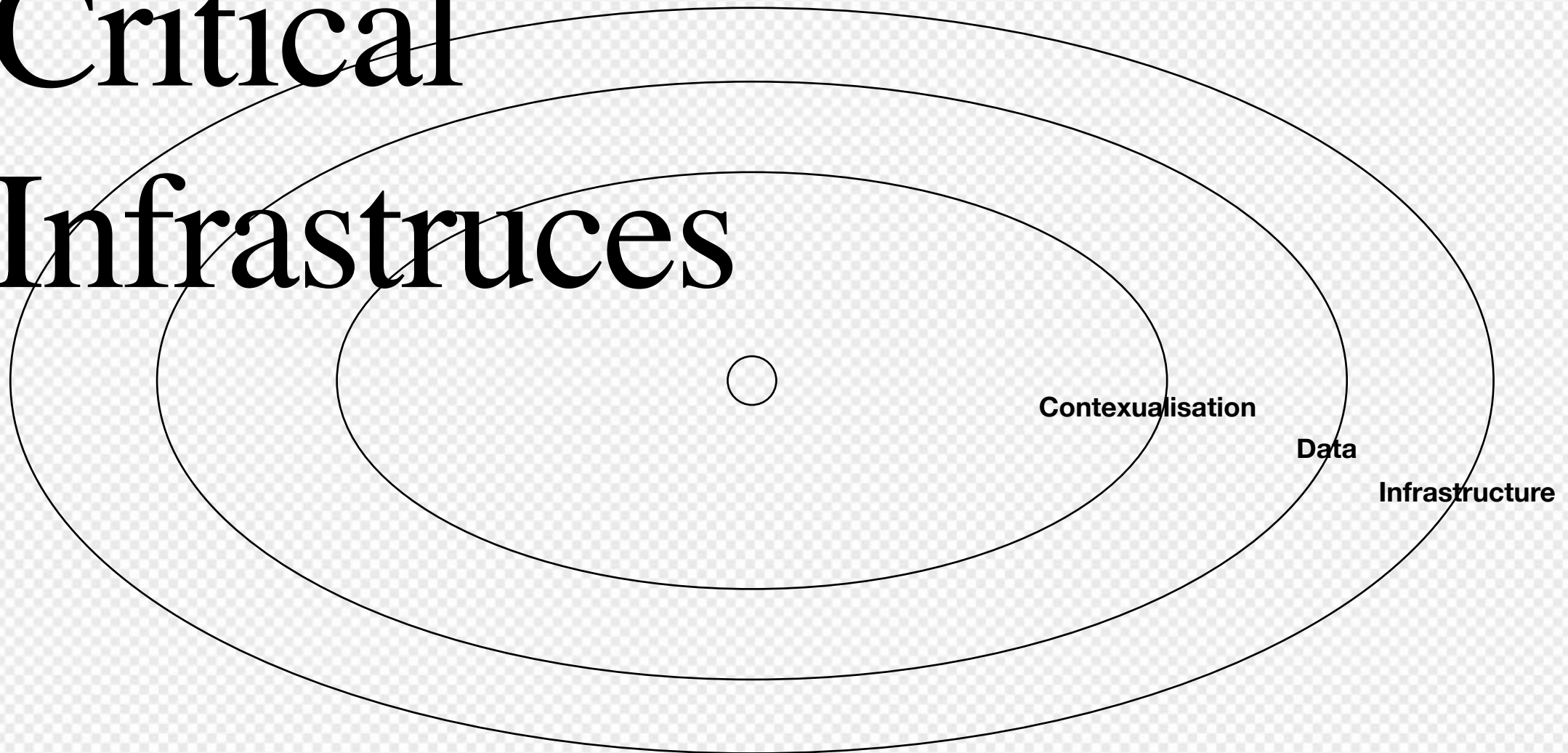


George Symonds

Critical Infrastructures



Contents:

Investigating & Interrogating the Cost of Living Poly-Crisis:

Intro

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The Start

Research + Inspiration

Aims + Audience

Journey + Development

Process

The Research Database

Data Collection + Visualisation

Final Outcomes

In Space

Evaluation + Reflection

Going Forward

Intro:

Welcome to my Critical Infrastructures Project

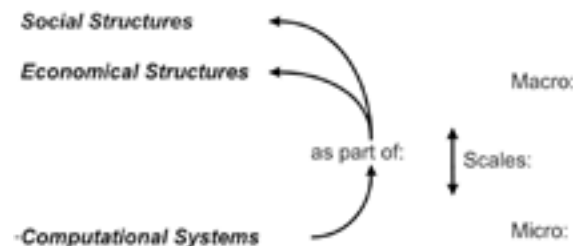
In this unit, I will be investigating the use of governmental datasets as infrastructure, the power of the media, and how data can be twisted to paint institutions in a self-beneficial light in relation to the cost of living crisis.

Investigating & Interrogating The Cost of Living Poly-Crisis

It's a multi-faceted topic that touches and is related lots of different sectors in our world, so I had to intersectionally contextualise my data in research, looking at:

The UK
The Economy
The Climate Crisis
Social Inequality
Capitalism
The Media
Computational Systems

I will present my project in 2 parts - **The Research Database** (Investigating & Interrogating the Cost of Living Poly-Crisis) and the creation of my original dataset **The Increase of Prices in Independent Stores**.



PROJECT OUTCOMES
[RESEARCH DATABASE +](#)
[DATASET CREATION +](#)
[DATA VISUALISATION](#)

**THE RESEARCH
DATABASE**
[ML Powered home
defense system](#)
2015



**DATA RECORDING &
COLLECTION**
[Mapping the Increase
of prices in independent
stores](#)
downloadable +
publically available .csv

This figure is a screenshot of a CSV file. It shows a table with multiple columns and rows of data. The data appears to be organized into several sections, with headers and sub-headers. The text is small and difficult to read, but it represents a dataset of price increases in independent stores.

