

## **JISC QA Focus**

An introductory article written by Marieke Napier and Ed Bremner introducing the new JISC Quality Assurance (QA) Focus post, discussing what it will be doing, the benefits it will provide, the challenges it faces and how it will affect projects.

### ***Why a QA Focus post?***

In January 2002 the JISC Quality Assurance (QA) Focus post came into being. The decision by JISC to create the post was the result of the culmination of a number of significant factors. Over the past five years digitisation projects and programmes have expanded rapidly across the HE and FE sectors. In particular, through the DNER and associated initiatives, a range of different digital assets and products have been produced. These include distinct types of digital assets (such as image archives, video or audio clips, and discrete learning materials), and software/applications (such as computer-aided learning packages, support systems, databases and portals).

Throughout the creation of these materials there have been no consistent established QA procedures against which the quality of these materials can be assessed. The new QA Focus post will develop and promote a QA framework to ensure a more rigorous approach to the establishment of consistent, high quality standards for all the JISC DNER projects and services and their associated 'products'. Although the quality of project deliverables are usually of a very high standard, the projects themselves have not necessarily adhered to the technical standards.

### ***Why are Standards Important?***

Standards have a crucial role to play in the creation of any information resources. Creating products to an established and appropriate standard is critical in enabling their accessibility, interoperability, preservation and reusability. These are all important factors in the accountability of public funding that should take place in a programme like the DNER. Within the DNER Technical Standards and Guidelines it states that "*Adherence to standards plays an essential role in improving access to the information resources accessible online (and that) without the implementation of agreed approaches throughout the DNER, the aspiration of timely and usable networked information for use in education will not be realised.*"

Along with the requirement for more consistency in use of standards the JISC programme managers also recognize that there is a need to consolidate and expand the remit of the current JISC Services in order to provide a coherent approach to future digitisation work. With the QA Focus post these activities will be co-ordinated. The QA Focus will be overseeing, liaising and establishing QA practice rather than undertaking actual project by project work. The intention is for QA Focus to encourage and initialise QA practices and procedures within projects, which will then be carried out by the projects themselves.

### ***What is Quality Assurance?***

It may be useful at this point to define what exactly quality is. Quality has been seen by those in the commercial world, and increasingly by those in the Higher Education and Further Education communities, as the ability of your product or service to satisfy your customers. Quality assurance (QA) is the process that demonstrates that your product or service will satisfy your customers (users or preferred term); however this satisfaction level ideally needs to be agreed upon in advance. QA therefore is a collective process by a programme or organisation that ensures that the quality of its processes are maintained to the standards it has set itself. Such a process can be carried out by review by an external quality-auditing panel, in which case accountability becomes the key, or by self-evaluation, where improvement is the priority. The QA Focus will help projects to carry out internally driven QA of their processes, digital resources and Web sites by self evaluation, with the ultimate aim of improving the overall service for projects customers/end users. This self evaluation will be based on structured processes and will allow the formulation of distinct plans on how improvement can be effected.

To understand what makes a good digital collection or set of resources it is useful to be familiar with the life-cycle model and associated procedures and guidelines. Some of the key principles that need to be considered include collection development policy, digital resource creation, metadata descriptions, sustainability, accessibility, Intellectual Property Rights (IPR), measurement of use, reusability and how the resource fits into the larger context.

The QA Focus will consider a QA methodology for all these areas and significant lessons learnt from the application of the processes across all DNER projects will be disseminated to all DNER stakeholders.

