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MEETING

Hello.

I'm the **Smarter** Library.



Libraries, Data and the Internet of Things

KIRSTY LINGSTADT, UNIVERSITY OF EDINBURGH



Kirsty Lingstadt

Head of Digital Library & Deputy Director

Background

The University of Edinburgh

- Founded in 1583: Sixth-oldest university in the English-speaking world and one of Scotland's ancient universities
- Largest university in Scotland with 14,200 staff and 39,700 students
- Research-led institution - member of the Russell Group, Coimbra Group, LERU and Universitas 21
- 21 Nobel laureates affiliated with the University



THE UNIVERSITY OF EDINBURGH

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Occupancy Monitoring

Occupancy monitoring – why?

Edinburgh University Library - Main Library

4.6 ★★★★★ 50 Google reviews
University library in Edinburgh, Scotland

[Website](#) [Directions](#)

Address: 30 George Square, Edinburgh EH8 9LJ
Hours: Open 24 hours
Phone: 0131 650 3409

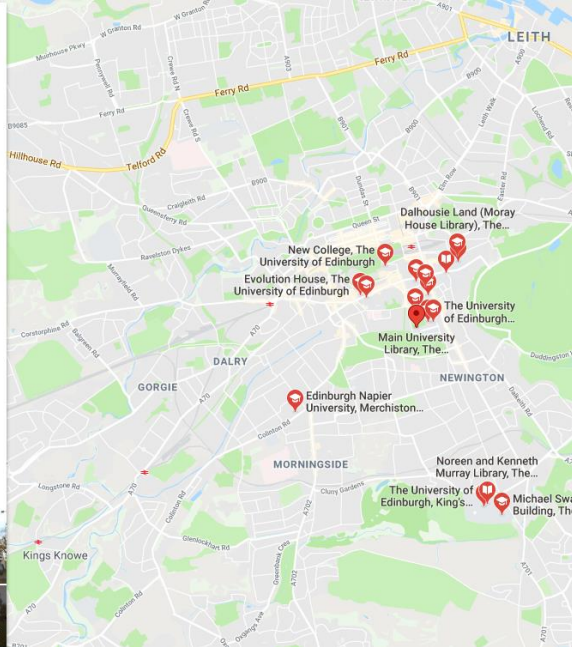
[Suggest an edit](#)

Questions & answers
See all questions (1) [Ask a question](#)

