

TRUE: Teaching Resources for Undergraduate Economics

1. Rationale

1.1 The Economics Network has extensive experience of supporting economics lecturers in all aspects of their teaching and curriculum development. Through the Network's ongoing engagement with academics it has become apparent that a major constraint in the development of modules and programmes is the lack of resources available in a range of specialist economics options. Unlike core microeconomics, macroeconomics and quantitative economics at all three undergraduate levels where there is a considerable range of teaching and learning resources on open access, lecturers in specialist fields have access to a much more limited range of resources. There are two main reasons for this: firstly there is a lack of textbooks and accompanying supplementary materials available for specialist fields of economics and, secondly, academics across the sector are unable to access many of the excellent resources produced by colleagues in other universities as they are hidden within individual university VLEs.

1.2 This project will focus on drawing together a number of existing resources in 14 of the most popular specialist undergraduate economics options to support lecturers in enhancing existing modules and creating new ones. These resources will include syllabus outlines, reading lists, assessment materials, seminar and workshop materials, lecture slides, handouts, case studies, electronic reusable learning objects, Web 2.0 tools, and other innovative teaching materials that have been developed by individual lecturers.

1.3 Resources will be organised by specialism and, within each specialism, they will be catalogued according to resource type. A separate wiki will be created for each specialist area and links to the wikis will be available on both the Economics Network website and JorumOpen.

1.4 This model has already proved successful in the area of Health Economics (economicsnetwork.ac.uk/health). The specialist wiki provides lecturers and students with a range of valuable resources, created by academics across the sector, to support their teaching, learning and research in health economics. One of the reasons for the success of this model is that lecturers already engage with others within their specialist fields (e.g. at conferences) thus overcoming the 'not invented here' syndrome. Feedback from lecturers on the Health Economics model has been very positive and demonstrates a willingness of economics lecturers to share resources within their particular field. This positive engagement is further illustrated by the experience of a number of specialist workshops run by the Economics Network in which lecturers have shared their teaching materials and have been keen to learn from each other's experiences.

2. Overall Impact

2.1 Appropriateness and Fit to Programme Objectives and Overall Value to the community

2.1.1 This project addresses core academic literacies in economics (*Academy/JISC Open Educational Resources Programme: Call for Projects: p9, 52c*) and will provide the academic community with a broad selection of resources that are easily accessible (searchable, downloadable), can be repurposed (customisable and adaptable) and that encourage the sharing of ideas, materials and academic developments between institutions, academics and within communities locally, nationally and universally. The 14 individual subject specialist wikis will enable academics to gain from the innovative and effective practice that is currently taking place across the sector, thus enhancing the quality of the student learning experience. This links directly to the reputation of UK economics with specific reference to our teaching and research expertise in specialist fields. The recent ESRC International Benchmarking exercise (2008) judged the teaching and research in several specialist fields of economics to be world leading. The identified specialisms have informed the chosen fields for this project so that recognised excellence in teaching and research can be shared across the economics community. This project will also increase the opportunity for collaboration between academics within specialist fields of economics which will help to strengthen research-informed teaching by drawing on established research communities to improve/develop teaching resources.

2.1.2 The Economics Network is committed to the improvement of the quality of learning resources in these chosen fields and recognises the passion that academic economists have for research and teaching in their specialist areas. The provision of specialist wikis will improve the quality of learning resources available because they will be in the public domain and will therefore regularly be used, updated, discussed and amended by the academics specialising in each of the chosen fields. This resource will be of particular value to new lecturers in these fields who will now have access to effective teaching materials developed by their peers. Sustainability of the resources and each of the specialist wikis will result from the academics who research and teach in each of the chosen fields; it is in the interest of the academic in each of the specialist fields to maintain and further develop the available resources in order to ensure that materials are available for each individual to further develop and enhance their own work. This has certainly been the case with the pilot project in Health Economics and the Economic Network is confident that this engagement will be as strong, if not stronger, in the other specialist areas. In addition to collecting, organising, reviewing and depositing resources to the wiki, the responsibility of the lead academic for each specialist area will be to help build a community which will share practice beyond the life of this pilot as has been the case with the Health Economics Education site.

