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Enquire Project
Enrich and Research Outputs and Impact
Final Report
November 2010

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All would not be possible without the superb support from a range of administrative staff and janitorial staff that helped arrange meetings and ensure smooth running of events.

Executive Summary

The Enquire project was a 6 month initiative of work at the University of Glasgow to widen the types of data captured for research outputs and impact at the University in response to requirements including Research Council's UK (RCUK) Outcomes, the Research Excellent Framework (REF) and internal reporting. It explored practical methods to make most efficient use of resource in this context.

The work involved staff from Research and Enterprise, Library and I.T. Services and engagement with College based staff. It built on the previous Enrich project that successfully linked the Institutional Repository (Enlighten) with other core University systems such as the Research System, meaning that outputs and impact can be linked to sources of funding that supported them.

We feel we have come a long way and delivered functionality that will be put into full operational use. We have shared our journey and findings with a wide range of stakeholders.

Key Findings

- Requirements specifications for output and impact reporting from Research Organisations to funders need further development.
- We believe we can suitably develop our existing systems at reasonably low cost however the variety of definitions and demands makes this more difficult and therefore more expensive.
- It is important to consider what is worthwhile reporting to minimise unnecessary use of tax payer's money.

Key Achievements

- Implemented new EPrints options to enable user's to select preferred outputs and report impact and esteem data at the University of Glasgow.
- Fostered discussion about output and impact reporting and delivered a report on issues gathered via workshops and a blog. <http://researchoutcomes.wordpress.com/>
- Established links with Medical Research Council (MRC) and RCUK, and discussed and tried out ideas for output and impact reporting direct with the funders.
- Enquire has continued to demonstrate the need for inter-departmental relationships (including Academic colleagues, Library, Research Office, IT Services) and team work to enhance and develop the repository. These relationships were identified as critical in the conclusion of our JISC funded Enrich project which preceded this project.

In addition the team has been involved in work to develop improved web profiles containing awards and output for staff, and development of reports for Personal Development and Review that incorporate individual's activity extracted from the core systems.

Conclusions

The work of this project has allowed the University to accelerate preparation of the environment for output and impact reporting.

There has been a significant interest in the project particularly from other Research Organisations who have been interested in learning from our experiences and discussing approaches to new requirements. Research Council's and other stakeholders have also been interested to hear about our work and the information gathered from our workshops should prove very informative to them when specifying data capture.

We believe that further discussion between funders and representatives of Research Organisations is essential to ensure that appropriate use is made of public money to deliver information of real use with minimum administrative burden.

Background

The University of Glasgow has a mature and well established institutional repository service, by the name of Enlighten. We have been at the forefront of sustained work with institutional repositories in the United Kingdom since 2001. The University of Glasgow has made significant investments in the repository on an ongoing basis including key support at Vice-Principal (Research & Enterprise) level as well as additional funding for library staff to work with the repository. Enlighten is a "hybrid" repository with over 32,000 records for published research outputs. These are a mix of both full text and solely bibliographic records. In June 2008 the University Senate approved a publications policy requiring staff to deposit published and peer-reviewed journal articles, as well as content into Enlighten. The Institutional Repository is now regarded as a central and essential University System and will act as the University's publications database.

The University has had a data rich Research System since 1994. The Research System Development and Maintenance programme has delivered significant enhancements to the research process to date. The system is well regarded as one of the best in the sector and we are frequently consulted.

During 2009, JISC funded the *Enrich* project. This focussed on the integration of funding data from our Research System and outcomes in the repository. Many of the developments we have undertaken or are planning are common sector-wide issues and in many areas we are leading cutting-edge work.

A logical extension to *Enrich*, *Enquire* focussed on the use of Enlighten, the University of Glasgow's institutional repository, to record information about **impact** for a wide range of research **outputs**. This was done with a particular focus on the requirements of the Research Councils UK (RCUK).