Popular times
Sundays

2 pm: Usually as busy as it gets

Plan your visit
People typically spend up to 3.5 hours here



Occupancy Monitoring - current



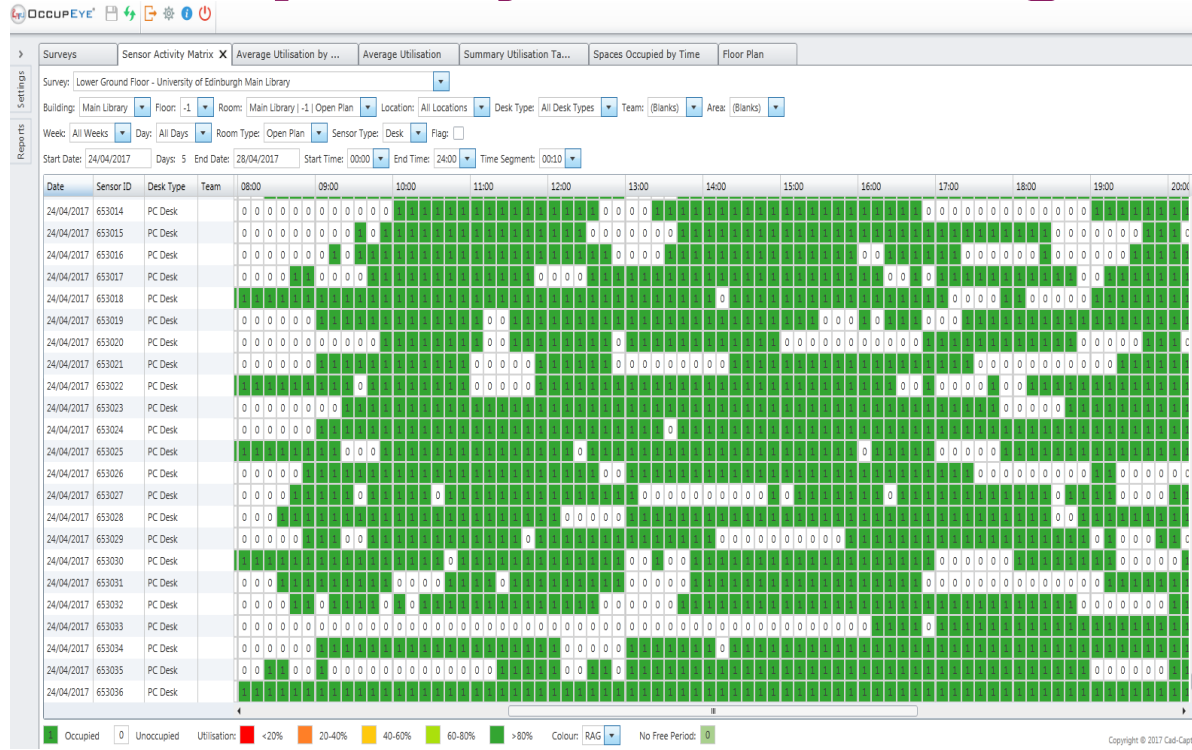
Receiver & PoE splitter



Sensors

