

D14

Open Technology Workbook

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ESR 4 - Smart Cities



Northumbria
University
NEWCASTLE



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OpenDoTT

Year 2

This document provides an overview of activities developed during my second year of research (2020/2021) at the OpenDoTT project. My research topic is "waste prevention and smart cities".

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A spiral of openness

The Internet Health training module, based on Mozilla's open leadership program, was a powerful start into the second year of research. Technology-inspired open design was not at all a new subject to me. But revisiting it at this point in time gave me the opportunity to reflect on my previous experience working in pretty diverse contexts. That new perspective would prove relevant when it came to designing new research activities for this phase.



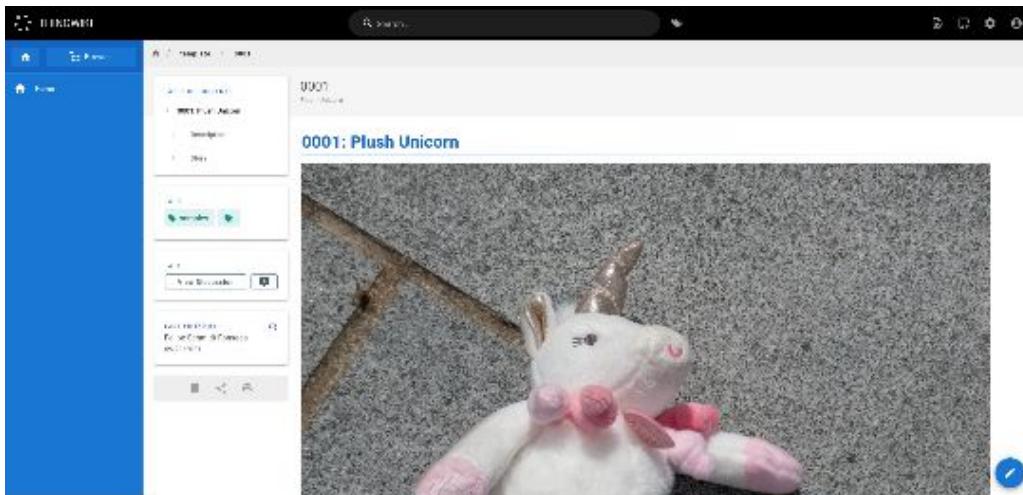
"What does 'working open' oppose to? A usual take is to think in terms of binaries, 'open vs proprietary' being a prominent one. But what does that opposition denote? There is a well-documented perspective according to which it is chiefly a matter of 'licensing', or determining the terms according to which a given set of digital information will circulate. That view, of course, owes a lot to the vocabulary of 'free software' and 'open source', both positioned against 'proprietary software'. If that definition tends to work relatively well to describe how software and its source code are distributed, however, trying to extend it to other realms proved to be tricky at best.

(...)

What if we think instead of open as open-ended? Not only open as non-proprietary, non-linear, or not enclosed. Doing things without the need to decide previously what their purposes, methods or goals are."