**DATA
VISUALISATION**
[Plotting my data against
governmental statistics](#)
visualisation



Concept:

Infrastructures I'm Investigating:

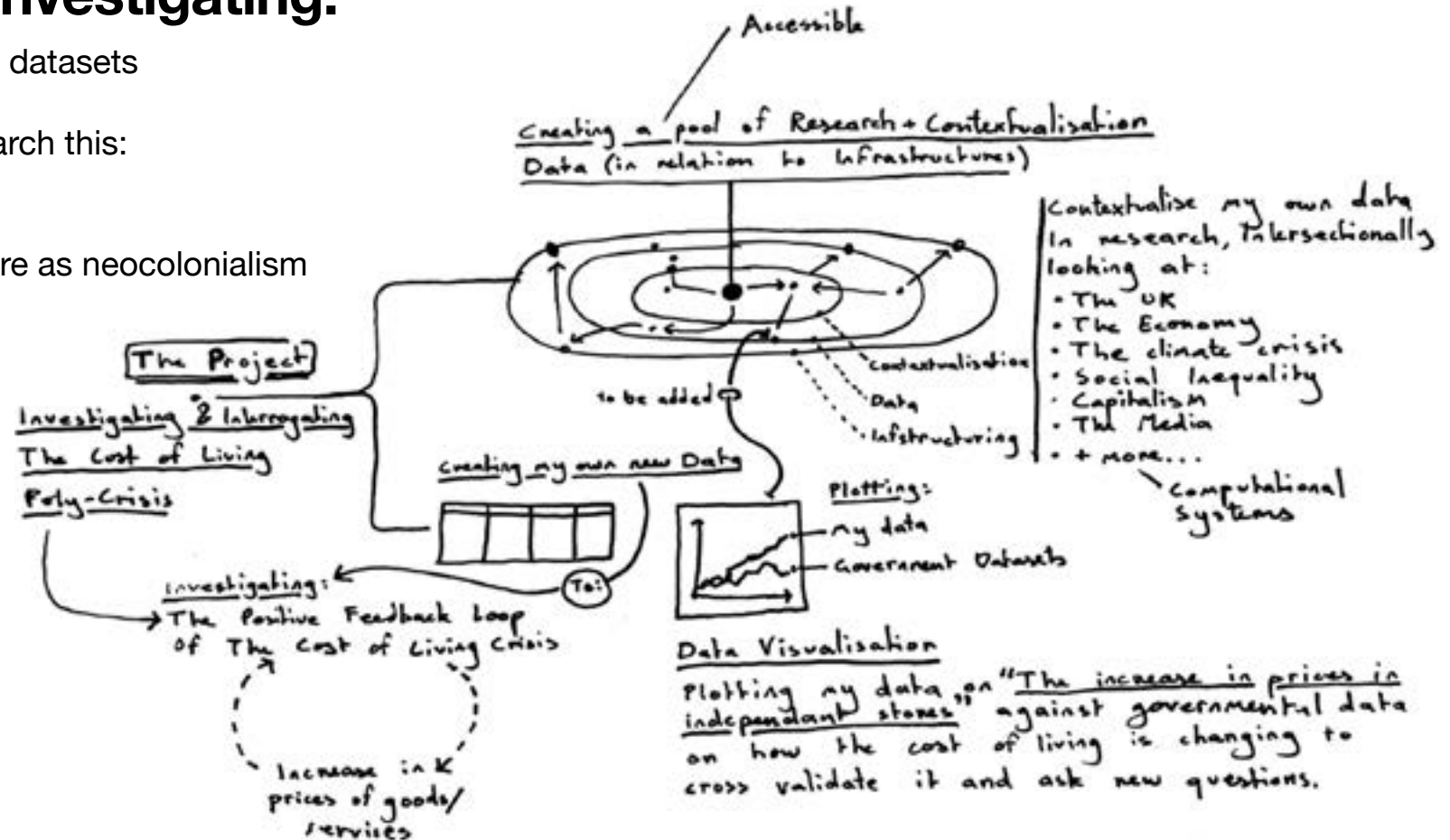
The Infrastructure of governmental datasets

Infrastructures I came across research this:

The media as infrastructure

Research papers as infrastructure

Platform Capitalism as infrastructure as neocolonialism



To Interrogate:

The Cost of Living poly-crises

The positive feedback loop of the cost of living crisis

Has the cost of living crisis manufactured

Can we trust governmental data?

Data Collection:

Pre-project inspirations

Before I started this project we had some experiences in our CCI workshops where we've created our own datasets and created spreadsheets/visualised them

THE WALK
[*Part of CI Lesson*](#)
2023

COLLECTING
PUB DATA
[*part of CI lesson*](#)
2023

What Data am I Going to be Collecting & Visualising for this Project?

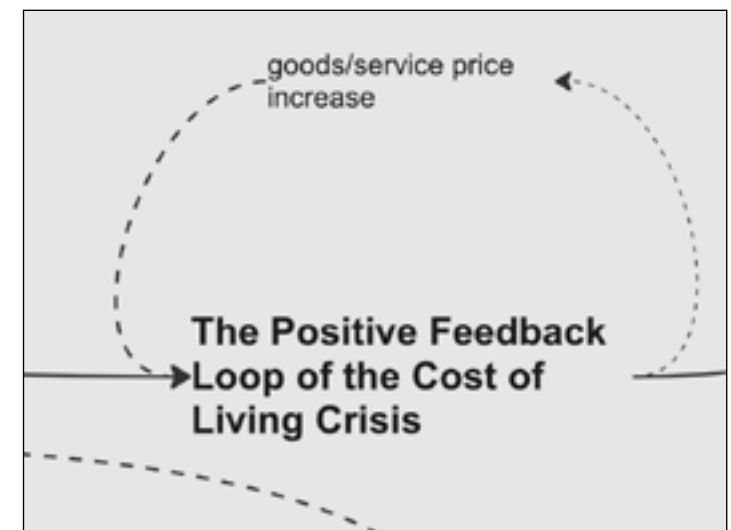
As part of my public research database I'll be creating my own original data. Specifically, I will be investigating:

The Increase of Prices in Independent Stores

Why The Increase of Prices in Independent Stores? Because the rise in their prices is often a reaction to the cost of living crisis, unlike corporate monopolies hiking their prices for profit motives.

Analysing this data will shed light on the positive feedback loop of the cost of living crises, which is a phenomena which hasn't been discussed much and I couldn't find any existing data on it.

The positive feedback loop of the cost-of-living crisis is a self-reinforcing cycle where rising costs perpetuate socio-economic inequalities. It impacts individuals, communities, and society, exacerbating economic vulnerability and widening existing disparities. Marginalised groups bear a disproportionate burden, facing limited access to affordable housing, healthcare, and other necessities.



Lens:

The Power of Public Data & The Politics of the Image:

Data holds immense power in shaping society and the media that individuals consume. Stuart Hall, a prominent cultural theorist, argues that representation plays a vital role in constructing meaning and influencing social realities.

