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# 10 Pragmatic Lessons for Building Data Collaboration

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# ./whoami

- Slashdot/Sourceforge
- Alcatel-Lucent
- Perforce
- Inktank (Ceph)
- Red Hat
- data.world

# data.world

We're building the most **meaningful**, **collaborative**, and **abundant** data resource in the world by dismantling the barriers between data and people.

Our platform helps data people solve problems faster by creating new ways to discover, prep, and collaborate.

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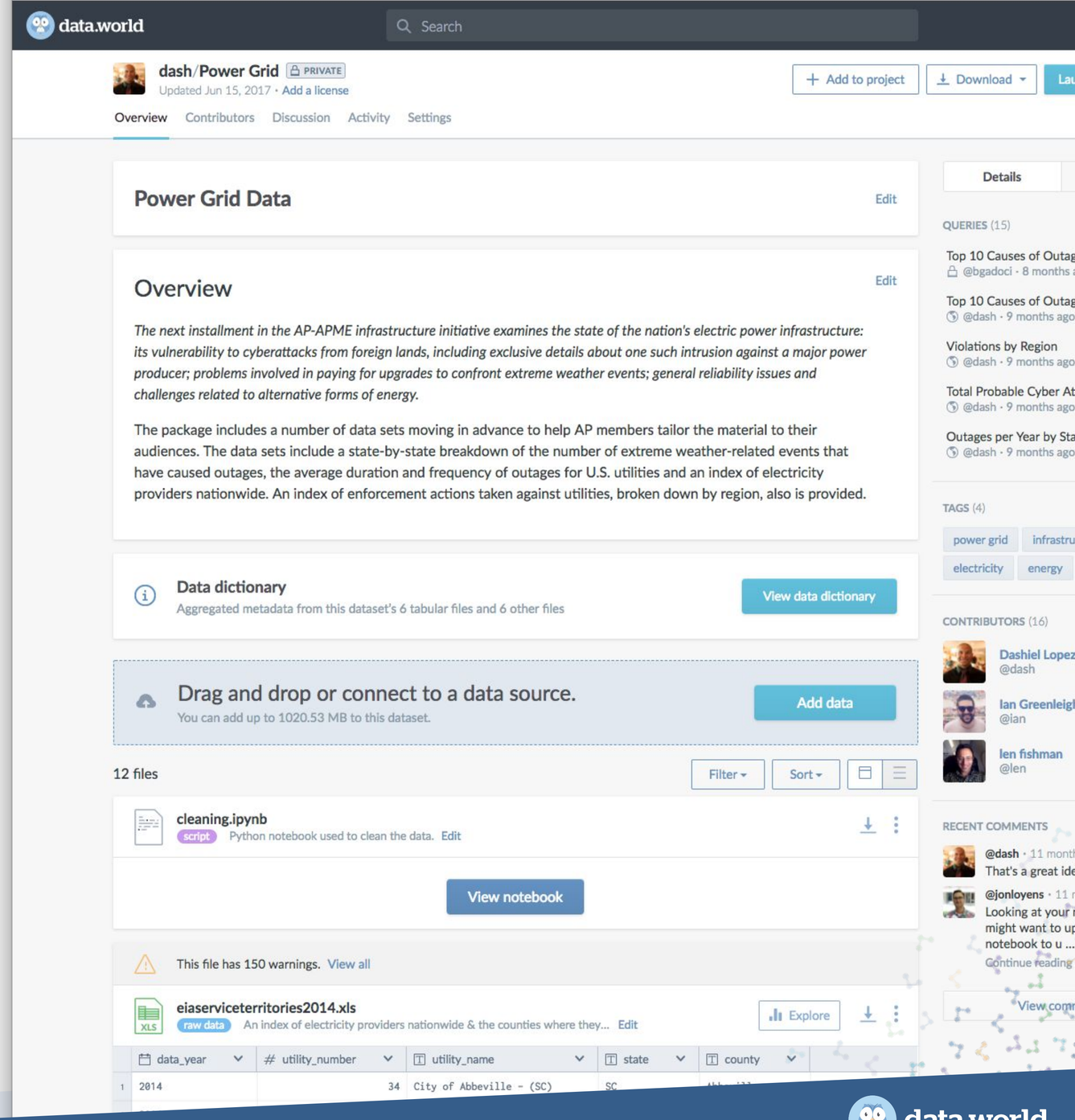
Certified B Corporation



