Usability
Security, Privacy and Trust in the IoT

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I wanted to buy a washing machine and I found a really great one that was highly rated and had features I really wanted.

Then I discovered that it was internet enabled. So I went and found a different “dumb” one and bought that because it was safer.
Large number of IoT devices with a variety of research goals.
Laptop used to control and monitor status of recordings including the live video from camera positioned over the phone (top left), traffic visible to the router (right) and list of devices connected to the router (bottom left).

Router (located in another room) captures all network communications between devices and between devices and the internet. Pictured communication is the phone app asking the switch to turn on (red) and the switch reporting that it has turned on (blue).

Camera taped to lamp records user’s interactions with the screen including hovering over buttons and any images that might be blocked from screen capture by phone security software.

Phone records continuous screen capture for high-resolution view.

Setup instructions that came with WeMo switch.

Autographer near the “thing” records the thing’s perspective visually and provides another view of the researcher.

WeMo switch.

Light showing if WeMo switch is on or off.

Same thing seen two ways.

Autographer around researcher’s neck records their perspective and any out-of-camera events like needing to reset the router.