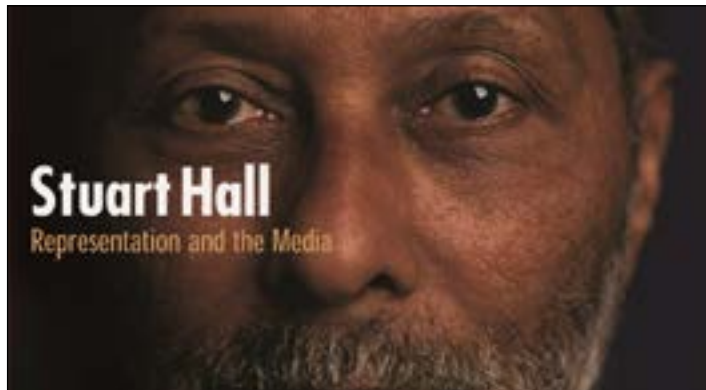
In his work “Representation and the Media,” Hall emphasizes that the media functions as a powerful mediator between the world and its consumers, shaping their perceptions, beliefs, and values.

Analyzing and leveraging data, media institutions having the ability to capture and interpret data, is pivotal in influencing societal narratives.

Other The Problems with data:

Tooay news & media outlets aren't competing with just other news networks, but news entertainment - in an industry like this increasing engagement is more encouraged than enhancing the accuracy of representation.

Data explains points as proven, black or white, data paints there world we live in while in reality there not actually possible to capture what something is in data, when everything can mean so many different things for different groups



REPRESENTATION AND THE MEDIA

Film

Stuart Hall

The Start:

Initial Inspiration:

I got the idea for this project from what I want to do in my creative practise next year in my final year at uni.

I want to make a large-scale documentary on the cost of living crisis.

In doing research for it, I've realised how important other people's existing documentaries on the topic and reseach is important in building the frameworks for mine.

Keywords:

Data, Media, Representation, Research

Journey + Development

Inspiration:

Research + Current Public Government Data:

I was heavily inspired by video documentaries I've watched on youtube. such as **Second Thought's** (2021) *The Two Futures Of Automation*, or **Popular Front's** (2023) *What the French Riots are Really About*. Where they talk on topics more representative as to whats going on than how it's being shown on media

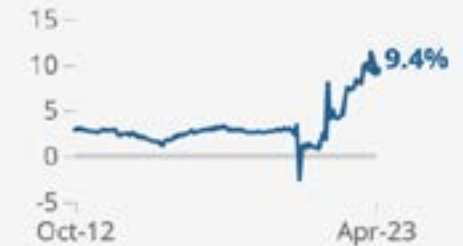
This is data obtained from ons.gov.uk regarding the inflation rate. The statement proudly proclaiming that inflation has "eased to a further 9.4% in April 2023" appears alarmingly disconnected from the actual realities of the cost of living in the UK. By focusing solely on percentage changes without providing the actual increases, the data fails to accurately represent the significant impact on individuals' expenses. It is misleading to suggest that a 10% increase one month followed by a 9% increase the next month indicates a decrease in inflation by 1%. In reality, these successive increases actually amount to a **19.9%** rise over two months. This manipulation of data obscures the true extent of the cost burden faced by individuals, and raises questions about the transparency and accuracy of the information provided.

Critical Infrastructures Resource Database

| Item Name | Item Type | Item Description | Item Status | Item Location | Item Date |
|-----------|--------------|---------------------|----------------|------------------|--------------|
| Item 1 | Item 1 Type | Item 1 Description | Item 1 Status | Item 1 Location | Item 1 Date |
| Item 2 | Item 2 Type | Item 2 Description | Item 2 Status | Item 2 Location | Item 2 Date |
| Item 3 | Item 3 Type | Item 3 Description | Item 3 Status | Item 3 Location | Item 3 Date |
| Item 4 | Item 4 Type | Item 4 Description | Item 4 Status | Item 4 Location | Item 4 Date |
| Item 5 | Item 5 Type | Item 5 Description | Item 5 Status | Item 5 Location | Item 5 Date |
| Item 6 | Item 6 Type | Item 6 Description | Item 6 Status | Item 6 Location | Item 6 Date |
| Item 7 | Item 7 Type | Item 7 Description | Item 7 Status | Item 7 Location | Item 7 Date |
| Item 8 | Item 8 Type | Item 8 Description | Item 8 Status | Item 8 Location | Item 8 Date |
| Item 9 | Item 9 Type | Item 9 Description | Item 9 Status | Item 9 Location | Item 9 Date |
| Item 10 | Item 10 Type | Item 10 Description | Item 10 Status | Item 10 Location | Item 10 Date |

Inflation rate for restaurants and cafés eased further to 9.4% in April 2023

Restaurant and cafe annual CPIH inflation rates, UK

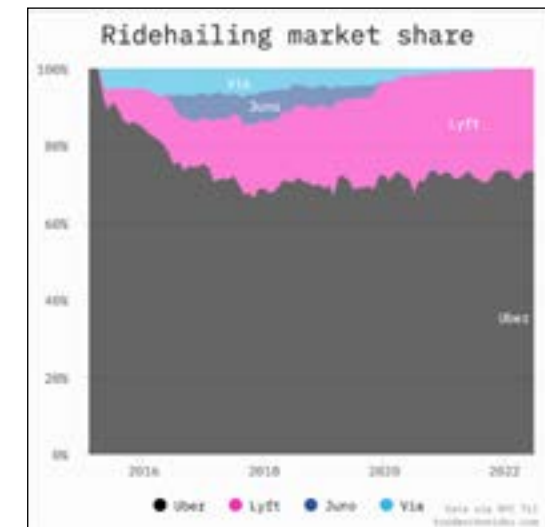
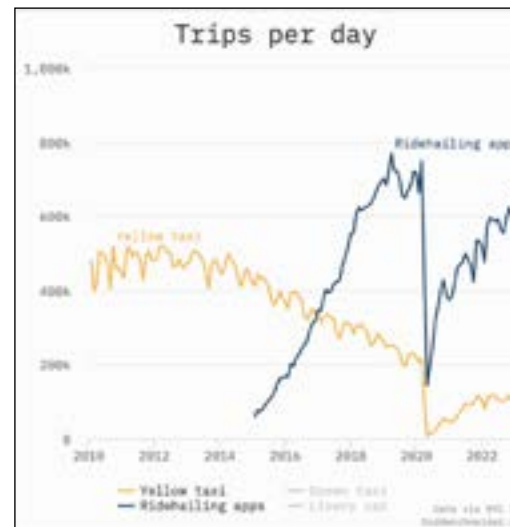


Source: Office for National Statistics



The Two Future's Of Automation
Second Thought
(2022) video documentary

Taxi and Ridehailing Usage in New York City
Data Visualisation
toddschneider.com



What The French Riots are Really About
Popular Front
(2023) video documentary

Process:

[Part 1] Research Database Creation:

Media: Miro

I needed one place to show everything together - so I decided to go with Miro, it's a really powerful tool for brainstorming and diagram creation, allowing me to piece together ideas in 2D.