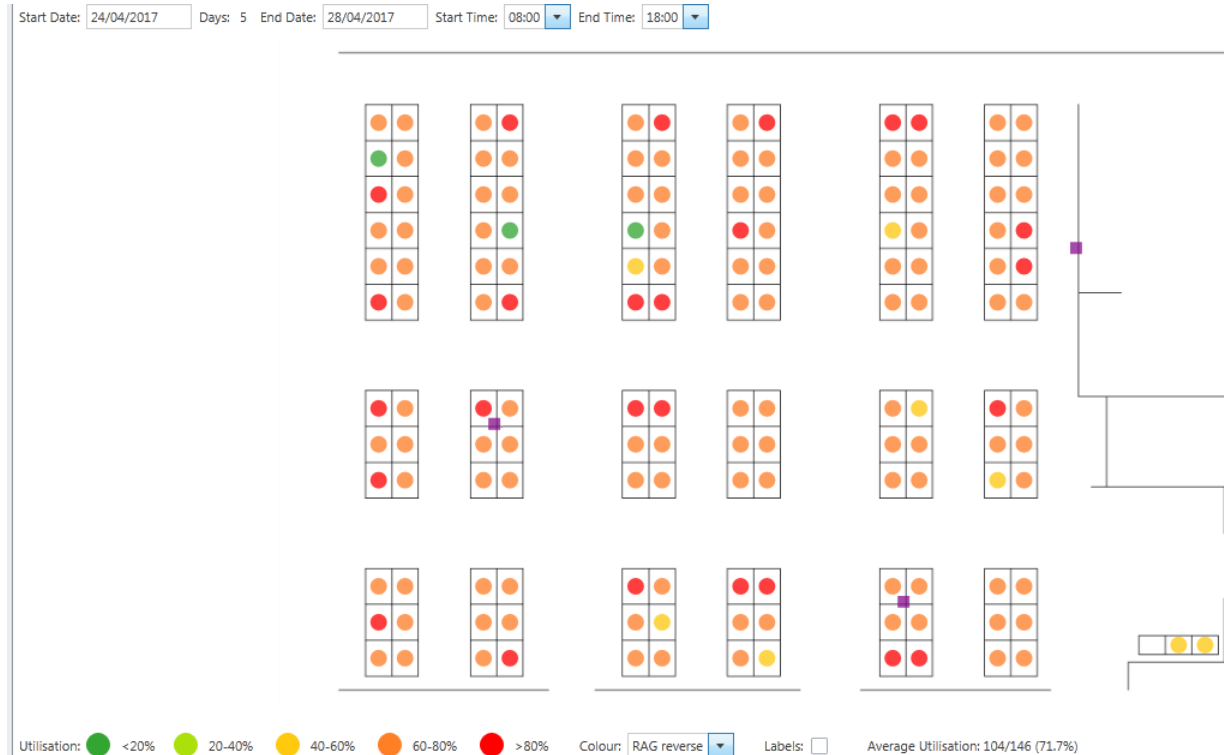


Occupancy monitoring - current



Occupancy monitoring - current

8am
to
6pm
Mon
24 to
Fri 28
April



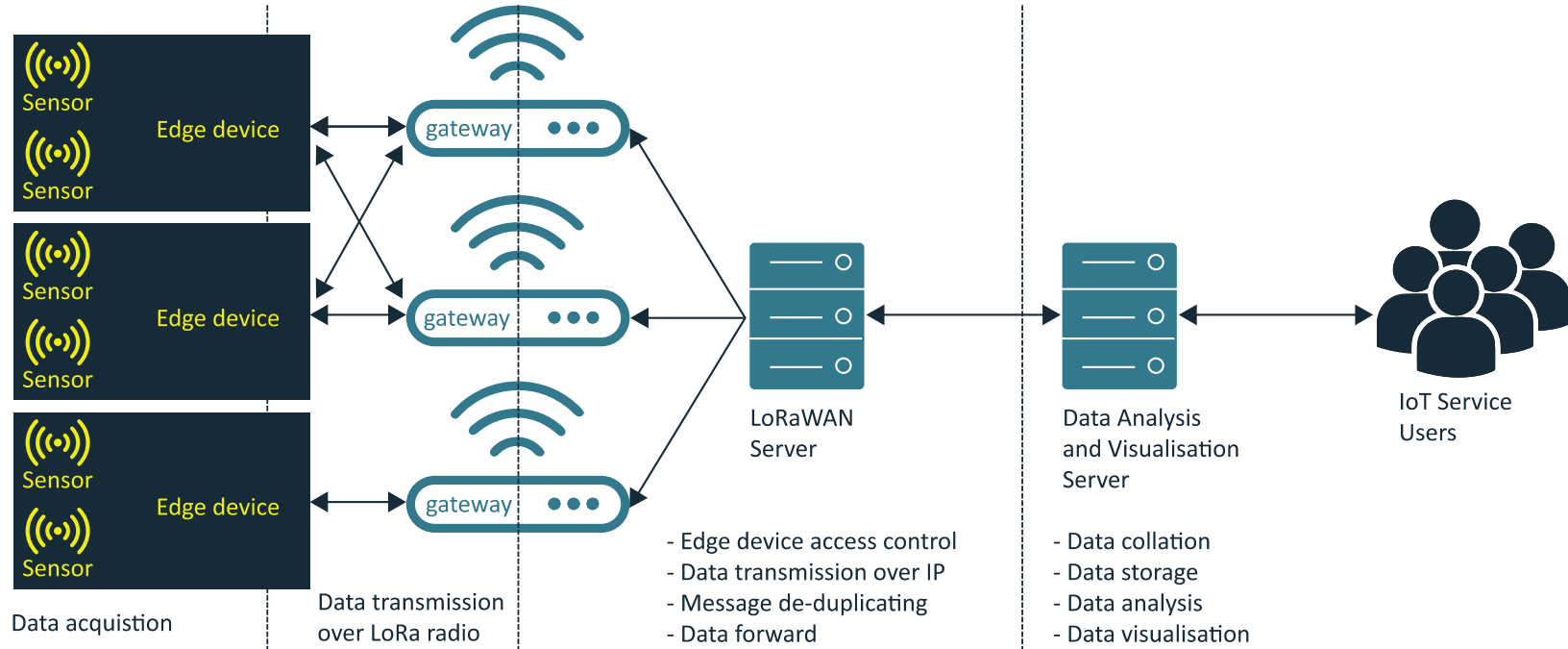
University of Edinburgh & Internet of Things

Internet of Things (IoT)