2.1.3 The project team will develop 14 specialist wikis that incorporate materials for each specialism across undergraduate levels 2 and 3. Each specialist area will incorporate materials from at least 6 contributors, with each contributor providing, on average, 20 credits worth of material, giving a total of at least 1680 credits. The ability to utilise portions of a whole body of work is often called “granularity” and is highly desirable in an educational context. Granularity allows users to adapt and modify learning resources to meet unique educational needs. Each wiki will be organised in a highly granular way, with appropriate metadata tagging, allowing lecturers to build their own teaching and learning materials from a number of different sources. Users may choose all segments or only those relevant for their own learning applications.

2.2 Dissemination and embedding

2.2.1 The dissemination strategy has three core components: awareness, understanding and implementation, which will be integrated at relevant points during the life of the project. Activities used to increase awareness and understanding of the available materials will capitalise on the ‘dip-in, dip-out’ approach that makes the package so relevant to a diverse range of HEIs. This will be supported by widespread implementation through the ability to customise and personalise resources and by direct contact with colleagues throughout the sector.

2.2.2 The dissemination strategy for this project is designed both to disseminate and to embed effective teaching and learning materials into specialist areas of economics. Active engagement of end users is one of the most important aspects of dissemination. The dissemination of good practice will lead to improvements in the ways in which students learn and it is anticipated that embedding this good practice through activities that promote awareness, understanding and implementation will lead to widespread change in the sector.

| Dissemination Activity | Target Audience | Date | Cost |
|---|--|--|--|
| Project sites / Web 2.0 <ul style="list-style-type: none"> • Economics Network • HEAcademy website • Externally hosted wiki • JorumOpen • Google Video/ You Tube • Wikiversity • Slideshare • Blog sites • AIRDIP (Academy/ Intute joint resource catalogue) | Economics lecturers and students, economics departments, prospective economics lecturers, Heads of Economics Departments, educational developers | April 2009 – ongoing with communication and dissemination about wiki developments continuing beyond the life of the project. | Staff costs borne by Economics Network |
| Conferences and Events <ul style="list-style-type: none"> • Initial workshop meetings | Economics lecturers and departments, prospective | April 2009 – ongoing. Departmental visits will be | Initial and interim workshop |

| | | | |
|--|--|---|---|
| <ul style="list-style-type: none"> • Specialist conferences • Economics T&L conferences • Generic T&L conferences • Departmental visits • Key Contacts and Associates workshops • New Lecturer workshops • GTA workshops • Specialist Economics Network workshops • CHUDE meeting presentations • Educational Developers running PGCHE workshops | economics lecturers, Heads of Departments, educational developers | made between September 2009 and March 2010. | meetings £4000 Departmental visits £2000 (20 visits @ £100) Additional costs of events borne by Economics Network |
| <p>Hardcopy Literature</p> <ul style="list-style-type: none"> • Marketing leaflets • Economics Network newsletters • Economics Network journals (IREE and CHEER) | As above | April 2009 – ongoing with updates continuing beyond the life of the project. | Production, postage and printing of leaflets £1000 |
| <p>Email Lists</p> <ul style="list-style-type: none"> • Economics Network Key Contacts and Associates • Regional Network Co-ordinators • Email lists (Teach Econ) | Specific academics in Economics departments across the UK who will then engage in targeted dissemination within their regions or specialist areas. | April 2009 – ongoing. | No cost |
| <p>Organisations and Communities ¹</p> <ul style="list-style-type: none"> • CHUDE • RES • SES • AEA • Links from RFE • Survey of users/potential users towards the end of the project | Economics lecturers and departments, Heads of Departments, overseas economics academics | April 2009 – ongoing. The survey of users/potential users will be conducted in January 2010 thus enabling wiki leaders to incorporate any feedback into the final structures/formats of their particular specialist resource. | Survey costs borne by Economics Network |

¹ CHUDE = Conference of Heads of University Departments of Economics; RES = Royal Economic Society; SES = Scottish Economic Society; AEA = American Economic Society; RFE = Resources for Economists on the Internet (sponsored by AEA).

