Publishing Data Workflows

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RDA
RESEARCH DATA ALLIANCE

ICSU
WORLD DATA SYSTEM

Agenda

- Our objectives
- Where are we now?
- Next steps!

Background and Motivation

- Policy pressure vs. lack of incentives for researchers
- Only a small fraction of research data is preserved and shared
  - often with a bare minimum of metadata
- We believe this is often due to the lack of "established" or "trusted" services and workflows

But there are established or emerging workflows!

- Usually in selected disciplines e.g. Earth Sciences
- Some provide credit via citation mechanisms

Relevance

- Policy pressure vs. lack of incentives for researchers
- Having information about workflows is crucial
  - for researchers
  - and the people/stakeholders supporting them

to understand the options available to practice open science

- That's why we propose to study and test workflows that allow
  - efficient and reliable reuse of research data
  - to enhance the possibilities for greater discoverability

across disciplines and stakeholder groups

The working group members (currently)

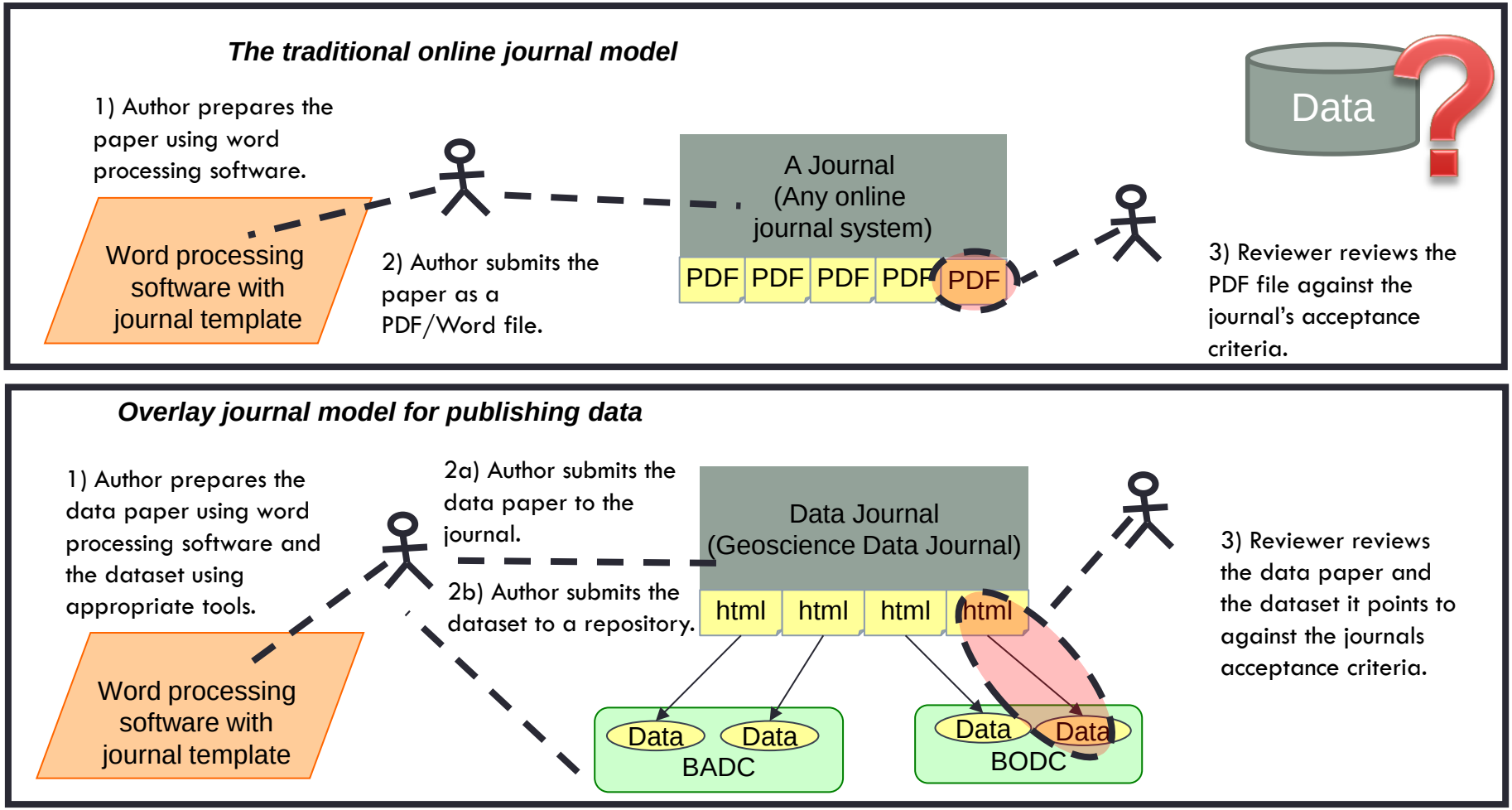
- Theodora Bloom (BMJ) [CO-CHAIR]
- Sünje Dallmeier-Tiessen (Switzerland, CERN) [CO-CHAIR]
- Elizabeth Newbold (BL) [CO-CHAIR]
- Merce Crosas (US, Harvard University)
- Michael Diepenbroek (PANGAEA)
- Kim Finney (Australia, AADC)
- John Helly (US, UCSD)
- Hylke Koers (The Netherlands, Elsevier)
- Rebecca Lawrence (UK, F1000 Research Ltd.)
- Fiona Murphy (UK, Wiley-Blackwell)
- Amy Nurnberger (Columbia University Libraries)
- Lisa Raymond (US, Library Woods Hole Oceanographic Institution)
- Johanna Schwarz (Germany, Springer)
- Jonathan Tedds (UK, University of Leicester)
- Mary Vardigan (US, ICPSR)
- Ruth Wilson (UK, Nature)
- Eva Zanzerkia (US, NSF)
- Angus Whyte (UK, DCC)
- Brian Hole (Ubiquity Press, UK)
- Varsha Khodiyar (UK, F1000 Research Ltd.)
- And growing…

