



FAIR Activities and Updates

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Large Uptick in FAIR activities in the US

- Since Feb 2019: MPS FAIR Hackathon...
 - (One of the earliest FAIR workshops in the US)
 - CENDI-NFAIS-NAS-RDA Workshop on FAIR Data (Sept. 2019)
 - <https://www.nationalacademies.org/event/09-11-2019/implementing-fair-data-for-people-and-machines-impacts-and-implications>
 - USGS CDI Project: Making Data FAIR in the USGS (Sept. 2019)
 - <https://my.usgs.gov/confluence/display/cdi/Making+USGS+Data+FAIR+Workshop>
 - NIH: Workshops supporting FAIR principles:
 - <http://datascience.nih.gov/data-ecosystem/workshops>
 - NIST: e.g., Additive Manufacturing (Oct. 2020)
 - <https://www.asminternational.org/web/nist-asmdatamanagementworkshop>
 - NSF and DOE?

- Website live in July 2020: <https://gofair.us/>
- Already this year have hosted
 - Workshop: Advancing FAIR and GO FAIR in the U.S. (Feb 2020)
 - <https://gofair.us/events/2020-02-27-Go-FAIR-US-Atlanta-Workshop.html>
 - Webinar series
 - <https://gofair.us/events/2020-10-15-Webinar-Series-Launch.html>
 - Train-the-trainer events
 - Implementation Networks creeping into US
 - <https://www.go-fair.org/implementation-networks/overview/>

- FAIR tools being developed (examples)
 - Mostly for verifying FAIR-ness at this point (Lowest-hanging fruit)
 - Data Stewardship Wizard - allows use of different knowledge models to make choices about FAIRification
 - <https://ds-wizard.org/>
 - FAIR Evaluator:
 - <https://fairsharing.github.io/FAIR-Evaluator-FrontEnd/#!/>
 - PresQT Evaluator: FAIRShare Evaluator Service
 - <https://presqt.readthedocs.io/en/latest/qa.html>
 - Actual FAIRification tool for nano safety data: NMDataParser tool
 - <https://pubmed-ncbi-nlm-nih-gov.proxy.library.nd.edu/32987901/>

FAIR and Machine Learning

- A crucial ingredient in Machine Learning is labelled, understandable datasets \Rightarrow FAIR!
 - Explosion of needs and uses of ML/AI will require huge diversity of large datasets
 - Recognition that tools are needed to enable easier dataset preparation
 - Actual economic incentive to drive FAIR adoption and the development of FAIR tools
- **GO BUILD!**