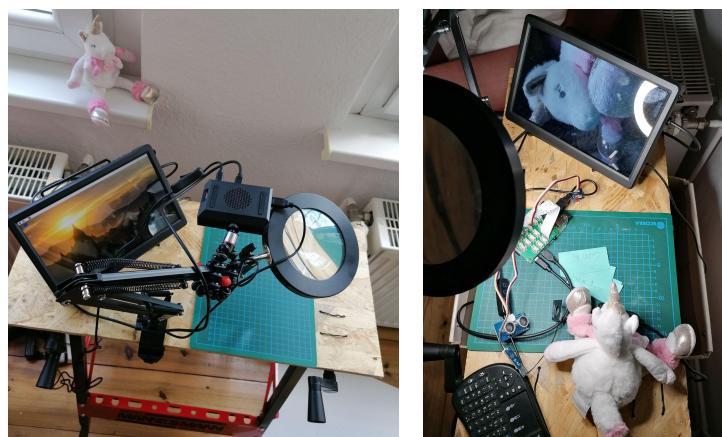
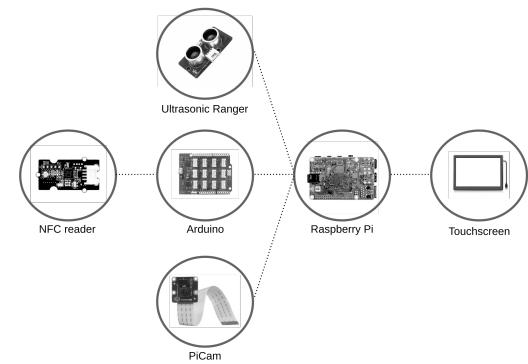
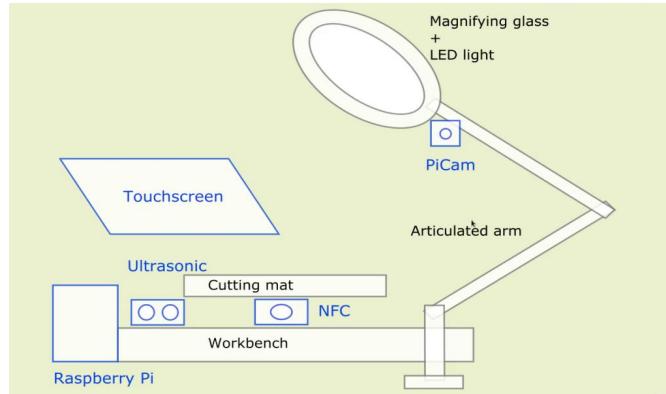
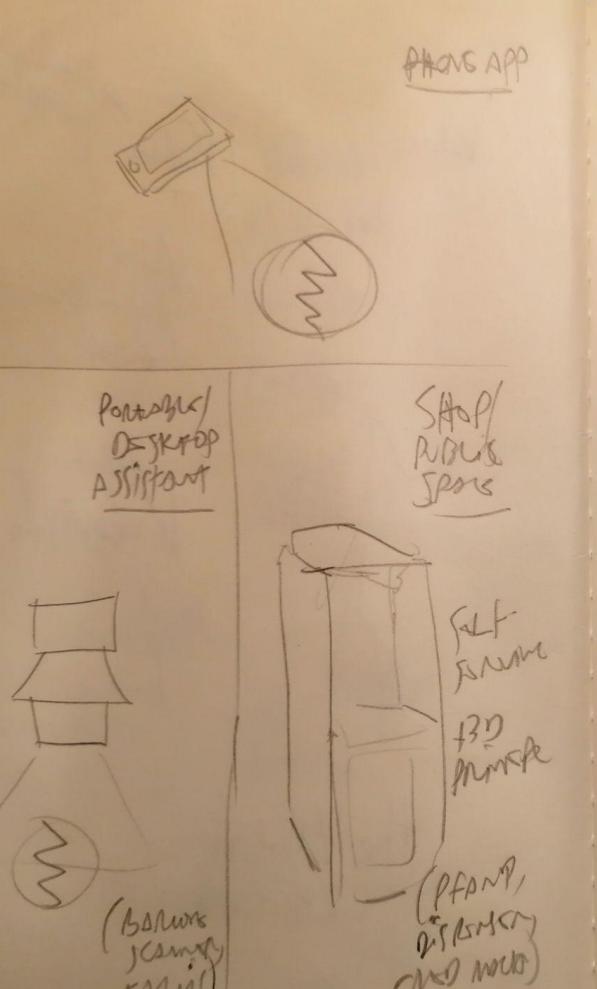
<https://is.efefe.me/opendott/spiral-of-openness>

