Internet of Things –
What could possibly go wrong?

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“Take all the stuff in the world with moving parts, and now make it as easy to use and reliable as your printer”
IoT Service Deployment Models - today

- To scale out, give gadget to people
- Manage through rentier cloud-based service
- Downsides of centralisation/cloudification:
  1. Poor Availability & Latency
     1. add local hub/manager@customer site
     2. add net resilience (gprs dongle@home router)
  2. Higher Energy use
     1. Redux reporting period (c.f. smart meter)
     2. Expense
  3. Lower Security
     1. Attack surface massive
     2. Dumb device not well protected & globally reachable
Iot Service Deployment Models - Tomorrow

• Devices autonomous,
• Locally managed
  – Home Hubs/Databox/Microcontainers
  – Storage Replicated opportunistically to crypted cloud
  – Or to (6) peers/neighbours/social net friends
• Apps on mobile devices access home hub
  – Strong access control (capabilities etc)
  – No direct device/sensor/actuator access from outside
• Higher availability, lower energy, higher security
Monetize your data

• Can now offer data to people
  – In usual way to friends/family
  – For money to aggregators who re-sell
  – Differential privacy under your own control
• See the HAT eco-system
  http://hubofallthings.com/