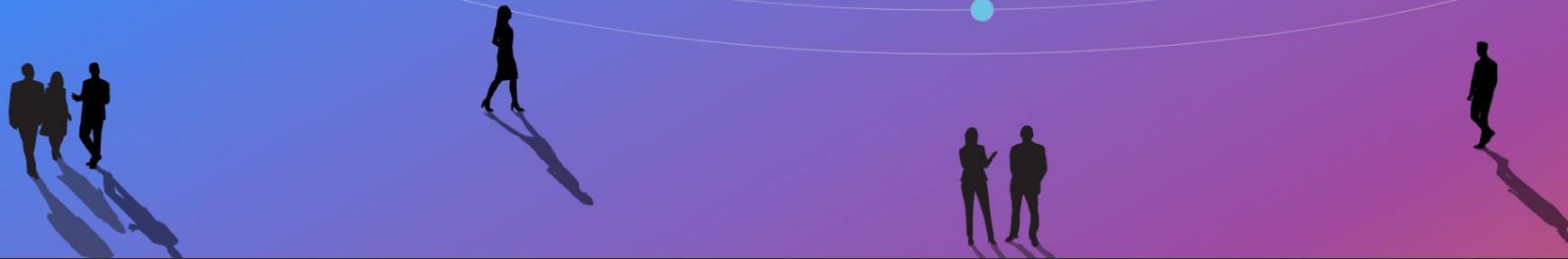


Extend. Expand. Exemplify.

The SGCI team continues to offer its services AND brings you a new Center of Excellence to Extend Access, Expand the Community, and Exemplify Good Practices for CI through Science Gateways.



How to Position Your Globus Data Portal for Success: Ten Good Practices

Sandra Gesing, Kerk Kee, Sean Cleveland, Annelie Rugg and
Steve Brandt

May 8, 2024



NSF awards
1547611
2231406

Gateway Ambassadors

Members of a professional community

- Community activities
 - learning from peers
 - sharing information
- Ambassador activities
 - meeting with individuals
 - hosting awareness sessions



"We like to bring together people from radically different fields and wait for the friction to produce heat, light and magic. Sometimes it takes a while."

What This Talk is About

Recommendations



What This Talk is NOT About

A Fully Proven Recipe for Success

INGREDIENTS:

- ✓ the ability to fight the urge of ordering a takeaway every night
- ✓ a dash of patience
- ✓ a decent set of cutlery and crockery
- ✓ a spoonful of can-do attitude
- ✓ a sprinkle of 'trust the process'