I started with generating the topics that my world of work will sit in:

The Cost of Living Crisis
The Climate Crisis
The Power of Media's Coverage
Social Inequality
Technological Development

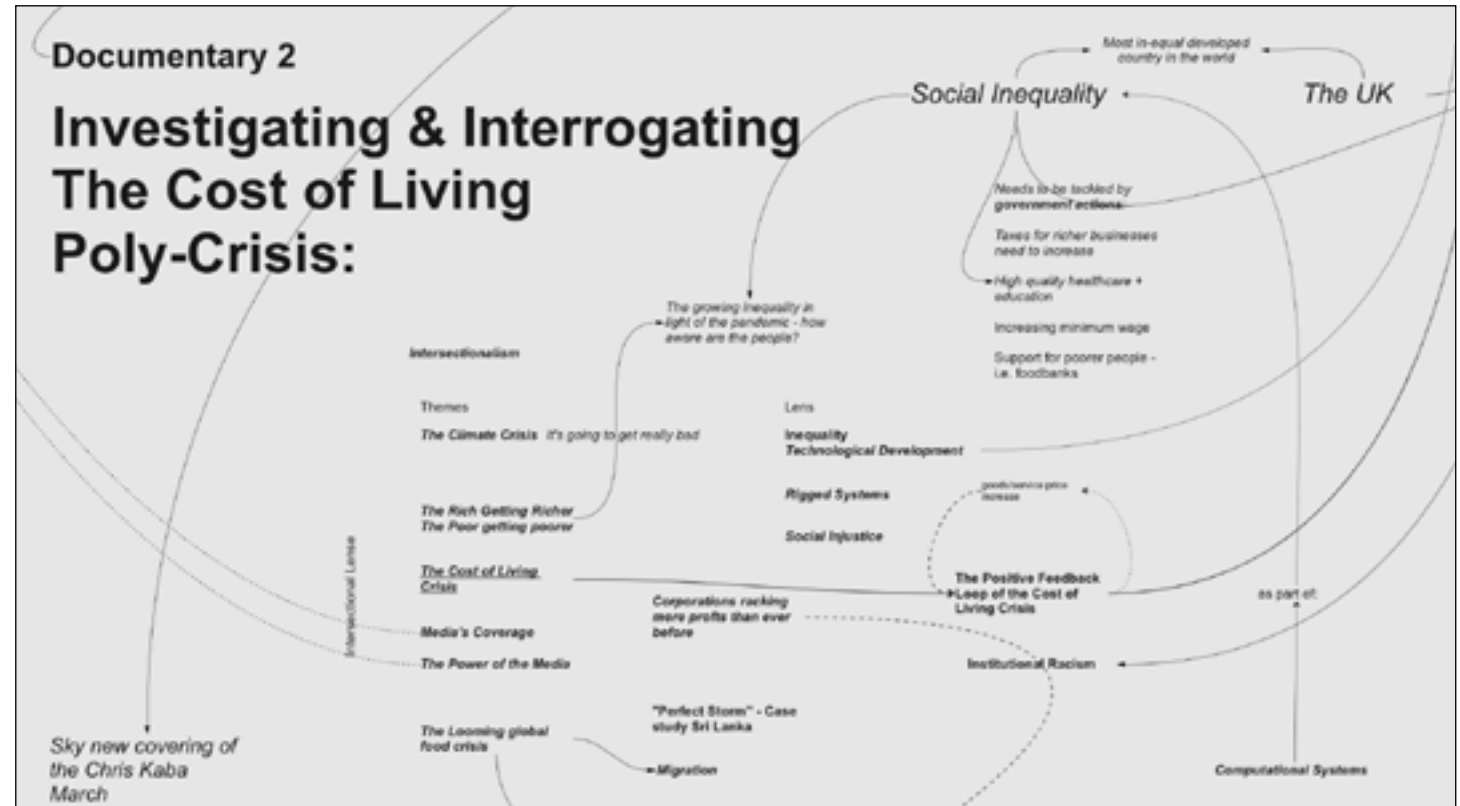
and connecting them to the Positive Feedback Loop of The Cost of Living Crisis.

THE FINAL
RESEARCH DATA

[opdown menu to select](#)

[webcam](#)