Prototyping



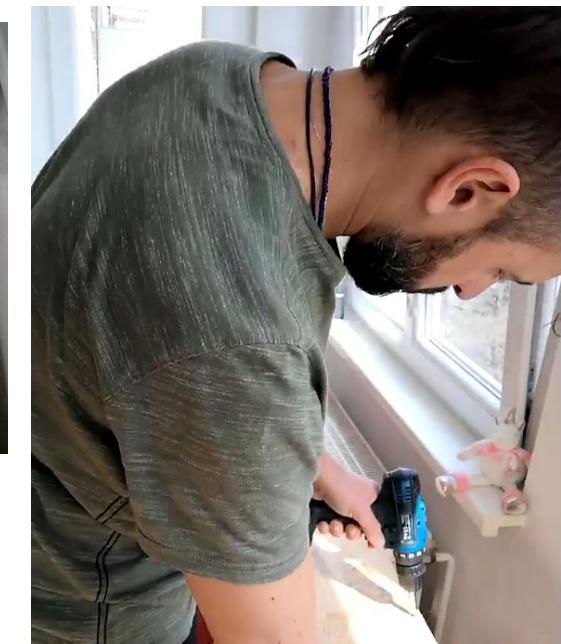
I was already familiar with prototyping in conceptual terms, and have in the past been involved with a number of projects based on iterative making. However, this was the first occasion that I had to perform a full cycle: from defining the focus of research, to inviting participants to help me understand it deeper and then having the opportunity to create concept ideas and to experiment with concrete expressions of them.

The process was supported by the training modules on open hardware and privacy by design, which brought awareness of the required balance between possibilities and restrictions on technology as well as ethics.



Prototyping 1/2: E-I

A combination of speculative technologies conceived to help cities and regions to reuse discarded materials.



Prototyping 2/2: ThingWiki

An experimental implementation of the Universal Registry of Things. The prototype is a website with information about different object samples. The data is public and machine-readable.

The screenshot shows the ThingWiki application interface. At the top, there's a navigation bar with links like 'Dashboard', 'Thingpedia', 'Indexer', 'Metadatabase', and 'Explorer'. Below the navigation is a search bar and a sidebar with various filters and settings. The main area displays a table of objects:

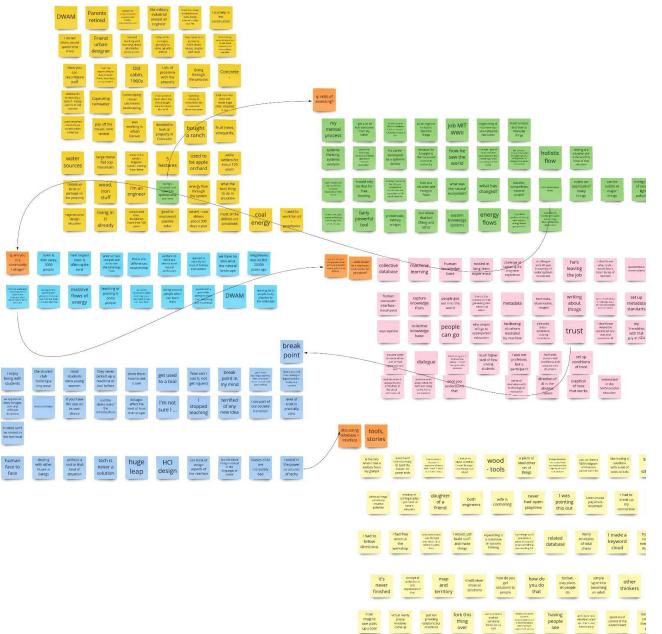
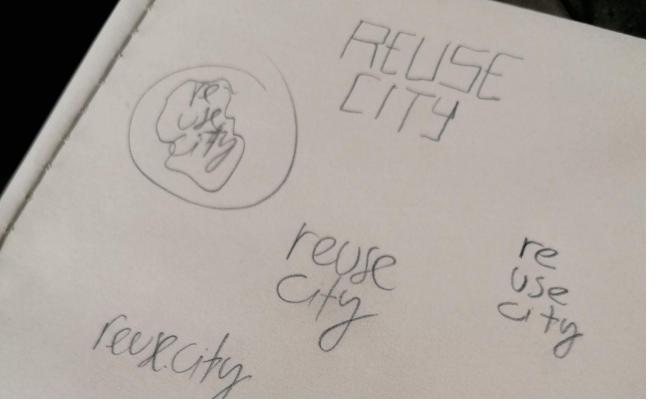
ID	description	published	date	tags	editor	dateCreated
1	Plush Unicorn	yes	2021-09-21 19:27:07 UTC	sample	metaknow	2021-09-21 19:27:20 UTC