2.3 Evaluation

2.3.1 Evaluation (both formative and summative) will be central to the project and will be embedded in each stage of project development. Staged evaluation acknowledges the dynamic nature of the project and will result in the continual review of project objectives to ensure that final outcomes are valuable to all relevant audiences. Project evaluation will be carried out by an external evaluator, an internal evaluator, academics, students, the Economics Advisory Group and the core team.

2.3.2 The project director will assign an external project evaluator who will be responsible for ensuring that project deliverables give value for money, evaluating the overall impact of the project (both externally and within the consortium), evaluating project progress in relation to aims and objectives, monitoring accessibility, regular consultation re dissemination, conducting a survey of potential users, conducting a student focus group and providing feedback to the project team, producing a final evaluation report.

2.3.3 Subject specialist leaders will have a vital role in ensuring the overall quality of the resources used on the site, cataloguing the materials, and communicating with potential users to encourage ongoing feedback and discussion. In addition to the external evaluator, the project team will incorporate a feedback facility into each specialist wiki.

2.3.4 The team will engage with TechDis at key stages of the project development and will work closely with JISC and the HEA at relevant points throughout the dissemination and evaluation processes. Initially the main support that we would seek from the HEA and JISC is to help facilitate a joined-up approach to the HEIs in relation to IPR to minimise the need for multiple approaches from all the subject-strand projects.

| Timing | Factor to Evaluate | Questions to Answer | Methods | Measure success |
|----------------------|----------------------------|---|--------------------------------|--|
| April 2009 – ongoing | Quality of resources | Are the resources included in each specialist wiki of a high quality? | Each subject specialist leader | |
| January 2010 | Resources | Are the resources of value to academics in the specialist area? How flexible are the resources? How easy are they to access? | Staff survey | Feedback/usage/ quantity of resources supplied |
| January 2010 | Research-informed teaching | Do the resources promote research-informed teaching? | Staff survey | Feedback |
| January 2010 | Student Impact | Support for learning: how effectively do the resources support learning in terms of activities, handouts, supplementary materials, assessment types, assessment questions, etc. | Focus group | Feedback/usage |

3. Proposal and Work plan:

3.1 Aims

To create subject-specific wikis that will provide the local, national and international economics community with access to a broad selection of high quality teaching, learning and research materials related to 14 specialist fields of economics.

3.2 Objectives

The principal objectives of the project are:

- To develop and disseminate a repository which can be used by lecturers to build and develop modules and programmes.
- To share effective practice across the economics community and beyond.
- To promote research informed teaching in specialist fields of economics.

3.3 Overall Approach

3.3.1 Building on the success of the Health Economics Open Access Resource wiki which catalogues and disseminates key aspects of module and programme development, current research, and teaching and learning materials, the project team will create 14 additional wikis for specialist fields of economics. Subject leads will be engaged in the project to populate these wikis with a high quality selection of materials related to the teaching, learning and research in these specialist fields. The participation from leading academics in each of the specialist areas will ensure that the materials that are included in each site are fit-for-purpose, of a high academic standard and provide the user with a rich selection of resources that will enhance the teaching and learning experience for both staff and students. Each site will also provide links to relevant research sites, teaching and learning projects and centres of excellence that relate specifically to the specialist field.

3.3.2 The principal objective of this project is to encourage the sharing of learning materials in key specialist fields of economics across the wider economics community to support and promote high quality learning and engagement. It is anticipated that with shared access to high quality and relevant learning resources the economics community will see an increase in student satisfaction in these specialist areas, which will help to support and enhance the leading reputation of UK economics in the international

community. In the 2005 survey, which received feedback from nearly 200 economics lecturers from 64 HE institutions, the response to a question about sharing resources was very positive. Three out of four respondents expressed an interest in joining community groups in their specific area of teaching or research 'to share ideas', while three out of five said they would like to join the groups 'to share materials'.

