboration with Skillfast UK, the Sector Skills Council for apparel, footwear, textiles and related businesses to produce resources and guidance on employer engagement, work-related learning and the student experience

↳ www.adm.heacademy.ac.uk/projects/sector-projects/skillfast-uk-project

- case studies highlighting models of good practice in work-based learning in Art, Design and Media in higher education, with particular reference to Foundation degrees

↳ www.adm.heacademy.ac.uk/projects/sector-projects/effective-work-based-learning-in-art-design-and-media

The Psychology Network developed the Repository of Student Practicals (RoSP) offering online access to materials and resources to support student practical work and the teaching of research methods within psychology at undergraduate and postgraduate levels.

↳ www.psychologypracticals.com/

The Subject Centre for Information and Computer Science has published a report on *Using e-Learning to Help Employers Contribute to Work Placements*.

↳ www.ics.heacademy.ac.uk/italics/vol6iss2/rose_papworth.pdf

e-Portfolios for work-related learning

The JISC infoNet e-Portfolios infoKit has a section on Employability and Skills with links to relevant projects and further resources.

↳ www.jiscinfonet.ac.uk/infokits/e-portfolios/employability

The eportfolios.ac.uk website aims to provide a community resource for those interested in e-portfolios and personal development planning. The same site hosts the outputs from a range of Academy and JISC projects, including EPICS-2, which is trialling e-portfolios on a large scale.

↳ www.eportfolios.ac.uk

The JISC e-Portfolios for Work Based Environments project is piloting an e-portfolio model for use with adults engaged in learning in the workplace who require flexible access to higher education and flexible delivery which supports progression within the

context of lifelong learning. The project is using Moodle open source software, linked to a college Management Information System (MIS) using SQL databases to allow the flow of student information from the enrolment process into the system.

↳ www.jisc.ac.uk/whatwedo/programmes/elearningcapital/xinstit2/ewe.aspx

The Art, Design and Media Subject Centre has explored the relationship between the traditional design portfolio and e-portfolios in an educational context, and have produced case studies and resources on the use of e-portfolios to support the development of employability skills.

↳ www.adm.heacademy.ac.uk/projects/adm-hea-projects/eportfolios-in-art-design-and-media-enhancing-learner-skills-and-employability

Research suggests that learning in the workplace can be enhanced through the use of techniques that encourage reflection. The Subject Centre for Education in the Built Environment's e-portfolios project provides demonstrations and a good practice guide which illustrate how e-portfolios can be used to encourage meaningful and useful reflection by students during periods of workplace experience.

↳ cebe.cf.ac.uk/projects/eportfolio

A study undertaken by ESCalate, the subject centre for Education, demonstrates how the flexibility inherent within the e-portfolio structure readily adapts to the fluid and transitional nature of Education – from Personal Development Planning (PDP) as a learner through to Continuing Professional Development (CPD) as a probationary teacher and then forward through a career as a teacher/practitioner.

↳ <http://escalate.ac.uk/6011>

The UK Centre for Legal Education works closely with the professional bodies in the UK to support the implementation of e-portfolios not just for the delivery of legal education, but also for ongoing training and development within the professional legal environment. Resources include briefing papers on Getting Started with e-Portfolios offering advice on the use of e-portfolios in law, and guidance for students, staff and employers.

↳ www.ukcle.ac.uk/research/projects/eportfolios.html

Among the most frequently accessed resources available from the Subject Centre for Medicine, Dentistry and Veterinary Medicine are the proceedings of a one-day conference held in 2008 entitled 'ePortfolios, identity and personalised learning in healthcare education'.

↳ www.medev.ac.uk/workshop_resources/105/list_contents

New technologies and tools

The Individualised Support for Work-Based Foundation Degrees (SURF WBL) project has provided practical guidance to resourcing and support of work-based learning for higher education courses in further education institutions. In particular, the requirements for re-purposing and re-using e-learning content were considered, from a policy and procedures perspective.

↳ www.jisc.ac.uk/whatwedo/programmes/x4l/surfwbl

The Work-Based Access to Learning through e-Services (WALES) project is implementing and evaluating the use of mobile technologies and social software in the delivery of a personalised learning experience for work-based learners following higher education blended learning programmes supported by further education institutions.

