Engaging Researchers with Data Management: The Cookbook

James Savage, Raman Ganguly, Connie Clare

27th February 2020, RDA Webinar.
Webinar Outline

- Introduction & Overview (James Savage)
- Data collection & Processing (Raman Ganguly)
- Case studies & Book Sprint (Connie Clare)
- Publishing & Final thoughts (James Savage)
- Questions & Discussion
Engaging Researchers with Data Management: The Cookbook

https://www.openbookpublishers.com/product/1080
DOI: 10.11647/OBP.0185

24 case studies describing institutional strategies for engaging researchers with effective Research Data Management.
Project Timeline

2019

- November: Project Outline
  - IDW 2018 (RDA P12)
- December: Survey template
- 2020

- January: Project update RDA P13
- April: Book Sprint
- October: Presentation Dissemination RDA P14

- Project data collection
- Analysis and case study selection
- Final editing and publication
Stage 1: Starting the project
Engaging Researchers with Research Data: What works?

**Project lead:** Marta Teperek (Data Stewardship Coordinator, TU Delft).

**Aim:** Find innovative ways of engaging researchers with research data, and make this information accessible to others.

**Outputs:** Textbook and Website, based on analysis of survey data and detailed case studies of existing RDM strategies.
Engaging Researchers with Research Data: What works?

Steering board (10): Lauren Cadwallader, Julien Colomb, Maria Cruz, Mary Donaldson, Lambert Heller, Rosie Higman, Elli Papadopoulou, Vanessa Proudman, James Savage, Marta Teperek.

Task Leaders (6): Julien Colomb, Maria Cruz, Raman Ganguly, Reme Melero, Marta Teperek, Iza Witkowska.

Book authors (8): Connie Clare, Maria Cruz, Elli Papadopoulou, James Savage, Marta Teperek, Yan Wang, Iza Witkowska, Joanne Yeomans

Project members (48).

Libraries for Research Data Interest Group (https://www.rd-alliance.org/groups/libraries-research-data.html)
Engaging Researchers with Research Data: What works?
My Background

- Reproductive Behaviour
- Social Behaviour
- Intergenerational Effects
- Diversity
- Open Science
- Athena SWAN
- Cambridge Data Champions
My talk: Establishing, developing, and sustaining a community of Data Champions

Session 181: Motivations and recognition for good data stewardship (Marta Teperek)
Stage 2: Data Collection

Raman Ganguly, University of Vienna
The Survey

- Questions about the institution?
- How you engage with your research community about data management?
- Survey was online in March 2019
- Presentation about the state of the project at RDAs 13th plenary in Philadelphia
- 60 funders and 80 research institutions
- 28 mailing lists
The Raw Data

- 216 responses
- 50 unique scientific institutions
- 88 described activities
- used GitHub as a data repository
- quantitative data analysis
- preparing case studies
The Case Studies

- Categorisation
- Selected 24 case studies
- Running interviews
Stage 3: Case Study Selection
Survey Data Collection in Numbers

- 40 + project members worldwide
- Created a survey to collect examples of institutional practice
- Contacted 60 funders, 80 scientific institutions, used 28 mailing lists
- Received 216 responses:
  - 50 unique scientific institutions
  - 88 described their activities
- Which (and how many) survey responses to include in the final cookbook?
Case Study Selection

- Three steering group members independently created lists of the most interesting/diverse examples for inclusion.
- From consensus, 24 examples selected as in-depth case studies.
- Not all 24 were from the survey – we pursued other examples that had not been submitted when we thought they were particularly valuable.
- We then contacted key staff involved with those strategies for interviews.
Stage 4: Case Study Interviews & Book Sprint

Connie Clare, University of Nottingham / TU Delft
Thank you!

Connie Clare
University of Nottingham, PhD student
Intern @ TU Delft Library
About Me

Developmental Biology
3-month internship working with the Data Champions.
5. Networks of Data Champions

Good Research Data Management (RDM) practice can be challenging to achieve in higher education institutions because of the diverse nature of the research community. Difficulties also arise because researchers may not possess the skills, resources or time to manage their research data effectively; they may not be aware of the benefits of RDM and open science; or perhaps they don’t see its value since it is not well incentivised by the current academic system. Many institutions have already implemented centralised research data management units to mitigate such problems and provide support, but the desired discipline-specific expertise, and the resources required for training, remain limited.

Lack of Funding? Need More RDM Support? Build a Community-Based Model

Implementing a network of Data Champions can provide a cost-effective solution to improve RDM support. Essentially, Data Champions are individuals who volunteer their discipline-specific expertise; they lead by example to promote FAIR (Findable, Accessible, Interoperable, Re-usable) data principles, advocate good RDM practice and advise members of their local research community on the proper handling of research data. They use their passion for knowledge exchange and desire to build a collaborative and researcher-led community to drive the uptake of open science principles in their departments and institutes, and engage with central RDM units to improve understanding of research practices in their discipline.
Why build a community of Data Champions?

- Diverse nature of subjects and disciplines – RDM is not one size fits all!

Researchers do not:
- Possess relevant skills or expertise
- Know of available resources
- Have sufficient time for RDM
- Appreciate the benefits
- See the value as it is not adequately rewarded
Why build a community of Data Champions?