Others are very welcome ☺

Objectives

- To provide an analysis of a representative range of existing and emerging workflows and standards for data publishing
  - including deposit and citation
  - provide reference models, a “classification”
- To test implementations of key components for application in new workflows.
- To illustrate the benefits of the reference model to researchers and organisations

Example: How to publish data in GDJ



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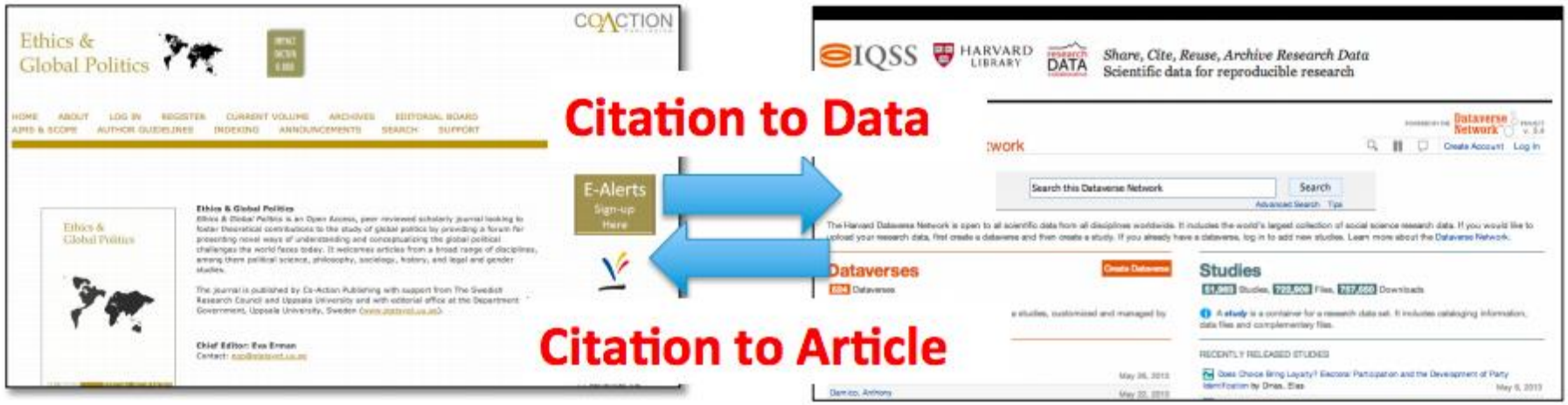
Example:

