Modernizing the Design of the OAP SDIS Metadata Editor

Raghav Sharma
Mentor: Dr. Liqing Jiang

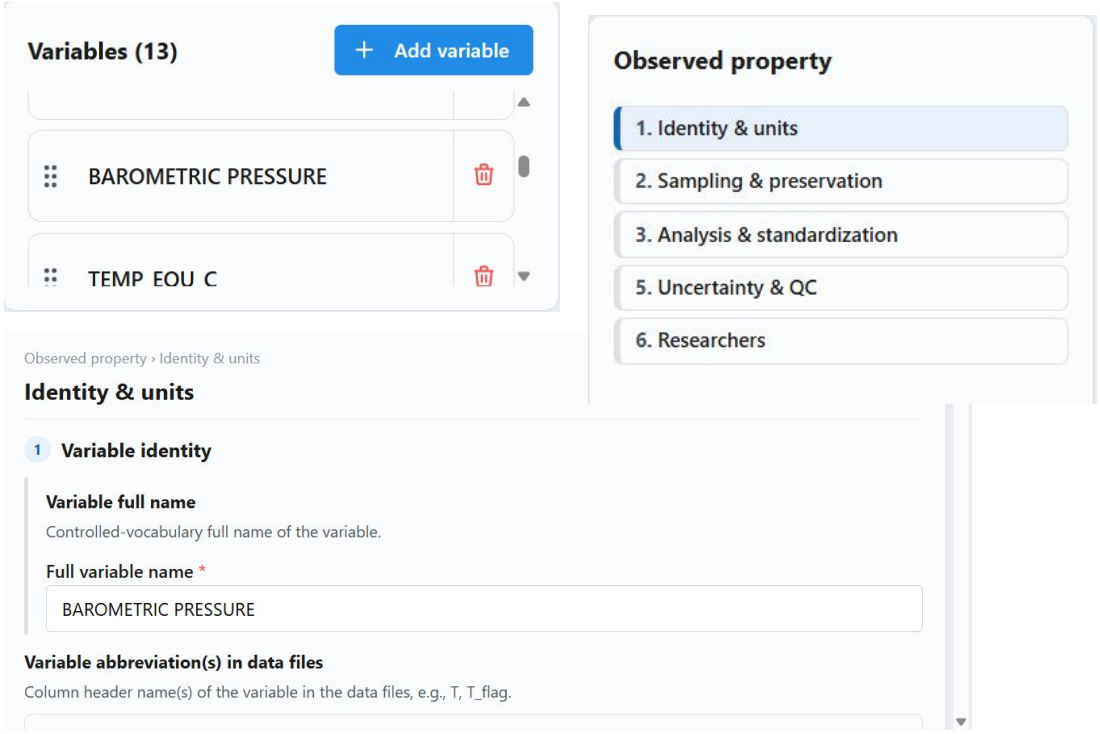
Objectives

- Modernise the legacy Grails+GWT metadata editor using Plotly Dash.
- Make the process of entering metadata easier and less error-prone.
- Build a maintainable system that makes the process of adding new features easier in the future.

Methodology

- Converted metadata definitions into reusable, descriptor-driven form sections.
- Divided the form into four clear, easy-to-navigate sections.
- Added consistent Save, Discard, and Save & Continue behavior across the form.