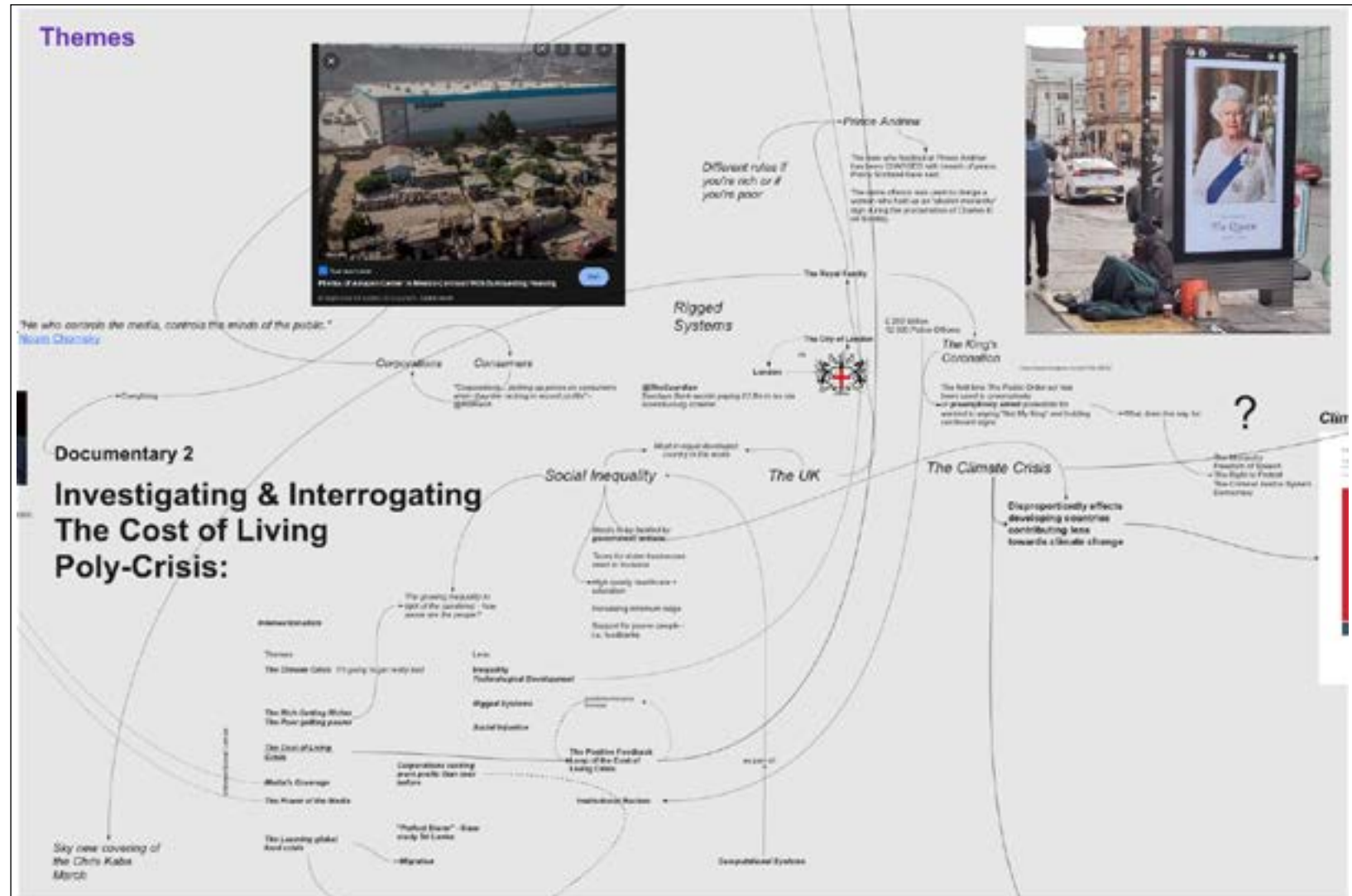
Prototype



The positive feedback loop

From there I zoomed out,
connecting these ideas with
the relationship between
corporations & consumers

The suppression of freedom of speech during the Kings Coronation, the medias coverage of that compared to the the covering of the Chris Kaba march.



**THE FINAL
RESEARCH DATA**
*opdown menu to select
webcam*
Prototype

Research Database Creation:

I then placed it in time, coming into 2023, what recent events before have shaped where we are today?

2016 The Brexit Referendum

2019 Boris Johnson as Prime Minister

2020 The Covid Pandemic

The top 10 richest men double their wealth during the pandemic

2022 NHS waiting lists higher than ever

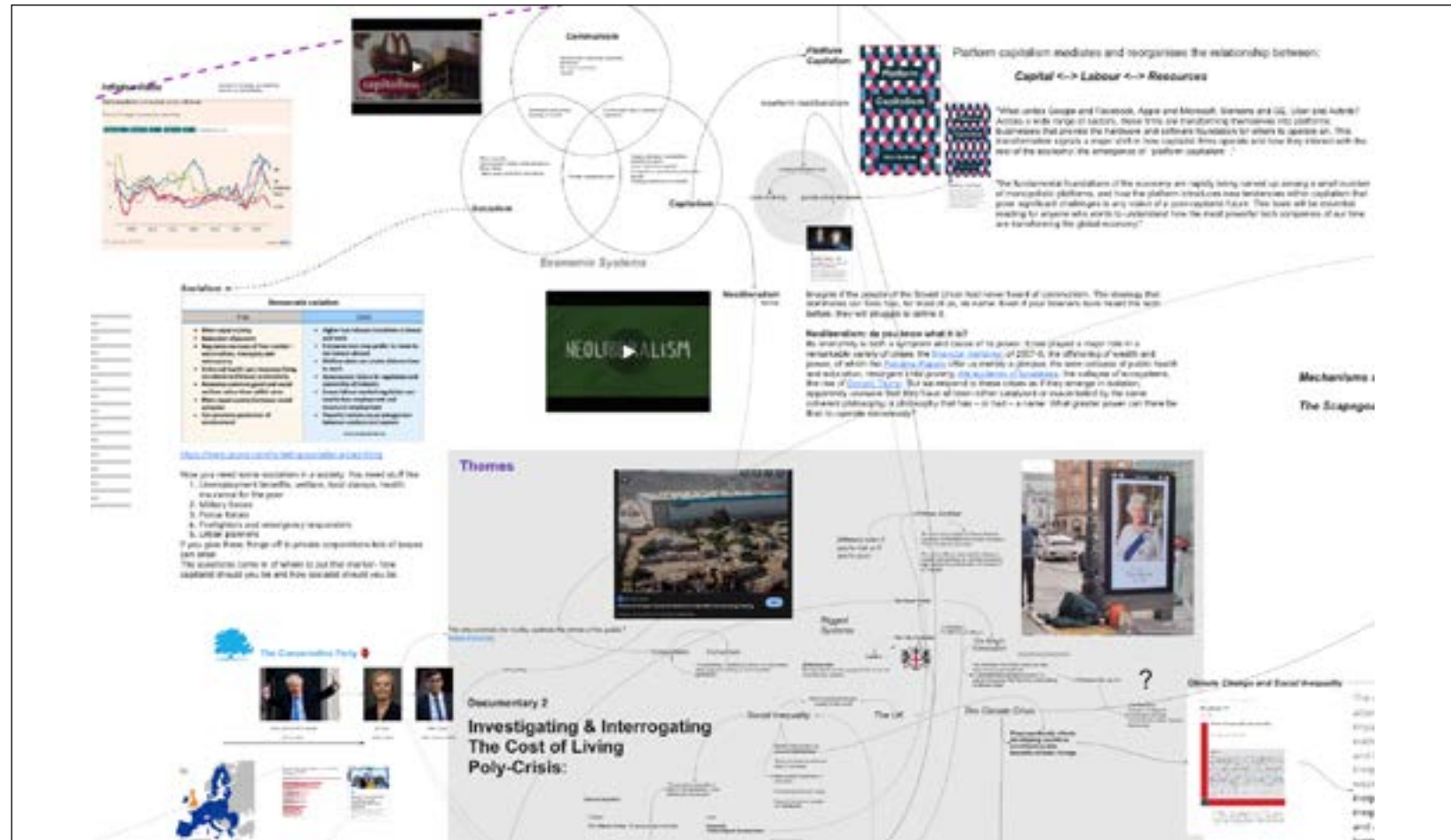
All of these factors have resulted in the current state of cost of living and are the reason we're stuck in a loop of increasing cost of living.

There is a lot that can be added here, I aim to continue building this timeline in the future.

