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/cloudifcation:

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

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/familiy
  - For money to aggregators who re-sell
  - Differential privacy under your own control
- See the HAT eco-system
  http://hubofallthings.com/