On the Internet
~~Ao~~ Everybody
Knows You're a Whatchamacallit
(or a Thing)

Polly was designed lovingly in the North West of England at Lancaster University's Imagination lab. Originally crowd funded and attracting a raft of press coverage Polly was bought by Amazon IoT in early 2017. Designed with Object Orientated Ontology, Polly rejects Human Centered Design dogmas in favour of a centre-less design approach, which acknowledges the multiple perspectives emerging from Internet of Things constellations. Accredited to OfIoT's highest standard due to being secured by default, utilising Minimum Necessary Datagram Protocol, and utilising a machine readable privacy policy, **Polly is the world's first *truly* smart kettle.**

Everything in this booklet reveals an entry point into a prototypical world, a world where Polly exists. While these gateways to the fictional world - for example the 'brew timer' feature shown to the right - are stand-alone prototypes, it is their collected amalgamation which conjures the artifice of the *world* they inhabit. This 'design fiction world' repays the favour, too: by invoking an essence of reality in one's mind this artificial alternate critiques the very ideas which define it. In this world - which looks very much like ours - is it plausible that a gadget kettle would set a 3 minute timer having heated water to 93.3° celcius?

Set at 93.3° for Oolong Tea

Brew timer started

2m59s

20:19 · 10th June 2017

# Successfully Kickstarted

**$679,028**

pledged of $250,000 goal

Brewed with **KICK STARTER**

**7412**

backers supported us

See campaign

# Polly in the Press

"With IoT 2.0 smarts, Polly adapts to your habits, fitting seamlessly into everyday life"

*gizmag*

"You won't know how you got by without it. Polly isn't just a kettle, she's part of the family"

**BuzzFeed**

"Unparalleled network protection coupled with cutting edge innovation makes Polly one of a kind"

**DIGITAL TRENDS**

"Polly promises to deliver a user experience like no other - it doesn't disappoint"

**c|net**

Polly's kickstarter campaign attracted significant press attention with backers and journalists being attracted to the smart rhetorics around Polly's extensive featureset but also the clear attention paid to privacy, security and consent within the design. Shortly after the project was funded, Amazon's IoT division purchased the company.

polly

polly | SLEEK

PUT THE KETTLE ON

IoT · Organic HF2 · OOO · amazon IoT · mndp

polly

PUT THE KETTLE ON

polly

The world's first truly smart kettle

Filling in process...

amazon IoT          Join the waiting list

put the kettle on

WIRED · gizmag · Forbes · CNN · techwire. · cnet · DIGITAL TRENDS · BuzzFeed · techradar.

Although Polly is a subscription-based product (costing £5.99/month for Prime subscribers and £7.99/month otherwise) additional downloadable content can be purchased with a range of supplier tie-ins. This downloadable profile provides precise and detailed guidance on how to brew the wet/washed Arabica Caturra beans from Agustino Forest, delivered via Polly's voice interface. The coffee beans, although provided by Has Bean™ Coffee are delivered by Amazon.

While the smart rhetorics of IoT go some way to define how the IoT tends to be represented in the popular press, arguably it is the streams of data which connect servers, sensors, data, humans, which flow between physical and digital realms, *that* is the unique and definitional characteristic of IoT. While the physical objects - toys, kettles, lights, watches and alike - appear physically similar to their unconnected counterparts, in the digital domain, the data all flow, flood, gush, and slosh together; imperceptible to the human contingent.  In their digital otherworld, the atmosphere these objects live with and breath is thick with with rapidly moving meta-data and packets of inter-machine chatter.

Defrosting Car 303 kWs

Unionjack Teapot 231 kWs

Hario V60 198 kWs

Super Noodles 71 kWs

polly

When invoking future objects to craft a possible world - that is to say when crafting design fictions - *everything stays the same unless you change it*. This is a key tenent of plausible world building.

