## Research Lifecycle-based Research Data Management Requirements and Its Alignment with Institutional, Domestic and International Contexts

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## ABSTRACT

This session discusses Research Data Management (RDM) along research lifecycle by having inputs from University of Illinois at Urbana-Champaign in U.S.A. and Kyoto University in Japan as the representative from research intensive university and National Institute of Informatics in Japan as the representative from nationwide academic service provider.

In terms of the development of RDM infrastructure at each institution, we need to consider a lot of requirements and constraints to support diverse research communities at campus and to promote the use of RDM infrastructure. For example, the RDM plan requirement in Call for Proposal have been changing dramatically the necessity of the campus-wide RDM in campuses in U.S.A. and Europe countries. In special, it is very crucial for the research institutions in U.S.A. to support researchers by providing RDM infrastructure to get research funding in very competitive situation based on slightly different RDM plan required by funding agencies. In Japan, on the other hand, the academic scandal in the field of stem cell research has initiated requiring research data preservation for more than ten years after final publication for all of researchers, in the sense of research integrity. In addition to such domestic contexts, the international trends on Open Science and Open Data have been pushed by governmental and international organization to advance science and innovations. As the result, each nation must consider the nation-wide RDM infrastructure to support campuses and researchers because researchers work beyond institution and nation within the domestic and international contexts.

We will talk about the current status and challenges along research lifecycle in each context shown in Figure 1, and discuss the future of RDM to envision the RDM infrastructure in 2030 required in "R1: Research Universities in Carnegie Classification.



Figure 1: The big picture for aligning research data management requirements in the intersection of campus, domestic and international contexts