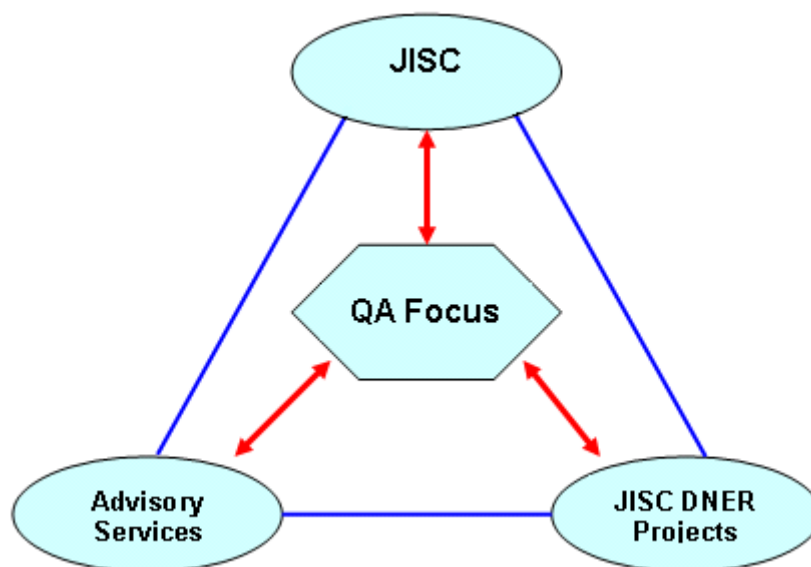
### ***Who are the QA Focus Team?***

The QA Focus will be provided by an equal partnership of ILRT<sup>i</sup> (University of Bristol) and UKOLN<sup>ii</sup>, (University of Bath) and is jointly held by Ed Bremner (ILRT) and Marieke Napier (UKOLN). A collaborative approach to working has been established but the two partners will also be responsible for individual areas. Marieke will be covering QA for Web sites; aspects include access, provision of Web sites, access by non-standard browsers and other user agents, compliance with accessibility guidelines and standards documentation, metadata, re-use/repackaging of Web sites and preservation of Web sites. She will also be responsible for deployment of project deliverables in a service environment and QA for software development. Ed Bremner will be covering QA for digitisation; aspects include digital images, technical metadata, digital sounds, moving images and multi media resources. He will also be responsible for the creation and delivery of learning and teaching packages, modules and objects. Further details on these specific areas of work will be given later in this article. The QA Focus post will also be given strategic support from Brian Kelly and Karla Youngs, Project Managers in UKOLN and ILRT respectively.

### ***Who will be affected by the QA Focus post?***

The QA Focus post is being funded to support and oversee QA within the 5/99 DNER projects; its existence will therefore have an effect on key stakeholders involved in

any way with these projects, from creator to end-user. To start, the potential of the post is already being appreciated by the JISC and DNER management teams who now feel re-assured that the projects that they have funded are being helped and encouraged to create products to a universal high level of quality. The use of common standards across all projects will provide a greater likelihood of interoperability of the project deliverables and their subsequent deployment into a service environment. The JISC advisory services will be affected by the existence of the new post because of their need to provide guidance and support for the projects. In time the projects will be able to create products that easily exceed the QA standards which the DNER have set. Eventually the effect will filter down to the end user, who will be provided with a much better product than could ever have been produced without any QA. The QA Focus team will sit between all stakeholders within the DNER 5/99 programme and provide the systems and communications to put QA process into place.



### ***What are the benefits of a QA culture?***

Taking a systematic approach to QA with the appropriate standards will provide a host of obvious as well as subtle benefits to the DNER projects and all other stakeholders:

- The introduction of a QA culture into a project can only improve the quality of the product. Whatever the product is, establishing the appropriate standards and establishing a workflow that assures that your project complies to them will guarantee their quality.
- An established QA system assuring the product has been made to the appropriate standards can provide a useful ‘proof’ of the quality of the projects product supporting subsequent use within a service environment.
- QA culture is based around a concept of improving communication between all the stakeholders of the DNER projects. QA Focus will provide an active hub to encourage improved communication on all matters pertaining to QA.

- It is important to everyone involved with the DNER projects that every effort is taken to make sure that the projects are successful, however it is perhaps the funders who will most appreciate the approaches you have taken.
- Being able to ‘prove’ the quality of the project will provide a greater chance of future funding from other funding sources in the future.
- Once established within a team or organisation QA Culture will become second nature to those involved and can therefore be reused in any future project, providing benefit for all subsequent projects.
- Having a QA system within the workflow and creating products that have been made to an established standard will make it much easier to establish the interoperability of project deliverables & then deploy them into a service environment.
- Last, but hardly least, you will provide your self with the self satisfaction that that comes from knowing that you have done everything that you can to make sure that your product is as good as it possibly can be.