Aims and Objectives

Aims and Objectives:

- **Extend** the definitions and data gathered about research outputs in Enlighten. This objective changed during the project as it became apparent that the finalisation of RCUK Outcomes definitions would be put on hold. However we continued work on our own 'no frills' definitions that can be amended should RCUK produce a final specification in the future.
- **Record** impact information about outputs in the repository.
- **Test** research data output files that can be provided to RCUK and for institutional REF preparations with a view to having the infrastructure in place to deliver data files when required. We did not actually test file exchange with RCUK due to their project being placed on hold. However we continued to work as an active partner on CRISPool (<http://www.crispool.org/>) and with MRC discussing specifications for file exchange.
- **Capture** the user needs of our depositors and stakeholders to enhance the system and reduce the burden on those submitting information This has involved initial investigation into the possibility of removing any need for staff to enter data onto third party systems such as MRC e-Val or RCUK Research Outputs systems. The aim being to minimise duplicate data entry and reduce data quality issues that may arise from un-synchronised data sets.
 - **Investigate** whether elements of Higher Education Business and Community Interaction Survey (HEBCIS) reporting can be delivered more robustly from the repository. We are not aware of any Research Organisations that have a central system for managing cultural engagement activity.
- **Share** our successes (and failures) with the sector to help peers deliver output and impact requirements.

Methodology

Overall approach:

The project used three key techniques that align to the overall context of the call and JISC's mission.

Relationships – Development of strong relationships with external and internal stakeholders to identify key requirements and issues, and advertise our findings, with the aim of promoting efficient reporting to Research Council's and other stakeholders. Continued strong advocacy of data deposition at the University of Glasgow to ensure engagement with new tools.

Systems and Processes – Development and promotion of integrated e-Infrastructure to capture and report on research activity focusing on collating relevant information by improving linkages between existing data and systems.

Policies – Monitoring of compliance with University's Publication Policy and ability to deliver funder requirements.

Implementation

Reviewing procedures and support

The Project Board members and meetings ensured that the project supported the business requirements of the University and was efficiently integrated with related activities, facilitated communication with Senior Management, and provided advice and direction.

Regular Project Team meetings discussed the work plans and ensured that actions were driven forward or plans amended if required.

Frequent discussions between Project Team members helped clarify details of requirements and ensure best deployment of available resource. For example there was continued review and enhancement of procedures for amending publicity flags on awards. The repository currently only includes awards where the publicity flag is set to 'yes'. Sometimes staff request that an output is linked to an award that is not in the repository. The most common reason for the award's exclusion is that the publicity flag is set to 'no' in the Research System. We have agreed a process for checking if the flag can be changed to 'Yes' for example where publicity was inappropriate at the time of award but is now desirable and allowable due to elapsed time. Once the relevant checks have been done the award flag is usually set to 'yes' allowing the award data to flow to the repository and the award to be associated with research outputs.

Cross training Library and Research and Enterprise staff facilitated better understanding of the linkages between the information on these two core systems and enhanced service to the Users.

Using an Agile development approach the Research Systems User Group and other interested parties were updated regularly on plans and developments and were given demonstrations of new functionality. Observations from these discussions were fed back into the planning process.

The initial plan was reviewed regularly by the Project Manager.

Data capture and reporting specification and development

This involved enhancing the already well developed University of Glasgow Research Systems by adding functionality to gather and report additional output and impact information.

Our approach was to identify those entities that we **knew** we needed to report on and explore options for capturing information in a generic manner so that the systems and processes are not just geared to one requirement such as REF or RCUK but can facilitate many uses of the information.

The Project Manager was an active member of the RCUK Outcomes Project focus group. As it covered a wide range of possible output types, the project used the Research Council UK (RCUK) Research Outcomes summary of output types <http://www.rcuk.ac.uk/aboutrcuk/efficiency/Researchoutcomes/ropdocs.htm> to identify some key entity types and fields that were common for several different reporting purposes including Research Council (RC), Research Excellence Framework (REF), HEBCIS, and internal reporting requirements including Key Performance Indicators. Some basic mapping of entities from these different reports was done. See appendix A. As part of the requirements analysis we reviewed data collected for the University of Glasgow in the 2008-9 MRC e-VAL exercise. <http://www.mrc.ac.uk/Achievementsimpact/Outputsoutcomes/e-Val/index.htm>

During our project we liaised frequently with the RCUK Outcomes Project.

Once we had decided on a basic specification we started to set up some new entities, and new fields for existing entities in our test Enlighten system.

