

IoT Workshop

Derek McAuley

September 2017

UK IoT Research

- £80m directly from Research Council - universities

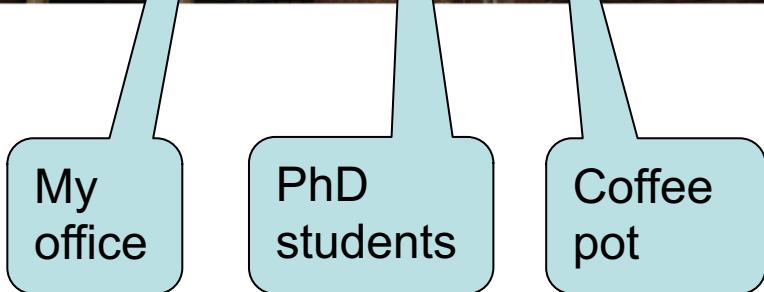


£40m programme:

- £10m university research led by UCL
- IoT UK
- Manchester city wide demonstrator

- » Sensor Platform for HEalthcare in a Residential Environment:
 - We want to make sure the technology is:
 - » Acceptable in people's homes
 - » Solves real healthcare problems in a cost effective way
 - » The project generates knowledge that will change clinical practice (this will be achieved by focusing on real-world technologies that can be shown working in a large number of local homes during the life of the project).

1989, solving real (first) world problems



"IoT" Solution

X: NCSA Mosaic: Document View

File Options Navigate Annotate Help

Document Title: Trojan Room Coffee Machine

Document URL: <http://www.c1.cam.ac.uk/coffee>

The Trojan Room Coffee Machine

 Click here for an up to date picture of the Trojan Room coffee machine

About this service

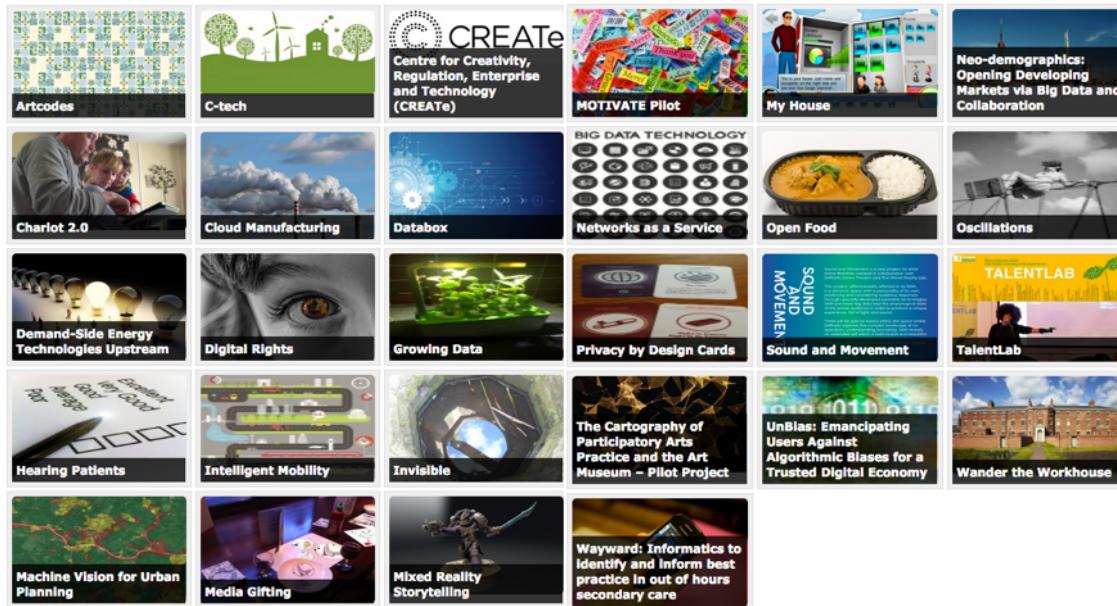
This service was created to demonstrate how a video mechanism designed in 1989 runs over MSNLP (Multi-layer protocol designed by the Acorn Research Department). It uses RPC over TCP/IP and C2 It works over a local network.

