

Visual Arts Research Data Management: From Inception to the Production of an RDM Policy for The Glasgow School of Art

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Example of visual arts data used in discussion with MRes students. (Burgess & Bear, 2012).

Background

The Glasgow School of Art (GSA) is internationally recognised as one of Europe's foremost higher education institutions for creative education and research in fine art, design and architecture. The institution is:

- A creative hothouse. A small concentrated community of committed, creative people bound together by a shared visual language and a concern for visual culture.
- At the heart of one of Europe's most influential and creative artistic communities providing an energetic environment in which new ideas can flourish.
- Producers of mature, confident graduates through education in fine art, design and architecture, which is practice based, face to face, professionally oriented and socially engaged.
- Researchers that influence world culture by generating new knowledge through creativity and conceptual thinking.

With regard to the GSA's involvement in the KAPTUR project for the development of a Research Data Management (RDM) policy, it has been the Research Office and Learning Resources Department that have been heavily involved. The Research Office constitutes five members of full time staff and is closely linked with the Graduate School. It has been the role of the Research Information Manager at GSA to undertake the work of KAPTUR.

It should be noted that during the lifespan of the KAPTUR project there have been various institutional changes that have affected the Research Office, namely in relation to changes in management and structure. These changes have affected the support and guidance for the Project Officer during the project.

On embarking on the KAPTUR project, GSA did not have an RDM policy in place. Policies were being worked on such as a new Ethics policy and some policies were in place related to IT usage, data protection, and various strategies employed throughout the school. Therefore GSA's involvement in KAPTUR has been of great benefit for helping research staff and administrative staff to understand research data management further. There has also been more of a requirement set by funding bodies to have proof of research data management plans and policies, so to ensure GSA continues to be funded by organisations such as the Arts and Humanities Research Council (AHRC), it has been of utmost importance for the institution to develop and produce these RDM documents.

Upon engagement on the KAPTUR project, initial conversations were held within the Research Office and Learning Resources Department to determine the types of data that the policy will need to tackle. It was determined that the majority of the data will be visual and it would likely be quite complex to record, and not standard as can be seen in some science-based disciplines. Greater scrutiny and management of information is often required in the arts, and this was likely to become more apparent as the project progressed. Initial conversations with researchers also raised issues that they face related to storage and extrapolation of the information and research they create. These were aspects that were hoped could be investigated further by being part of the KAPTUR project.

It can be concluded that the GSA were very pleased to be invited to be part of the KAPTUR project and to gain much needed valuable support in the field of research data management.

Expectations

On embarking on the project, one of the main challenges that the Project Officer identified was to gain support and buy-in from departments and staff about the importance of data management. It was understood that new processes, policies and procedures were to be developed during the project and that these would influence the work of research staff for example. As with any change, resistance happens and this would need to be overcome. Training and education of staff in matters related to research data management would help to overcome these barriers.

Another major challenge that was being faced by GSA came about from the Environmental Assessment stage of the project, and actually understanding what research data was in the arts. Preliminary interviews and questions were asked of research and support staff to ascertain an initial understanding of what they felt research data in the arts constituted. Further development and analysis of responses resulted in the Environmental Assessment report. The question 'What is visual arts research data?' has been revisited several times during the project, and at time of writing the latest version developed by the project team is:

"Evidence which is used or created to generate new knowledge and interpretations. 'Evidence' may be intersubjective or subjective; physical or emotional; persistent or ephemeral; personal or public; explicit or tacit; and is consciously or unconsciously referenced by the researcher at some point during the course of their research. As part of the research process, research data maybe collated in a structured way to create a dataset to substantiate a particular interpretation, analysis or argument. A dataset may or may not lead to a research output, which regardless of method of presentation, is a planned public statement of new knowledge or interpretation"

With a greater understanding of what research data is in the arts, it was then also possible to understand the requirements now being enforced by the funding bodies, such as the Engineering and Physical Sciences Research Council (EPSRC) and AHRC, in relation to research data management. This is a requirement that the institution needs to adhere to in order to ensure continued funding from the various funding agencies.