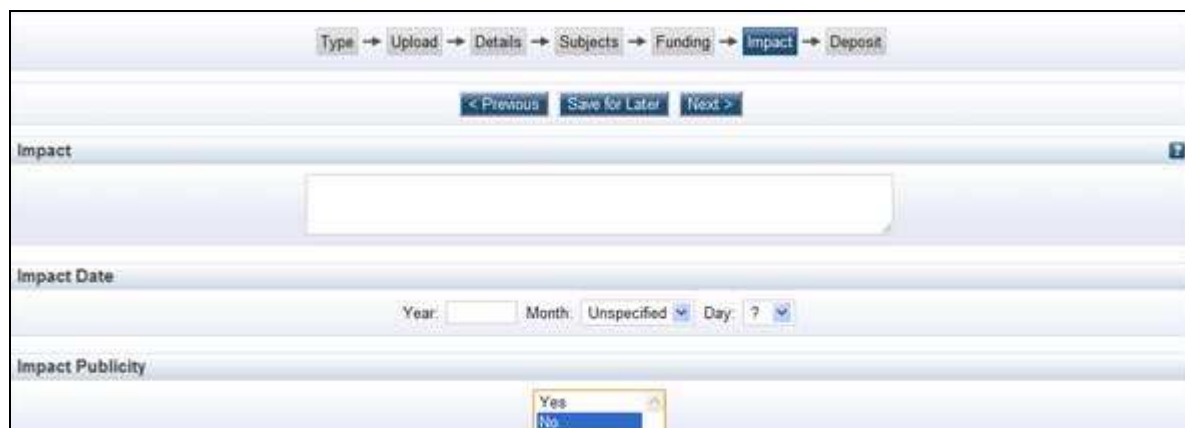
These include public lectures, exhibitions and performances required for HEBCIS (<http://researchoutcomes.wordpress.com/2010/07/02/higher-education-business-and-community-interaction-survey-hebcis/>), award/recognition (relevant to REF), artwork, and compositions.

Impact

In the RCUK Draft Outcomes specification impact can exist both as a component of a specific research output and as a research output itself.

Our initial work in this area built on the deposit workflow approach which we had used in Enrich for funding data. A separate Impact screen with associated fields (impact date, narrative text and publicity) was added to our test service and included as part of the workflow.

Figure 1 Initial workflow approach to Impact



As it became obvious that the RCUK Outcomes specification was stalling we refined our generic impact and output requirements and shifted our initial focus from recording impact as part of the output to recording it as a separate entity associated with a staff member. The test bed for impact then became our forthcoming internal mini-REF exercise. We felt that although still to be finalised the REF requirements would be a more useful basis for our testing than the RCUK specification that may disappear or change radically.

The work of the Institutional Repositories for Research Assessment (IRRA)¹ project, funded by JISC provided the basis for our revised approach to impact. The IRRA Project had developed an EPrints RAE add-on for research assessment which created a separate MySQL database for recording measures of esteem, selecting publications and providing reports.

This software add-on is highly configurable, flexible and generic. With some support from EPrints colleagues at Southampton we have amended it, with a focus on impact and esteem for our mini-REF pilot exercise. We have provided two separate means of collecting impact information, one for Impact as a separate section and a second as an Impact option for a specific output where multiple authors could add their own impact to the same output. We have currently disabled the latter whilst RCUK outcomes definition is uncertain and whilst we focus on our internal mini-REF exercise.

Using these IRRA add-on we have created new set of mini-REF options which are displayed when staff login. These options include "REF Selections" - for publications and outputs associated with an individual, and "REF Impact and Esteem" for impacts, esteem and any additional information associated with an individual. When users choose "REF Selection", figure 2 below, a list of outputs from 2008 is displayed for selection. This has been configured to use staff's Glasgow Unique Identifier (GUID) which is part of the author field of each EPrints record. Staff can provide details about their selections.

These details are not part of the generic EPrints records. They are a set of data related to the person as an individual and as such there are no conflicts if the person wishes to add to or amend the information.

We have created a new user type REF Administrator so that authorised administrators can upload information in addition to researchers themselves and provide support as required.

¹ IRRA Project, <http://irra.eprints.org/index.html>

Staff can easily view those outputs that are in the repository and fit the eligibility criteria for REF. This is more specific than the criteria in the original research assessment module that we have built upon.

The EPrints RAE add-on also including a reporting section, this includes Word and Excel outputs but this could be extended to an appropriate XML format, most likely CERIF for interoperability. It is therefore possible to extract various lists either electronically or in print, for example, to help with preparation and checking of REF submissions. Access to these reports is only available to the REF Administrators.