# Data Practices Manifesto / CPEDS

https://datapractices.org

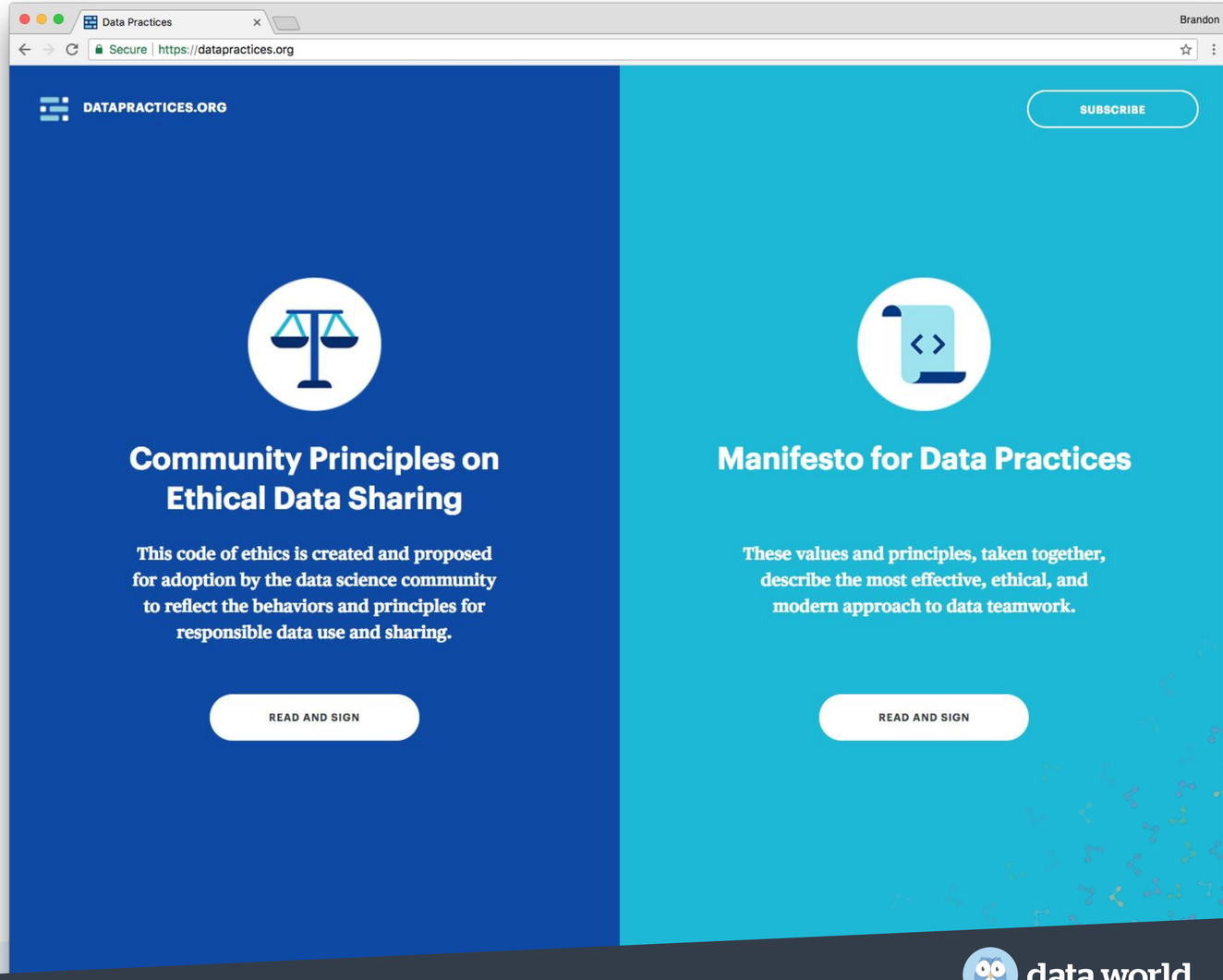
Coming soon: Exercises & workshops

## Manifesto for Data Practices

1. First draft baked
2. Community-driven
3. Sign Today!
4. **Origination:** ODSLS
5. **Focus:** Data work

## Community Principles on Ethical Data Sharing

1. Community Principles on Ethical Data Sharing
2. Work in progress
3. Community-driven
4. Community draft coming soon!
5. **Origination**: Bloomberg, D4D, Brighthive
6. **Focus**: Data Ethics



# 10 Pragmatic Lessons

# 1. Maximize Inclusion


## SME or bust

Need a subject matter expert involved to better understand data, context, and reach