- Integrate PKP's Open Journal System with Dataverse
- OJS plugin for: Data + metadata + supporting files, sent via SWORD API to the Dataverse
- http://projects.iq.harvard.edu/ojs-dvn



OJS Journal

Harvard Dataverse Network

More detailed work programme

- Identification of a smaller set of reference models covering a range of such workflows to include:
  - For example **when and where** QA/QC and data peer-review fit into the publishing process
  - **Who** does what and when…
  - Automated vs. “manual” processes
- Selection of key use cases and organizations in which components of a reference model can be **implemented** and tested for suitability
  - For example: dedicated data peer review
  - For example: metadata checks

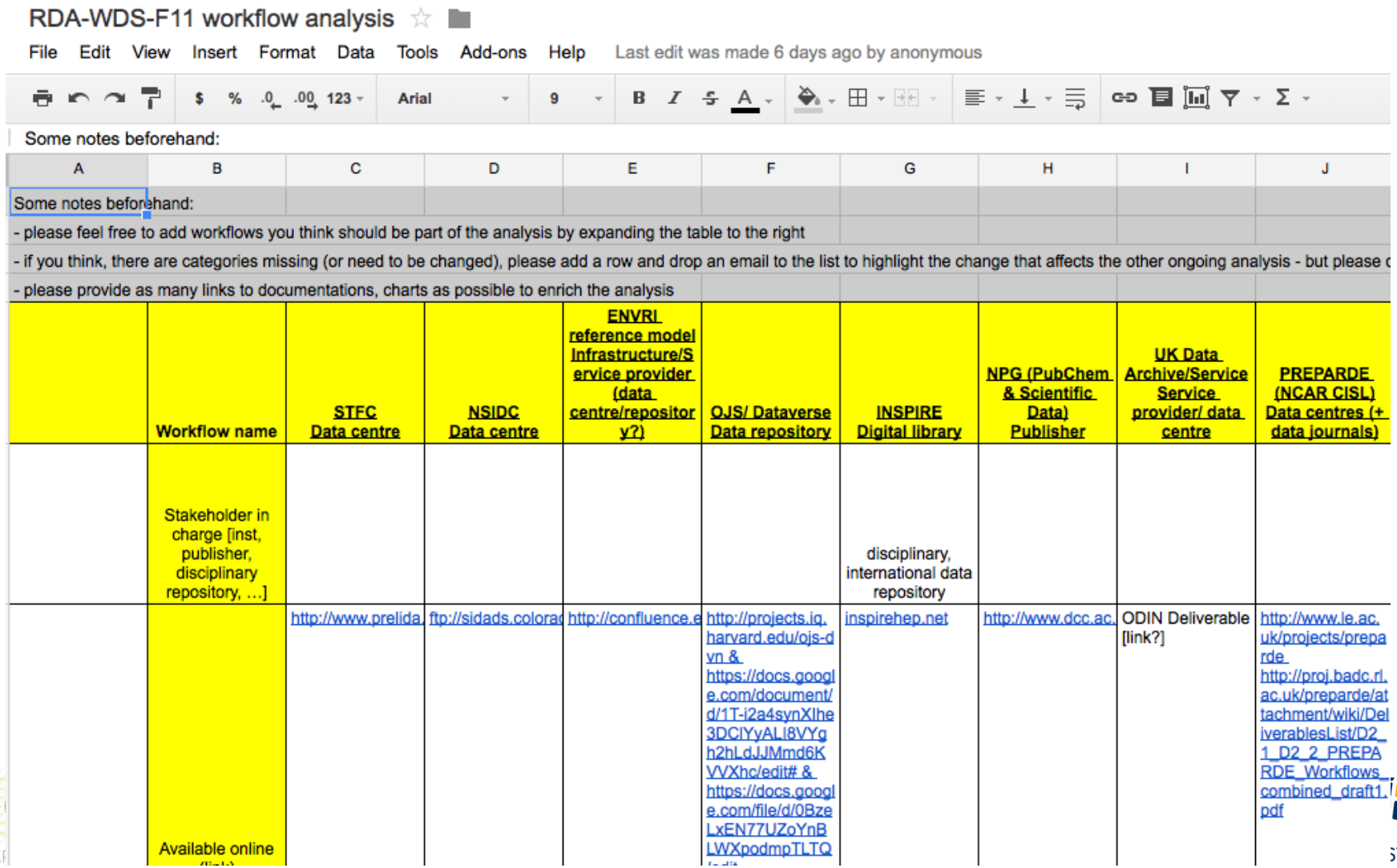
Where are we now?

