Waik McGranagham process supervision about sucesses and failures principle like erlang no stopping the world productor consumers message passing brokers High pb: message versionnning avalability write little tickets write call graph de-synchronization at Heroku problems send data later graph node failures SPOF with brokers brokered queuing publish one/subscribe many Stecution.

challenge : evolving socio-technical systems failed deploys /main pbs bad visibility ^cascading feedbacks initial step: on 1.5% nodes incremental deploys few weeks to deploy on every node dev/beta/all nodes shipping tool dashboards monitoring realtime visibility very critical to see changes in the plateform seeing weird traffic assert(p99_latency < 50ms) service level assertions monitoring the assertions over time monitoring right things are happening Control & backpressure domino effect incremental rollout code level flow contol delegating with async publish or dropping messages