reSEArch-EU

WP 5: Building an Open Future: Fostering Open Science across the SEA-EU Community and Beyond
Task 5.1: Identification of 'best practices' in Open Science

Scoping Survey - Analysis

The aim of the scoping survey was related to Task 5.1 of the reSEArch-EU project, whereby the partner universities had to complete a set of questions with the aim of identifying best practices in Open Science. In order to achieve this, the survey sought to collect detailed information about practices related to Open Research Data Management. Subsequently, the survey was divided into 4 themes as follows:

- Open Research Data Management Policies
- Open Research Data Management Infrastructures
- Open Research Data Management Evaluation
- Open Research Data Management Support & Training

The scoping survey was circulated among all six Universities that form the European University of the Seas, SEA-EU. These include:

- University of Cádiz (UCA) – Spain
- Université de Bretagne Occidentale in Brest (UBO) – France
- University of Kiel (CAU) – Germany
- University of Gdańsk (UG) – Poland
- University of Split (UNIST) – Croatia
- University of Malta (UM) – Malta

Open Research Data Management (ORDM) Policies
Out of the six Universities that took part in the survey, none have an Open Research Data Management (ORDM) policy[1] in place. However, it was recorded that three out of the six Universities partaking in the survey are in the process of developing a policy. These are:

- UBO which is projecting to implement their policy by 2022
- UCA and UM which are currently working on the drafting of a policy

All three partner Universities that are planning to develop an ORDM policy stated that they intend to implement a monolithic policy. The main reason for such a decision is that all three Universities are multi-disciplinary, hence the policy should cater for all disciplines.

The reasons why the other three universities (CAU, UG, UNIST) are not planning to have an ORDM policy include:

- the existence of national guidelines that govern data management (UG)

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[1] Open Research Data Management (ORDM) policy refers to an Institutional ORDM Policy which is not necessarily legally binding.

- a plan of including the ORDM policy as part of the Open Access (OA) policy (UNIST)
- Open Research Data is already covered by the University's guidelines on research data management; national restrictions against legally binding policies on institutional level (CAU)

No partner University requires its researchers to submit a Data Management Plan (DMP) when applying for institutional research funds. Having said that, all Universities except CAU foresee the importance of recommending DMP tools for the reasons outlined below:

- are essential in disseminating data
- improve management of research data
- help researchers plan data lifecycle

Nevertheless, CAU is currently working with text templates, which are proving sufficient for the time being, since only a comparatively small number of researchers are currently submitting a DMP; with increased in demand and complexity of data. However, CAU is introducing a new tool.

Poland is the only country that has a national policy which governs ORDM. The implications on UG of having a national policy include that funding is only granted for open access publications and a DMP is required during grant application phase.

Open Research Data Management (ORDM) Infrastructures
Both UM and UNIST are currently catering for the curation of research data by using open source platforms. The former uses DSpace and Zenodo (whilst also considering a separate software more targeted towards Open Research Data Management) and the latter uses Islandora 7.

For the UM, the reasons behind the choice of software for data curation rely on the fact that DSpace was implemented in 2014 as an institutional repository for the uploading of research publications. Nevertheless, over the years, despite its limitations, its use was extended to support the uploading of basic datasets. Subsequently, a specialised platform is being considered to better cater for research data. The UM is also currently recommending Zenodo in instances where datasets are more elaborate. For UNIST, Islandora 7 is part of the national infrastructure; management and storage of data during the research can be done through Puh platform which is based on the open source software Nextcloud.

CAU, UBO, UCA and UG stated that currently they do not have an infrastructure that caters for research data. However, UBO, CAU and UG recommend the use free-of-charge external services. Whilst Zenodo, Repod and Bridge Data solutions were mentioned as free external services, all three Universities have mentioned the use of subject-specific repositories such as MX-RDR and PANGAEA. CAU stated that in Germany a National Research Data Infrastructure is currently being implemented. This infrastructure will bring together existent services whilst filling subject-specific gaps. CAU is also in the process of setting up an institutional repository for data. UCA is not

recommending a free-of-charge external service, but they are planning to implement their own infrastructure, which is to be in place by December 2021.

Open Research Data Management (ORDM) Evaluation
UG and UNIST stated that they incentivise researchers who implement Open Research Data Management practices. Nevertheless, reasons specified on how researchers are being incentivised were out of context. Subsequently, it can be concluded that none of the partner Universities incentivise researchers implementing ORDM practices.

Open Research Data Management (ORDM) Support and Training
Out of the six partner Universities, only the UM has a dedicated Open Science Department within Library Services. The other five Universities do not have a dedicated department for Open Science, do not have the intention to establish one, but all Universities support ORDM through their library services.

In addition, no partner University has an Open Research Data toolkit. When asked to outline the components that would include if they had to implement a toolkit, the following concepts were mentioned:

- guidelines on how to handle research data throughout its entire lifecycle
- data compatibility to support re-usability
- provision of a list of suggested tools that will help researchers carry out activities related to data management (e.g. anonymisation tools)
- dos and don'ts in data management
- a list of contact persons that could help with specific data management requirements
- legal aspects (e.g. copyright legislation, licencing)

UBO, UG and UNIST libraries provide training specifically on ORDM. The type of training that is being provided includes:

- sessions in conjunction with external entities or part of larger projects (e.g. UG provide training as part of the Data Bridge project and also training organised by ICM; UNIST are actively involved in RDA Croatia)
- bespoke advice for compiling DMPs
- workshops on open science, open access and RDM for academics and PhD students

Whilst UCA and UM do not presently provide training sessions specifically related to ORDM, they are planning to do so in the future. Conversely, CAU has not expressed interest in providing any training or awareness sessions in this regard because ORDM topics are already part of their regular RDM training and workshop programme.

Concluding Remarks

The questions presented in the scoping survey have attained the objectives set out. The data collected from the partner Universities gives a clear indication of current procedures, practices and initiatives, as well as, future plans related to Open Research Data Management. Although, as yet, none of the partner Universities have an ORDM

policy in place, all institutions are to some extent implementing open research data management practices. It can be concluded that some Universities are not able to implement an institutional ORDM policy due to national policies that govern data management. Nevertheless, DMP tools are essential to assist researchers in managing their research data.

Open source software is a popular option for the setting up of the necessary infrastructure to support open research data. It also transpires that subject-specific repositories are preferred due to being more versatile to cater for particular datasets. The development of an Open Research Data toolkit is considered as being an essential aid to support researchers for data management practices.

Raising awareness on the significance of data sharing is an important facet for researchers, together with the provision of training and support. All partner Universities (except for the UM) do not have a dedicated Open Science Department. However, all Universities have Library staff directly responsible for supporting researchers in ORDM practices.

The survey could have been improved by avoiding dichotomous questions in certain instances whereby the partners could add further comments. This was pointed out by UG who claimed that they did not have the possibility to answer certain questions clearly.

This report paves the way for an experts' meeting, to discuss the next steps in developing a general policy framework that can be adopted and adapted to the realities of the six participating institutions.

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