The majority of the challenges being faced are related to the researchers themselves, based on their understanding of research data and the information that they create. The Environmental Assessment report captured this sort of information by focusing on the following premises:

- **Terminology:** Questions were asked to determine how much the researchers understood about research data management in relation to methods and processes. Also, whether they were able to define the concept of research data in their minds.
- **The role of the visual arts researcher:** We wanted to understand how researchers work with the data they collect, and the interactions they make. Their role was looked at from an individual perspective, but also from an institutional perspective.
- **Creation of visual arts research data:** How is arts research data created? What are the processes that researchers adopt when creating their outputs? What contributes to their research outputs? We were keen to understand if any specific methods are used, any common ground covered in creating the data, however for the visual arts this can be quite varied.
- **Use and re-use of visual arts research data:** With all research it is important to be able to use and re-purpose information if required. The views of researchers were gathered in relation to this concept. This was to help determine the researchers' views towards the ability to re-use the data they have been creating.

- **Visual arts research data in the longer term:** As with all data, plans need to be put in place for the storage and accessibility of the information, and whether it needs to be kept for a period of time. Storage methods were discussed and the thoughts of the researcher on the preservation of information examined.

The expectation was then to use this knowledge to inform the development of the RDM policy that would be geared towards the requirements of GSA. In addition to this, the information gathered from researchers would help inform other documents that would be of benefit to researchers in aiding them with data management.

Approach

The work undertaken during the KAPTUR project has primarily been carried out by the Project Officer at GSA who was assigned the task of developing the RDM policy. The Project Officer was based in the Research Office, but during the project has had support from the Learning Resources Department and IT, as well as the actual researchers themselves.

A requirement of the KAPTUR project was to hold monthly project meetings at the partner institutions to give the Project Officers the opportunity to meet up and share ideas and work through issues. The Project Manager was in attendance at the meetings. Each meeting consisted of a detailed agenda with specific themed discussion points. These meetings were a useful way to share ideas, raise concerns and give progress updates from each partner institution.

One of the requirements of the project was to set up working groups to help with the development of the policy and to stimulate discussion in the field of research data management. The idea of working groups were discussed at GSA, however due to other work commitments within the school, these were never formally set up. Instead of specific working groups, GSA decided to adopt a more iterative process for the development of their policy in that when other parts of the school (such as IT) were required to input to the policy, they were contacted individually and discussions held. This approach helped to enhance the development of the policy, as feedback and help was sought only when required. The Project Officer at GSA ensured that communication was maintained between interested parties throughout the project.

An aspect that has been key to the development of the policy at GSA has been the involvement of researchers in its development and training of students and staff in the importance of data management. The Environmental Assessment report, a fundamental outcome of the KAPTUR project, has helped to give guidance and comments to help the development of the policy at GSA.

The Environmental Assessment report helped to analyse the findings from the interviews that the four partner institutions undertook with their researchers, and to put the information gathered into the context of research data management. The report was very much focused on the views of the researchers, with additional references from texts supporting the points raised by researchers. However, the involvement and views of the researchers were seen to be more important and helped to steer the development of the policies for each institution and to give them focus towards the requirements of each institution. The interviews that were undertaken with the research staff from each institution were used heavily to contribute to the Environmental Assessment as they helped to identify the state of play at each of the partner institutions and to identify gaps in understanding and resources. The report made use of quotes from the researchers in relation to the five points stated above. These quotes have then been used to help create an A-Z of Arts Research Data, a document and poster that was suggested by the Project Officer from GSA. Images and quotes were used for its development.



Fig. 1 A-Z of arts research data, KAPTUR (Designed by Gii Bear, 2012, images courtesy of GSA Flickr).

In addition to this, the Project Officer at GSA undertook training and teaching duties to disseminate knowledge about research data management. Training was undertaken with staff from the Research Office, Learning Resources Department, and IT. This was to help extrapolate knowledge of the policy and the importance of research data management plans. Undertaking this training was a requirement of the KAPTUR project and the outcomes have helped to fuel the development of training toolkits in the field of research data management.

