

Open Science Caribbean Research Information System

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Extended Abstract

Open science has emerged as a transformative paradigm in the realm of global scientific research, seeking to democratize access to knowledge and improve the transparency, reproducibility, and accessibility of scientific research (Fecher & Friesike, 2014). In the Caribbean region, despite individual efforts, there is still no integrated system that centralizes and manages information on research activities.

In this context, we present the Open Science Caribbean Research Information System (OSCRIS) project, which aims to develop a regional platform that functions as a Current Research Information System (CRIS) and a data repository. This project initially focuses on the Dominican Republic, with the purpose of becoming a scalable model for the rest of the Caribbean. This is the main initiative among other activities developed by Open Science Caribbean (OSCaribbean), a non-profit institution that aims to democratize knowledge aligned with the open science guidelines declared by UNESCO.

Objective of the Initiative

The main objective of OSCRIS is to create a robust research information system that centralizes, manages, and makes visible research activities in the Caribbean. Through the implementation of a CRIS, we aim to offer a solution that allows decision-makers to access key metrics on scientific productivity, invested resources, research impact, and collaborations between institutions.

Specific Objectives

1. Develop a CRIS platform based on DSpace-CRIS, adapted to the specific needs of the Caribbean.
2. Initially index 40 affiliated institutions that actively maintain their data on the platform.

3. Implement an innovative and accessible data visualization system for users of various levels of experience.
4. Foster the interoperability of research data in the region.
5. Increase the global visibility of research produced in the Caribbean.

Geographic Scope and Implementation Phases

The OSCRIS project contemplates a geographic scope that covers the entire Caribbean, with a phased implementation:

1. **Initial Phase:** It will begin with a pilot project in the Dominican Republic, funded by INTEC.
2. **Expansion Phase:** It will extend to Puerto Rico, Cuba, Haiti, Jamaica, and the Antilles.
3. **Consolidation Phase:** Gradual incorporation of coastal Caribbean countries.

In its initial stage, the project will focus on classifying open access data available in different databases to create the initial structure. As institutions become affiliated, entities and profiles will be refined under the supervision of experts in the field.

Innovation in Data Visualization and Accessibility

OSCRIS will distinguish itself through its innovative visualization and accessibility features:

1. **Personalized dashboard:** Each affiliated institution will have access to a dashboard that provides a granular view of their research data.
2. **Dual user interface:** A basic section for general users and an advanced section for researchers and institutional administrators will be implemented.
3. **Researcher profiles:** Researchers will be able to access and update their profiles, automatically generating standardized CVs.
4. **Interactive visualizations:** Interactive charts and maps will be implemented to facilitate understanding of trends and collaborations in research (Börner et al., 2019).
5. **Social media outreach:** A social media communication strategy will be developed to increase the visibility and use of the platform.

Collaborations and Funding

Although the pilot project in the Dominican Republic is funded by INTEC, OSCRIS operates as an independent initiative supported by key collaborations with institutions such as Etikos, Sodenn, and ISOC-RD. We are actively engaging in discussions with additional Caribbean institutions that have expressed interest in the project, aiming to broaden its scope and impact across the region. A critical next step is the launch of our demo, scheduled for January 2025, which will serve as a pivotal moment to showcase the platform's potential and secure further collaborations and support.

Expected Impact

The implementation of OSCRIS promises to have a significant impact on the visibility and management of research in the Caribbean:

1. **Greater international visibility:** By centralizing and standardizing research information, OSCRIS will increase the global visibility of Caribbean scientific production (Alperin, 2014).
2. **Improvement in decision-making:** The data provided by the platform will facilitate evidence-based decision-making for resource allocation and strategic planning (Hicks et al., 2015).
3. **Fostering collaborations:** The platform will allow identification of collaboration opportunities between institutions and countries, enhancing multidisciplinary research (Wagner et al., 2011).
4. **Promotion of open science:** OSCRIS will contribute to the adoption of open science practices in the region, aligning with global trends (Chan et al., 2019).

Conclusion

The Caribbean Open Science Platform: Research Information System Project represents an unprecedented opportunity to transform the management and visibility of research in the Caribbean. By providing a centralized and accessible platform, OSCRIS will not only improve competitiveness and collaboration among higher education institutions and research institutes in the region but will also contribute significantly to the understanding and management of scientific knowledge in the Caribbean.

The successful implementation of OSCRIS has the potential to position the Caribbean as a relevant actor in the global republic of science, promoting the production of high-quality knowledge and facilitating its dissemination at an international level. This project marks an important milestone on the path towards a more open, collaborative, and equitable science in the Caribbean region.

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