Two Groups of Recommendations

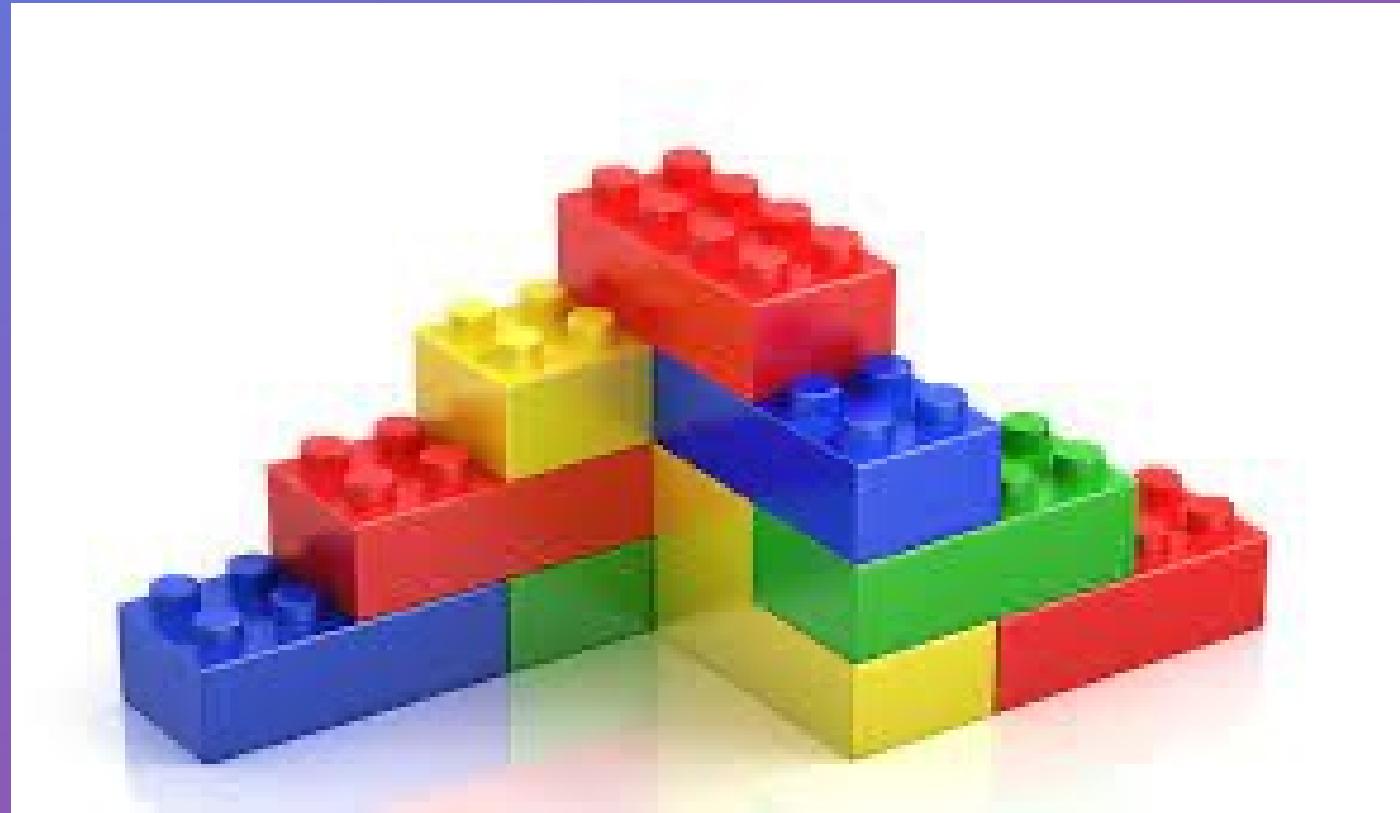
- Five good practices for technical design
- Five good practices for social organization of science gateways



shutterstock.com - 277705472

Recommendation 1

Adaptability, Extensibility, and Scalability



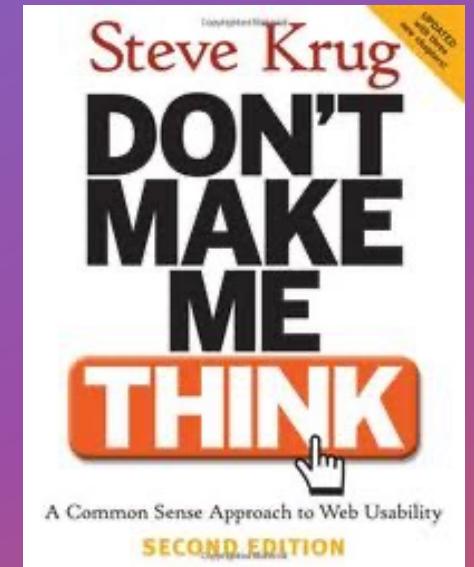
Recommendation 2

Usability and Accessibility



“After all, usability really just means that making sure that something works well: that a person ... can use the thing - whether it's a Web site, a fighter jet, or a revolving door - for its intended purpose without getting hopelessly frustrated.”

Steve Krug in “Don't make me think!: A Common Sense Approach to Web Usability”, 2005