↳ www.jisc.ac.uk/whatwedo/programmes/elearningcapital/heinfe/wales

The Comparative Study of e-Portfolio Implementation in Work-Based Learning project is comparing and contrasting four different approaches to the use of mobile and other technologies to support higher education programmes in further education colleges which have work-based learning elements.

↳ www.jisc.ac.uk/whatwedo/programmes/elearningcapital/heinfe/comport

JISC has funded a wide range of regional and collaborative projects to implement and evaluate the cross-institutional use of e-learning to support lifelong learning, including the provision of personalised learning experiences and flexible delivery to support progression, widening participation and work-based learning. Many of these have developed software or infrastructures which are directly relevant to work-related learning.

↳ www.jisc.ac.uk/whatwedo/programmes/elearningcapital/xinstit1

↳ www.jisc.ac.uk/whatwedo/programmes/elearningcapital/xinstit2

The Student Learning Experience

This Campaign theme was identified in response to a recognition in the Collaboration Network organisations that there have been some extensive changes over the last ten years or so in the relationships that students entering further and higher education have with their institutions, their expectations of education, and the technologies that support their learning.

Today's learners are typically familiar with computers, take the internet for granted, use mobile devices for communication and instant messaging, and expect a much greater degree of interactivity and ownership in their courses. The ubiquity of Google and Wikipedia challenges the traditional rigours of academic trust and provenance, as well as the complex tools provided by library and information services.

JISC and the Academy have funded a wide range of work to investigate these changes and the implications that they are having for institutions, teachers, technologists and learners. Many of the resources empirically based, derived from projects, interviews and case studies with practitioners and learners in the sector. There are clear threads relating to:

- learners expecting to find appropriate use of technology supporting all of an institution's core activities
- learners expecting technology to offer added value in terms of facilitating engagement and interaction rather than simply providing a means of delivering content
- learner expecting a high degree of flexibility in terms of how and when their learning activities take place
- learners expecting personalisation of the learning experience and the ability to integrate user owned devices into the learning experience
- learners requiring timely and formative feedback and assessment
- learners seeing themselves more as consumers and making use of peer reviews on social networking sites to help them choose what to study and where.

Background

The Google Generation report provides insight into the information-seeking behaviour of learners born after 1993, who have grown up with web access.

↳ www.jisc.ac.uk/whatwedo/programmes/resourcediscovery/googlegen

Advice and guidance

In Their Own Words contains a range of resources that introduce learners' experiences, beliefs and motivations in relation to e-learning. These can be used in institutions or organisations in different ways – for example, to open up discussion or support further research into the learner's perspective on e-learning.

↳ www.jisc.ac.uk/intheirownwords

Great Expectations of ICT explores the expectations of a cohort of students before they came to university, with a focus on the use of information and communications technology, and presents an analysis of their experiences on arrival and in the early stages of their programmes of study.

↳ www.jisc.ac.uk/publications/publications/greatexpectations

The Academy's EvidenceNet service has access to a range of projects that have produced evidence of the student learning experience in support of enhanced learning and teaching practice.

↳ www.heacademy.ac.uk/evidencenet

JISC infoNet's Planning and Designing Technology-Rich Learning Spaces infoKit has information and resources on understanding learner behaviour and developing approaches to meeting student expectations. There are sections on the rise of social learning and the changing relationship between the teacher and the learning, and developing appropriate spaces for engaged learning.

↳ www.jiscinfonet.ac.uk/infokits/learning-space-design

The Learners' Experiences of E-Learning Phase 2 projects are looking into how learners experience and participate in technology-rich learning environments

↳ www.jisc.ac.uk/elp_learnerexperience

The Shock Absorber is a collaborative venture funded by the Academy through the National Teaching Fellowship Scheme. Shock Absorber is producing a flexible and adaptable toolkit for interconnected learning, teaching and assessment interventions for first year undergraduate students.

