



University Senate
Research and Graduate & Professional Education Committee Members (RGPEC)
Response to Charge S-2110: Research Information Systems

A. Charge

Charge Number S-2110

Title **Research Information Systems**

Description *Investigate the development of Research Information Systems. Determine best practices and system impacts as well as what office should lead the university to ensure that Rutgers research impact is maximized.*

B. Consultants to this Charge Report

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C. Background

This charge builds upon prior RGPEC work around Open Access (RU OA Policy) and persistent identifiers (ORCID initiative) by adding a more comprehensive Research Information System (RIS). Research Information Management (RIM) is a practice that facilitates the analysis of research outputs by aggregating data from research activities for an institution. RIM aims to showcase the strength of research programs, identify influential researchers, monitor collaboration activities, promote interdisciplinarity, and pinpoint gaps in research areas. Some other tools in the industry also allow researchers to identify grant funding and look for collaborators. Despite their rich features, RIM tools are frequently associated with research metrics used for promotion and tenure. RIM systems thereby support the transparent aggregation, curation, and utilization of

data about institutional research activities. Research Information Systems (RIS) are electronic platforms designed to promote scholarly communication and metrics with a vision of open research, responsible analytics, and social interoperability. Faculty and other researchers need to have access to contacts and support all along this system. All systems and services should be interoperable, accessible, and beneficial for faculty. The final goal should be an end-to-end Rutgers research information (eco)system.

D. Discussion

In response to charge S-2110 the Research, and Graduate and Professional Education Committee (RGPEC) investigated the development of Research Information Systems at Rutgers. The committee found a major need for the creation of a 'one stop shopping place' for researchers to find available resources already available within the different Units at Rutgers. There is also a need to create a 'one stop input place' that enables researchers to constantly update information on research accomplishments across all platforms. The researcher database should be searchable by stakeholders external to Rutgers as an 'expert finder' tool. Information to be covered by the system needs to include information about researchers and their expertise, available equipment and core facilities. Collection of this information is crucial to centralize and synergize existing research infrastructure and expertise in order to enhance productivity and efficiency. This initiative is of importance to support Rutgers' values of openness, transparency, and the creation of a beloved community.

The committee found that major parts and information repositories for a Rutgers wide Research Information System are already available, but not networked in a comprehensive manner. For example, platforms such as "collaborate.rutgers.edu" and "ResearchwithNJ.com" are already in place and Academic Analytics and Faculty Survey had been implemented in the past. The use and ownership of researcher data when products are discontinued is a concern. The committee found a need to improve communication on Research Information between the different Rutgers Units and a need for the creation of an integrated, comprehensive network and platform that also interfaces with external databases (PubMed, ORCID, NIH reporter, etc.). This information platform needs to be easily accessible to all stakeholders.

The committee identified outreach using social media outlets as a critical area for development to highlight Rutgers researchers and their accomplishments (e.g., papers, grants, establishment of working groups, etc.). Much of modern research outreach and communication primarily occurs through university communications and social media platforms, which allow wide and rapid distribution of research highlights and news events. The committee felt that a working group focused on developing and implementing innovative strategies for outreach regarding Rutgers

research using social media would greatly improve the impact of faculty, staff, and student accomplishments at this university.

Faculty and other researchers need information and consulting through a RIMS dashboard feature about making their works Open Access. The continuing skyrocketing increases in journal article processing charges (APC) combined with the requirement for providing public access to research works makes for a very difficult outcome for all researchers. The current limited number of APC agreements (e.g., Wiley) *via* the Big Ten Academic Alliance (<https://btaa.org/library/scholarly-communication/open-scholarship/wiley-open-access-agreement>) does not sufficiently address the needs of Rutgers researchers. Exploring how a larger number of Open Access (OA) publishing agreements across all Rutgers Campuses can be achieved to allow greater freedom/options for Rutgers researchers would be greatly welcome. Reinvigorating resources for the Rutgers OA policy should be a priority for the University. In light of the requirement that all grantees of all federal agencies make all research data OA, Rutgers needs to have (or subscribe to) a robust preservation repository for OA to its research data.

E. Resolution

Be it resolved:

Given the need to improve and reorganize existing systems (as opposed to creating a new system), the University Senate recommends:

1. The creation of a temporary task force from university stakeholders to develop a comprehensive Rutgers wide Research Information System (RIS) within a time span of one year. After implementation and testing of the new platform, the system shall be ready to be handed over to the Office for Research. The following issues need to be addressed:

- a. Identify and establish communication channels to build effective long-term relations among key groups. The RIS should ensure that the data and researcher profiles are up to date and are populated more automatically. It is important to have an infrastructure led by the Office for Research to foster the interoperability of data by integrating the metadata of research outputs, open citations, and existing databases such as PubMed, Scopus, and Web of Science. Ownership of the data and data governance should be defined.
- b. Solicit input from the stakeholders and exchange information about the current practices in the RIM ecosystem. RIM is an enterprise effort that involves different stakeholder communities ranging from individual faculty who contribute their research outputs to having a public portal where corporate users and news media can easily identify expertise at Rutgers.

- c. Make recommendations on training and best practices related to research metrics and impact, to ensure that Rutgers faculty and researchers can benefit from the RIM framework.
- d. Obtain a responsible and equitable portrayal of scholarly publications. The temporary task force will emphasize using research metrics in a responsible way and make recommendations on how Rutgers can benefit from the Responsible Metrics Movement such as DORA (Declaration on Research Assessment) and the Leiden Manifesto.
- e. Ensure resources to support the Rutgers Open Access Policy. Significant publication costs are faced by researchers that are very challenging to meet using current, and likely future grant budgets.

2. Consider the following goals and components for the Research Information System

Create an electronic “one stop shopping place” that should include networked information about research relevant information such as:

- a. Core facilities.
- b. Researcher database with expertise and equipment.
- c. Information about grant awards to RU researchers.
- d. Information about publications from RU Researchers.
- e. Integration of RU data with public databases (e.g., PubMed, ORCID).
- f. Link existing information through upgraded institutional and departmental websites.
- g. Implement a strategy for the use of social media to improve Rutgers research outreach.
- h. Open Access resources to enhance research impact.

Member Action:

Approve of the Response to Charge S-2110 as discussed during full RGPEC meeting 11/18/22:

Detlev Boison, *Co-chair*

Monica Mazurek, *Co-chair*

Debashish Bhattacharya

Anderson Eloy

Wei Dai

Sonal Gahlawat

Jie Gong

Grace Guo

Arash Hatefi

Miriam Jaffe

John Joergensen

John Kettle

Michael Kelly

M. Chiara Manzini

Sanchali Mukherjee

Tiffany Olivera

Amy Savage

Do not approve of Response:

Abstain from Action:

Taja-Nia Henderson