Modernized User Interface

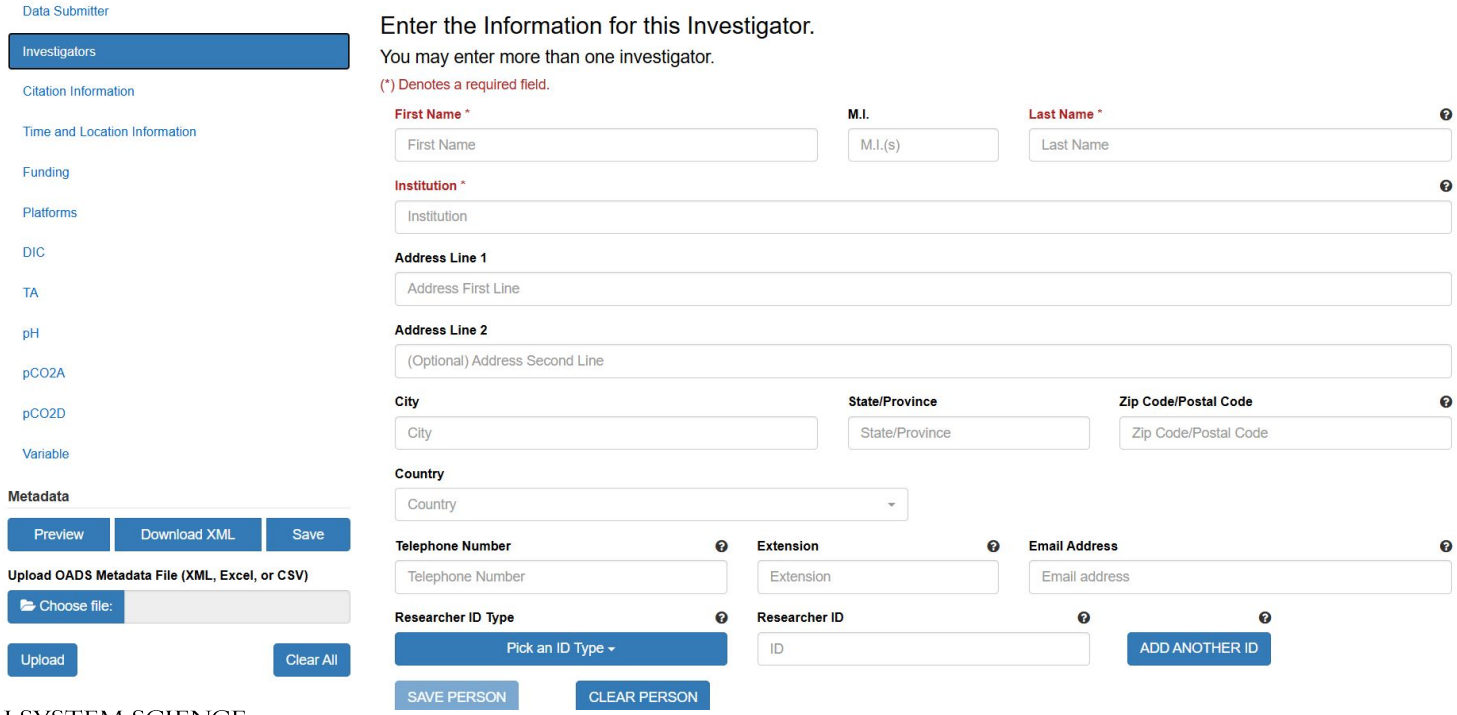


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Current User Interface of the Investigators Tab



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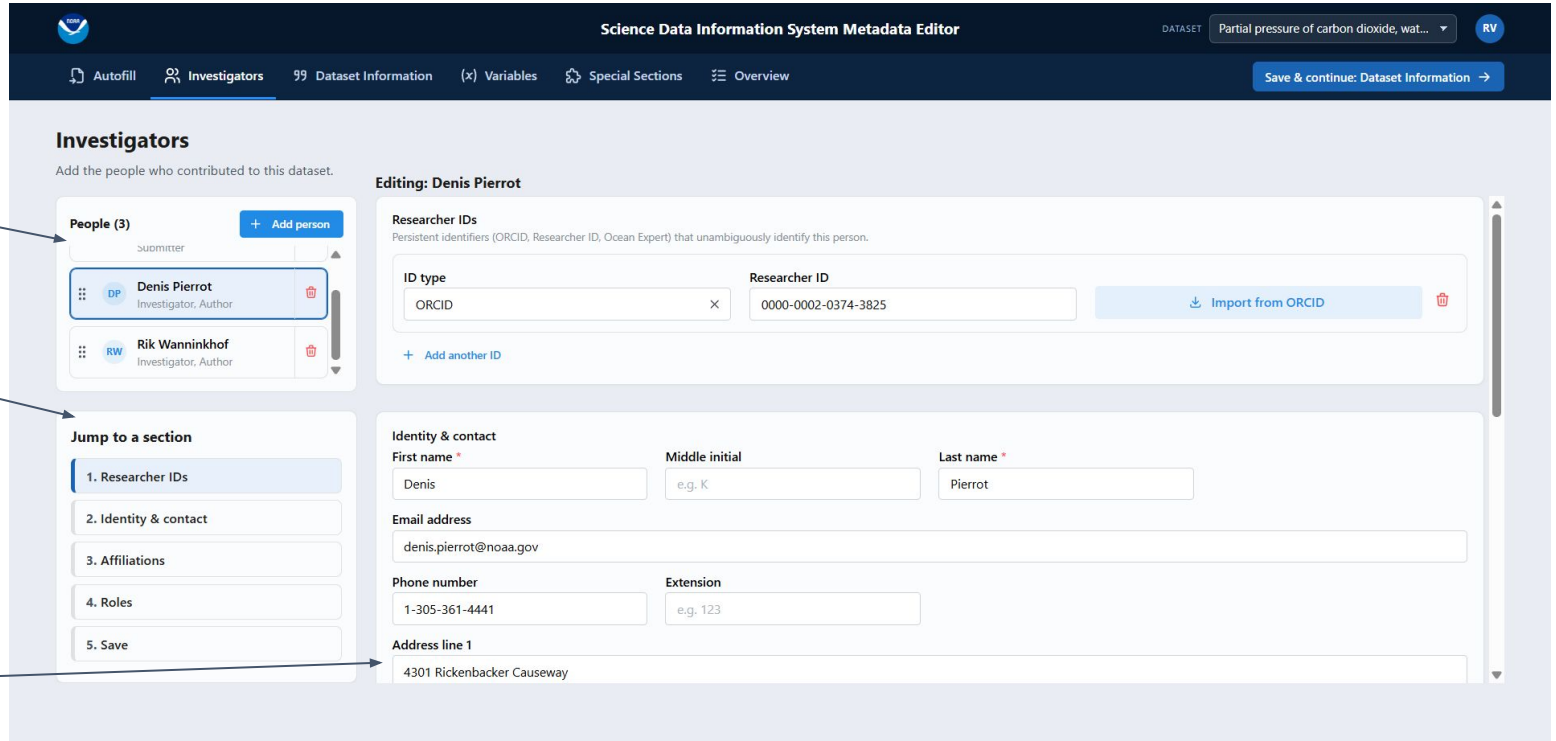
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Modernized User Interface of the Investigators Tab