↳ www.shockabsorber.mmu.ac.uk

Suzanne Hardy, Senior Advisor with the Academy Subject Centre for Medicine, Dentistry and Veterinary Medicine, reviews how the Collaboration Initiative has impacted on the work of the Subject Centre

“Like most Subject Centres, we’ve had good working relationships for some time with JISC innovation developments and services. In particular we had been collaborating with the JISC e-Learning team, our JISC Regional Support Centre in the Northeast, Netskills, JISC InfoNet, Intute, EDINA, Jorum and JISC CETIS over several years, working with our constituencies together, and supporting JISC-funded projects.

One of the most important things the Initiative has done is to legitimise the time it takes to build the relationships, trust and respect needed to work together constructively. This protected time might not always produce tangible outputs that we can show, or collectively report on against specific objectives. But it has set a basis for future collaborative developments based on an understanding of our needs and those of our communities. Putting the time aside as valuable, making the time to attend, and taking the time to try to understand each other are not easy to ‘big up’ but are really very important.

We have also been given access to the ‘right people’ to start to explore, to our mutual benefit, the cultural and linguistic differences between our organisations. By working together to learn to communicate with each other we have begun to explore and identify ways to enhance the services we provide.

As well as the chance to network, collaboration events have provided new perspectives on our day to day activities, generating ideas and models in consultation with each other for changing the ways we work. Now we need to continue to meet and talk regularly, learn more about what we all do, disseminate each other’s work, and learn to exploit our respective strengths to benefit our constituencies.

You can’t rush relationships. Allowing time for mutual understanding to mature and develop means you will get natural collaborations that will last. Now we have an excellent opportunity to continue to work together through the joint Academy and JISC Open Educational Resources programme, and in many ways the Collaboration Initiative has paved the way for this.”

Case studies and examples of practice

Exploring Tangible Benefits of e-Learning includes a number of case studies exploring the use of technology to enhance the student learning experience, including evidence of improved retention as a result of the personalisation and mentoring opportunities afforded by e-learning applications such as e-portfolio systems.

↳ www.jiscinfonet.ac.uk/publications/camel-tangible-benefits.pdf

Developing Personalisation for the Information Environment (2) presents students' views of how personalised online services might benefit them and discusses some ways of providing these based on shared services.

↳ www.jisc.ac.uk/whatwedo/programmes/resourcediscovery/Personalisation

Making Connections provides information and resources, including a practical guide, on using e-learning data to improve retention rates in higher education.

↳ www.heacademy.ac.uk/projects/detail/elro_Middlesex_uni_07

↳ mancons.middlesex.wikispaces.net

Implementation of Optical Fibre Communications Module in a Virtual Learning Environment looked at the use of a Virtual Learning Environment as the sole means of delivering content and most assessments to 50 students. This work was undertaken within an engineering department, but the lessons are generally applicable.

↳ www.engsc.ac.uk/downloads/optical.pdf

Informal Mobile Podcasting And Learning Adaptation (IMPALA) is a series of Academy-funded projects investigating the impact of podcasting on learning, and on the transition to university.

↳ www.impala.ac.uk

Designing Spaces for Effective Learning synthesises a range of JISC work, highlighting current thinking about the use of learning technologies in both new and refurbished spaces, and links this to prevailing pedagogic models of learning and requirements for space efficiency.

↳ www.jisc.ac.uk/eli_learningspaces.html

21st Century Learning and Teaching has a series of video case studies covering the development of technology-rich spaces for learning and teaching.

↳ www.jisc.ac.uk/whatwedo/programmes/elearninginnovation/learningspacescasestudies

Effective Practice with e-Portfolios explores examples of effective practice in the use of e-portfolios throughout a lifetime of learning.

↳ www.jisc.ac.uk/effectivepracticeeportfolios

Subject resources

The Academy Subject Centres provide resources and guidance on the student learning experience tailored to a specific academic discipline. Subject Centres often fund small projects to develop new web-based resources.

↳ delicious.com/disciplines

Some examples of subject-based resources designed to enhance understanding of the student learning experience are:

Transferability of e-Portfolios in Education investigated e-Portfolios for learners undertaking initial teacher education and postgraduate certificates in education, and as the foundation of future continuing professional development.

↳ escalate.ac.uk/6011

DoITPoMS used a range of ICT techniques to enhance the student learning experience within the Materials Education community, and produced a range of relevant publications and case studies.