The internal REF working group were very impressed with initial demonstrations of this add-on and provided valuable feedback enabling us to refine the language and make changes to the functionality. One example of this was the removal of the “Selected by” feature. This feature shows if an output has already been selected and by who, this was disabled in REF Selections to ensure that no staff were able to see other staff selections. It is still available to the REF Administrators in the Reporting section.

This functionality has been enabled in Enlighten and we plan to test this with our forthcoming mini-REF exercise as a secure ring-fenced function and can ensure the confidentiality of this information.

While this is currently badged for our “mini-REF” exercise the flexible nature of this software means that it can be readily applied to satisfy other requirements such as those of RCUK.

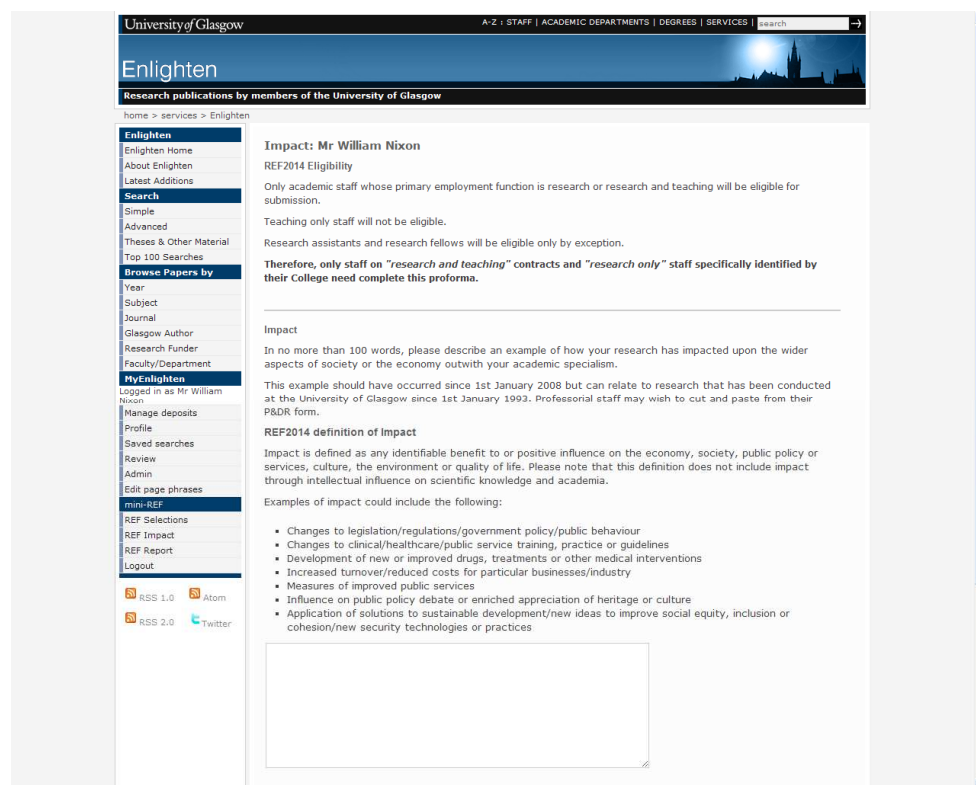
Once we have run our mini-REF we plan to revisit further integration of the functionality and the management of many-to-many relationships between people, impacts, and outputs.

Due to the work of the JISC funded Enrich and Enquire projects Enlighten now contains over 34,000 publication records and is integrated into the research lifecycle at the University of Glasgow as 'the' way to manage research outputs.

Figure 2 Selected Items Screen

The screenshot displays the 'Selected Items' screen in the Enlighten system. The header includes the University of Glasgow logo and navigation links. The main content area is titled 'Selection Details: Mr William Nixon' and provides instructions for selecting items. The 'Selected Item' section lists a publication by Nixon, W. (2010) titled 'Enrich: Improving Integration between an Institutional Repository and a CRIS at the University of Glasgow'. The 'Further Details' section contains a text area for providing a short statement. The 'Self Rating' section includes a dropdown menu for selecting a rating (1*, 2*, 3*, 4*, or Unclassified). The 'Order of Preference' section includes a dropdown menu for selecting a preference (1, 2, 3, or 4). The 'Use of mini-REF Data' section contains a disclaimer about data collection and processing.