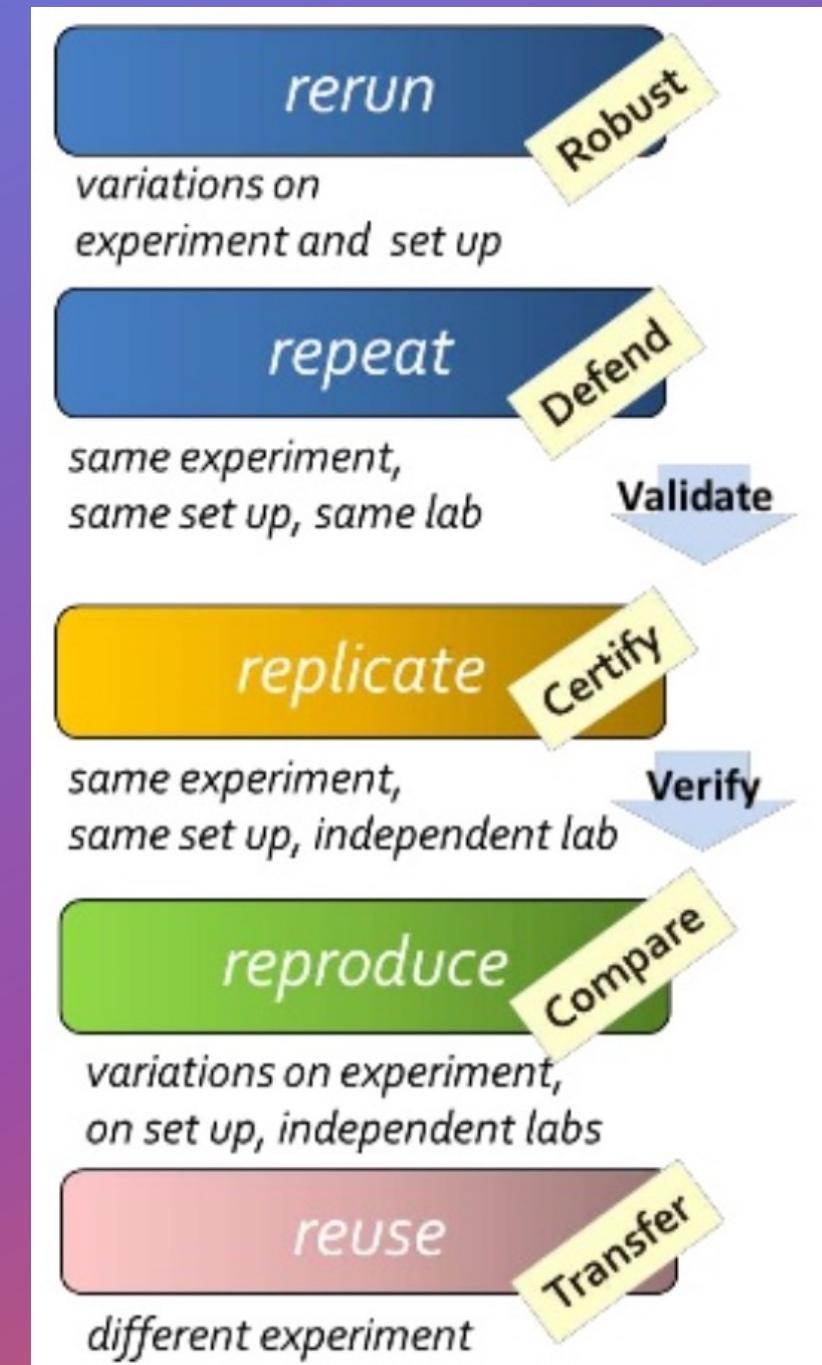


Recommendation 3

Reproducibility

“Reproducibility means obtaining consistent computational results using the same input data, computational steps, methods, code, and conditions of analysis. Replicability means obtaining consistent results across studies aimed at answering the same scientific question, each of which has obtained its own data.”

<https://phys.org/news/2019-05-replicability-science.html>



Recommendation 4

FAIR compliant

- Findable
- Accessible
- Interoperable
- Reusable

Open Access | Published: 15 March 2016

The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson, Michel Dumontier, [...] Barend Mons [✉](#)

Scientific Data 3, Article number: 160018 (2016) | [Cite this article](#)

174k Accesses | 2215 Citations | 1794 Altmetric | [Metrics](#)

 An Addendum to this article was published on 19 March 2019

Abstract

There is an urgent need to improve the infrastructure supporting the reuse of scholarly data. A diverse set of stakeholders—representing academia, industry, funding agencies, and scholarly publishers—have come together to design and jointly endorse a concise and measurable set of principles that we refer to as the FAIR Data Principles. The intent is that these may act as a guideline for those wishing to enhance the reusability of their data holdings. Distinct from peer initiatives that focus on the human scholar, the FAIR Principles put specific emphasis on enhancing the ability of machines to automatically find and use the data, in addition to supporting its reuse by individuals. This Comment is the first formal publication of the FAIR Principles, and includes the rationale behind them, and some exemplar implementations in the community.