Is Polly 'the IoT'? Is the car that reports its windscreen is frozen 'the IoT'? Is the network which connects them 'the IoT'? Is the cloud server which collates and analyses data 'the IoT'? If the answer to each (or any) of these questions is 'yes' then it must be the case that the *meaning* of IoT differs depending on who you are and where you stand. As the constellations of stars in the night sky appear different depending on where you are on Earth, so the essence of 'IoT' differs depending on where, who, or what, you are. In IoT context, every actant in any given situation is part of an *IoT constellation*.

The lawless digital landscape with which our kettles, phones, vacuums and doorbells co-locate, is a wild 21st century frontier. Among the Inernet's ocean with its torrents of bits and flash floods of data, nefarious packets (propogated by *people,* mind you) mingle, mix, blend in, and disappear in the drink. Asking if your doorbell is enslaved by a teenage gangster is not such a strange thing to do. Designed to behave responsibly, given the risks inherent in this situation and accepting of a position in a broader constellation, Polly is not only secure by default, but is *proactive* by default.

THREAT DETECTED
Networking Disabled

10.55 1st April 2017

polly

Configuration 2 of 3

Uploading data policy to :

'Virginmedia Superhub 4'

20:19 21st October 2017

polly

"I have an array of microphones so that I can hear what you say, roughly 10% of what I hear is shared to the cloud. This helps me make sure I don't make mistakes. The recordings are kept anonymously. I measure the electricity that I use and how much water you boil. I share that data to learn about human-habits, that information may be bought or sold. I speak to your home's energy management system directly to ensure we use your electricity as efficiently as possible. I store information about how to connect to your network in an encrypted file, it's very secure. Facebook tells me when your friends are nearby, and if you want me to, I ask Facebook to invite them over for a cuppa. If you ask me to I will download boiling profiles. To do this I need permission to speak to *avs.polly.aws.com* and *ana.polly.aws.com* and *download.polly.aws.com* and *api.facebook.com*. **Is that okay? If anything changes I'll let you know.**"

Within the constellations of 'seen-but-unheard' connected devices the simple question "I wonder what conversations the refridgerator is having?" is palpably impossible to answer without help. Polly's event log shows precisely *what* the kettle says to other constellation actants, what is said *to* Polly, and *why* the conversation happened. Polly talks, transparently.
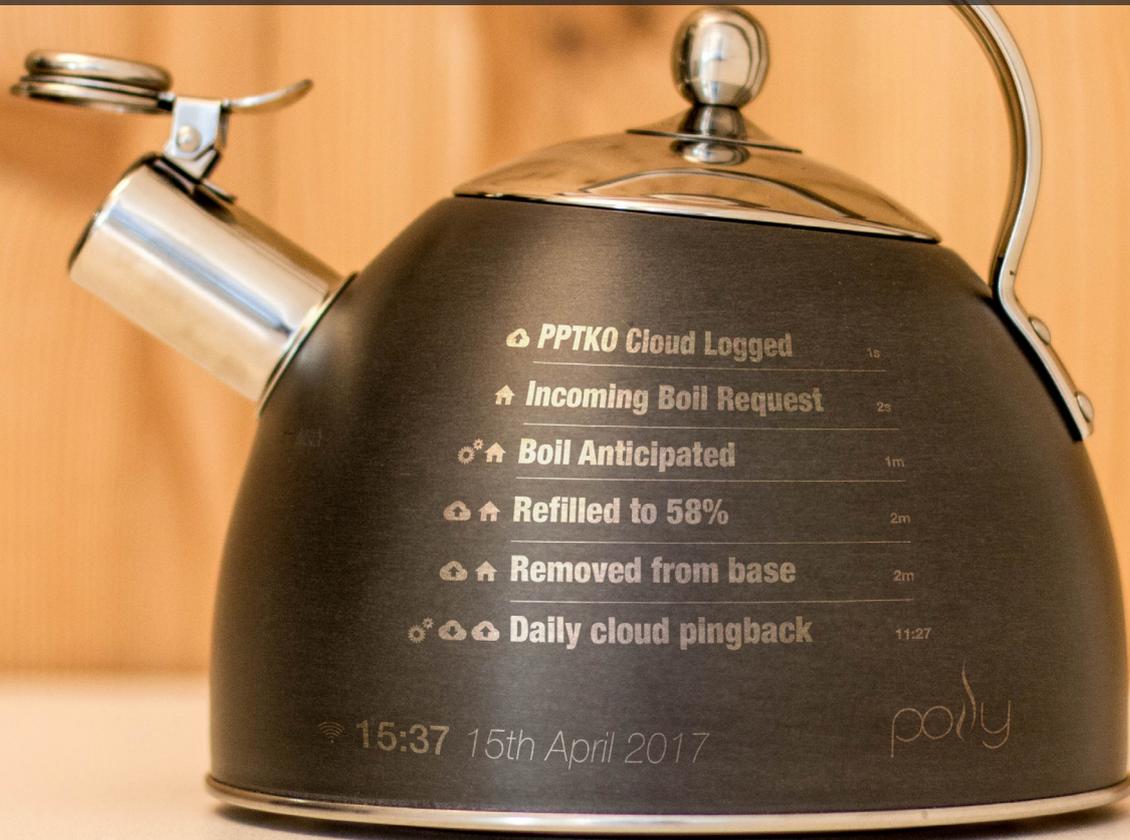