A video capture board in an Acorn Archimedes grabs one frame every second and the WWW server requests a frame from it using MSRPC2 (indirectly). Each frame is JPEG encoded by the Archimedes

X: xv 3.00: /tmp/



Horizon eye test



Since 2009:

- £50m grants
- 75 projects
- 3 start ups
- 150+ PhDs trained

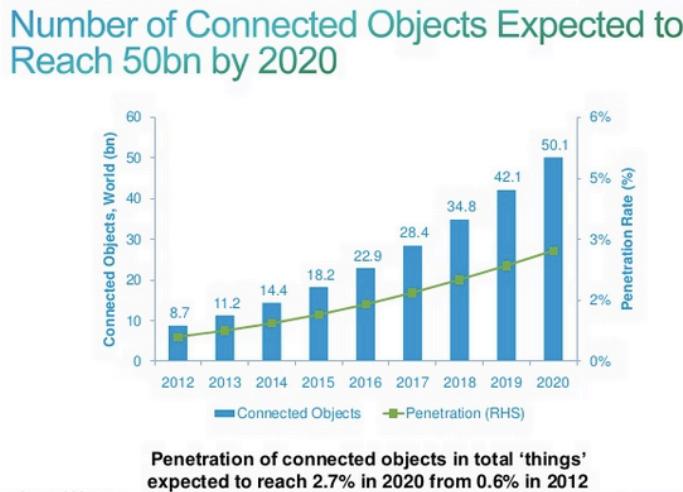
2009-2015, “Lifelong Contextual Footprint”

- Footprint – implicit/explicit data
- Contextual – inference
- Lifelong – inclusive

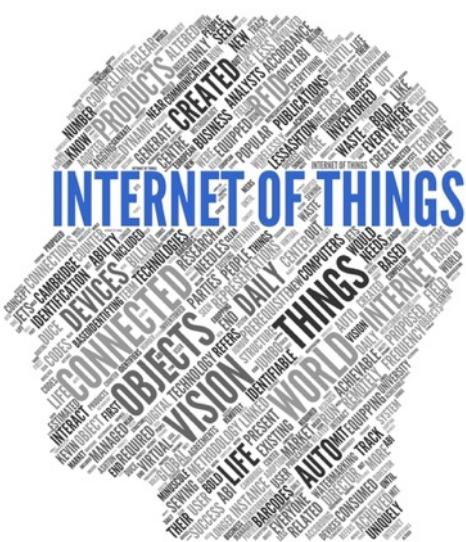
2015... “From Human Data to Personal Experience at Scale”

- Scale up
- Impact

IoT; a lot of useless graphics



Source: CCS, 2013





“When I use a word, it means just what I choose it to mean — neither more nor less.”

Trust:

Firm belief in the reliability, truth, or ability of someone or something

Privacy:

A state in which one is not observed or disturbed by other people

Security:

The state of being free from danger or threat

Autonomy:

Not controlled by others or by outside forces

TRUST IN PERSONAL DATA: A UK REVIEW

Following and assessing the
UK's journey to becoming a
data-driven nation

96% of respondents claim to understand the term 'personal data' but less than two-thirds (64%) picked the correct definition

65% of consumers are unsure if data is being shared without their consent

30% of respondents believe they are responsible for educating themselves on the use and protection of data

32% believe this responsibility lies with the Government

30% interested in data management service

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What to know about webcam hackers

November 20, 2014

by Nicole Vincent Fleming
Consumer Education Specialist, FTC

Have you seen news reports about foreign websites showing live feeds from unsecured wireless cameras — like nanny cams, baby monitors, and security cameras — in the U.S. and around the world? It's creepy stuff, but there are steps you can take to protect your camera from prying eyes.



If you're shopping for an internet protocol (IP) camera, look for security features that will help protect your privacy. You want a camera that encrypts the data it sends. Make sure both the camera and your home wireless network use security protocols. WPA2 is the strongest.

Once you've bought your IP camera, check its security settings and keep its software up-to-date. If you bought a camera that encrypts data — and I hope you did — turn this feature on.