Figure 3 Impact



We will work with EPrints Services to update this software to ensure that is compatible with EPrints 3.0 – the software was written for EPrints 2.x but does include installation details for EPrints 3.x. Les Carr, technical director of the [EPrints Repository software team](#) has also suggested that this work could be a candidate package for their EPrints Bazaar [App Store] which would enable other EPrints users to take advantage of the rich functionality presented here. We aim to have the Glasgow modified code available via the EPrints Bazaar by February 2011. If there is a delay or issue with having the code on EPrints Bazaar we will publish our modified code on our blog along with commentary on the main amendments we have made to the EPrints RAE add-on. Enquire team members will attend the EPrints Bazaar workshop in December 2010.

Additional EPrints Development Work

In tandem with this add-on we have also further enhanced the functionality of Enlighten to provide opportunities for staff to request updates and to provide links between records for Glasgow Authors and Funder Data.

A new "Request a correction" plug-in has been implemented in our test service. This provides a link to web form in Enlighten which includes the citation and a text box for authors to provide further information or corrections. This plug-in is based on the EPrints "Request a copy" feature. The e-mail is set-up to go to deposit@lib.gla.ac.uk where Enlighten staff can deal with it. The e-mail that Enlighten staff receive includes a direct link to the editable version of the record.

Building on the funder and Glasgow authors' work of the Enrich project we have now created links from funder names, Glasgow authors, and journals in the EPrints records, to related outputs. These links clearly show the Glasgow authors and provide opportunities to see additional publications or funder related work.

Figure 4 Links to Glasgow Authors, Funders, and Journals

The screenshot shows the Enlighten website interface. At the top, there is a navigation bar with 'University of Glasgow' and a search box. Below this is the 'Enlighten' logo and a tagline 'Research publications by members of the University of Glasgow'. A sidebar on the left contains navigation links such as 'Enlighten Home', 'Search', and 'Browse Papers by'. The main content area displays the title of a research paper, its authors (Salaun, C. et al.), the journal name (Journal of Virology), and a metadata table. The metadata table includes fields for Item Type, Status, Refereed, Authors, Subjects, Faculty/Department, Journal Name, Journal Abbr., ISSN, ISSN (Online), Published Online, Funder's Name, Unique ID, ID Code, Deposited On, and Last Modified.

Item Type:	Article
Status:	Published
Refereed:	Yes
Authors:	Salaun, C., MacDonald, A.I., Larralde, O., Howard, L., Lochrie, K., Burgess, H.M., Brook, M., Malik, P., Gray, N.K. and Graham, S.V.
Subjects:	Q Science > QR Microbiology > QR355 Virology
Faculty/Department:	Faculty of Biomedical and Life Sciences (FBLS) > Division of Infection and Immunity
Journal Name:	Journal of Virology
Journal Abbr.:	J. Virol.
ISSN:	0022-538X
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Funder's Name:	Medical Research Council
Unique ID:	glaseprints:2010-34064
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Last Modified:	12 Aug 2010 15:52

Throughout we learned from, and provided information to, other projects investigating data exchange such as keeping up to date on Readiness for Ref and JISC EXCRI, and being active participants in the CRISPool project looking at Common European Research Information Format (CERIF) data format.

The RCUK Outcomes Project changed direction and pace. The fundamental goals and requirements stayed the same but due to limitations on funding it was announced that the RCUK would no longer build a new system to capture the wide range of outputs for all RC's as originally planned but instead use several of the existing RC systems to capture this information.

The current status is that RCUK assure us that although different systems may be employed there will be a large degree of commonality.

Consequently we have not been able to deliver definitive output specifications that comply with RCUK requirements. However we have produced generic specifications and screens for impact and some key outputs that can be modified as required once if different specifications are published. We await further information from RCUK and hope that there will not be significant overheads in dealing with several receiving interfaces. Multiple systems would seem to conflict with the Willett's report.

The University of Glasgow has a comparatively high number of MRC awards and we have been consulted by the MRC on development of the e-Val system. As the RCUK Outcome Project has not progressed to an agreed data specification we have been liaising with MRC regarding sending some test data files to them since MRC e-VAL is LIVE and may well be one of the RC systems used in future for RC data collection. This is an area we would like to have more time for as we believe automated upload to RC systems will increase efficiency.