### ***What Challenges does establishing a QA culture provide?***

The advantages of QA can be considered pretty self-evident, but on the other hand, what do the projects stand to lose by introducing the process? On balance it is certainly hoped that the challenges that are presented by establishing a QA culture (if not already present) will be outweighed by the benefits, but there are still some possible issues:

- Projects that had no provision for any QA system will now need to use up precious resources to review the quality of their work so far, which in turn can make it harder to ensure that the project remains on schedule.
- A QA culture demands a high level of communication both internally as well as with external bodies. This is not always easy and can certainly be time consuming. However, it is only by sharing our failures as well as our successes that as a group we will have any chance of learning at a sufficient rate to keep up with the advances in current technology and best practice.
- Developing a QA culture with a self-analytical basis within your project’s team or supporting institute can be a challenge due to resistance from over-stretched staff and QA sceptics.
- QA is based on the establishment and adherence to a set of qualitative standards. Without these standards, QA can quickly become a very amorphous concept! However the speed at which the underlying technology within digitisation moves and the growth of our knowledge and experience means that best practices and indeed the standards themselves need to also be continually updated.

While it is understood that these factors do provide real challenges to the projects, QA Focus believes that the advantages greatly outweigh the disadvantages. QA Focus will do everything that it can to support DNER projects and JISC services, making the whole process as easy as possible for all concerned.

### ***What is QA Focus Going to Do?***

As mentioned earlier, QA Focus intends to provide all the necessary methodology to enable the projects to undertake all aspects of QA through self-evaluation. It is not the intention of QA Focus to actually undertake any of the QA work itself. Given that there are over 50 projects such an undertaking would be both costly and time consuming. QA Focus will manage and oversee the whole process by taking a dynamic and reactive standpoint, from which they will be able to interact with all the relevant stakeholders to help all the DNER projects create products of the highest quality.

### **QA Focus will be able to do this by:**

**Creating a channel for information between the JISC-DNER (funders), the JISC Services and the DNER 5/99 projects themselves.** If there is one key element that is common through the whole of QA, it is communication. The QA Focus' primary purpose is to act as a conduit to enable cross-programme communication on all quality standards and best practices.

**Developing and disseminating a wealth of information on current good QA practices.** Keeping abreast of changes and developments within digitisation as they occur. QA Focus will then disseminate this information to the JISC services and the DNER projects as they need it, using the most appropriate method.

**Establishing key areas of interest and expertise within QA.** These areas will include:

- QA for Digitisation, which will involve the evaluation of digitisation methodologies and workflow for digital images, moving images and sound. There will be consideration of choice of 'size' & 'quality' of resource, of chosen file type, compression, bit depth and choice of the appropriate size for the purpose of archiving and delivering images.
- QA for Learning materials, which will involve looking at the pedagogy and teaching methods used in the creation of resource and such areas as how e-learning packages are chunked.
- QA for Metadata, which will involve consideration of the metadata created for resources and the Web site etc.
- QA for Access, which will involve looking at the accessibility and usability of Web sites, compliance with HTML, CSS and other relevant standards. There will also be consideration of dissemination strategies and Web statistics.
- QA for Software, which will involve looking at code quality, process documentation and other allied issues.

- QA for Service Deployment, which will involve looking at deploying project deliverables within JISC services, preservation etc.

**Producing a QA toolkit.** This will provide a checklist for projects to undertake QA evaluation of their own work. The checklist will include links to tools that allow quick evaluation of the resources created. It is hoped that the toolkit will become part of our core knowledge for further projects.

At this early stage of QA Focus, many of the finer details of approach and methodology for this work have yet to be established and as such, are still open to discussion and feedback. QA Focus intends to give a more detailed breakdown of this work shortly in an issue of the Web magazine, *Ariadne*<sup>iii</sup>.

### **Conclusion**

So what does all this mean for you, if you are working on a project? What should you do now? To start with, if you aren't already, QA Focus suggests that you review your QA processes and make sure they are completely documented. Begin by considering your compliance to the current DNER Architectural Framework documentation and what procedures you have in place to help you assure your product complies with those standards. Such activities may seem tiresome right now but will provide useful long term benefits.

Remember...the QA Focus post has been established to help you work better and in the long run you have much to gain from it. If you have any further questions, please do not hesitate to get in contact with either of the post-holders<sup>iv</sup>.

### **Contact Information**

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<sup>i</sup> ILRT, Institute for Learning and Research Technology

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<sup>ii</sup> UKOLN, a national focus of expertise in digital information management

URL: <<http://www.ukoln.ac.uk/>>

<sup>iii</sup> Ariadne

URL: <<http://www.ariadne.ac.uk/>>

<sup>iv</sup> QA Focus area of the UKOLN Web site

URL: <<http://www.ukoln.ac.uk/qa-focus/>>