3.4 Project Outputs

This project focuses on the collection, quality assurance and communication/dissemination of available materials rather than the creation of new resources. Therefore the main output of this project will be the development of 14 wikis, one for each chosen specialist area of economics that catalogue the outstanding work that is being done in each of the specialist fields and enables lecturers from across the UK to benefit from the collective expertise of leading academics in these specialist areas.

3.5 Project Outcomes

Outcomes from the project include: improvements in the quality of modules and programmes that are subsequently developed; a resource that lecturers can amend over the longer term; and development of communities that create a dynamic environment for the further development of resources.

3.6 Work Packages: Project Plan

| Development and Evaluation Activities | Apr 09 | May 09 | Jun 09 | Jul 09 | Au 09 | Sep 09 | Oct 09 | Nov 09 | Dec 09 | Jan 10 | Feb 10 | Mar 10 | Apr 10 |
|--|-------------------------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Confirm Specialist Leaders | ✓ | ✓ | | | | | | | | | | | |
| Form Project Teams | ✓ | ✓ | | | | | ✓ | | | ✓ | | | |
| Initial Meeting of Specialist Leaders | | ✓ | | | | | | | | | | | |
| Sign Institutional Contracts | | ✓ | | | | | | | | | | | |
| Pursue copyright issues | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Specialist Leaders to collect resources | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Develop specialist wiki sites | | | ✓ | ✓ | ✓ | | | | | | | | |
| Evaluate materials | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Catalogue materials | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| Link materials to wikis | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Conduct staff evaluation survey | | | | | | | | | | ✓ | | | |
| Conduct student focus group | | | | | | | | | | ✓ | | | |
| External evaluation report | | | | | | ✓ | | | | | | ✓ | |
| Final project report | | | | | | | | | | | | | ✓ |
| Project brochure | | | | | | | | ✓ | | | | ✓ | |
| Link project and outcomes to identified websites | As and when appropriate | | | | | | | | | | | | |
| Specialist conferences | | | | | | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ |
| Economics DEE conference | | | | | | ✓ | | | | | | | |
| HEA conferences (External and Internal) | | | | ✓ | | | | | ✓ | | | | |
| Departmental visits | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Key Contacts and Associates workshops | | | ✓ | | | ✓ | | | | ✓ | | | |
| New lecturer workshops | | | | | | | ✓ | ✓ | | | | | |
| GTA workshops | | | | | | | ✓ | ✓ | | | | | |
| Specialist EN workshops | | | | ✓ | | ✓ | ✓ | ✓ | | | ✓ | ✓ | |

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|---|---|---|---|--|---|---|---|---|---|---|---|---|---|
| Economics Network newsletters | | ✓ | | | | ✓ | | ✓ | | ✓ | | ✓ | |
| International Review of Economics Education | | | ✓ | | | | ✓ | | | | | | |
| Updates to Economics Network email lists | ✓ | | ✓ | | ✓ | | ✓ | | ✓ | | ✓ | | ✓ |
| Updates to CHUDE, RES, AEA, SES, etc. | | | | | | | ✓ | ✓ | ✓ | ✓ | | ✓ | |