Below the table, a specific object is highlighted: "0001: Plush Unicorn". It features a large image of a white unicorn plush toy with pink horn, ears, and hooves, sitting on a textured surface. To the right of the image is a detailed description card:

Description
Name
Licorne (from product label)
Manufacturer
Doudou et Compagnie
48/52 Avenue des Châtaigniers
95150 Taverny
France
(from product label)
Manufacturer website
<https://www.doudouetcompagnie.com>

The screenshot shows the E-I application interface. At the top, there are buttons for 'START' and 'RESET'. The main area has a title 'THINGWIKI' with a search icon. On the right, a message says 'Object identified' followed by 'Plush Unicorn'. Below this is a detailed view of the same unicorn plush toy, showing its white fur, pink horn, and gold-colored hooves. To the left of the image is a form with fields for 'Description', 'Name', 'Manufacturer', and 'Manufacturer website', all populated with the same information as the ThingWiki screenshot. A blue circular arrow icon is positioned between the manufacturer name and website field.

```
14
15  ## Basic data
16
17  ### Name
18
19  Licorne (from product label)
20
21  ### Description
22
23  Plush Unicorn
24
25  ### Manufacturer
26
27  **Doudou et Compagnie**
28  48/52 Avenue des Châtaigniers
29  95150 Taverny
30  France
31
```

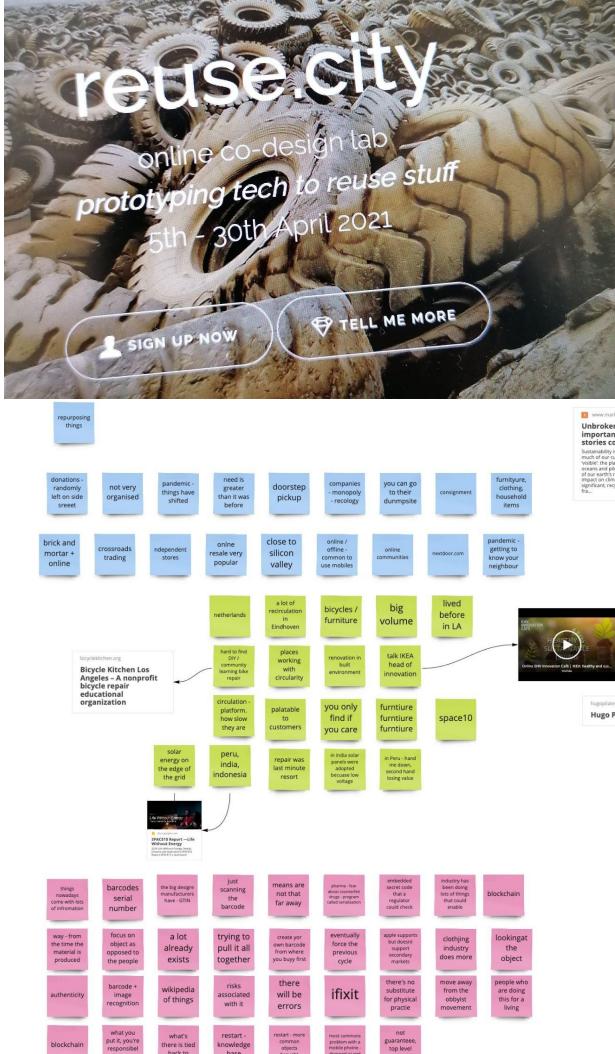


reuse.city

The research study *reuse.city - online lab* was created to co-design updated versions of earlier concept ideas with participants familiar with topics of reuse and repair, coming from diverse localities and backgrounds.

