SMART Library

An indoor living lab, part of DTU SMART campus
CAMPUS, RESEARCH AND TEST FACILITIES:

What if....

The Technical University of Denmark is the greatest Smart Living Lab in the world?
LIVING LAB ON SMART CAMPUS:

- Controlled experiments
- Consequences limited
- Test persons informed
HOLISTIC THINKING AND PLANNING AHEAD –

THINK BIG BUT START SMALL

Information and communication technology

Appliances & Lighting

Heating

Industry

Transport

DTU SMART CAMPUS PUTTING RESEARCH TO WORK
SMART

IOT – connecting everything

Fast growing industry - Revenue
Vision for SMART Library

The library space will be an indoor living lab, where students, researchers and entrepreneurs can develop, test and demonstrate SMART technologies, analyze the collected data and conduct research- and student projects, while optimizing the indoor climate, lighting and acoustics and therefore boosting the chances of learning.
Data sendes til SQL server
CAS: Lys- og klimastyring
Automatisk ventilations spjæld
Ventilation udsugning
Lysarmatur
Trækkabler
Kasse til ekstra sensorer
LED iBond
QR Kode
Learning process

Intelligent adjustment

Living

Export of knowledge

Profiling

Analyzing
- Students
- Researchers
- Industry
- Library and Campus Service

Data logging
Comfortzones - learningzones
Intra-institutional project

SMART CAMPUS

What if....

The Technical University of Denmark is the greatest Smart Living Lab in the world?
Sensors

Movement, infrared, wi-fi, bluetooth
Acoustics, microphones, speakers.
Light measurements, brightness and color
Climate, temperature, humidity, CO$_2$, particles, anemometer (air-speed), VOC (smell)
Bluetooth, Li-Fi, camera
• BIG data ethics
• Data-visualization
• Library analytics
• Library impact
• DPO - data protection officers
Projects in the name of SMART Library

✓ Acoustics
✓ Acoustics and white noise
✓ Dynamic light
✓ Seat occupancy
✓ Many more to come
Are there others?

INVITATION

Brugere i offentlige rum:

- Hvad sker der faktisk?
- Hvordan kan vi få data om dem?
- Og hvordan omvælter vi det til bedre rum?

Seminar 1. april 2016 kl. 10:30 - 15:30
Sted: Lille Sal, Dokk1, Hack Kampmans Plads 2, 8000 Aarhus C

Hvordan får vi nye, valide data om hvad der sker i offentlige rum? Kan vi hæve data fra sensorer, overvågningskameraer, mobilantennener og andre teknologier og supplere med andre målemetoder, som kan danne grundlag for optimisering af service, rum og formidlinga?
Strategic potential

• Library impact, grades, retention
• Service assessment
• Data-science- emplyees, analytics, data management
• Closer collaboration with researchers
• Contributing to research and student-assignments
• Standard for excellent learning environment
• Network with industry and entrepreneurs
• Collaboration with other organisational units
• Innovation
• Inspiration
• A well-equipped learning commons says to a student, “Here you have tools, room to collaborate, equipment, advice, research options, and access to expert information. Now it is up to you to build something worthwhile: a paper, a presentation, an education.”

The Modern Learning Commons, 2011.
THANK YOU
for your attention
www.smartlibrary.dtu.dk

THINK BIG
BUT START SMALL

DTU Library
Technical Information Center of Denmark

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