In addition to raising the awareness of staff about the importance of research data management, the Project Officer undertook teaching duties with early career researchers and Masters of Research (MRes) students, and highlighted to them the importance of data management in the arts. Teaching duties fell under the area of 'Methods, Methodologies, and Techniques' with a focused title of 'Getting to grips with research terminology'. The teaching focused on discussing and sharing knowledge about different terms associated with research data, giving examples of the management of data, and using specific examples of arts research data and determining how best to handle the information. The training was well received and a lot of interesting points were raised and covered.



Fig. 2 Aspects that were covered during the MRes teaching (adapted from Creswell, 2009).

Specific examples of arts related data were discussed with the students. Examples included paintings and original art works, artefacts, written text and numerical information, to help give a broad scope to the discussions. A couple of examples included:

One: Original art work incorporated with digital art

This piece of art was created using an original painting in acrylics (the image of the people) which has been incorporated into an original piece of digital photography, an image from San Francisco. In discussion the students were asked about the concept of incorporating two distinct art forms, and to think about the types of information that would have been created during the production of this piece and any aspects related to use and re-use. The types of research that could come out from this piece of art were also looked at, such as comparing the style of an ‘unknown’ art outfit with an established artist.

The discussions raised some interesting points in relation to the merit of digital art as an art form. Also, the methods used for incorporating the styles were discussed and raised issues related to the information being gathered for being able to achieve this sort of final piece of art.



Fig. 3 Example of visual arts data used in discussion with MRes students. (Burgess & Bear, 2012).

Two: Literature comparison

Two poems by Wendy Cope were read out and then critically reviewed by the students from the point of view of language used, themes discussed and meanings. The thought processes behind writing the poems were discussed, determining the type of 'research' that might have been undertaken in helping to write them.

Three: Sketchbooks and physical visual items

Artist sketchbooks were shown highlighting the stages in the production of a final piece of artwork. Sketchbooks are a very common form of data and information recording protocol for an artist. Lots of different information is recorded in a sketchbook, from text to drawings and cuttings and physical material. This sort of information needs to be managed sufficiently and accordingly as it helps to paint the picture of how the final piece of art was created. This example is one that the Project Officers at each institution have been faced with.