☁ **PPTKO Cloud Logged**                    1s

♠ **Incoming Boil Request**                  2s

⚙♠ **Boil Anticipated**                      1m

☁♠ **Refilled to 58%**                       2m

☁♠ **Removed from base**                     2m

⚙☁☁ **Daily cloud pingback**               11:27

📶 15:37 *15th April 2017*

polly

In addition to Polly's event log graphical displays provide other intuitive ways to access similar information. Here we see a simple comparison showing how much data is uploaded to the internet, downloaded from the internet and moved around the local network.

Although hacking printers and laptop-parts to play DOOM was originally an act of tinkerers showing off, in Polly's world it became yet another shareable story which, arguably, cemented the success of the crowd funding campaign.

**polly**

put the kettle on

Luke arriving:
47 mins  6.3 miles

**ETA:**

(estimated tea arrival)

47 minutes
6.3 miles to go
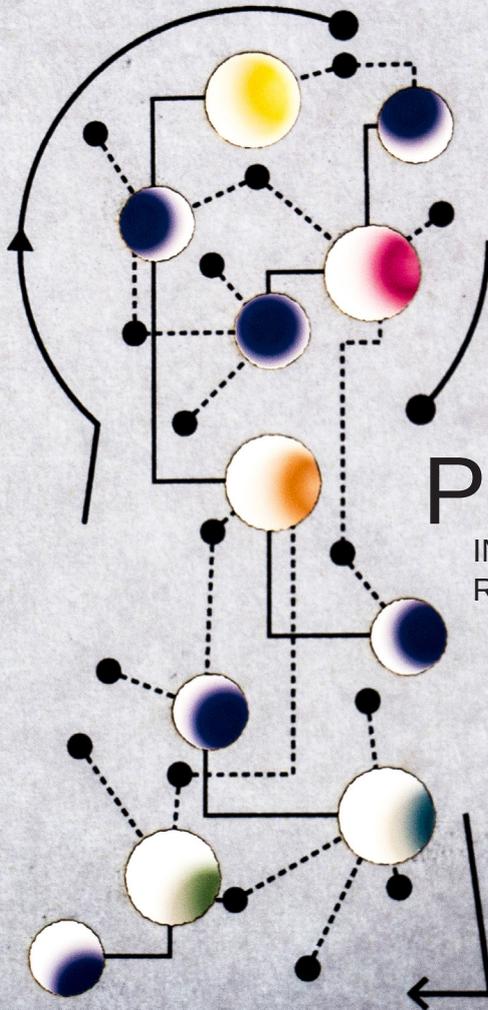
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INTERNET OF THINGS
RESEARCH HUB

imagination
LANCASTER

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