

Co-designing IoT with Communities

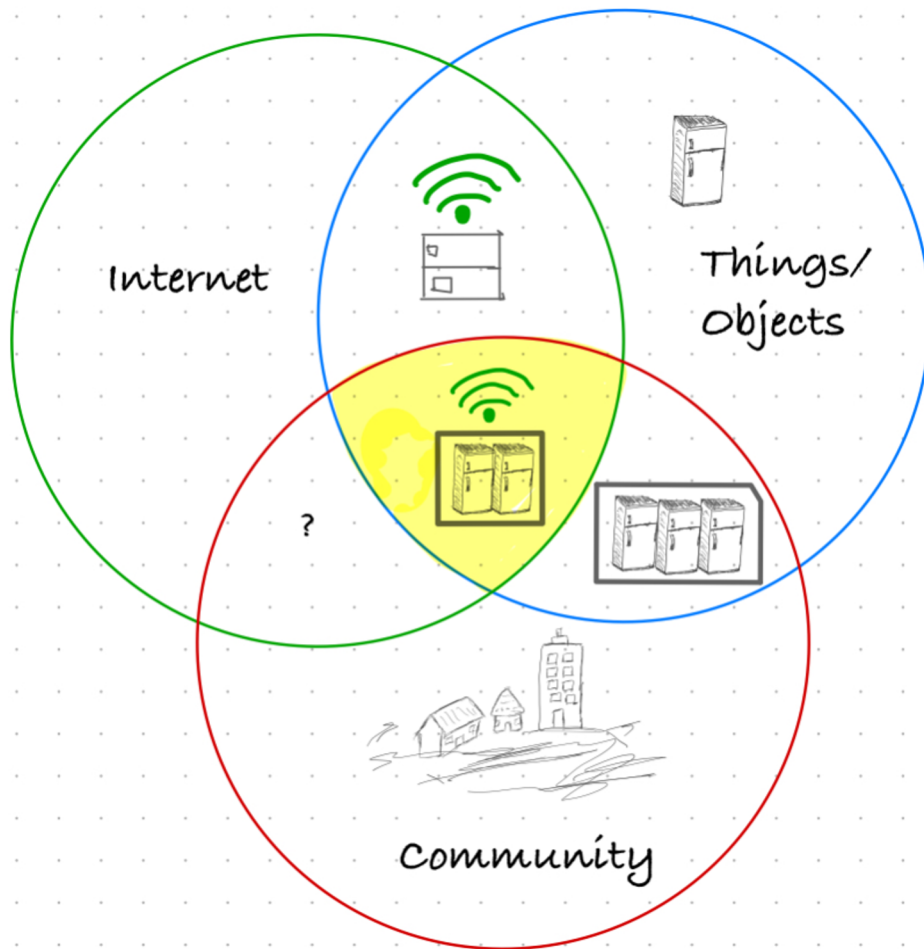
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DNS and the IoT: Impact on Communities, End Users, Opportunities and Challenges

07 Dec 2020



Research Interest



- Co-design & locally relevant IoT solutions
- Harnessing skills in our communities
- Contrast IoT deployments

Example: The Prayer Companion



Openness
and specificity

Materiality
and spirituality

See the Prayer Companion <https://research.gold.ac.uk/id/eprint/4590/>

Image Sources: [Ritual Design Lab](#) and [University of London](#)

Case Study: Dundee West End Community Fridge



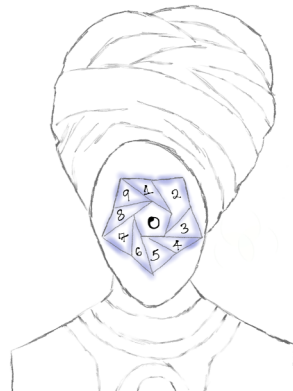
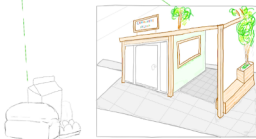
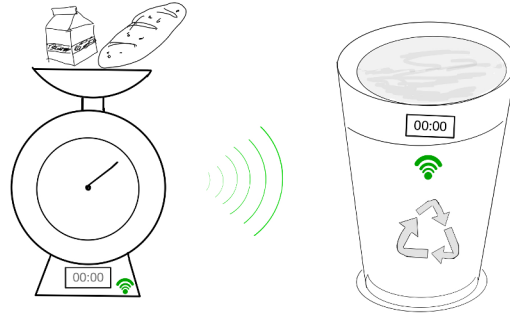
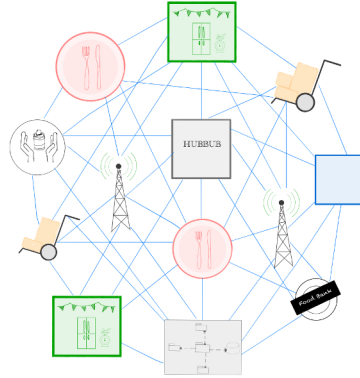
Other community orgs/initiatives

- Hubbub (London)
- The People's Fridge Brixton (London)
- UnshelteredTV (Chico, California)
- Kijiji Yeetu (Nairobi, Kenya)
- Zuri Foundation (Limpopo, South Africa)

Emerging Themes

- Ubuntu: Sense of belonging
- Community building
- Social inclusion/exclusion and the unseen
- Ecological Stewardship
- Low/high tech
- Our health
- Leadership, partnerships, funding and support
- Efficiency: Room for growth
- Privacy and security, among others

Next Steps for current project



- Develop concepts using open hardware
- Internet Health considerations

Mozilla Internet Health Report

1. Privacy and Security → Is it safe?
2. Openness → How open is it?
3. Digital inclusion → Who is welcome?
4. Web Literacy → Who can succeed?
5. Decentralisation → Who controls it?

See the Mozilla Internet Health Report

<https://foundation.mozilla.org/en/internet-health-report/>

Impact on DNS

- Billions of new devices
- DIY devices by makers and activists at local scale
- Growth of community networks and lower costs connectivity options
- Feasibility of solutions - tech people vs everyday users
- New entrants not security experts (we should not require them to be!)

Context (One size does not fit all)



Example: The Prayer Companion

“The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.”

Mark Weiser, Scientific American, 1991

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Twitter: [@MsKiden](https://twitter.com/MsKiden)

GitHub: <https://github.com/MsKiden/OpenDoTT-communities>

Thank you!