Metrics 2023 Brainstorming

Richard Gerber, Dave Hart, Kadidia Konate,
Abani Patra, Marlon Pierce, Mary Thomas

Topic 1: How do we build trust in the data related to the metrics for success?

- develop standards or best practices for creating metrics
- develop metrics taxonomies and a baseline metrics ontologies—or less formal “playbooks”
- for common metrics (e.g. demographics, participants or people) —> perhaps create a library
- advocate for use of FAIR practices
- look at other impact models, e.g., Baldrige criteria
- robust, mechanistic data collection

Topic 2: What are the challenges related to gathering the metrics of success related to your projects?

- managing the different types of data that you have to collect from different resources;
- keeping data safe: some data are sensitive, should not be public
- Volumes of data, data formats, data interoperability
- “Home runs” not always captured by day-to-day operational metrics
- Impact of staffing levels, support services; creating environments for success
- Practices for citing/acknowledging CI components—facilities not always included

Topic 3: How are we using the data related to our project metrics, to inform or revise our processes/actions/decision-making?

- Identifying researchers using resources poorly (e.g., idle components of nodes) and working with them.
- Define metrics, collect data, compare to targets, adapt plans to improve those metrics
- If all your metrics are good, do you get complacent?
- Are projects unwilling to report on metrics that might not look good?
- Should there be a firewall between projects and stakeholders to allow projects to use data honestly to improve?

Topic 4: What are considerations for improving on "responsible metrics" for assessing CI projects and defining success?

- Transparency of metrics—data collection, definitions and results
- some form of a reality check — make sure the results are realistic and make sense — this is individual and internal
- Develop a set of Best Practices
- Developing automated/repeatable processes for data collection, instead of manual/ad hoc methods
- Include a professional evaluator in project proposals
- Multiple dimensions and metrics, otherwise too easy to game the system
- Being transparent about error bars/uncertainty in/limitations of the metrics.