Internal and external information Sharing

We have dedicated a lot of effort to sharing our experiences. This has involved significant liaison with stakeholders to foster collaboration, mutual support, and efficient use of resources. In addition to liaison with RCUK, MRC, and internal partners and stakeholders we organised and delivered a large number of ad hoc and formal presentations to other Research Organisations and interested parties e.g. Welsh Repository Network where the topic was 'Learning How to Play Nicely: Repositories and CRIS', UCISA, ARMA, Open Repositories, and EuroCRIS. There have also been presentations to other Research Organisations including Oxford University, Dundee University and Queen Margaret University, who were impressed by the range of functionality in the University of Glasgow Research Systems.

The JISC Research Information Management programme meeting was a useful forum to hear about other projects in this area and new linkages were fostered. For example we found out that the JISC Business and Community Engagement (BCE) team were looking at a very similar set of activities to those that we are focussing on when extending the coverage of our systems. We plan to discuss ways that we can share information and optimise benefits to the sector with BCE.

In addition we ran two workshops with the aim of gathering feedback and sharing information about work in progress to deliver data to funder's specifications. Rather than focus on the University of Glasgow case study we allowed more time for discussion of sector issues and this was very well received. The agenda included an overview of the status of requirements development in the sector, an exercise using the RCUK summary of output types as a discussion framework, and a quick poll to indicate if attendees saw merit in recording certain entities and if they foresaw difficulties in doing so. The organisation of these events was resource hungry however excellent feedback was received confirming that they were worthwhile and a number of opportunities are emerging as a result.



The 'warts and all' case studies and workshops have been very successful. People like to hear real stories including business benefits of the piece of work, what we would not do again given choice, obstacles overcome, and obstacles still to be tackled. We have been asked for 'More of the same'

Although some scene setting and speculating might be useful, too much focusing on 'what if' can be counter productive.

Our solutions are not generally based on being able to provide the best, most high tech solution, but on providing a fit for purpose functionality with limited resources. We hope that presenting frankly has helped, and will continue to, help highlight the limited resource applied to Systems and Processes to support Research and facilitate on-going constructive discussion and feedback that can be used within the constraints that Higher Education Institutes have.

Outputs and Results

This report together with the project blog contains a collection of comments that we have gathered from other stakeholders or observed during our work and that may be of use to funders, other Research Organisations and anyone interested in the output and impact agenda.

Discussion and workshops highlighted:

- The need to minimise burden on academics
- The need to communicate clearly the purpose of data collection
- The number of entities should be appropriate
- The need for standard sector definitions of the key terms impact, outcome and output
- There are difficulties in relating impacts to earlier outputs
- Quality is difficult to assess - could be based on story telling ability
- Clear definitions and demarcation between categories will help reduce stress and enhance the quality of returns
- It is difficult to collect robust data for some entities
- Resource will be required to amend and manage Research Organisation systems and processes.

A full report on the workshops can be found at:

<http://researchoutcomes.wordpress.com/2010/10/01/final-workshop-report/>

The new EPrints screens and code are being used at the University of Glasgow and we continue to listen to feedback and enhance the functionality accordingly. Early indications are that the functionality is user-friendly. We are testing functionality to capture all outputs and impacts that staff wish to record but include a mechanism to identify those thought to be most significant. We have considered the many-to-many relationships between impacts, outputs and people.

We now have a more distinct idea of what might be required for output and impact reporting as well as a more developed foundation on which to build the detailed functionality.

Testing CERIF data exchange and talking with RCUK and MRC has given up additional confidence that we are on the right tracks and we are optimistic that we will be able to deliver information required once it is clearly defined.

We plan to run a workshop in early 2011 which will allow us to engage with the community on the use of the repository for funder requirements and research assessment, in particular capturing impact and esteem information. We will also provide an overview of the lessons learned in our miniREF exercise and a demonstration of our work with the EPrints RAE software.

Outcomes

The new functionality will benefit University staff by facilitating more efficient and accurate recording of output and impact information that will be required for REF and Research Council's. In addition we expect that we will be able to produce more robust information for HEBCIS in the future. We will also have more comprehensive information for internal management and planning.