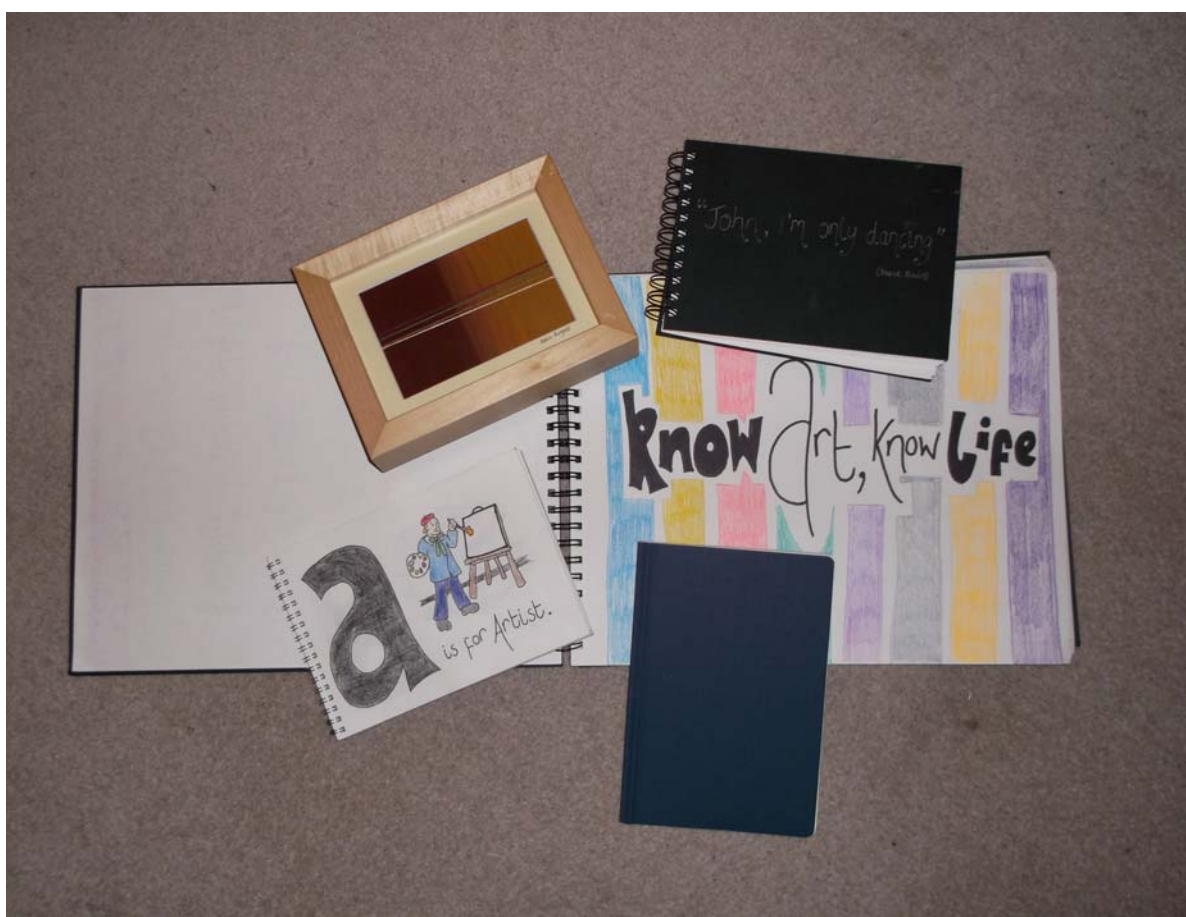


Fig. 4 Illustrating sketchbooks and final art work. (Robin Burgess, 2013)

Alongside internal meetings and events, various external opportunities for knowledge exchange and networking were taken advantage of. Events attended by GSA included a JISC run two day event in Leeds with a focus on the development of research data management plans. This event raised many areas of interest in relation to policy development with emphasis on roles and responsibilities. The Digital Curation Centre (DCC) run various roadshows and the Project Officer from GSA was invited to present a paper in relation to the work of KAPTUR and arts data management at one of these held in Dundee. This was a great opportunity for the KAPTUR project to gain some further exposure within the field of data management amongst practitioners.

Working alongside the Visual Arts Data Service (VADS), GSA helped to produce a paper and poster that was presented at the International Digital Curation Conference (IDCC) held in Amsterdam in January 2013.

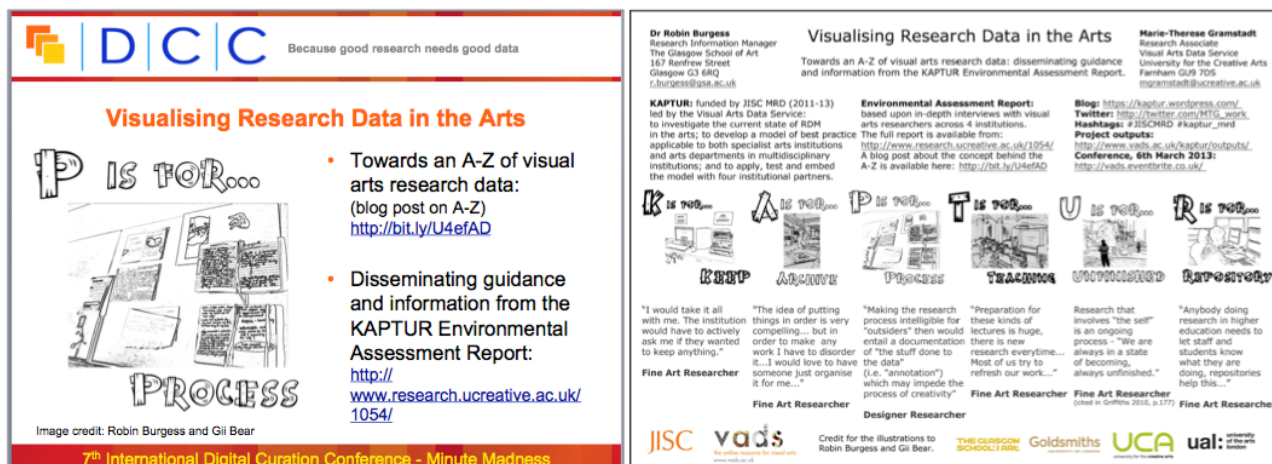


Fig. 5 Illustrating the poster and documents presented at the IDCC 2013.

