

# Annual Progression II - 1/6

## Year 2 Progress Report

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### 1. OpenDoTT, year 2

My PhD research is part of OpenDoTT, a program designed around three distinct stages, each of them lasting approximately one year. In the first phase, still based in the UK, we explored Research Through Design by conducting studies to help define and refine our initial research questions. The second year would have started with the relocation of the five OpenDoTT fellows to Berlin, to work at the Mozilla Foundation's office. The emphasis at that point would change to Open Design and Internet Health, accompanied by focal training modules on prototyping with Open Hardware and Privacy by Design. Finally, the third year is planned to be about Digital Inclusion, Policy and Legislation, as well as allowing us time to write, submit and present our theses.

At this point, I have successfully completed the activities planned for the second year of the project, and am already moving into its final phase. I am unfortunately the only OpenDoTT fellow who has actually moved to Berlin. I have used the Mozilla Office for a total of two workdays within the three weeks it has opened in November 2021. On the other hand, just by being in Berlin, I have engaged with a scenario that is concretely influential to understanding my research and advancing it.

This document summarise the activities I have performed so far, my findings along the way and my plans towards completion.

#### 1.1. From AP1 onwards

The first significant outcome from the first Annual Progression panel to me was the recommendation to be more specific about methodology. That question was naturally already present in the meetings with my supervisors. But until the moment I was asked about it in the AP meeting I had not realised how influenced I had been by my former MA supervisor at the University of Campinas in Brazil. He is a social scientist, with a Master in Linguistics and a PhD in Social Anthropology. The AP panel at Northumbria triggered the awareness that my way of researching borrows significantly from Anthropology, even though I don't consider my work as affiliated directly to that field of expertise. It should also be fair to say that the Internet Health

training I attended a couple of months before the AP1 meeting has influenced that understanding, as briefly described in the section "Storylines" below.

Throughout the second year, I was then constantly facing the question of how to describe my methodological approach and reconcile it with my background and past projects. To mention one among many authors I'm influenced by, Tim Ingold proposes that ethnography is a study *of* the world with a documentary purpose, whilst anthropology studies *with* the world and effects transformations onto it (Ingold, 2013). I tend to lean towards the latter, based on my previous experience both in academia as well as in social and activist initiatives: I wouldn't want to detach from my research subject as an external, unbiased observer.

As I write this report, I am starting to explore Constructivist Grounded Theory (Charmaz, 2006) as a way to reflect on, analyse and integrate the outputs of the participatory studies I have conducted as part of the PhD research with my own past experience and assumptions. It will also inform my upcoming research activities, described in the attached "Research Plan" document.

## 1.2. Storylines

The second valuable contribution I had from the AP1 panel was a recommendation to work on a coherent story underlying my research. This suggestion unfolded into developments eventually incorporated into my work over the second year. I kept exploring literature and references that helped me both address and situate different strands of work. On the other hand, I started to work on two proto-concepts:

- A perspective of open design shaped like an open-ended *spiral* instead of a circle;
- *generous cities* as a concept to address issues present in contemporary cities such as social inequality, waste of resources and climate change.

Each of them has potential for development, briefly described below and reflected in the attached "Thesis Outline".

### 1.2.1. Spiral of Openness

The Internet Health and Open Leadership training gave me the opportunity to re-engage with literature and references about open source and technology-inspired collaborative practices. Not only was I already familiar with canonical authors on the universe of open source (Raymond, 2001; Benkler, 2006; Lessig, 2016), but many of my past projects were also influenced by critical takes of that scenario (Lovink, 2005; Abraham *et al.*, 2006). In particular, one action-research project I was part of explored open and collaborative science (Albagli *et al.*, 2019) and eventually evolved to propose that the term "open science" be replaced by "common science" following the work of António Lafuente (Lafuente and Estalella, 2015).