We have been able to use the project to set up our internal mini-REF exercise that is planned for late 2010.

These EPrints screens and code will be made available for others to learn from or amend as they wish and we hope they will help facilitate reduction of the pain of delivering output and impact information.

We believe sharing our findings from our workshops and presentations via the reports and blog serves as very useful information for the sector and funders. Often our blog is the first place that people have heard of sector news. For example as soon as information was available we provided an update on the status of the RCUK Outcomes Project. We also publicised the annual MRC e-VAL exercise. Usefulness can be evidenced by publicly available comments on the blog.

We believe the sector will benefit from a more coherent set of projects and communications relating to output and impact in the future as a result of networking with colleagues in other projects and Research Organisations.

Conclusions

The work of this project has enabled the University to accelerate preparation of the environment for output and impact reporting. We very pleased that we have demonstrated the extent of team work between organisational units within the University. This has been the key to our success.

It is clear that more work is required both within the University and across the sector and we feel confident that we have laid strong foundations for future developments.

There has been a significant interest in the project particularly from other Research Organisations who have been interested in learning from our experiences and discussing approaches to new requirements. Research Council's and other stakeholders have also been interested to hear about our work and the information gathered from our workshops should prove very informative to them when specifying data capture.

Communication has been key and we are lucky to have a well established internal network where it is generally easy to find and work with teams across organisational units who have related goals.

Working together with other organisations has been extremely informative and conducive to reduction of development and option analysis time for individual organisations.

Implications

Although rather 'chicken and egg' we feel it is important to continue to prepare the environment for future output and impact reporting. We aim to identify an appropriate balance ensuring we do not invest resource where it cannot be used in future but that we are suitably prepared to deliver information required.

This might involve several areas of great importance to the University of Glasgow and the sector as a whole:

- Further work on our core institutional systems using our mini-REF as a testing ground and reporting on requirements emerging as a result. This might include further extending the types of activity we manage data about as well as increasing linkages to outputs such as videos and data sets. This would work well with the digital preservation projects that JISC has funded in the College of Arts for example the Digital Conservation Centre collaboration between Bath, Edinburgh and Glasgow Universities.
- Review of other exercises such as MRC e-VAL and Science and Technology Facilities Council (STFC) pilot.
- Further work with MRC and/or other Research Council's to test data provision.
- Workshops looking at information availability and requirements for activities not traditionally recorded in core systems e.g. Theatres, Museums, and Records Centres.
- Assisting others in the sector by giving demonstrations of work at the University of Glasgow. We have a list of organisations that have asked for a demo.
- Review of researcher support requirements e.g. via questionnaires, interviews or a workshop.
- Implementing communication plans and developing user-friendly reports to ensure academic staff are informed of output and impact requirements as they develop as well as local plans to support this agenda.

- Networking events for administrators to facilitate further understanding of linkages of systems and processes that support research related activity across the University.
- Liaising with other parties such as the Research Management and Administrative System (RMAS) project and other Research Organisations about the possibilities of sharing information from our system development to reduce duplication of effort for those parties who require new systems.
- Working with HEFCE, JISC, and other parties to standardise definitions and terminology relating to outputs, outcomes and impact and present worked examples.
- More detailed mapping of similar entities required for different reports.

Recommendations

Research Organisations and their representative bodies should try to persuade RCUK that having several systems would be confusing and a false economy. Although the upfront cost of data provision to RCUK would be reduced there would be additional resource requirement at each Research Organisation.

Ideally one single system should be adopted where generic questions for all RC's can be answered along with any specific questions deemed necessary for individual RC's. The MRC e-Val system receives very good feedback from users and would, in our opinion, be a very good basis for a single system.

Further low cost networking events and opportunities should be facilitated so that linkages can be fostered between projects in this field to maximise impact.