It can be noted that the DCC have been very supportive of the work being undertaken at GSA. GSA were offered the opportunity to be part of an Institutional Engagement Project being run by the DCC and JISC to help institutions develop their research policies and plans. Unfortunately due to resource capability and other commitments, GSA were unable to take up this offer of support. However, The University of the Arts London did take up this offer and were able to share the work they were doing on it with the other Project Officers on KAPTUR, hence knowledge was shared.

In addition to the development of the RDM policy for GSA, the Project Officer at GSA has also been in charge of the development of the research repository, RADAR, and implementing this within the research environment at GSA. Knowledge of the research repository has helped in the development of the policy as it is a tool that needs to be implemented within the policy, for the management of research outputs. The policy feeds into the repository, and is also associated with the data protection and ethics policies at GSA.

The research repository has been developed using EPrints software. EPrints has been one of the main platforms that has been investigated with regard to the technical infrastructure for the KAPTUR project. The repository has the ability to store and extrapolate research outputs, but it can also be seen as a tool for storing data related to the final research output such as initial thoughts, sketches and numerical data. It is this process of research, and the initial information that has helped to constitute a research output, that need to be recorded in relation to the RDM policy. Researchers at GSA are knowledgeable about RADAR, and therefore the ability to link any new RDM system to the existing research repository was seen as advisable.

The screenshot shows the RADAR website interface. At the top, the GSA logo is centered. Below it is a navigation bar with links: Study, Life, Research, Visit GSA, About GSA, and Support GSA. A search bar is in the top right corner. On the left side, there is a vertical menu with options: Home, Browse, Year, School, GSA Author, Search, Latest, Policies, Contact Us, User Menu, and Login. The main content area is divided into several sections. The top section features two large images: one of a street with colorful bunting and another of a table displaying various printed materials. Below these images are two text blocks providing details about the featured items. The first block describes 'Bunting' (coloured) by Justin Carter (2012). The second block describes 'The Inventors of Tradition' by Lipscombe, B., McKenzie, L., McEachan, L. and Duffy, C. (2011). Below these blocks are navigation arrows. Further down, there is a 'WELCOME' section with a right-pointing arrow, followed by a 'BROWSE THE REPOSITORY' section with a right-pointing arrow. This section includes a 'Browse collection by' filter with options for Year, School, and GSA Author. To the right of this is a 'Latest items' section featuring a thumbnail for 'Solar Oven' by Justin Carter (2012).

Fig. 6 RADAR, the research repository at GSA (<http://radar.gsa.ac.uk>), which uses EPrints software.

During the formation of the RDM policy it was also necessary to refer to the other policies, guidelines and strategic plans in place at GSA to ensure the newly formed policy was compatible and consistent. Relevant legislation included:

- Data Protection Act (1998)
- Equality Act (2010)
- Freedom of Information (Scotland) Act 2002
- Environmental Information (Scotland) Regulations 2004
- Human Rights Act (1998)

In addition to this, various interdependencies were considered:

- Data Protection Policy
- Research and Knowledge Transfer Strategy
- Research Ethics Policy

These aspects have been documented and commented on within GSA's RDM policy.

The Project Officer at GSA maintained communication with research staff and Information Services with regard to the development of the RDM policy. This tended to be through email and verbal communication. This communication has helped with the development of the policy and getting the support from Information Services, which has been pivotal. The next step is to ensure IT are fully aware of the policy and the requirements listed that are associated to IT. Research staff have shown an interest in the policy development as they are becoming more aware of the importance of data management when writing research bids, particularly with the changes being seen in bids for EPSRC and AHRC.

The development of the RDM policy at GSA has very much been an iterative process. This has involved gaining support from the relevant departments in the school, raising awareness of the importance of data management amongst staff, writing the policy and getting approval for this. During this process, revisions to the approach have taken place. Much of the support that GSA has received has come from external sources such as the DCC, VADS and the other project partners.