3.7 Risk Assessment

| Risk | Probability | Severity | Score | Action to prevent/manage risk |
|--|-------------|----------|-------|--|
| Staff Leave | 2 | 1 | 2 | If a Subject Lead leaves then another member of the specialist team will take over the role. Additional 'reserve' specialist fields have been identified if one of the proposed areas proves ineffective. If the project director leaves then responsibility for the project will be taken over by an academic from the Economics Network who is already a member of the project team. |
| Subject Leads don't deliver to expectations | 1 | 1 | 1 | Through regular communication and involvement the project director will identify this issue early on in the process and provide dedicated support to the lead academic. In the event that the lead academic has to be replaced there will be several other academics involved in each specialist community to ensure that someone already engaged can take over responsibility for lead role. |
| The team experiences difficulty getting materials from specialist areas or institutions won't release the resources | 1 | 1 | 1 | If one institution won't release resources there are many more institutions engaged in that specialist area that will be willing to participate in the project. |
| The team experience technical problems related to the creation of the wikis | 1 | 1 | 1 | The Economics Network has extensive experience of the creation and use of wikis following their management of the Health Economics resource. If there is a delay in JorumOpen then the Network will simply deposit the wiki in JorumOpen as and when the facility becomes available. Beyond the life of the project the Economics Network staff will maintain the sites and ensure they are kept up to date. |
| An external (web 2.0) site that the project depends on (such as YouTube or PBWiki) becomes unavailable. | 2 | 1 | 2 | The Economics Network keeps master copies of material deposited with external services, and has alternative ways to host wikis and individual items, both using its own servers and externally. |
| Legal issues – specifically related to negotiating the issue of IPR with individual institutions. Universities may insist that their materials are heavily branded. | 4 | 1 | 4 | The solution is twofold: there are many institutions that we can work with on this project, so if some are unwilling to release materials then we can engage other, more willing universities. We would suggest a common approach led/supported by JISC or the HEA so that the wider group benefits from a single organised approach. Where universities insist that all of their materials are heavily branded we propose to include a footnote that states "this syllabus has been informed by xxx universities" |

3.8 Technical Development

3.8.1 The technical infrastructure for the project is already in place. The Economics Network has a database with the necessary metadata fields, and can already take contributions directly from constituents by importing pages from the PBWiki.com commercial wiki service, which takes care of individual logins and version control. An “archive” area of the site holds nearly one thousand megabytes of materials that have been donated by the community or by the Economics Network’s funded projects.

3.8.2 Video editing and conversion software has been purchased by the Network, including accounts to upload to online video sharing sites. These have already been used to share materials that have been donated to the Network.

3.9 Standards

| Name of standard or specification | Version | Notes |
|-----------------------------------|---|--|
| XHTML | Strict 1.0 | Already standard across Economics Network sites |
| IMS QTI | 1.2 | Standard for content packages exported from VLEs. Version 1.2 seems most broadly supported at present |
| IEE LOM | RLLOMAP (Application profile developed by the LTSN/Academy) | Catalogue record format used for cataloguing resources in the Economics Network resource catalogue. Syndicated via OAI-PMH harvesting protocol. |
| PowerPoint | 2000 (unless later versions are necessary for content) | A proprietary <i>de facto</i> standard for lecture slides, chosen for its familiarity to academics |
| Rich Text Format | | An editable cross-platform format for text documents |
| Excel | 2000 (unless later versions are necessary for content) | Proprietary spreadsheet format that is familiar and editable for a segment of our constituents, and often used to create interactive courseware aimed at students. |

3.10 Intellectual Property Rights

Intellectual property of contributed material will remain with its present owners. As a condition of deposit, the project will encourage them to relicense the material as Creative Commons. There is scope for negotiations with individual rights holders, but the licence we will aim for is *Creative Commons Attribution-Non-Commercial*. This licence is compatible with Wikiversity and related projects. The Economics Network already has an advice sheet for content authors on why and how to license their materials at <http://economicsnetwork.ac.uk/themes/licensing>

4. Communication and Partnership

4.1 Each specialism leader will communicate with the various members of that community in order to gather materials and discuss ways of presenting the materials most effectively. The subject leader will also build a community that will foster additional communication and sharing of practice both online and in meetings/workshops. In terms of the latter, sessions to share teaching materials and experiences can be run at research conferences in that specialist field. The Economics Network has found this to be an effective mechanism for developing the teaching-research nexus in fields as diverse as Experimental Economics, Health Economics and Heterodox Economics.

4.2 The range of resources on the wikis will provide a rich source of information for academics amending or developing modules and/or programmes. The granularity of the resources will enable them to contribute to specialist sections of more general modules both within economics degrees and in programmes, such as business studies, that include some economics. Other direct beneficiaries of the resources are students who will benefit both from the resources being used directly by their lecturers and from access to materials that will help to support their studies and encourage the development of a range of subject-specific and transferable generic skills. This in turn will be of benefit to future employers.

