**RD903 Research Governance and Organisation**

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As part of the RD903 Research Governance and Organisation class, I attended the following courses: 1) PG Essentials: Digital Scholarship Skills, 2) Research Integrity (Online), 3) Introduction to research data management and sharing, 4) Documenting and Depositing Data and finally 5) Independent development of my research management knowledge. Some of the things I had the opportunity to learn are the following:

From the “Introduction to Research Data Management and Sharing” and my “Independent development of my research management knowledge”, I understood some of the actions that can be taken to ensure that research data is secure against any action of theft, accidental damage or data loss. Some of these actions that I was able to hold on to my memory are the following: a) To use either ShareFile system which is an external application, programmed by Citrix, or use Strathcloud the on-site instance of Sharefile to store, organize and share data, or use the network drives of The University of Strathclyde, h: drive and the i: drive which can also be used by research student. I used the h: drive as a home directory to save my own individual files. Whereas, the i: drive I utilized it for sharing folders and giving share privileges to specified teams. Using Pure to upload research results and being accumulated to the University’s KnowledgeBase is also a good practice suggested by the research data management protocol, which protects data by any unwilling acts. Creating my Data management plan, also assisted me in managing, sharing and protecting my research data, because it ensured that the best practice, data handling and organisation and optimal distribution were always implemented. An additional guideline stated that if the research data is stored in a secure storage facility that does not belong to The University of Strathclyde or to a partner organisation, than the data stored must be encrypted in order to abide with the encryption policy 2017 of The University of Strathclyde. Additionally, regular or scheduled backups of the data must be performed to avoid the loss of valuable information which I applied for the accumulated data of my thesis. The above guidelines helped me enance my understanding of good practices for data handling and distribution.

I found out that using the Pure research data repository was an ideal long-term storage solution for me, but also for keeping research data accessible and reusable in 10 years’ time from now. The reason for this, is because the research findings uploaded to Pure are handled by specialized professionals and acquire a persistent digital object identifier (DOI) which is widely used in academia, so that it can be located and accessed more efficiently. Furthermore, the platform allowed me to manage the visibility by configuring restriction settings in case the data needed to be restricted or in other situations where the data needed to abide to the Open Access framework. There are numerous research funders that follow the Open Access framework and Open Data Policies, for example, the Engineering and Physical Sciences Research Council, Marie Curie, the European Research council and many others. When a research is publicly funded by an organization for the public good and interest and has open data policies then the research findings of that study should be made openly available in timely and responsive fashion. Moreover, I was reminded that the metadata that are complementary or describe research data should also be made available. Another good practice mentioned in the course was to make openly and freely available research data by uploading the associated files for example data sets, publications, equipment, activities, impact reports and many more in the Pure repository.

One of the ways to restrict access to research data collected or produced is to encrypt the data. Another, solution is to store the research data in storage facilities provided from the university. Some of the reasons why this needs to happen is because there are situations where there is a confidentiality agreement between the university and the funder for example to protect intellectual property, transferring data safely or complying with the data privacy act (DPA) and the agreed wishes of the participant organisations need to be respected and applied. I also learnt that research data are broadly anything which can be analysed. Additionally, I learnt how to transfer securely collected research data from my laptop from an off-campus location. The secure methods are the following: 1) upload it through the Web Drive (h and i drives) or 2) upload it using a VPN (Virtual Private Network). I also understood why it is bad to keep all research data: 1) storing massive amounts of data complicates finding truly useful information, 2) freedom of information laws mean that what is kept needs to be disclosed if requested, 3) storage costs money and finally 4) storage and the consequent preservation requires effort and staff hours.

Furthermore, I learnt some additionally useful information in order to be associated with good research practice for my Ph.D.. For example, that I share the responsibility with my institution and need to be proactive. Also, if an ethical approval of a research project should be carried out, than this should be conducted by an independent research ethics committee. Moreover, to avoid taking someone else’s work and passing it off as my own. The previous guideline also applies for writing, images, concepts and all other forms of creative ideas and their expression. Authorship is generally based on substantial intellectual contribution. I was taught with illustrative examples some of the reasons international collaborative research can bring challenges and potential problems. Some of these reasons include that there may be differences in regulatory systems forced by different institutions and organisations, funder requirements, research cultures and traditions. Furthermore, I was assisted by this course to identify the overlap between research integrity problems that do not come to light until work is submitted for publication or published.

As part of the Research Governance and Organisation RDP class, I had the great pleasure to attend the module “Documenting and Depositing Data”. From this module, I wanted to learn about Data Service guidance on data documentation, metadata for the “Pure” dataset template and about Data Management Plans for data documentation, deposit and preservation. I had the opportunity to understand several aspects about “Strathcloud Sharefile”, for example, how to search and add people to my folders in Strathcloud, how to set permission privileges for download, upload, delete and admin to other users in my shared folders. Furthermore, I learnt how to upload files to “Strathcloud”, create, share links and additional helpful tips, such as avoiding data duplication and installing the sync app on frequently used computers. Afterward, I was able to apply the knowledge, by putting it into practice in an exercise that covered everything which had been presented.

Finally, after the completion of the module “PG Essentials: Digital Scholarship Skills”, I was familiarised with several general search engines and academic search engines, such as Mendeley, Google Scholar and Microsoft Academic, information about plagiarism, referencing and copyrighting, how to use EndNote online, information about open access mentality and bibliometrics. To conclude, I succeeded in the PGE Digital Scholarship Skills Evaluation test and started incorporating the “Accuracy Reasonableness and Support” (CARS) Checklist methodology, during my search on the literature (for my Ph.D. thesis) as inclusion/exclusion criteria in my assessment of information. To conclude I would like to state that my expectations from the outcome of this class were met more than enough and it helped me significantly in the process of building my thesis for example better citation strategies, enhanced methodology for sharing my experiment results with lab colleagues, it made me more aware of the essential principles of the Open Access framework which is utilised by all research committees and organisations, and many more useful aspects of research integrity for when I interact with people from my own department and from different research groups and institutions.