IoT - Infrastructure

IoT Data Path

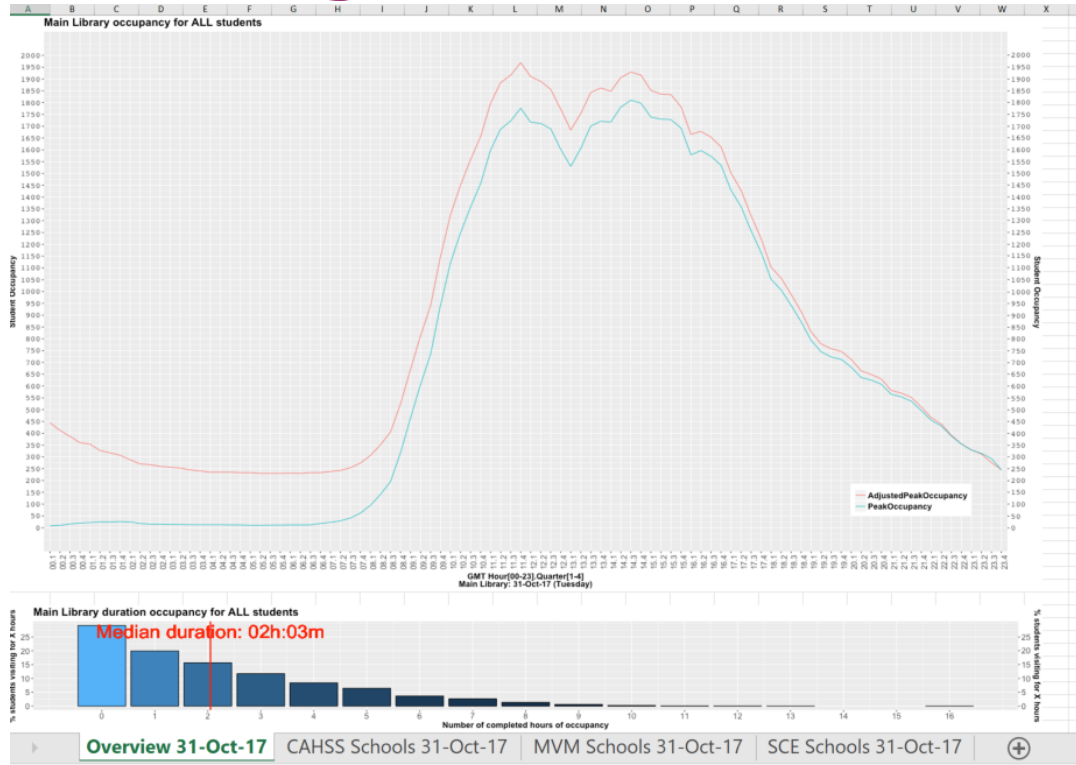


IoT for occupancy monitoring

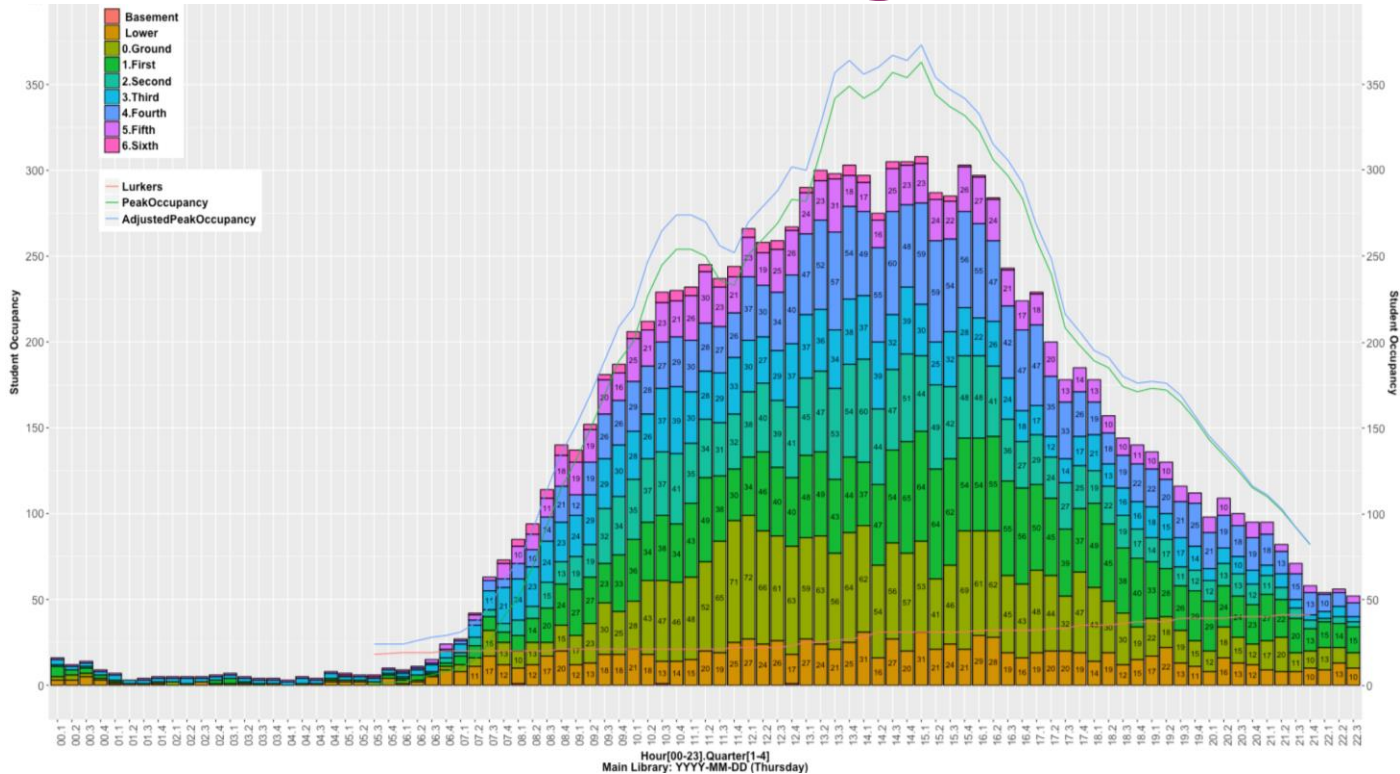
Advantages of IoT for Occupancy monitoring

- Cost
- Ease of use (historic building/retrofitting)
- Scalability
- Immediacy
- Accuracy