## Diversity of:

- Inputs (broader data for better perspective)
- Collaborators (different outlooks will provide a more complete picture)
- Outputs (sharing data is hard, viz/numbers/procedures is important)

# 2. Foster Experimentation

## Continuous iterative testing and analysis is key!

## Close the feedback loop

- Analyst / data scientist, data engineer, SME, decision-maker
- Concurrent work when possible

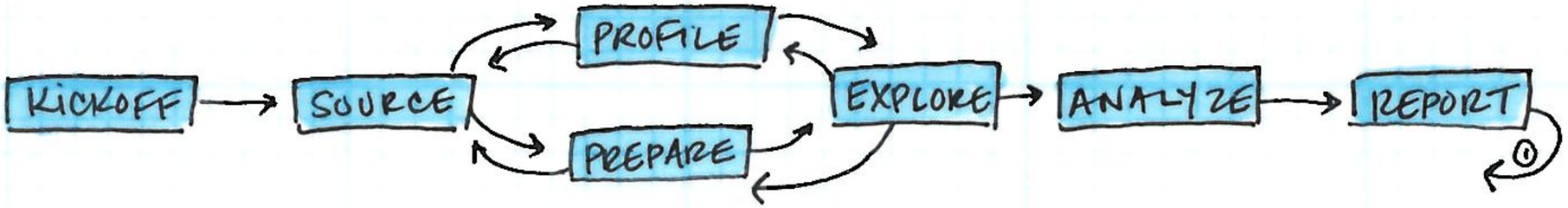
## Insights lead to future work/refinement

# 3. Start With a Question or Hypothesis

Clarity of thinking

Accountability

Focus and direction



# 4. Use Canonical Data Sources

Don’t email spreadsheets!