4.3 Examples of good practice identified within each wiki will be made available on the Economics Network website and, with appropriate tagging, will be useful to lecturers and students in other disciplines

via mechanisms such as the Academy Facilitation Groups. Such information will also prove useful to the educational development community in supporting lecturers within their specialist fields.

4.4 Economics, through the auspices of the ESRC, has recently gone through a process of international benchmarking. The international team identified a number of our chosen specialisms as key strengths in UK economics research. The wikis would complement this work in showcasing and sharing good practice in teaching in these areas across the international community.

5. Exit and Sustainability Plans

5.1 Wikis will remain on the Economics Network site and the Economics Network will maintain them beyond the life of the project. The discipline communities that will develop will participate in the maintenance of these sites; as in the case of the Health Economics site, users of the specialist wikis will be interested in maintaining these resources as they relate to their specific communities. The strengthening of the link between teaching and research in these areas that will be promoted and encouraged by the creation of these wiki communities will be beneficial to academics (research and teaching) and to students studying these specialist fields. Thus a further incentive to maintain the sites beyond the life of the project relates to the fact that the shared content builds on their current work and expertise. There are no financial costs involved in updating/amending the sites or the resources because wikis can be maintained directly by the academics involved.

5.2 Based on the success of the Health Economics wiki and the level of engagement in the site from subject specialists in this field the project team are enthusiastic about the development of 14 additional wikis that promote further subject specialisms and share a wide range of teaching resources with colleagues across the sector. In future years it is envisaged that the Economics Network will provide funding to enable academics to develop additional sites in other specialist fields of economics. With each new wiki the economics community gains further knowledge, understanding and expertise in the use and dissemination of open content resources.

6. Experience of the Project Team

6.1 The project team comprises several academics experienced in the development, delivery and dissemination of project outcomes. The core team with individual profiles is detailed below with a list of the confirmed subject leads for the 14 identified specialist areas. Letters of support are included with this bid and indicate a willingness by the participating universities to support the proposed academics to lead the identified subject specialism. Lead institutions have also agreed to generous levels of institutional commitment which include staff time, physical space, computing and communication facilities and other associated costs of staff employment and engagement.

6.2 Project Director: Prof. Rebecca Taylor

6.2.1 Rebecca is Associate Director of the Economics Network and the Head of Economics at Nottingham Trent University. She is also the Director of a highly successful HEFCE-funded FDTL5 project, entitled METAL (Mathematics for Economics: Enhancing Teaching and Learning) (2004–8). She is currently directing the HEFCE-funded FAME project (due for completion in March 2009) and directed the DELII case study project in 2007/8. In each of these projects Rebecca has effectively managed diverse groups of academics from universities across the UK, engaged staff and students in the development and evaluation of teaching and learning resources for the wider economics community, and implemented complex dissemination strategies that have seen resources embedded widely in curriculum across the UK. Rebecca's expertise in engaging teams of academics, developing and disseminating resources, and working with the HEA, the Economics Network, HEFCE, TechDis and JISC will be invaluable in ensuring that this project delivers a resource to the economics community that enhances the teaching and learning experience of both staff and students.

6.2.2 Project management will involve regular communication with the wider project team, providing ongoing support for the development of the specialist resource areas, ensuring that we effectively address issues of IPR, branding, structure and cataloguing of open content resource areas and that we implement a robust and effective dissemination plan that ensures that academics locally, nationally and internationally are able to successfully engage with and embed the resources that we make available.

Regular engagement with the Economics Network where the wikis will be developed will ensure that all technical issues can be resolved efficiently. Evaluation of the project will also be embedded in the project development plan ensuring that academics and students have the opportunity to participate in the development process, thus increasing the likelihood that they will become active members of their specialist communities beyond the life of the project.