Conclusions and Recommendations

It can be concluded that GSA's involvement in the KAPTUR project has been very effective. The institution has produced an RDM policy that will be implemented within the research environment at the school. It will also feature on the website alongside the institution's other policies. The approach employed by the project to ascertain views from researchers early on in relation to data management and then to use this to build and shape the institutional policy has proved to be an excellent approach for GSA. It has enabled the Research Office, through the Project Officer, to work more closely with Information Services, IT and researchers in understanding research data management.

GSA have become much more aware of the importance of RDM policies and the need for having them implemented as set out by various funding bodies through their attendance at various JISC run events. These events helped GSA to focus on the requirements of the RDM policy, and then with the support from VADS, to be able to complete the policy.

It should be stated that GSA are very grateful to have been given the opportunity to be part of the KAPTUR project and to have been able to engage with other arts institutions, gain support, share knowledge and learn from them.

The types of challenges faced at GSA have involved:

- Building the support network at GSA: This was a challenge as GSA is quite a small specialist arts institution, so resources were quite thin. However the work of the Project Officer has ensured that staff have been kept in the loop about the project.
- Extensive focus on the REF process: During the KAPTUR project, GSA have been heavily involved in the Research Excellence Framework (REF) process, looking at assessing the quality of research outputs. This process has taken up time and input from other parts of the school during the project. As an institution, GSA have had to be aware of its priorities. But this process has affected all institutions concerned with the REF process.
- Changes in management: Since the start of the project there were three changes in management within the Research Office. This affected the support for the project for the Project Officer.
- Changes in staffing: There have been changes in staffing within many departments at GSA, research and information services. This had knock-on effects to the approval of the policy.

- Expressing the importance of policies: As the development of the RDM policy was quite new to GSA it involved a lot of leg work in getting support from the school for its production and being able to express to researchers the importance of RDM when it comes to writing research bids. Expressing the importance of the policy and implementing it at GSA will be a continual process.
- RDM understanding: There is often a difficulty in the arts that people are not interested in technical issues such as data management, and it often gets overlooked. By engaging with the researchers and staff in relation to RDM, some of this understanding has been improved. The application of training sessions has helped this.

Some simple lessons learnt by GSA include:

- Identify the correct people to engage with: Create working groups and determine the other departments within the institution that may be able to help in the development of the policy and its extrapolation.
- Formulate an action plan for development: Set clear guidelines and deadlines for the development of the policy.
- Communicate: Ensure communication is maintained amongst all those involved in the development of the policy, particularly those that it will directly influence, for example researchers.
- Obtain buy-in early on: Raise awareness of the project early on and get people involved from the onset of the project as this will help when it comes to extrapolating the findings.

Research data in the arts can be seen as complex and complicated and it does not always fit into the natural scheme of data management. Therefore those involved in the development of policies for arts-related data management should be aware of thinking outside the box, and lending the policies to being more iterative and open to interpretation. Many RDM policies take the approach of being 'aspirational' in nature in that they allude to processes and requirements, rather than being completely set in stone. They look to build on the methods already in place at the institution, and subsequently as plans and strategies develop, the policy can also be enhanced and modified. This is very much the approach that GSA has taken for the development of their policy.

Key Points

Outlined below are some key points ascertained from the work carried out by GSA:

- Engage early on with other departments within the institution who may be interested in the work or may be able to help, such as IT, Information Services and the Research Office.
- Engage with the end users of the policy, gain their support and interest.
- Engage with external bodies and support agencies who may be able to give another view and share ideas on the development of policies, for example, the DCC.
- Research Data in the arts is not simple and it is complex and complicated.
- Be aware of the varying nature of research data in the arts. This is very much linked to the different departments that are present at arts schools, and the varying disciplines of work.
- Ensure suitable processes are in place for the development of any policy, being aware of those involved in the development and the requirements.

- Be aware of the requirements set out by the funding bodies. This will influence policy development and requirements, and will also affect the thinking of individual researchers when they formulate research bids.
- Provide adequate teaching and training in the field of RDM. Ensure suitable advocacy plans are in place.
- Ensure suitable institutional infrastructure is in place and maintain communication between all interested parties.
- Be aware that the value of research data is very much dependent on the decisions and the views of the individual researchers. What information is recorded and subsequently kept is the researcher's decision. The RDM policy cannot necessarily dictate the exact process of data management.

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