maDMPs in Linked Data Pipeline as part of Research Data Connectome

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Our work of the RDA 2020 Hackathon on maDMPs is based on the idea of automated quality-control metrics as part of a <u>Linked Data Pipeline</u> for the <u>Research Data Connectome</u>. We propose a novel quality analyser that uses keywords obtained from 24 DMPs to generate standardisable DMP quality-control metrics. Our approach followed the Methodology depicted in Figure 1 below, while Figure 2 provides selected results of quality-control metrics. This idea may be employed by both funding bodies and research data management service providers to reduce costs of DMPs quality control while increasing efficiency by automation, and to optimise the process in project, research evolution, both during and after research activities.

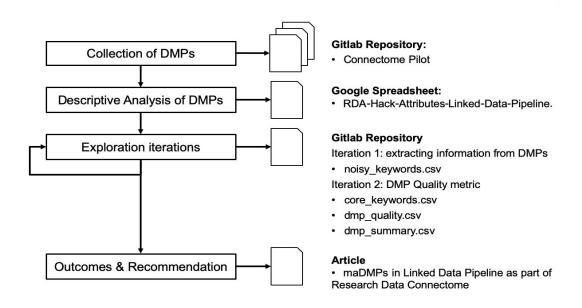


Figure 1: DMP Quality Analyser Methodology and Process

DMP Document	Quality metric	Keywords match
RIO_article_8720.pdf	storage	YES
RIO_article_8720.pdf	license	YES
RIO_article_8720.pdf	quality	NO
RIO_article_8720.pdf	gdpr	NO
RIO_article_11065.pdf	storage	YES
RIO_article_11065.pdf	license	YES
RIO_article_11065.pdf	quality	NO
RIO_article_11065.pdf	gdpr	YES
Structured_Risk-based_Peer_Evaluation_System_Study_(StRiPES_Study).pdf	storage	YES
Structured_Risk-based_Peer_Evaluation_System_Study_(StRiPES_Study).pdf	license	NO
Structured_Risk-based_Peer_Evaluation_System_Study_(StRiPES_Study).pdf	quality	YES
Structured_Risk-based_Peer_Evaluation_System_Study_(StRiPES_Study).pdf	gdpr	YES
Brains_on_Board.pdf	storage	YES

Figure 2: DMP Quality Analyser Output Example

The next steps for the proposed quality-analyzer prototype, in addition to the implementation for maDMPs, follow with step 1) further development of the conceptual parts of the prototype, e.g., choice of DMP keywords, and step 2) the implementation / integration into existing and new solutions. For this purpose, the team will reach out to OpenAIRE, developers of Argos¹ as well as DCC, developers of DMPOnline² and Science Europe for the implementation in existing tools as well as collaborating in further assessment of quality keywords. It is of special interest to the CESSDA (Consortium of European Social Science Data Archives) community to implement quality assessment on the CESSDA template added to DMPOnline. In the future, FORS could include the functionality of a metadata quality-analyser into the quality assurance of (meta)data and user-centric developments of the SWISSubase project. Moreover, the DMP Quality analyser prototype may be discussed with Swiss funding bodies and / or policy-makers.

More information on this work is available <u>here</u> (as an article) and <u>here</u> (as a slideset). Please contact the authors for access to the source-code.

¹ https://argos.openaire.eu/home

² https://dmponline.dcc.ac.uk