- Support of a diversity of disciplines...
- Reach a wider research community
- Understand the needs of researchers
- Drive a culture change towards better RDM
- Relieve workload from central support
- Facilitate peer-to-peer learning
- Provide targeted training, workshops, one-to-one
- Raise awareness about RDM
- Reach a wider research community
- Understand the needs of researchers
5.1. Data Champion Programme at the University of Cambridge
Author: Connie Clare
Contributors: Lauren Cadwellader, Sacha Jones, James Savage

The University of Cambridge links central RDM support to a network of volunteer Data Champions to efficiently disseminate RDM knowledge and training, start conversations across research units, and gather discipline-specific expertise for input on policy.

Table 5.1, CC BY 4.0.

5.2. TU Delft Data Champions
Author: Connie Clare
Contributor: Yasemin Türkyılmaz-van der Velden

RDM staff at TU Delft reflect on the value of their network of volunteer Data Champions for engaging with the research community, and explore how Data Champions can be appropriately rewarded for their contributions.

Table 5.2, CC BY 4.0.

5.3. Data Stewards at Wageningen University and Research
Author: Connie Clare
Contributors: Saskia van Marrewijk and Erik van den Bergh

Wageningen University’s network of Data Stewards will be formalized primarily from existing academic and research-related staff given new formal roles and responsibilities around supporting RDM.

Table 5.3, CC BY 4.0.
What is a Data Champion?

**TUDelft Data Champion**

noun UK /ˈdeɪ.tə. tʃæm.pi.ən/

An individual who volunteers their discipline-specific expertise, promotes FAIR data principles and advocates proper research data management (RDM).

An individual who uses their passion for knowledge exchange and their desire to build a collaborative and researcher-led community to drive the uptake of good RDM within their faculties and departments.
Book Sprint Success: Top Tips

On your marks, get set, go!

• Start the sprint with clear aims and objectives
• Stick to schedule, the road is long…
• Free your creative mind. Take a break and recharge.
• ‘Engaged’ or ‘Vacant’ – post-it notes!
• Work hard, play hard…
Make friends...
And, enjoy the process!
Following in the footsteps of the *Open Science Training Handbook*, we share our book sprint success story and some ideas to help with your collaborative writing.

On 10th July our multidisciplinary team of dedicated volunteers checked-in at a hotel in the Hague, Netherlands, to participate in a three-day book sprint. For those unfamiliar with the concept, a ‘book sprint’ is an exercise of writing a book collaboratively in a short period of time, usually less than a week. Yet, together we learned that a book sprint is much more than a mere writing exercise; for us it was a truly rewarding and memorable experience that we can all reflect back on with pride. Here, we share our book sprint success story and reasons for why we advocate collaborative writing.
Stage 5: Publication
We now had full drafts of all the case studies. How to turn this into a finished output?

|                | 1.1 | 1.2 | 2.1 | 2.2 | 2.3 | 3.1 | 3.2 | 3.3 | 3.4 | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 5.1 | 5.2 | 5.3 | 6.1 | 6.2 | 6.3 | 7.1.1 | 7.1.2 | 8.1 | 8.2 |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|
| No of researchers |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |
| No of PhDs      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |
| Target audience |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |
| Main drivers    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |
| Ease of         |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |
| implementation   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |
| FTEs for RDM    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |
| Costs materials  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |
| Costs            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |
| infrastructure   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |
| Costs people     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |
Public consultation

- Post book sprint editing 12\textsuperscript{th} – 22\textsuperscript{nd} July to prepare a full draft
- Opened for public consultation via Google Docs 22\textsuperscript{nd} July
- Fantastic engagement from the wider community
- Community peer-review, many suggestions taken on board
Finding a publisher

We Needed:
- Fast publication
- Open Access
- Relatively inexpensive
- Quality controlled

- Contacted Open Book Publishers (Cambridge UK) in August 2019
- Peer-review occurred alongside our community review process
- Small amounts of funding for publication sourced from several institutions/organizations
Stage 5: What’s Next?

Birds of a Feather sessions at RDA P14/15
Researcher Engagement IG - Draft Charter
Proposal

Name of Proposed Interest Group:
Engaging Researchers with Data Interest Group (short name: Researcher Engagement IG)

Introduction

A brief articulation of what issues the IG will address, how this IG is aligned with the RDA mission, and how this IG would be a value-added contribution to the RDA community:

Good Research Data Management (RDM) is a key component of research integrity and reproducible research. Consequently, funding bodies, governments, research institutions and other agencies have emphasised the value and importance of good data management. However, discussions about data management and sharing are sometimes limited to librarians, data professionals, or researchers who are already passionate about data stewardship and open science. In order to implement good RDM practice within research communities, a cultural shift is necessary. Effective engagement with researchers, who are the main data producers and re-users, is essential for this shift to happen.

This group will exchange practice on how to effectively engage with researchers about research data and develop resources to help various research organisations increase engagement with their research communities.

The motivation behind this group is to build social bridges to enable open sharing and re-use of data.

-> trigger
  - Overwhelming response to the survey
  - Diversity of responses
  - Strong existing network

-> focus
Going beyond institutional practices

-> aim
Build on the first output
Aims and Objectives of new Interest Group

**Provide a forum** to exchange information on new innovative approaches

-> sequel of “Engaging Researchers with Research Data: The Cookbook”

**Follow up** with the case study contributors

-> revised version “Engaging Researchers with Research Data: The Cookbook”

**Develop** a website to further promote the studies and share our findings
Methods and Outputs

- **Survey** (qualitative and quantitative results)
- Involve more people and increase international representation
- Utilise **multiple channels** for outreach

- Website
- More “Cookbooks”
- Methodologies and workflows
Thanks for Listening!
Questions / Comments?