Introduction
The library at the University of Plymouth has taken a central role in maintaining publication management systems and advocating open access (OA). Over the last year, I have explored ways in which we can use available resources more efficiently to streamline our working processes and improve user experiences. One of our success stories has been implementing a semi-automated email reminder system to support our researchers in managing their research outputs.

Background
Open access is increasingly important to UK higher education institutions with its ‘aims to make the findings of publicly-funded research freely available online as soon as possible, in ways that will maximise re-use’. The Research Excellence Framework (REF) exercise is a national assessment of research quality, the results of which will influence future allocations of research resources and funding from UK Research Councils. In order for publications to be eligible for the next REF, researchers must deposit open access versions of their published research from journal articles and conference proceedings to an institutional repository within 90 days of acceptance for publication.

The university uses Elements, a research output information management system provided by Symplectic (https://symplectic.co.uk/products/elements-3/) to push research outputs through the university’s research repository, PEARL (https://pearl.plymouth.ac.uk/) underpinned by DSpace, which is open source software (https://duraspace.org/dspace/). These systems enable the university to provide researchers with the tools they need to meet REF requirements in an environment with limited administrative resources.

The library’s Open Research and Repository Support team (ORRS), of which I am part, is one of the more recent additions to the library’s research support services. ORRS is responsible for developing and maintaining the online research services mentioned above, and for reporting on research engagement in support of open access and the REF activities. The three members of staff (two full-time equivalent) inherited responsibility for Elements and work closely with the library’s information specialists, who have diverse roles supporting students and staff across the university with research, teaching and learning. They offer front-line support to the university’s researchers and take the lead on advocacy for open access. The ORRS team provides technical support and data services to support the work of the information specialists. The two teams also work together in the development of new library services with a focus on research.

The university’s Open Access Policy requires researchers to use Elements to self-manage the recording of their research outputs and enables them to deposit versions in the institutional repository. On the administrative side, Element’s Open Access Monitor (OAM) provides an overview of REF-eligible research outputs and enables administrators to check that deposits meet REF-requirements in line with the publisher’s copyright policies.

Upon my taking over responsibility for checking research deposits, it became apparent that many researchers were missing the REF deposit deadlines required for their outputs to be compliant. The previous method of dealing with publications due for deposit was a time-consuming process that required emails to be sent to individual authors identified from within the OAM. Up until early 2017, this administrative task was carried out by the information specialists, who already had heavy workloads of advocacy, research support and teaching duties. It felt appropriate for ORRS to take on this task from the information specialists, but despite ORRS spending an hour per week on this task, researchers still missed the deposit deadlines. We believe there were several factors affecting this, including issues with data quality that caused the emails to lack certain key bits of information. Another factor was researchers’ lack of familiarity with the system, which made it difficult for some users to...
navigate to the correct part of the system based on the information in the email. Furthermore, we faced negative user perceptions as to the amount of time the task involves.

In addition to the laborious administrative workflows, we also faced difficulties in encouraging researchers to engage with the system. This was partly for the reasons mentioned above, but also the adoption of a strong REF-focused open access message potentially shifted the attention of the activity from the wider benefits of open access to an administrative burden. In certain faculties, articles and conferences are not their main outputs, so unfamiliarity with the system can cause staff to avoid depositing their research. Given the increasing importance of this activity, more improvements were necessary to achieve a sustainable and efficient workflow. With these ongoing issues in mind, my objectives for conducting this work were:

- to use Elements more efficiently to lessen the administrative burden on researchers and library staff
- to take on administrative tasks from the information specialists to enable them to focus on advocacy
- to improve user experience of research publications management in support of REF and beyond

What happened

After undertaking a review of features in Elements that we were not using, I developed a plan to implement the system’s Email Deposit Reminder function. The template supplied by Symplectic (fig. 1) provided a basic text outline and the code required to generate individual publication details.

Dear Miss Carly Seller,

The University has an Open Access policy that requires you to deposit certain scholarly outputs in the Institutional Repository (PEARL) via Elements.

You now have 3 publications awaiting deposit (see below the full list of publications).

For the listed publications to be eligible for the REF, please go to: http://elementsplymouth.ac.uk to upload the Author’s Accepted Manuscript and deposit to PEARL.

Support is available on the Library Guides: http://plymouth.libguides.com/research/ref

List of publications awaiting deposit:

1. Title A
   Due on 31/12/2014

2. Title B

3. Title C
   Due on 01/10/2014

Due date information for REF eligibility: To ensure the publication is eligible to be submitted to the REF, it must be deposited by within 90 days of the earliest date of publication. The deposit due dates shown are sometimes calculated using information harvested from external sources and may be subject to change. Please ensure the earliest publication date is recorded in the manuscript as this could affect the REF-compliance status of your publication.

If you have any further questions, please contact your subject Information Specialist or email openresearch@plymouth.ac.uk

Thank you,

The Open Research and Repository Support Team

Fig 1. Email template available within Elements

Symplectic also provide email templates for their notification email function. As these are more visually appealing, I took parts of the code to add to the deposit reminder email. This included a red ‘Deposit now’ button and coloured text box at the base of the email for further information. The red seemed severe, so I changed the colours to align with our in-house colour scheme used for the library’s open access promotional material. I also added additional text at the bottom of the email to provide guidance on the deposit process.
Effective email reminders
Engaging researchers in open access culture through REF-supporting systems

We had never used the Elements emailer functionality before, so it was important to test every aspect of the email delivery. To this end, once ready to go live, I collaborated with the information specialists to implement a staggered roll-out across the university’s five faculties. The information specialists stayed in contact with their researchers throughout the process to manage expectations and gather feedback.