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nest



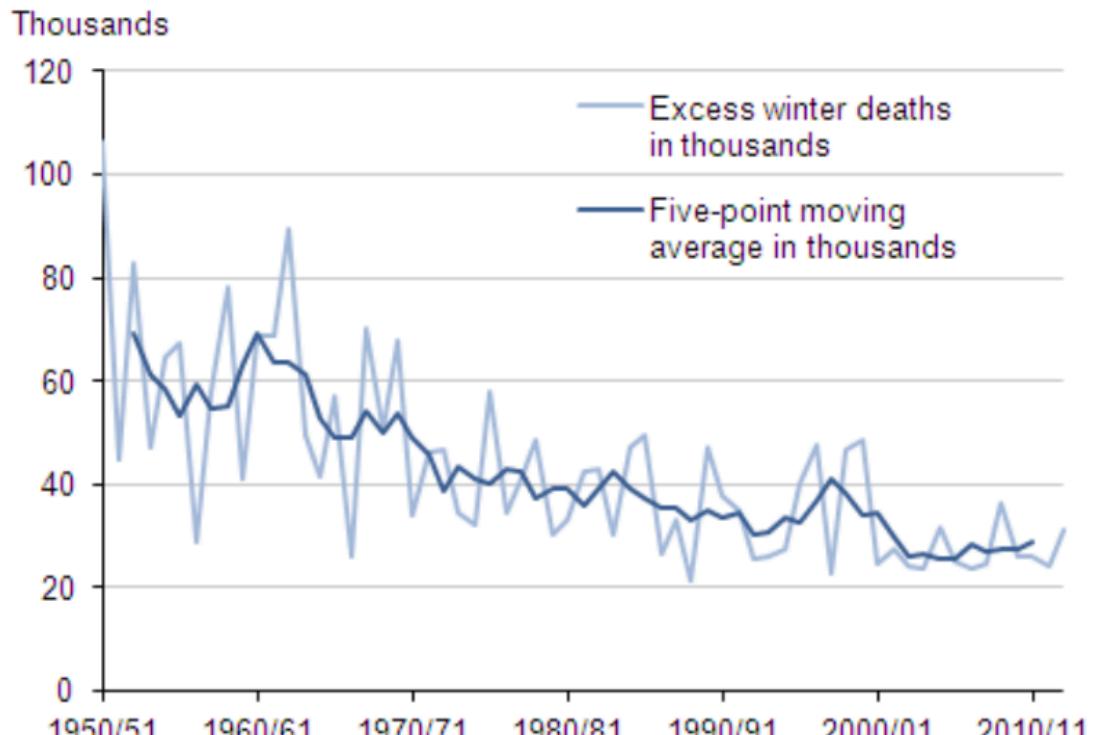
The Nest service can't be reached right now.

Try Again

< Sign out

NEST offline for
four hours

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UK excess winter deaths: by year and five-year central moving average, 1950-2013



Internet of Shit Retweeted



Kevin C. Tofel @KevinCTofel · Nov 3

I just had to follow this process to hard reset a smart home bulb.
This is what the "future" has come to.

Set back to default settings

If you have trouble with a certain lamp or luminaire, you can always use the single reset it to default settings to reconfigure the product without affecting the entire system. Erasing a product by resetting your system back to factory new can be done via the App (please see our user guide – the dev) or by turning the respective light switch on and off with a certain sequence:

- **Reset Lamps, Gardenspots, Downlights and the Flex:**

To reset lamps (Classic A, CLB 40, PAR16) and luminaires (Gardenspot, Flex, Downlight) back to their default settings, switch these ON for five seconds and OFF for five seconds, five times in succession. After switching on again, the lamp flashes shortly once to confirm – and can now be integrated into a LIGHTIFY system again.

- **Reset luminaires of the LIGHTIFY Surface Light series:**

To reset the Surface Light luminaires (TW, W58, W28 und W23) back to their default settings, switch these ON for two seconds and OFF for five seconds, five times in succession. After switching on again, the lamp flashes shortly once to confirm – and can now be integrated into a LIGHTIFY system again.

Too tedious even
for geeks!