Project Themes & Topics

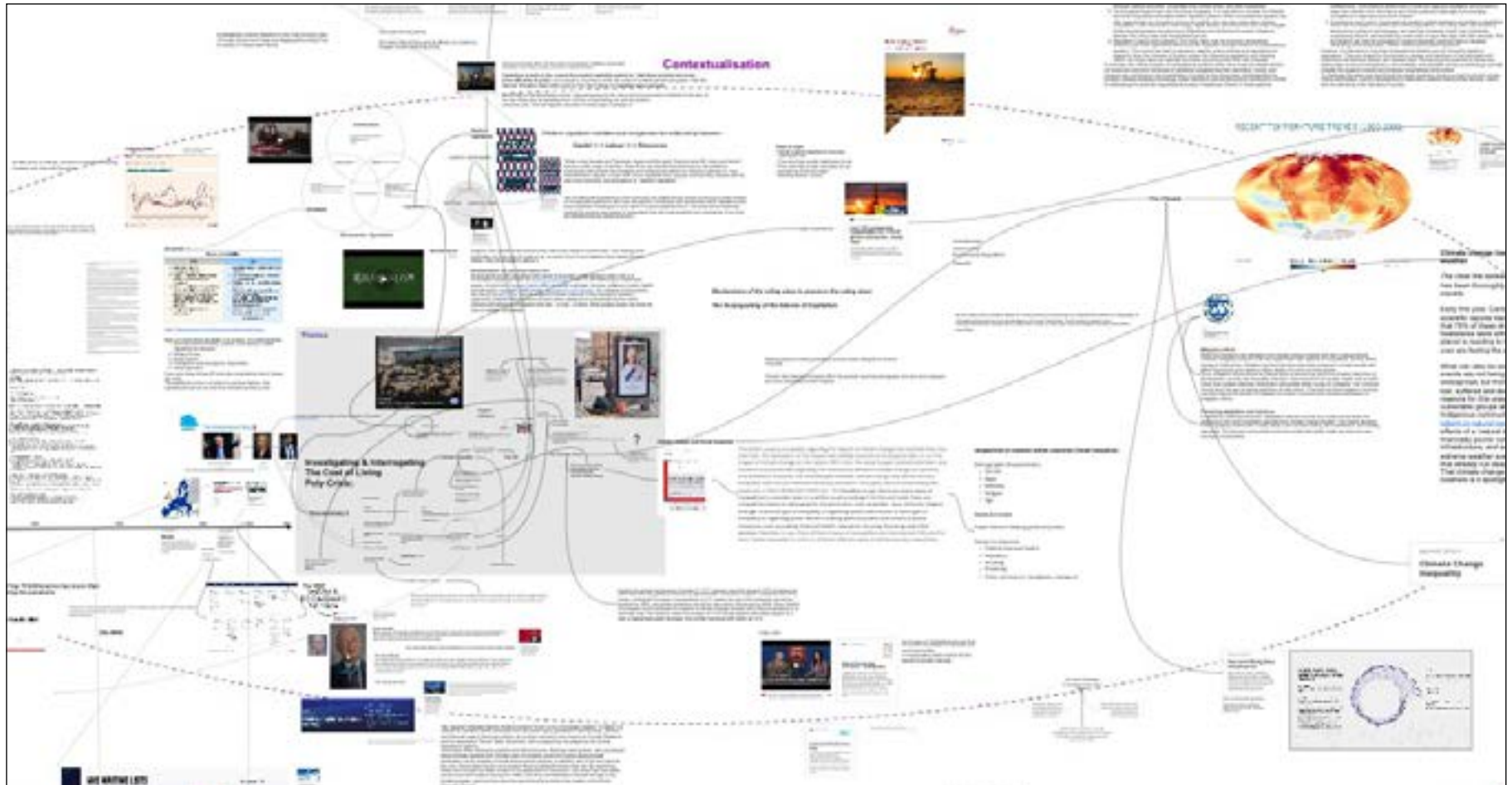


From there I zoomed on on topics, and the systems that interlink them. Capitalism, Platform Capitalism, Neoliberalism, The rise inflation rates, and the relation between Economic systems.



Full Contextualisation

I then zoomed out further, how do these topics relate to the climate and the climate crisis? The ways the climate relates to social inequality - how it disproportionately effects developing countries contributing less towards climate change. Aswell as the World Economic Forum, and the scary agendas they're pushing. And furthermore to the media, and why we can't trust the corporate media. The Impact of Emerging Technologies on the Labour Market.



At the same time linking all of these ideas together, visualising the relationships between them

Sharing + Data Resources:

Then I wanted to link my contextual research to data, and resources that back them up.

Including lots of different data relating to these topics would be helpful for anyone using this research database to reference and use for their own ideas/projects.

I included public data on:

data.london.gov.uk

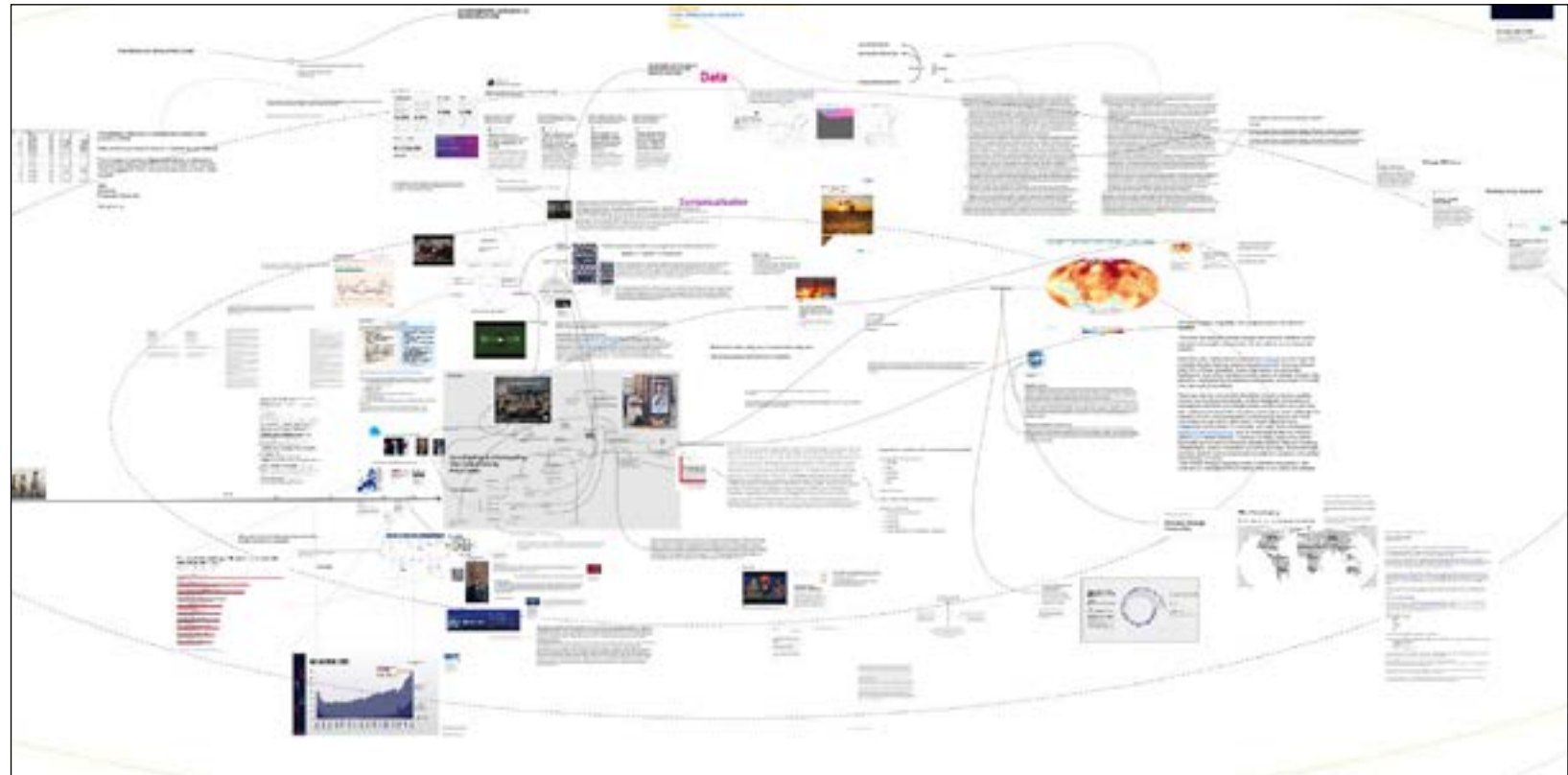
The cultural infrastructure map

climate.gov

Climate Change: global Temperature

ons.gov.uk

What actions are people taking because of the rising cost of living
Public opinions and social trends, working arrangements
Public opinions and social trends, personal well-being and loneliness
Public opinions and social trends, household finances
Consumer price inflation tables



IFS

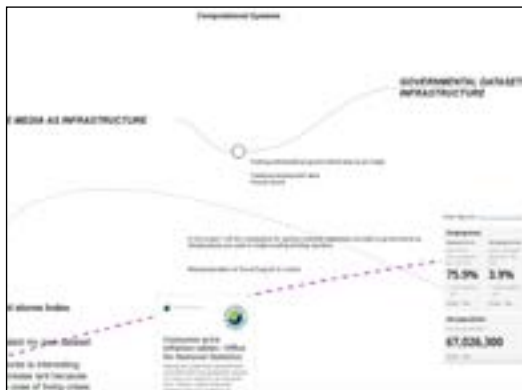
NHS Waiting Lists

As well as my own past-data visualisation projects:

Sea Level Rising Data

Climate Change Inequality

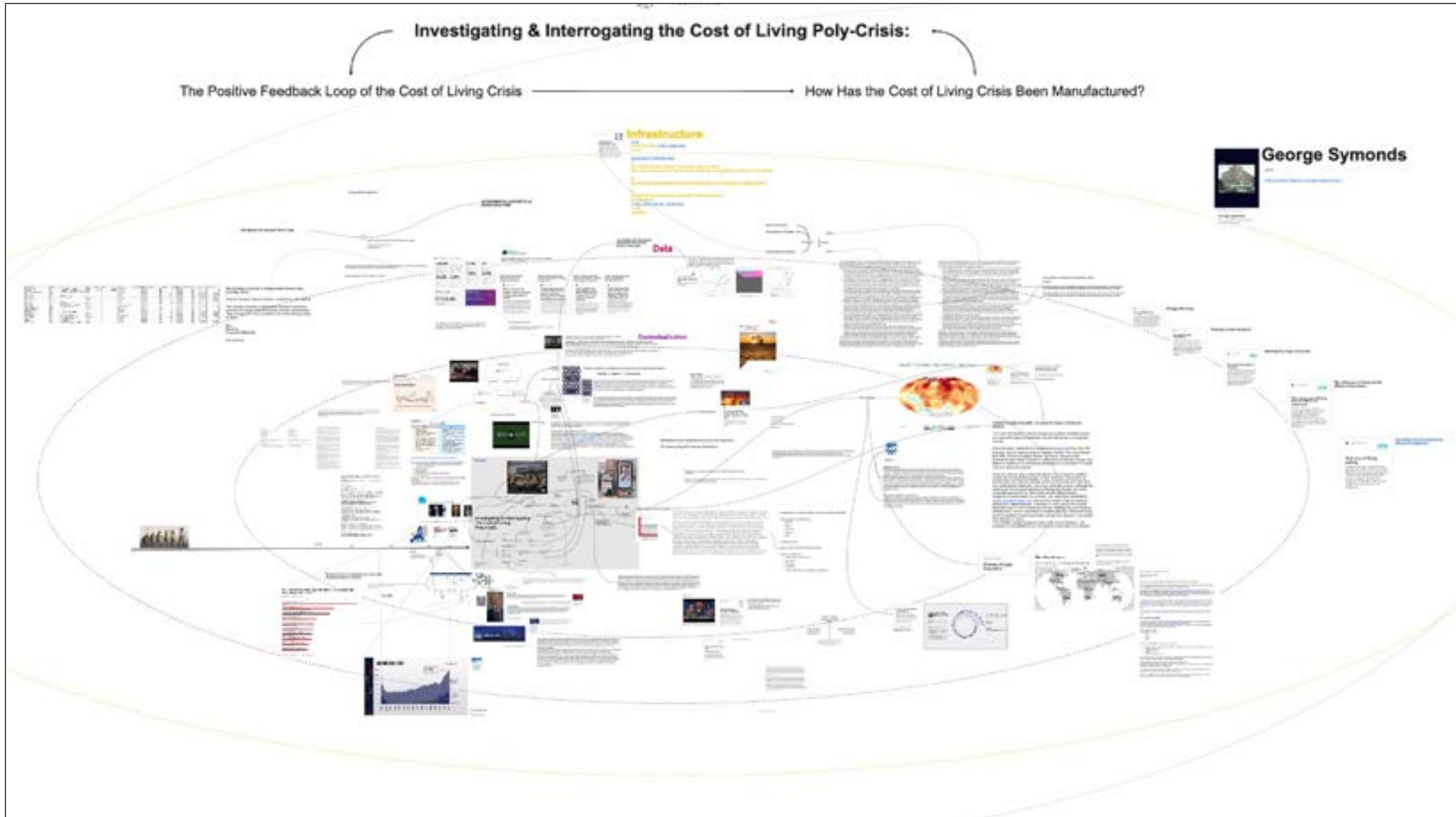
**THE FINAL
RESEARCH DATA**
*[opdown menu to select
webcam](#)*
Prototype