Having a list of all contributors visible at all times.

Subsection navigation for quickly jumping through the form.

Main form that the users fill out.



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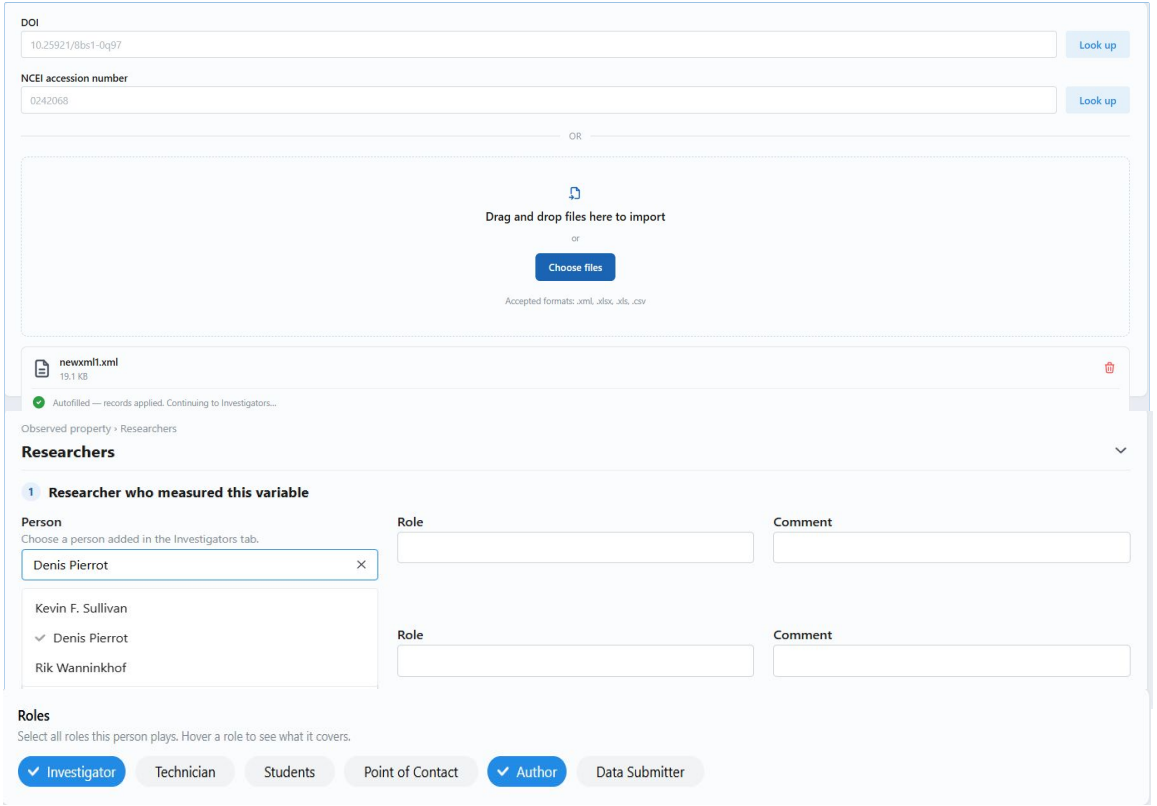
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Results

- Delivered a working frontend for the 4 core metadata entry sections.
- Improved readability and feedback, while preserving layout and alignment.
- Created a reusable architecture that can be extended without rebuilding each section independently.

Future Directions

- Adding secure server-side storage, authentication, and record recovery.
- Adding preview, export, and submit functionality for the produced XML.
- Creating a proper backend service for the XML parsing, ORCID and DOI/NCEI imports.



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