Centralize work and make it portable

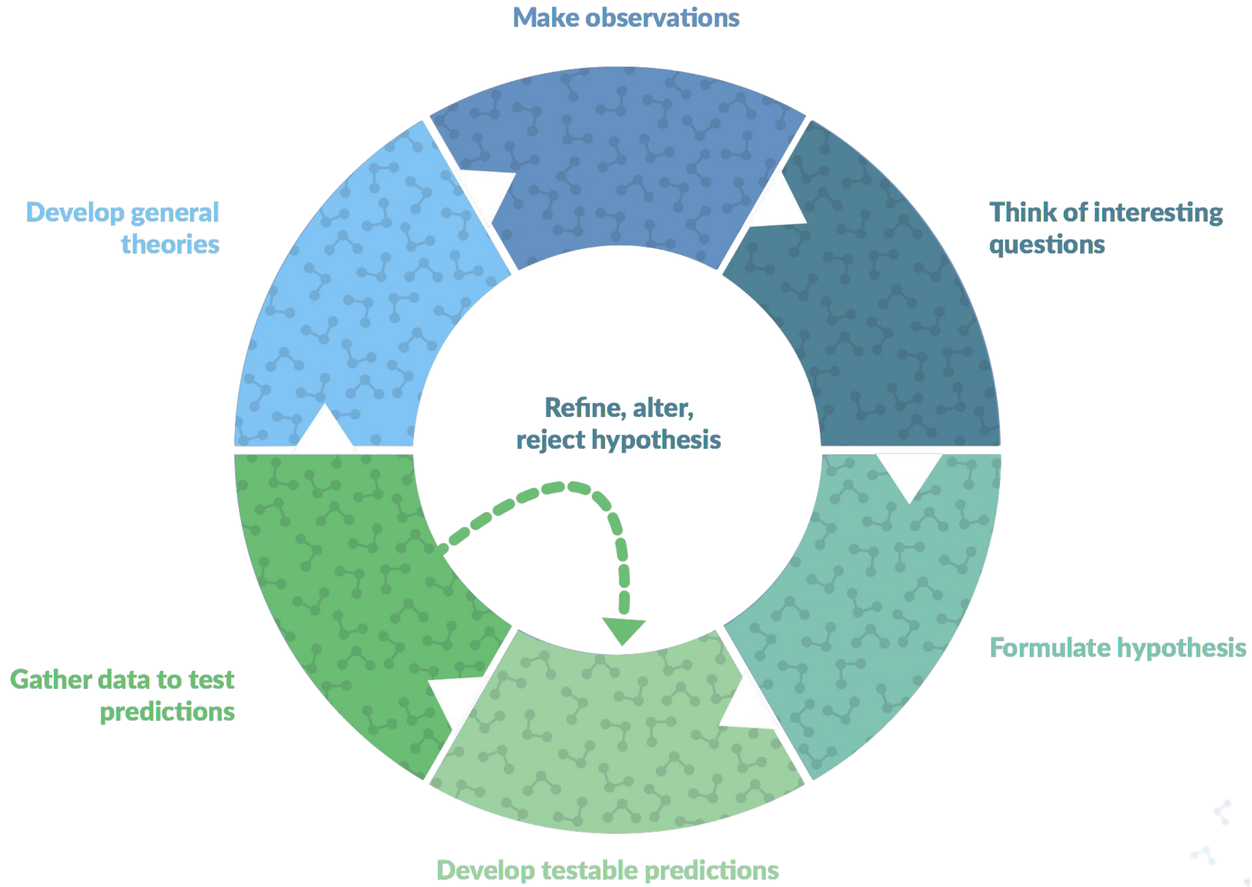
Employ the power of linked data!

# 5. Practice Good Science

## Even if you “aren’t a scientist”!

## Scientific Method

- Observation, measurement, experimentation
- Formulation, testing, and modification of hypothesis



# 6. Document Work and Processes

## Do what (good) software engineers have done for ages

## Data science methodologies are especially important to capture

## Open Approach

- Data (raw and resultant)
- Provenance
- Algorithms / code (where appropriate

# 7. Continually Build Context

## What is this?

- Conversations
- Tribal wisdom
- Q&A
- Data dictionary

## Minimize duplicative effort

## Many tools to help with this

# 8. Find and Understand Prior Work

*“Science is standing on the shoulders of ideas you believe were arrived at with sound method and challenging ideas you believe were reached by unsound methods”*

Provenance is important

Pass on to all work

# 9. Encourage Tool Agnosticism

Different personas use different tools

Different problems require different tools

Better results when multiple modes of examination occur

Portable data and open source is important for reproducibility

# 10. Consider and Measure Impact

Important to prioritize projects with well-defined goals

Design projects to achieve measurable, substantive outcomes

Introspection on “what to measure” and “what constitutes success” is powerful

# Questions?

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