RETWEETS

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207



10:11 PM - 3 Nov 2015 · Details

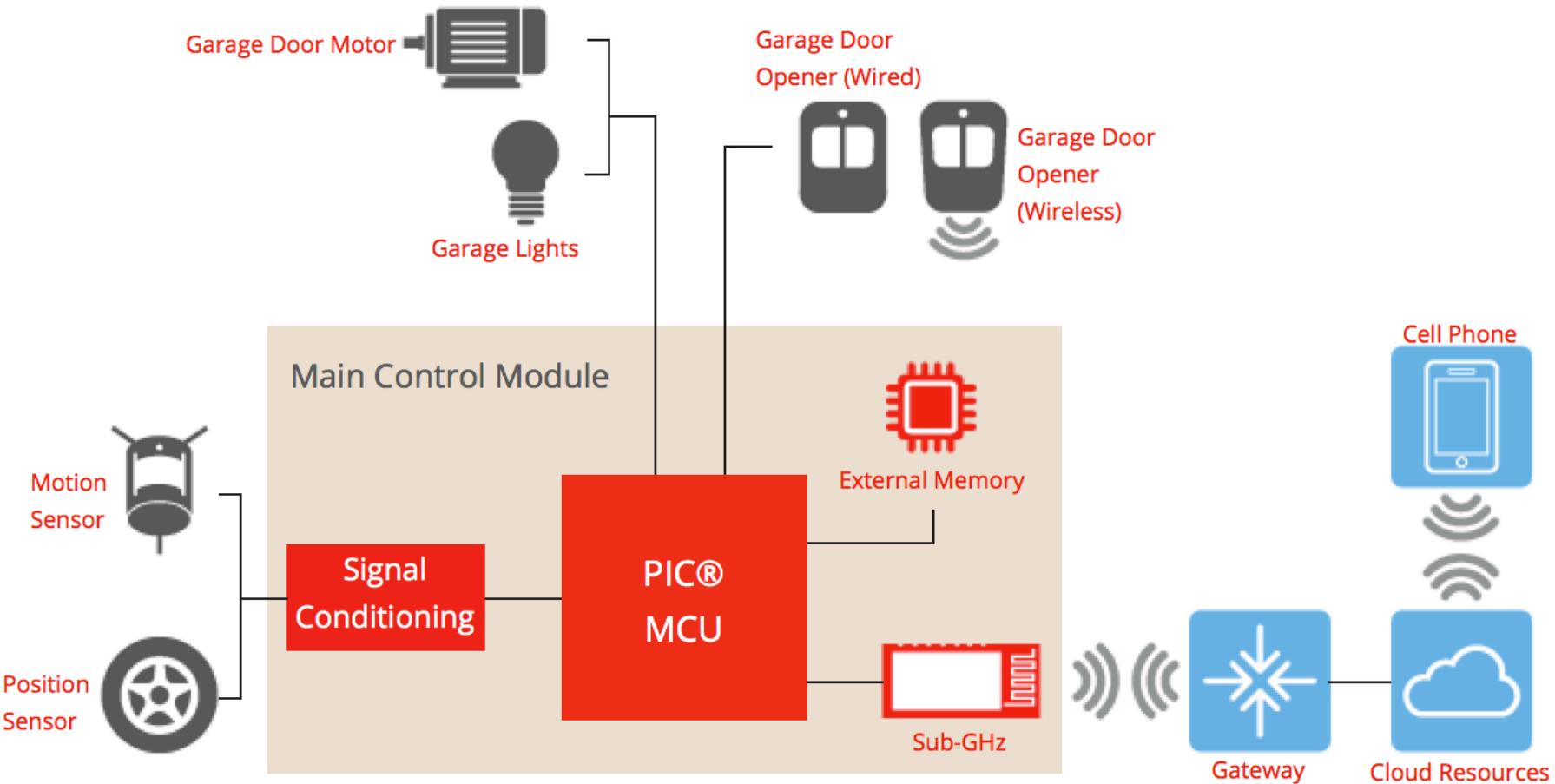


...

Unit not configured correctly.
No matching item found in Design.
Can State =0x00000001
State Name=Call Entry Page 1

Dare you to get in
this lift

What could possibly go wrong?