- Ongoing work right now:
  - Survey planning
  - Collecting and categorizing workflow examples

➔ **Share your own data publishing workflows**

- How do you choose, collaborate with or link to data repositories?
- Do you have data peer review?
- Do you have recommendations for data citation?

http://tinyurl.com/mvtbrek



RDA-WDS-F11 workflow analysis

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Some notes beforehand:

	A	B	C	D	E	F	G	H	I	J
	Some notes beforehand:									
	- please feel free to add workflows you think should be part of the analysis by expanding the table to the right									
	- if you think, there are categories missing (or need to be changed), please add a row and drop an email to the list to highlight the change that affects the other ongoing analysis - but please c									
	- please provide as many links to documentations, charts as possible to enrich the analysis									
		Workflow name	**STFC Data centre**	**NSIDC Data centre**	**ENVRI reference model Infrastructure/Service provider (data centre/repository?)**	**OJS/ Dataverse Data repository**	**INSPIRE Digital library**	**NPG (PubChem & Scientific Data) Publisher**	**UK Data Archive/Service provider/ data centre**	**PREPARDE (NCAR CISL) Data centres (+ data journals)**
		Stakeholder in charge [inst, publisher, disciplinary repository, …]					disciplinary, international data repository			
		Available online	http://www.prelida	ftp://sidads.colorad	http://confluence.e	http://projects.iq.harvard.edu/ojs-dvn & https://docs.google.com/document/d/1T-i2a4synXlhe3DClYyALl8VYgh2hLdJJMmd6KVVXhc/edit# & https://docs.google.com/file/d/0BzeLxEN77UZoYnBLWXpodmpTLTQ	inspirehep.net	http://www.dcc.ac.	ODIN Deliverable [link?]	http://www.le.ac.uk/projects/preparde http://proj.badc.rl.ac.uk/preparde/attachment/wiki/DeliverablesList/D2_1_D2_2_PREPARDE_Workflows_combined_draft1.pdf

Categories we look at

- Discipline
- Function of workflow
- Includes PID assignment to data set
- PID type e.g DOI, ARK etc
- Peer review of data, (e.g. by researcher & editorial review)
- Curatorial review of metadata (e.g. by institutional or subject repository?)
- Technical review & checks (e.g. for data integrity at repository/data centre on ingest)
- Discoverability: Indexing of the data -if yes, where?
- Formats covered
- Persons/Roles involved, e.g. editor, publisher, data repository manager etc. [please list everyone you know]
- Is there a link to paper or is this standalone data
- Links to grants, usage of author PIDs
- Data Citation Facilitated
- Refers to a data life cycle

Workflows in the current list

STFC Data centre

NSIDC Data centre

ENVRI reference model

OJS/ Dataverse Data repository

INSPIRE Digital library (HEP)

NPG (PubChem & Scientific Data) Publisher

UK Data Archive/Service

PREPARDE

Ocean Data Publication Cookbook UNESCO IOC

PURR Institutional repository

ICPSR

Edinburgh Datashare

F1000

ResearchUbiquity Press: Open Health Data Journal +...

PANGAEA - Data Publisher for Earth & Environmental Sciences

WDC Climate - Data Publisher for Climate SciencesCMIP / IPCC DDC - international project series in Climate Sciences

How to get involved now

- Contribute to the workflow analysis
- Contribute your own workflow “walk-throughs”
- Tell us what is needed for a “successful” workflow in your institute/discipline etc.

… moving to implementations

- Tell us if you are interested to learn from a specific example or are maybe considering implementing data publishing workflows
- Tell us if you have code/documentation to share