During the phased roll-out, we met a hurdle as Elements did not behave as expected when generating the reminders. Some of the behaviours arose due to my unfamiliarity with the system and were easily resolved, such as discovering that I had to activate the emails manually despite the function being located in the scheduled jobs that I had assumed would run automatically. Two other issues were problems with the date calculations that appeared in the OAM that had not been apparent before, and items that I had selected to exclude were included in the reminders. Symplectic investigated these issues and identified them as system bugs.

Whilst waiting for the bug fixes we decided to reduce the frequency of the reminder emails sent to the researchers. After the initial deposit reminder email to all researchers in a faculty, ongoing reminders were only sent to those with publications due for deposit within 30 days. A certain amount of manual selection was required to achieve this, but we reduced the amount of time spent on the task from one hour per week to just 15 minutes. The downside of this process was that we did not regularly reach as many researchers as we had anticipated as we had to be cautious in selecting which researchers to email.

List of publications awaiting deposit:

1. Title A
   Due on 31/12/2018

2. Title B

3. Title C
   Due on 01/10/2018

Dear [Name, Surname],

The University has an Open Access Policy that requires you to deposit certain scholarly outputs in the Institutional Research Repository PEARL via Elements.

You now have 3 publications awaiting deposit.

You may find the following useful:

- Log in problem? Contact the Service Desk (Tel: 500550)
- Learn more about REF open-access policy and depositing your research into PEARL via Elements on the LibGuides.
- For support with updating your Elements profile and depositing your research to meet REF open-access requirements, contact your Subject Information Specialist.

Best wishes,

Open Research and Repository Support
Library and Digital Services, University of Plymouth
opendepository@plymouth.ac.uk

Act on Acceptance
From 1st April 2016, eligible journal articles and conference papers must be deposited within 90 days of acceptance in order to be submitted to the roadmap.
Find out more at plymouth.libguides.com/openact

Fig 2. Revised email template
This was because the settings used to prevent certain flagged outputs from being included in the reminders was not working, so we did not want to cause annoyance by asking researchers to deposit items they were not required to deposit.

Once Symplectic had fixed the bugs, I was able to update the workflow again. Now that I have control over the items that appear on the reminder emails, I can confidently select all staff with outstanding items for deposit, and trust that the system will generate emails only for those staff we wish to target. This has further reduced the time spent on the task to just a few minutes. I now include items that have already missed the deadline, as well as those that are within the REF compliance window. This reinforces the open access message to researchers, encouraging them to deposit all outputs, rather than just those that meet the timeframe, thus discouraging a strong emphasis on REF compliance.

Feedback

We received many enthusiastic responses to the deposit reminder emails, with researchers using it as a prompt to update their Elements profiles. The more critical replies we received largely concerned specific items that they had already decided not to submit to the REF. This is a view we are working to shift as we focus on the wider benefits of an open access policy beyond the REF.

Feedback received has also informed our guidance for researchers on the Open Access Research LibGuide and enables ORRS to signpost researchers to their information specialist in cases where it appears that one-to-one support could be beneficial.

During the 2016–17 academic year, 1,614 items were deposited to PEARL via Elements – an average of 134 deposits per month. For 2017–18, when I developed and implemented the deposit reminder emails, 1,809 deposits were made – an average of 151 per month. This increase in deposits has had a positive impact on our overall content growth. During the early stages of the phased implementation, we noticed a distinct increase in the number of items deposited in line with the date on which reminders were sent (fig. 3). These deposits were not restricted to the items targeted in the REF OA policy but also included publications that had already missed the deposit deadline and items that were out of scope of the policy.
Our first email deposit reminder of 2018–19 was sent to over 250 researchers on the morning of 10 September. Within twenty-four hours, 73 new items had been uploaded to the repository, the highest number of full-text files deposited by researchers in a single day. Of these, 58 were flagged by Elements as being in OA policy (both within and outside the 90-day deposit deadline). Over 20% of the deposited items were not identified by Elements as being in OA policy and would not have appeared on the reminder emails. This shows that some researchers are acting on the email as a prompt to deposit other publications listed in their Elements profiles.

Reflection

Setting up a semi-automated process of emailing researchers to remind them to deposit their publication outputs in the institutional repository was not simple. Not only were we limited by the capability of the publication management system, but we also risked disengaging members of our academic community by filling their inboxes with more things to do.

On the whole, the deposit reminder emails have been well received, with responses being mainly positive. The more critical feedback has informed ways we can improve the user experience by implementing changes where we can, such as updating the guidance and amending the fields in the publication forms to minimise data entry by the researchers. It has also provided evidence that pushed the system developers to make improvements to parts of the system that did not meet our expectations.

By improving the quality of data in the email content and including direct links to the researchers’ publications records and to supporting guidance, we have seen an increase in user engagement with Elements. The exceedingly high number of items deposited in the days following the sending of the deposit reminder emails clearly shows the effectiveness of this new process. On comparing the number of outputs deposited to PEARL via Elements by our researchers in September 2017 and September 2018 (fig. 4), we see a significant increase of over 87%.

Fig 4. Output types deposited in the institutional repository
In terms of our objectives, this has been a major success. We have greatly lessened the administrative burden on library staff by reducing time spent on this task, enabling more time to be better spent on supporting researchers with individual enquiries (information specialists) and having time to process the deposited items (ORRS). The resulting increase in deposits is a trend we hope will continue as we move forward in an open access culture that reaches far beyond REF compliance.

References