↳ www.doitpoms.ac.uk

A range of Distributed e-Learning projects looked at students' experiences of, and attitudes towards, the use of technology in the learning and teaching of psychology.

↳ www.psychology.heacademy.ac.uk/html/jisc_projects.asp

Realising e-Learning Matters in a Bioscience Cohort reports students' perceptions of e-learning activities early in bioscience modules; students from all three levels of undergraduate study were included.

↳ www.bioscience.heacademy.ac.uk/journal/vol10/beej-10-9.pdf

What now? The Academy and JISC in ongoing collaboration

The key to the success of the Collaboration Initiative lay in bringing people from the Network organisations together to share resources and expertise in supporting the sector in the use of technology to enhance learning and teaching. The relationships that have been established and consolidated between Academy Subject Centres, JISC services, the Regional Support Centres, the JISC Innovation Group and Academy York continue to develop and flourish, and JISC and the Academy are continuing to work together on a range of programmes and initiatives.

The Academy is building on the work of the Collaboration Initiative in three priority areas of its current work:

- assessment and feedback
- employability, enterprise and employee learning
- supporting and championing teaching.

The programme of activities includes the commissioning of three new Learning Technology specialists, one for each area, to synthesise evidence of effective practice in the use of technology to enhance learning, teaching and assessment. A seminar series to support professional development in these areas is also being organised, and the resultant resources will help to expand the knowledge and evidence base for the sector through the Academy's EvidenceNet resource.

↳ www.heacademy.ac.uk/ourwork/research/evidencenet

Open Educational Resources

Between April 2009 and April 2010, the Academy and JISC are supporting pilot projects and activities focusing on the open release of learning resources, for free use and repurposing worldwide. This pilot programme is intended to inform a larger programme which will involve a significant number of institutions in the HE sector.

↳ www.jisc.ac.uk/oer

Transforming Curriculum Design and Delivery through Technology

JISC has instigated ambitious and innovative support provision for two complementary programmes within the e-Learning Programme. The overarching Support and Synthesis Project for the Transforming Curriculum Design and Delivery through Technology programmes is coordinated by JISC infoNet and brings together a wide range of partners including the Academy and its Subject Centres as well as JISC Services and Innovation Centres, and JISC Regional Support Centres. The partnership builds on the work of the Collaboration Initiative in establishing and maintaining the Collaboration Network.

↳ www.jiscinfonet.ac.uk/curriculum

Discipline-focused Enhancement Academy

This is a new Academy initiative focusing on the transformation of practice through the academic disciplines. It draws on the previous Academy and JISC e-Learning Benchmarking and Pathfinder Programme and the Change Academy. Institutional projects are supported by the Subject Centres.

↳ www.heacademy.ac.uk/ourwork/learning/elt/enhancementacademy

“There is a solid base of collaborative working that has helped to inform the work of the Support Project for the JISC Curriculum Design and Delivery Programmes.”

“As a result of the Collaboration Initiative we are working together more closely and more productively at a strategic level – there were joint initiatives before, but now things are happening much faster and more smoothly.”

Reference

The Higher Education Academy

↳ www.heacademy.ac.uk

↳ enquiries@heacademy.ac.uk

(01904) 717500

Academy Subject Centres

↳ www.heacademy.ac.uk/ourwork/networks/subjectcentres

Open Educational Resources

↳ www.heacademy.ac.uk/ourwork/learning/opencontent

JISC

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JISC Services

↳ www.jisc.ac.uk/whatwedo/services/about.aspx

JISC Regional Support Centres

↳ www.jisc.ac.uk/rsc

The Higher Education Academy

The Higher Education Academy supports the sector in providing the best possible learning experience for all students. It does this by:

- providing national leadership in developing and disseminating evidence-informed practice about enhancing the student learning experience
- operating as an independent broker, enabling expertise to be shared across institutions and subject areas
- working at multiple levels, with individual academics, subject communities, departments, faculties and institutions
- working across all parts of the UK, recognising the distinctive policy contexts and priorities of the devolved administrations but also providing opportunities to share expertise among them.

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