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<http://www.kcl.ac.uk/iss/cerch/projects/portfolio/r4r.html> (Readiness for Ref project)
<http://www.xcri.org/> XCRI project
<http://www.crispool.org/> CRISPool Project looking at data exchange format.
<http://as.exeter.ac.uk/rmas/index.htm> Research Management and Administrative System project

Acronymn Glossary

ARMA	Association for Research Managers and Administrators
CERIF	Common European Research Information Format
CRIS	Current Research Information Systems
EuroCRIS	European Current Research Information Systems
HEBCIS	Higher Education Business and Community Interaction Survey
HEFCE	Higher Education Funding Council for England
MRC	Medical Research Council
RCUK	Research Councils UK
REF	Research Excellence Framework
RMAS	Research Management and Administrative System
STFC	Science and Technology Facilities Council
UCISA,	University and Colleges Information Systems Association
XCRI	Exchanging Course-Related Information

Project Acronym: Enquire
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Date: 15 November 2010

APPENDIX A - WORKING DOCUMENT - INITIAL MAPPING OF ENTITY TYPES

RCUK	REF	EXISTS IN GU SYSTEM - COMMENT	MAP HEBCIS TYPE	COMMENT
COMPOSITION/SCORE		COMPOSITION		
EXHIBITION/PERFORMANCE		SHOW/EXHIBITION	EXHIBITIONS	
BOOK		EDITED BOOK AND AUTHORED BOOK		RAE DISTINGUISHED BETWEEN EDITED AND AUTHORED BOOKS
BOOK CHAPTER		BOOK SECTION - CHAPTER		
CRITICAL EDITION		SCHOLARLY EDITION		
JOURNAL ARTICLE	COLLABORATIVE OUTPUTS	ARTICLE		
JOURNAL REVIEW		ARTICLE - REVIEW		
CONFERENCE PAPER		CONFERENCE PROCEEDINGS		
ARTWORK/ARTEFACT		ARTEFACT		AVAILABLE AS TYPE BUT FURTHER FIELDS TO BE ADDED AND NO LIVE EXAMPLES LOGGED YET
MEDICAL INTERVENTIONS	IMPROVED PATIENT CARE OR HEALTH OUTCOMES	IMPACT		
PUBLIC DIALOGUE/DEBATE*			PUBLIC LECTURE	
SCHOOL VISIT			MUSEUM EDUCATION	
FURTHER FUNDING	RESEARCH CONTRACTS, FUNDING FROM OVERSEAS	VARIOUS ENTITIES IN THE RESEARCH SYSTEM		
SPIN-OUT COMPANY	SPIN-OUT CO REVENUE/NO. OF EMPLOYEES	VARIOUS ENTITIES IN THE RESEARCH SYSTEM		
PATENT		VARIOUS ENTITIES IN THE RESEARCH SYSTEM		
LICENCE AGREEMENT	IP INCOME AND ALSO PATENTS GRANTED AND BROUGHT TO MARKET	VARIOUS ENTITIES IN THE RESEARCH SYSTEM		
NEXT DESTINATION	STAFF MOVEMENT			
INFLUENCE ON POLICY	BETTER INFORMED PUBLIC POLICY	IMPACT		
IMPACT	IMPACT	IMPACT		THIS INCLUDES CHANGES TO CLINICAL/HEALTHCARE TRAINING AND GUIDELINES, INCREASED TURNOVER/REDUCED COSTS FOR INDUSTRY, IMPROVED PUBLIC SERVICES, ENRICHED APPRECIATION OF HERITAGE OR CULTURE, SOLUTIONS FOR SUSTAINABLE DEVELOPMENT, IDEAS TO IMPROVE SOCIAL EQUITY, NEW SECURITY TECHNOLOGIES OR PRACTICES
AWARD/RECOGNITION	ESTEEM	ESTEEM	PUBLIC LECTURE	OVERLAPS WITH SEVERAL RCUK, AND GU SYSTEM ENTITIES. MEDALS, PRIZES, FELLOWSHIPS OF LEARNED SOCIETIES, AWARD OF COMPETITIVE FELLOWSHIP, KEYNOTE SPEAKER, PEER REVIEW, APPOINTMENT, EDITORSHIP OF JOURNAL, CONSULTANCY/ADVISER TO PUBLIC OR PRIVATE BODY, POSITIONS ON NATIONAL OR INTERNATIONAL STRATEGIC ADVISORY BODIES, VISITING FELLOW, HONORARY POSITION, VISITING RESEARCH FELLOW AT INSTITUTION OUTSIDE ACADEMIA

BOLD INDICATES FURTHER DEVELOPED, OR ADDED, DATA COLLECTION FUNCTIONALITY AS PART OF ENQUIRE PROJECT

* = ANALYSED AS PART OF ENQUIRE BUT NOT YET IN FULL OPERATION