6.3 Prof. John Sloman

John has been the Director of the Economics Network since its inception in September 1999. He has had considerable experience in overseeing and advising on projects. He has been on the Steering Groups of all four of the Economics FDTL5 projects and has had considerable input into the development of each of them. They have produced a range of resources which have been well received by the economics community and have been embedded in a number of economics courses around the UK. John is currently on the Steering Group of the JISC Integrative Technologies Project at the University of Exeter. He is also on the CHUDE Steering Group and has been instrumental in promoting a range of innovative teaching and learning methods, both through CHUDE and through various departmental contacts, workshops and events.

6.4 Dr. Martin Poulter

Martin is the ICT Manager of the Economics Network. He was project manager for the JISC DeL projects, which has involved liaising with external academics to create and review materials for publication on the Network's sites. He manages the Network's catalogues and created the site management system including its resource database. His involvement in the RDN-LTSN interoperability project led to the subject centre sharing catalogue records, news and event details with external sites. He uses a number of Web 2.0 services to disseminate the Economics Network's activity, including Google Video, YouTube, Delicious, PBWiki and Wikipedia. He regularly gives presentations and runs sessions on engaging with external services, and on good practice in the use of the web, at internal and external events.

6.5 Ros O'Leary

Ros is the Deputy Director and Manager of the Economics Network. She formally headed the eLearning Support service for the University of Bristol (1998–2005) and as such has overseen and managed many eLearning related projects. Ros also has much experience of overseeing and managing projects across HEIs, e.g. Project Director (2002–4) for a research project jointly funded by the Learning and Teaching Support Network and JISC across five subject areas in 11 different HE and FE institutions, and she currently oversees 21 projects across different HEIs for the Economics Network. As Deputy Director and manager of the Economics Network Ros is in a strong position to support the Project Director in the development, delivery and dissemination of the project outcomes.

6.6 Dr. Inna Pomorina

Inna is the Research Fellow in the Economics Network and has worked in the centre since 2000. She has organised nationwide surveys of Economics lecturers, students, employers and graduates, prepared the reports and disseminated the results to national and international audiences. She has also run focus groups and used their results to evaluate projects. Inna has managed projects funded by the Economics Network, is responsible for assessing materials for their relevance to teaching and learning in Economics and is in a strong position to support the project in the development, delivery, evaluation and dissemination of its outcomes.

6.7 Project Administrator: Angela Scott

Angela has coordinated key aspects of the METAL project and participated in the extensive dissemination activities associated with this project. She has organised and delivered project feedback sessions, worked directly with project managers on the development and dissemination of project outputs and she worked with the e-business team at Nottingham Trent University to produce the web facility for the final METAL project resources.

6.8 Specialist Areas and Lead Academics

The 14 specialist leads have been confirmed as (13 universities, including project lead):

| Specialist Area | Leader |
|----------------------------------|--|
| Project lead | Dr Rebecca Taylor, Economics Network and Nottingham Trent University |
| 1. Development Economics | Dr. Peter Smith, University of Southampton |
| 2. Econometrics | Professor Vincent Daly, Kingston University |
| 3. Environmental Economics | Professor Alan Collins, University of Portsmouth |
| 4. European Economics | Professor Cillian Ryan, University of Birmingham |
| 5. Experimental Economics | Professor Dieter Balkenborg, University of Exeter |
| 6. Heterodox Economics | Dr. Andy Denis, City University |
| 7. Labour Economics | Professor Monojit Chatterji, University of Dundee |
| 8. Law and Economics | Professor Antony Dnes, University of Hull |
| 9. International Economics | Professor Derek Braddon, University of West of England |
| 10. Industrial Economics | Professor David Paton, University of Nottingham |
| 11. Monetary Economics | Professor Kent Matthews, Cardiff University |
| 12. Public Sector | Professor John Ashworth, University of Durham |
| 13. Regional and Local Economics | CLREA group, University of Portsmouth |
| 14. Risk and Uncertainty | Professor Paul Fenn, University of Nottingham |