Abstract ▾

Send to: ▾

Pediatrics. 1996 Oct;98(4 Pt 1):770-3.**Automatic garage door openers: hazard for children.**Kriel RL¹, Gormley ME Jr, Krach LE, Luxenberg MG, Bartsh SM, Bertrand JR.

⊕ Author information

Abstract

OBJECTIVES: Despite significant advances in automatic garage door opener design, automatic garage door openers continue to severely injure or kill children. In this investigation, we sought to determine the frequency and circumstances of accidents that have caused severe injury or death to children. We also tried to develop a means by which homeowners can evaluate their door openers.

Known domestic child killers for 20 years

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Humans in the loop



Humans are the loop

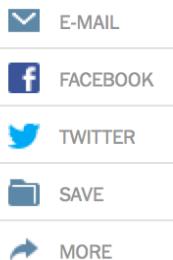
BIG DATA

Google Flu Trends: The Limits of Big Data

By STEVE LOHR

MARCH 28, 2014 7:00 AM

14 Comments



CALVARY
NOW PLAYING

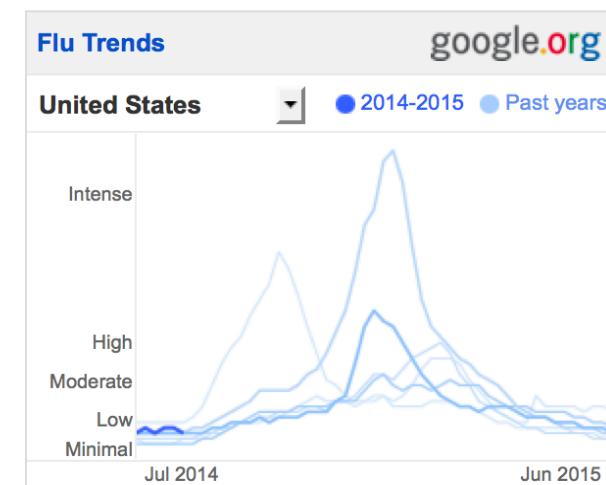
Top Stories

This article and others like it are part of our new subscription.

Google Flu Trends, once a poster child for the power of big-data analysis, seems to be under attack.

This month, in a Science magazine article, four quantitatively adept social scientists reported that

Google's flu-tracking service not only wildly overestimated the number of flu cases in the United States in the 2012-13 flu season —



but has also consistently overshot in the last. Trends' estimate for the 2011-12 flu season recent higher than the cases reported by the ontrol and Prevention. And, they wrote, for a wo years ending in September 2013, the e high in 100 out of 108 weeks.



Tinderbox Games Latin ...
★★★★★ (2)
£24.99
Why recommended?

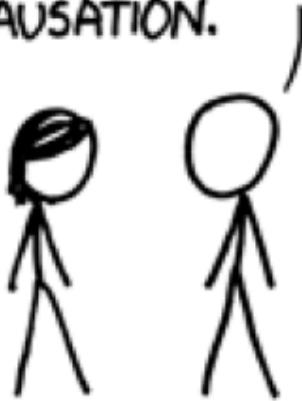


12 x Foolscap A4+ Tuff ...
★★★★★ (17)
£19.93
Why recommended?

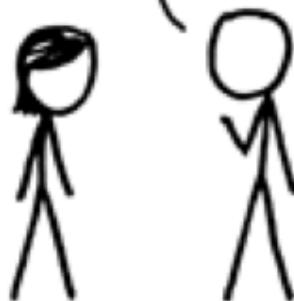


Helix Oxford Large ...
★★★★★ (14)
£0.82
Why recommended?

I USED TO THINK
CORRELATION IMPLIED
CAUSATION.



