

Operational Intelligence

Optimizing computing operations



*Federica Legger (INFN Torino) &
Ale Di Girolamo (CERN IT)*



Quick recap

- We want to:
 - Streamline operations
 - save manpower & improve resources utilization
 - Increase level of automation in computing operation tasks

- By:
 - leveraging common tools/infrastructure
 - Collaborate, share expertise, tools & approaches across LHC experiments (and possibly beyond)
 - Bottom-up approach

JLAB session: <https://indico.cern.ch/event/759388/sessions/295063/#20190321>

Google doc draft:

https://docs.google.com/document/d/1L2wk_N3rCpeB_wSPeMtpehBxA5pCFbwm-xghqJWHGQ8/edit?usp=sharing

Start simple!

- Need well-identified projects with precise goals/metrics
 - Let's start with a handful, not just go in 100 different directions
- Need to get **operation people** on board
 - We're at the service of operations not vice versa!
- Automatization process will be like developing self-driving cars
 - a driver with brain turned on will be needed for a long time!
- Need strong collaboration within and outside experiment
- Guinea pig: **Rucio**
 - But not limited to

Short term goals *before Summer 2019*

- E-group for communication: operational-intelligence@cern.ch ✓
- Regular meetings (2x/month)
 - Indico category: <https://indico.cern.ch/category/11205/> ✓
 - Today: Agree on regular meeting slot
- Review:
 - Current **operation procedures** in the experiments:
 - Today ATLAS
 - past/on-going OI-related **projects**
 - much has been presented at HOW, but we need to get more in details
 - A few projects can likely be turned into x-experiment pretty easily (CMSSpark, or Ilija's analytics infrastructure)
- Review **monitoring data** in MONIT/MWT2
 - Different data formats: additional abstraction layer?

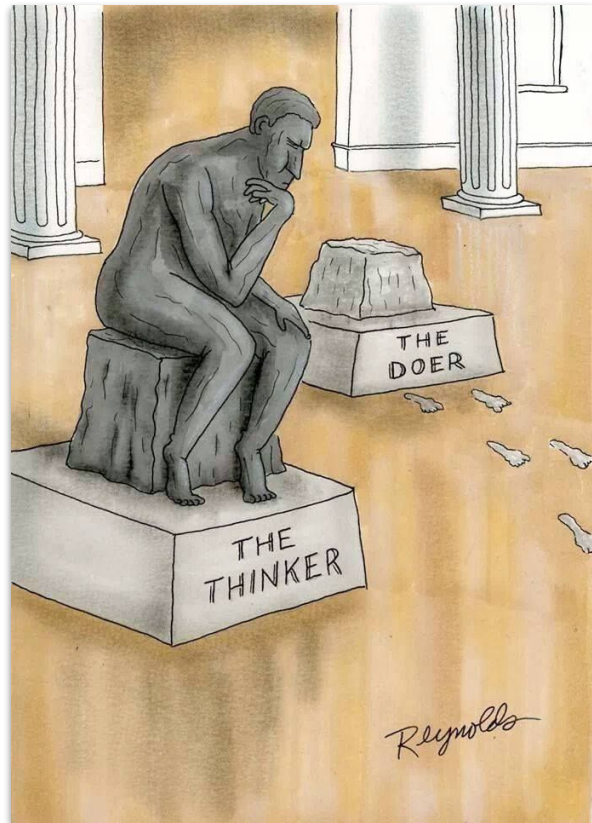
Volunteers?

Mid-term goals *before CHEP 2019*

- identify common projects for the future (Rucio, tickets, HC, etc)
 - find manpower
 - define goals/timescale
 - identify good metrics to evaluate project success
- Put up website similar to the IML one where we collect info
- collect all the code for the projects that we identify in some repository (gitlab, GitHub)
- Open data (ML-friendly format)
- Write white paper

Volunteers?

Future



Today

- Meeting slot
- Discussion/comments/volunteers?