Gate monitoring

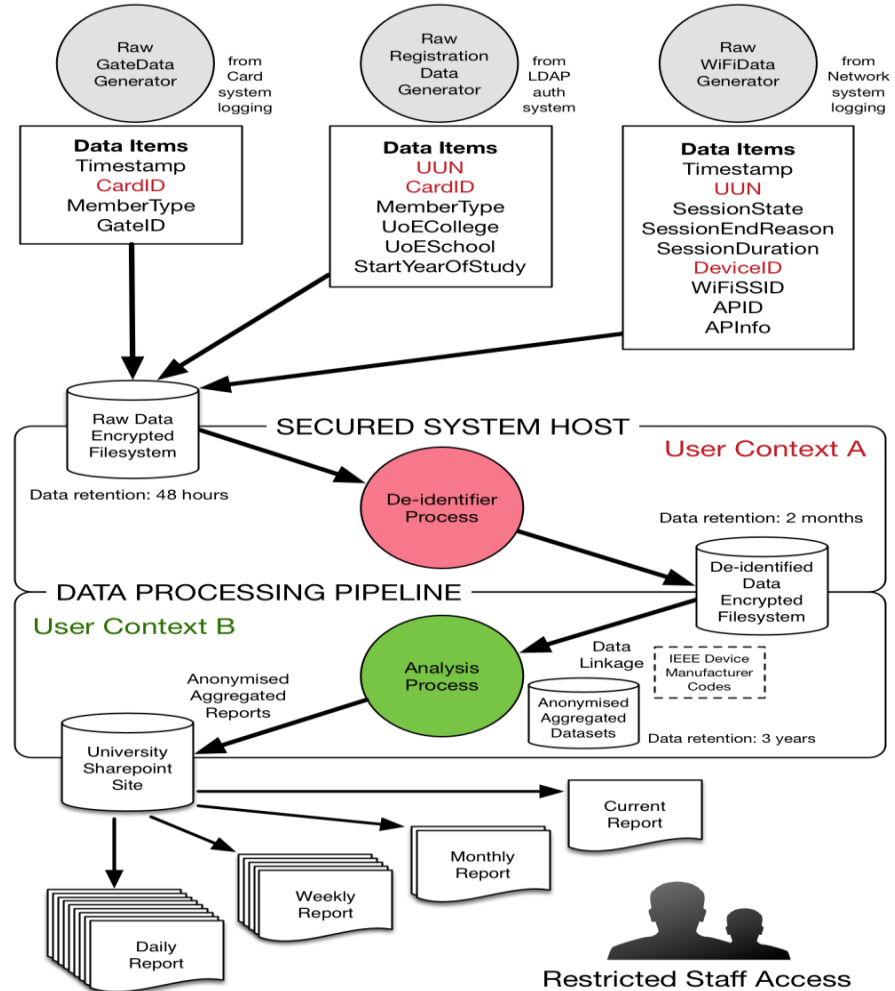


Wi-fi & Gate monitoring



Occupancy monitoring: Data Flow

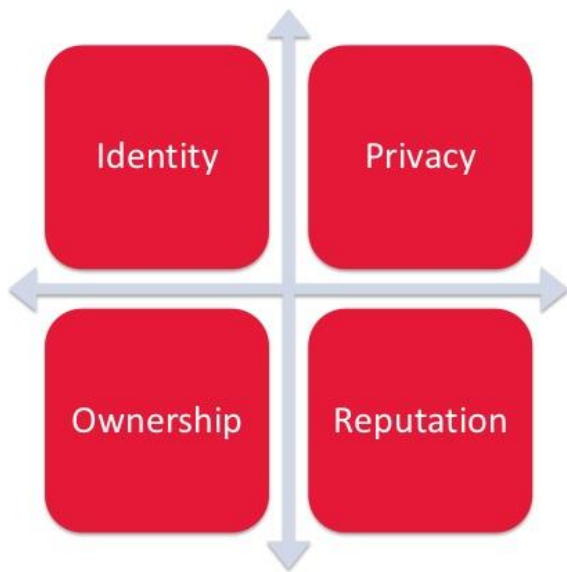
Main Library Occupancy Monitoring Data Flow



Ethics & Next Steps

Data and Ethics

Four Aspects of Big Data Ethics



www.ethicsofbigdata.com

Twitter: @kordindex #ethicsofbigdata

This surveillance equipment has been installed under the desks of PGRs at [redacted] Uni without our prior knowledge or consent.

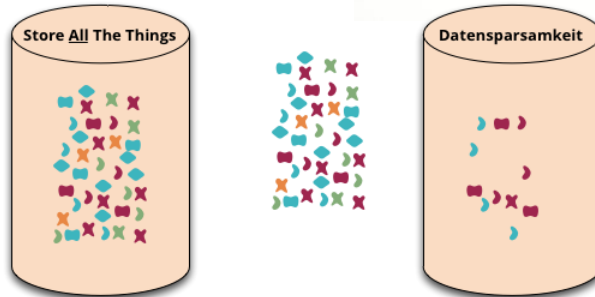


IoT, GDPR and wi-fi monitoring

- Consent
- Breach notification
- Right to access
- Right to be forgotten
- Data Minimisation or Datensparsamkeit

I Agree

data



Next steps

- Privacy Impact Assessment
- Review by Ethics Committee
- 2 step approach
- Consultation
- Wider communication strategy

Things to Think about

- Ethics
- Who to consult
- Ongoing communication to all stakeholders
- Working with IT colleagues
- Smarter ways of working

Thank you

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