In re-examining those references and projects at this point in time - marked by growing public awareness of issues such as environmental impact, enduring coloniality, political polarisation,

among others - I found even more problematic points. In particular a noted bias on the understanding of what openness means that favours the status quo. My way to relate to that was drawing on the image of a spiral as described by Germano Bruno Afonso, a professor who researched ethnoastronomy in native Brazilian peoples. Rather than depicting a cyclic process shaped like a circle as seen by observers, the spiral positions the observers inside the process (Borges, no date). At every turn, they can look back and realise they are themselves transformed as much as the world. I assembled this and other insights stemming from the training and published them as a blog post (reproduced in the attachment "Evidence of writing"). In the next phase, I will deepen and refine this concept into my thesis.

### 1.2.2. Generous Cities

At the start of the second year, I was asked a couple of times in what form my research - then chiefly concerned with the reuse of second-hand goods and materials - even related to the topic of "smart cities". That was a fair question. One should of course consider, as I have mentioned on my first AP panel session, that the advert for OpenDoTT welcomed a critical take on the field:

*Technology is fundamentally changing how cities work, but these smart cities are most often determined in a top-down fashion, with little transparency or accountability in how data influences the workings of the city. Can we create cities that are **not just smarter, but kinder, fairer and more citizen-centred?***

That understanding has always been present in my PhD activities. Throughout my first year, I sought to discuss ideas that were participatory, grassroots, transparent - as well as kinder and fairer. One of my industry supervisors would later note that the word "citizen" is increasingly charged with political issues, so I'm trying to avoid the term "citizen-centred" but remain nonetheless interested in generating opportunities for local populations. To that effect, still in the first year, I turned from "waste management" towards "waste prevention" as a way to escape the biases of the mainstream narrative on smart cities.

During the second year, I have conducted in parallel two activities that fed onto each other: an online co-design lab with participants from various countries in four continents; and prototyping speculative technologies whose purpose was to assess the value and potential for reuse of discarded materials. In experimenting on my own research the concept of "open spiral" hinted at in the previous section of this report, I set myself to engage with the field - participants of the co-design lab, supervisors, colleagues, literature, conference speakers - and reflect on it continuously.

As mentioned, I started the year situating my work as being about "waste prevention in smart cities". Over the months I found the term "reuse.city" as a good and concise name for the co-design lab. I even considered using that as a title for the thesis overall. On the other hand, my impression of how common it is to find functional objects on the sidewalks of Berlin, as well as in online communities for the re-circulation of materials and in second-hand shops, suggested I

should pay attention to it. I reflected and experimented with ideas of excess, abundance and generosity.

It was after a presentation that a comment by a person in the audience made me see "abundance" as passive - a simple and often wasteful result of excess. Whilst on the other hand "generosity" could be interpreted in this context as an act of care, a response to excess as well as an attempt to overcome scarcity. Based on that understanding, generosity could take centre stage in my research and orient all else that I am doing. Thus my current focus on "generous cities" as a concept - still to be further developed - that competes with smart cities as the overall framing of my work on waste prevention through collective practices of reuse, repair, upcycling and re-circulation.

### 1.3. Reporting and deliverables

Marking the completion of Work Package 2 (WP2) of OpenDoTT, I submitted five project deliverables:

- Technology Demonstrators: a collection of software and schematics used to build my prototypes.
- Updated IoT Concepts: three concept ideas co-designed with participants.
- Documentation of Prototypes: sketches and notes about prototyping the concept ideas.
- Deployment Datasets: data gathered in the research study, explorations and interviews.
- Open Technology Workbook: a summary of activities, field notes and initial findings of this year's activities.

As my work during the third year gradually migrates towards writing the thesis (more information in the attached "Research Plan"), I will perform a deeper round of analysing materials such as the contained in the deployment datasets and other deliverables.

A copy of the Open Technology Workbook is also attached to this report.

### 1.4. Looking ahead

At this point, OpenDoTT switches gears towards an emphasis on policy and advocacy. During the first months of 2022, I will consequently focus on the accompanying training modules and on finishing the product deliverables to be submitted by the end of June. Some deliverables will probably be incorporated as part of my thesis.

In addition, I will in parallel be working on my thesis - applying the methods of Constructive Grounded Theory to code and analyse research data, and further developing concepts such as generous cities as well as meta-concepts like the spiral of openness.

The attached "Research Plan" offers a more detailed description of activities to be performed this year.

## 2. References

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