

EARTHDATA PUB: A Data Publication Workflow Solution for NASA's EOSDIS



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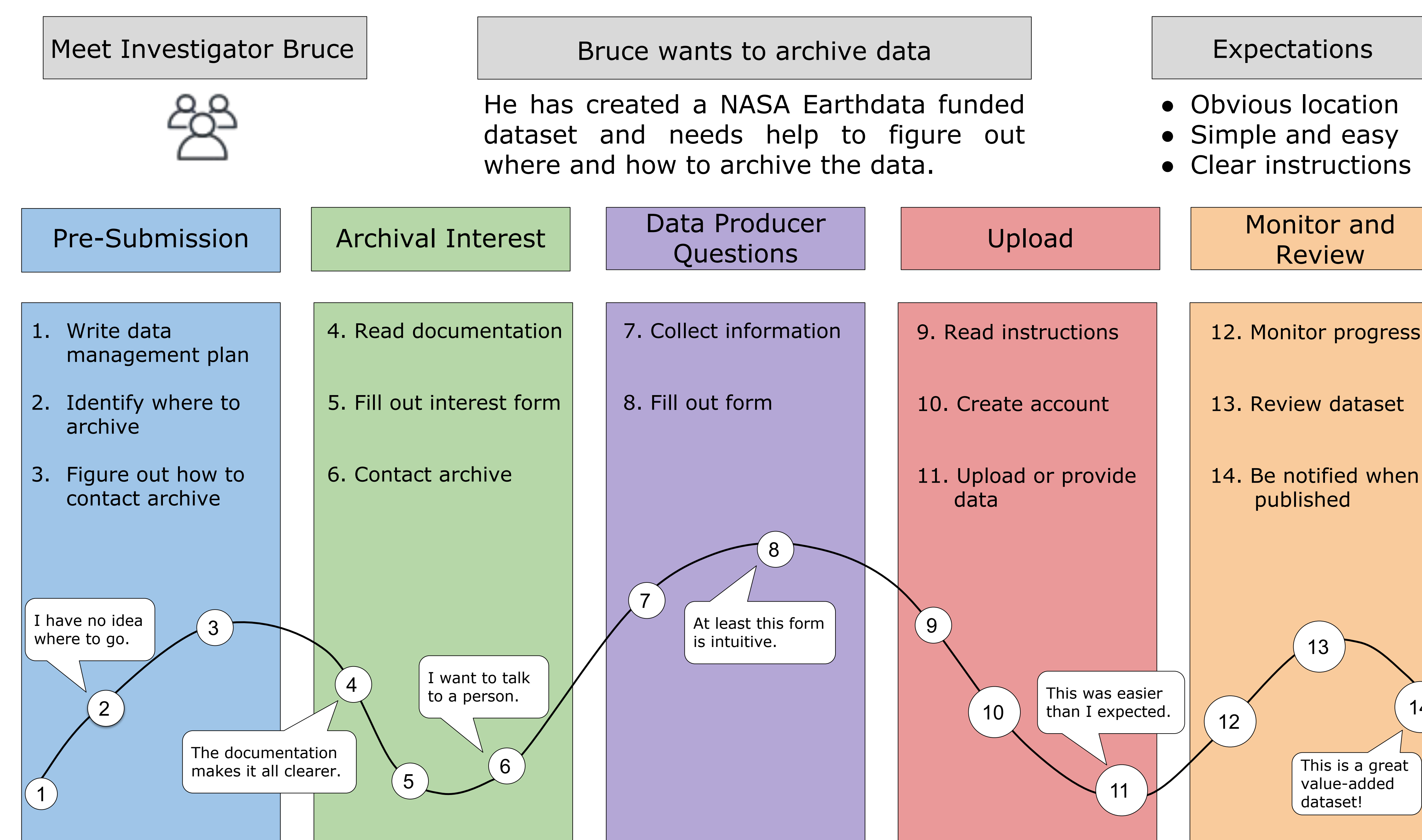
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Abstract

Each NASA Distributed Active Archive Center (DAAC) faces the challenge of dealing with an increasingly diverse number of publishable data products from diverse data producers. Data producers, on the other hand, may experience pain points when interacting with the Earth Observing System Data and Information System (EOSDIS) for the first time or when publishing different data at different DAACs. As a result, there has been a growing need to develop a common software framework that serves as a common interface for data producers, rigorously defines the data publication procedure for DAAC staff, facilitates the management of various data publication processes, and tracks the progress of data publication. This software should also account for the different configurations at different DAACs.

Currently, two primary data publication workflow and tracking tools exist in operation at the EOSDIS: Semi-Automated ingest System (SAuS) and Data Publication workflow Portal (DAPPeR). However, neither tool is cloud-ready. Automated data processing could be managed by Cumulus, an EOSDIS cloud-based data ingest, archive, and management system. However, Cumulus does not support manual tasks or on-premise implementations. We propose to develop the Earthdata Publication Minimum Viable Product (Earthdata Pub MVP) -- a cloud-hosted solution that works with both cloud and on-premise systems and implements the communications and exchange requirements generated by the Earthdata Pub information architecture team.

Data Producer Journey



Future Work

No.	Development Tasks	Module	No.	Development Tasks	Module
1.	Data Provider Forms (Interest and Questionnaire)	Forms	8.	Workflow Engine	Workflow
2.	API and Access Control	API	9.	Metrics Capture Design	Metrics
3.	Database and Ancillary File Storage	Database	10.	Information Pages	Documentation
4.	Notification Service	Communication	11.	Common Metadata Repository Integration	Publish
5.	Actions System	Communication	12.	Cumulus Integration	Cumulus
6.	Dashboard, Views, Administration Pages	Dashboard	13.	Plugin System, Extensibility, and Independently Testable Modules Architecture	Extensions
7.	Metadata Editor	Metadata	14.	Open Source Governance Plan and Review Board Procedures	Governance

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Earthdata Pub Architecture