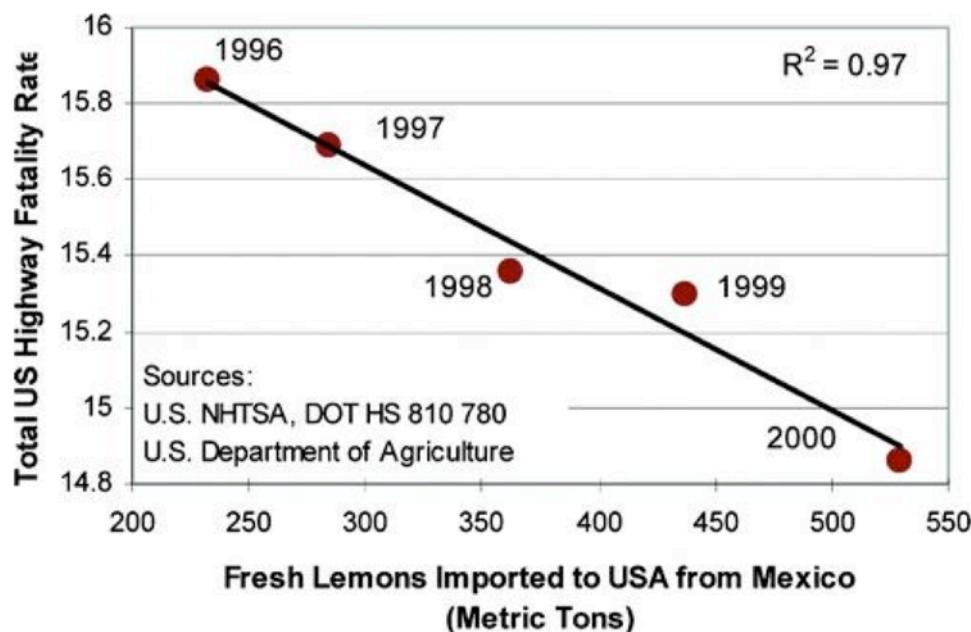
THEN I TOOK A
STATISTICS CLASS.
NOW I DON'T.



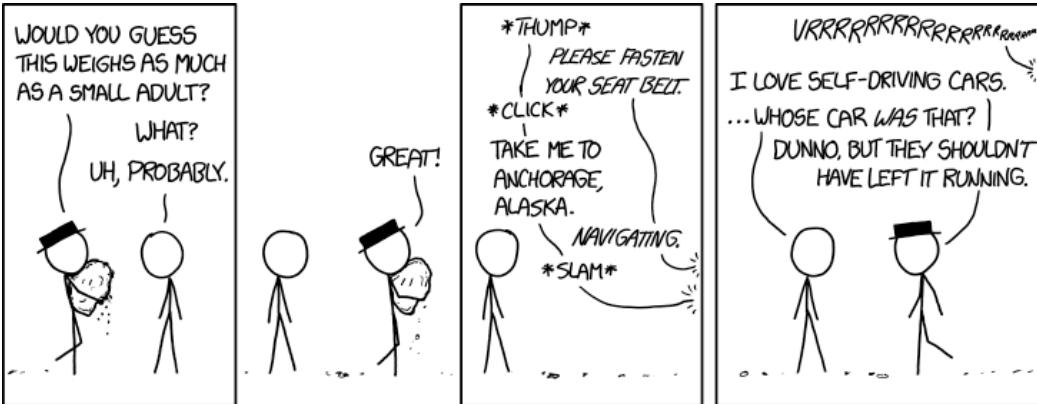
SOUNDS LIKE THE
CLASS HELPED.
WELL, MAYBE.



<http://xkcd.com>



“AI” – not that smart



<http://xkcd.com/1559/>

Because You Purchased 'Cambridge Latin Course, Book 1: Level 1'



Tinderbox Games Latin ...

★★★★★ (2)

£24.99

Why recommended?



12 x Foolscap A4+ Tuff ...

★★★★★ (17)

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Why recommended?



Helix Oxford Large ...

★★★★★ (14)

£0.82

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Amazon Echo activated by TV comment

9 January 2017 | Technology



Alexa made its debut on Amazon's Echo speakers

An on-air comment by a US TV presenter activated Amazon Echo gadgets in viewers' homes across San Diego.

The comment was made by presenter Jim Patton after a news item on a child who accidentally ordered a doll's house via the voice-activated gadget.

<http://www.horizon.ac.uk>



Questions?

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