

Using Current Research Information Systems (CRIS) to showcase national and institutional research (potential): research information in the context of open science and university marketing

High quality data about research activities and processes, so called research information (RI), are of strategic relevance and vital importance for both, science communication and for research governance and policy. They can be used in multiple contexts, ranging from public relations and networking to monitoring and reporting activities as well as performance-based funding (Biesenbender & Hornbostel, 2016).

Research information comprises information on a research institution's (scientific) staff and structure, projects, third-party funding, publications, patents etc. The efficient processing of institutional research information in higher education and research institutions is a complex task, which in many cases involves the implementation and use of integrated current research information systems (CRIS).

The expectations towards the performance and benefits of these systems are often high: the goal is amongst others to process information for different purposes and uses in an organised and efficient way (DINI-AG Research Information Systems [AG FIS], 2015, p. 24). Current developments suggest that the strategic and communicative value of research information is on the rise (Herwig & Schlattmann, 2016; cf. Schöpfel, Prost, & Rebouillat, 2017; Walters, Ritchie, & Kilb, 2016): On the one hand, RI are of importance for institutional marketing and outreach purposes, such as reporting to the general public. On the other hand, efficient communication and co-operation between researchers requires visibility and traceability by their peers, which in turn can be supported by publicly available information on both, the scientists themselves, their projects, publications as well as interests etc. (i.e. "research information") and their scientific output, such as "research data" or "primary research data".

Recently the functionalities and benefits of RI and CRIS are discussed in the context of the Open Science movement: For instance the *OpenAire* consortium, a large-scale EC-funded initiative of more than 50 partners aiming to promote open scholarship by improving the discoverability and reusability of research publications and data, is planning to include CRIS platforms into its network of open access repositories and research data archives (Castro et al., 2017).

The movement has gained significant momentum and a certain normative drive due to the high relevance attached to it by science policy at the European level. An example of the high expectations associated with Open Science is provided by the recent launch of the European Open Science Cloud initiative (EOSC) in 2016, a common of data, software, standards, expertise and a policy framework to foster data-driven scientific excellence, innovation, competitiveness and job growth (Ferrari, Scardaci, & Andreozzi, 2018, pp. 43,48).

Since Open Science represents an umbrella term used to designate scientific practices of knowledge creation and dissemination that are based on the principle of openness (Fecher & Friesike, 2014; Kulczycki, 2016), projects aiming at an integration of institutional or national CRIS systems with research data archives, research data management services or institutional repositories are readily conceivable as part of this encompassing movement (see for example Clements et al., 2017; Castro, Shearer, & Summann, 2014; Khokhar, Schwamm, Krug, & Albin-Clark, 2017; Simons et al., 2017).

Against this backdrop our contribution aims to critically assess which factors contribute or hinder the adoption of CRIS and RI in the context of the Open Science discourse (Schöpfel et al., 2017).

We suggest that there are two factors that provide an important context: First, the governance structure and policies of science systems at the *national level*. We observe different approaches towards the (integrated) institutional management, processing and dissemination of research information and

research data in different national science systems. In this context, the discourse on what information qualifies as “research information” and how it is to be defined and publicly presented differs over science systems and institutions.

Second, the governance structure and policies at the *institutional level*. In the context of changing modes of university governance, an “organizational transformation” of universities has been described (Krücken & Meier, 2006; Musselin, 2006). In the course of turning into organizational actors with distinct hierarchies, rationality and identities (Brunsson & Sahlin-Andersson, 2000), universities increasingly develop branding and marketing strategies (Aula, Tienari, & Wæraas, 2015; Drori, Delmestri, & Oberg, 2016; Kosmützky, 2012). In this context, CRIS can provide useful tools for showcasing institutional research and experts to the wider public. Especially in the latter context CRIS and the use of RI have not been investigated empirically yet.

To account for variances in both, national and institutional context factors of adopting or hindering the use of CRIS and RI in an Open Science framework, we compare research institutions in three countries: Italy, the Netherlands and Germany. Whereas Italy and the Netherlands have implemented central evaluation policies that make the standardized reporting of research information (e.g. publications) mandatory for research institutions, Germany is characterized by a federal science system that focusses on the voluntary reporting and publication of institutional research information.

With regard to CRIS and RI, the three cases are marked by different approaches towards the management and value of research information, standardisation of vocabularies, definitions, processes and technical systems, the dissemination and choice of CRIS, and the degree of customized institutional policies and strategies for open access and open science.

We therefore aim to investigate the following questions:

1. How do governance structures and policies of science systems at the national level influence research institutions to pursue an integrated outreach strategy that aims to make available research information and/or research data to the general public or peers?
2. Do these factors foster or inhibit the use of CRIS as part of the institutional Open Science policies or strategies?
3. What is the role of CRIS for processing research information and research data in representing and showcasing university research?

The comparative approach of this study is based on a most-different-system design (Seawright & Gerring, 2008). The three countries selected differ on several dimensions, such as for example the differentiation of the research sector, the modes of quality control in those systems size and funding mechanisms.

The study is explorative which is why mostly qualitative data, such as interview and documentary material and qualitative methods of data analysis will be used. The core of our study consists of semi-structured expert interviews with representatives from national and institutional RI stakeholders including national associations, science academies, users of RI and CRIS, governmental representatives and others.

Interview and documentary material will be subjected to a qualitative content analysis which includes thematic coding in MaxQDA.

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