The co-design process was designed to help shape the work on prototypes based on the concept ideas, as well as to discuss what the implications of such prototypes would be in diverse real-world scenarios.

Participants from three continents joined the calls and online interactions. As well as providing in-depth feedback and inspiration for the research, the lab was itself an exercise at community making that may be important in future stages of the project.



Secondment

Even if I had to adapt my expectations for the research period in Berlin in the absence of the Mozilla office, being in Berlin was a good opportunity to engage with initiatives both at local as well as EU level. I have engaged with ongoing network activities, organisations and public events in themes relevant to the research such as zero waste, circular economy, smart cities, platform cooperativism and open technologies.



My engagement with common practices of re-circulation of goods in Berlin gave rise to an auto-ethnographic strand of research that will likely be important in developing my thesis.



On another front, the OpenDoTT Studio sessions provided a good way to re-engage with the other research fellows and compensate for the distance. I have co-hosted the first such meeting with a colleague and was glad with the results.

**OpenDoTT
Studio**

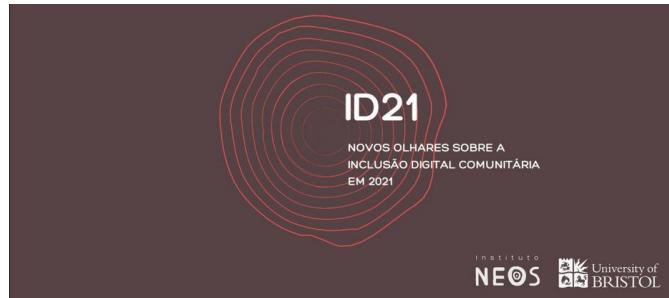
Cooperation, teaching and outreach

During the course of the second year, I engaged with some activities beyond the reach of my individual research at Northumbria.

Tales of **Care & Repair**

Tales of Care and Repair is a British Council Creative Commission led by Professor Teresa Dillon (UWE Bristol) in partnership with Gambiologia (Brazil) and Toxics Link (India). The goal of the project is to position repair in the context of climate change discussions, by collecting 1000 stories of repair and organising a series of international seminars and workshops in the wake of COP-26 in Glasgow. I helped organise the Brazilian seminar and was invited to join the final seminar in November.

ID21 was a study on community-based digital inclusion in Brazil developed by Instituto Neos and supported by the University of Bristol's Impact Acceleration programme. I volunteered to help shape the study and curate the selection of interviewees, as well as to review and comment on the report made by Instituto Neos. The project will unfold into a web-based video game promoting the critical appropriation of digital technologies in communities, as well as an open repository of educational materials on digital policies in Brazil.



ENCONTROS DO LAB404

21/05
14:30 HORAS
NO YOUTUBE.COM/LAB404UFBA

REUSE.CITY

Debatedores

	André Lemos
	Felipe Fonseca
	Thalis Moura

LAB 404

I was also invited to present my research to lab404, a centre of digital media, networks and space based in the University of Bahia, Brazil.

Finally, I ran a seminar to 3rd year students of Design for Industry at Northumbria. My topic was "Open Design Contexts", which brought the opportunity to put in perspective my current explorations as a PhD researcher as well as my past experience in open and commons-based projects.

Conferences and events

The restrictions to mobility imposed by the COVID-19 pandemic were a double-edged sword. For one, I could not travel to participate on conferences and festivals in person. On the other hand, I was able to attend events in different parts of the world, sometimes simultaneously.

Even though it can be said that the quality of human connections is more superficial in such a context, it also allows interesting networking opportunities.



Workshop MAB20
29 June 2021

Introduction Workshop Organisers Participants

Subversive Citizen Manual for the More-Than-Human City

A black and white photograph showing several people holding up a large, light-colored cloth or banner together, possibly during a workshop or protest.

Pivot 2021
Virtual Conference
July 22-23 2021



Complete documentation about the second year of research is available on this public repository:
<https://github.com/opendott-smartcities/II/>