



Federation, Generalisation, Heterogeneity

or

Edge v. In-Network compute?

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Federation

- Scale to Edge
- A trillion devices
- Coordination!=k8





feds

- doesn't guarantee privacy
 - but helps - still need enclaves etc
- measure:
 - energy, availability, resilience

Heterogeneity

- CPU speciation
- accelerators -
graphcore, gpu...
- In net, edge, dc?





hets

- range of systems grown
- incorporating accelerators in
 - energy, privacy, resilience
 - net & cpu facing ML
 - scale fed ML model share/acquire
 - in net aggregator fn?



Generalisation

- Repos
- Repros
- Curations





gens

- Jupiter notebooks++
- explainability, repro, repo
- record negative outcomes too
- curate
- applicability/use case document/ethics
- add yours here



some refs

- UK view from JISC&STFC etc:
<https://bit.ly/3t6yGTu>
- Public option for core:
<https://doi.org/10.1145/3387514.3405875>
- Distr learning, e.g.
<https://arxiv.org/abs/1709.07772>
- GAEN
https://en.wikipedia.org/wiki/Exposure_Notification
- raft in cloud flare or k8 – replacement:
<https://arxiv.org/abs/2012.15762>