Recommendation 5

Standards-based, Priorities and/or Maintainability



Recommendation 6

Evangelism



Recommendation 7

Community and Advocacy - Funding/Stakeholder (Institutions, Communities) Buy-in



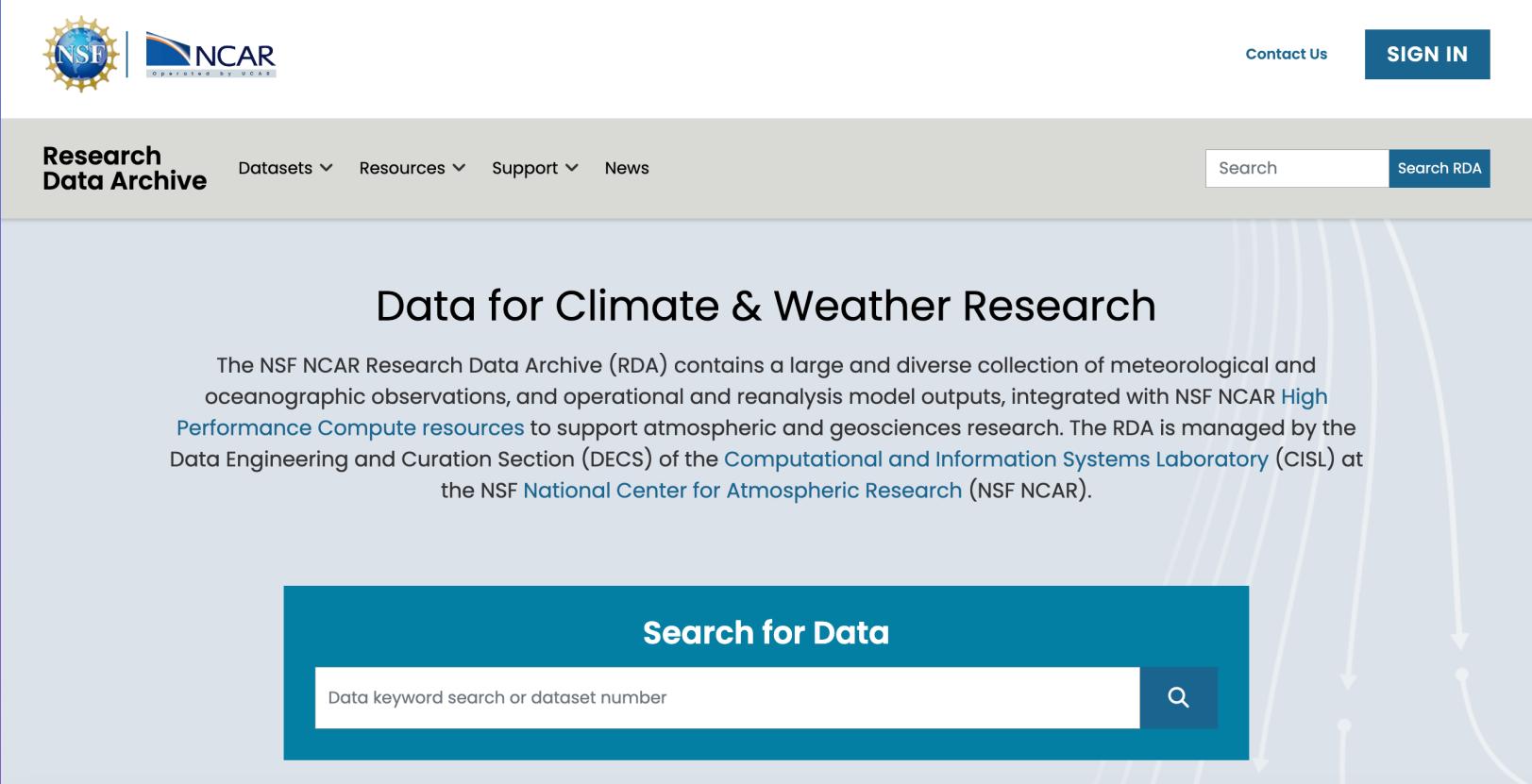
Recommendation 8

Visibility and Awareness



Recommendation 9

Use cases and success stories



The NSF NCAR Research Data Archive (RDA) contains a large and diverse collection of meteorological and oceanographic observations, and operational and reanalysis model outputs, integrated with NSF NCAR [High Performance Compute resources](#) to support atmospheric and geosciences research. The RDA is managed by the Data Engineering and Curation Section (DECS) of the [Computational and Information Systems Laboratory](#) (CISL) at the NSF [National Center for Atmospheric Research](#) (NSF NCAR).

Search for Data

Data keyword search or dataset number

Recommendation 10

Documentation and Onboarding Resources



Outlook

10 Recommendations What NOT to Do



Thank You

<https://sciencegateways.org/>