**Combining the Media
as Infrastructure and
Government datasets as
Infrastructure**
*[on pushing self-beneficial
stats for image](#)*
miro

(Above) I then zoomed out even further, placing all of the data and research in the context of Infrastructure. Linking ideas with the statments:

Governmental Datasets Infrastructure
The Media as infrastructure
Computational Systems as infrastructure



THE FINAL RESEARCH DATABASE

https://miro.com/app/board/uXjVOg9qpsk=/?share_link_id=69088705778

Miro

Making the Dataset:

[1] Mapping the Increase of prices of Independent Stores

I now had to collect my own data to add to my research database, I started planning what data I needed to collect and came up with this list:

Required Data I need (from each person):

- Name of Independent Store/Establishment
- Establishment Address (*to get longitude+latitude for map visualisation*)
- The Item/Service for sale (*i.e Chicken, Haircut, Menu Item, Eggs, Printing Cost, etc...*)
- Original Price of item/service sold (*past*)
- Original Date (*DD/MM/YYYY*)
- Current Price of item/service (*to calculate % increase*)
- Current Date (*DD/MM/YYYY*)

[2] Further Data Processessing & Manipulation

I then needed to take the users data and calculate % Increase of items/services using the inbuilt maths functions in excel.

[3] Ethics + Acknowledging Potential Bias in Data Collection

In undertaking a data collection and visualisation project on the cost of living crisis in the UK, it is crucial to address the ethical implications and acknowledge potential biases inherent in the process.

I know that I have a point to prove with the data I'm collecting, however I can't let that blind me with producing accurate data that is a true representation of the situation.

Ethics

Ethical considerations must extend to the individuals whose data is being collected, ensuring privacy and informed consent. By actively adhering to ethical principles throughout the data collection and visualisation process, the project can provide a more comprehensive and objective understanding of the cost of living crisis, and foster a greater level of trust and credibility among its audience. I did not collect user's email addresses.

Adjusting for Inflation?

It came across to me that I should maybe subtract the rate of inflation from the percentage increase to possibly get a more accurate representation on prices of goods increasing.

However I decided not to as the inflation is part of the cost of living crisis - and I believe that leaving it in will more objectively translate the effects of the cost of living crisis.

Going Forward

[1] Data Collection (in-person):

I then got started on collecting data from CCI students wandering around the 5th floor, the feedback I recieved on what I'm doing was positive which is nice.

I got unique data from 17 different people



[2] First draft of data in excel:

| No | Username | Establishment/Store | City/Town | Address | Postcode | Latitude | Longitude | Item/Order | Original Date Rec'd/By/Type | New Date/Type | Price Paid (£) | New Date/By/Type | New Amount Paid | Price Change | % Increase |
|----|-----------------|----------------------------------|------------|--|----------|------------|-----------|--------------------------------|-----------------------------|---------------|----------------|------------------|-----------------|--------------|------------|
| 1 | George Remondis | Perfect Fried Chicken | London | 287 Newbury Rd, London N19 4HR | N19 4HR | 51.5494872 | 0.1145102 | 4 Wings & Chips | 01/11/2021 | 2021 | 20.00 | 04/04/2022 | 2022 | 3.0 | 20 |
| 2 | George Remondis | Fattie Island | London | 40 Carlisle St, London SE5 8QT | SE5 8QT | 51.478033 | 0.0895104 | 1 Fatty | 18/10/2022 | 2022 | 3 | 05/04/2023 | 2023 | 3.5 | 50 |
| 3 | George Remondis | Ku's Chicken and Indian Takeaway | London | 285 South Street Rd, Redbury Park, London N4 2JH | N4 2JH | | | 4 Wings & Chips | 01/11/2021 | 2021 | 4 | 05/04/2022 | 2022 | 4 | 100 |
| 4 | Barney Gustin | Big L | Woking | | | | | Chop Burger | 05/01/2020 | 2020 | 8.99 | 18/11/2021 | 2021 | 8.99 | 25.662557 |
| 5 | Barney Gustin | Food & Wine Shop | London | Waltham | | | | 11 Eggs | 04/01/2020 | 2020 | 8.99 | 05/01/2021 | 2021 | 5.99 | 33.640000 |
| 6 | | Wendy Wilky | London | New Cross Road, London | SE14 6AG | | | Katsu Burger | 22/08/2022 | 2022 | 8.99 | 01/04/2023 | 2023 | 12.99 | 44.662767 |
| 7 | Lucy Thompson | McDonalds Food Store | London | | N19 4HT | | | Quarter Fudgins | 05/11/2021 | 2021 | 5 | 05/04/2022 | 2022 | 5.5 | 10.000000 |
| 8 | Paul Ruffell | Thorn Market | Warrington | | WA6 6LE | | | Swish Mx Bag | 04/05/2022 | 2022 | 6.5 | 04/04/2023 | 2023 | 7 | 7.692308 |
| 9 | Paul Ruffell | Doris Market | London | Warhamston, Boundary Road | SE17 | | | Purple | 11/10/2021 | 2021 | 1.99 | 05/04/2022 | 2022 | 2.99 | 50.251256 |
| 10 | Robert Symonds | Beira Southington | London | 28 Sunning Road | SE20 3HR | | | Pure Dip | 15/01/2020 | 2020 | 7 | 11/01/2021 | 2021 | 7.5 | 7.142857 |
| 11 | Ashley Polson | Submarine Deli | London | 172 New Kent Rd, London SE1 4AG | SE1 4AG | | | 1/2 Submarine Chicken, salad & | 01/04/2021 | 2021 | 5.99 | 01/04/2022 | 2022 | 8.99 | 50.000000 |
| 12 | Neil Wang | Pathways Printing, PSL Ltd | London | 91 1st | W1 1JF | | | Publication printing | 06/05/2020 | 2020 | 3 | 05/04/2022 | 2022 | 8.99 | 19.97 |
| 13 | Stefi Wilson | St James Supermarket, London | London | 13 Swan Walk, London N1 1JF | W1A 1JF | | | Yoghurt | 01/05/2021 | 2021 | 2 | 04/04/2022 | 2022 | 2.4 | 20 |
| 14 | Scott Kinnear | Submarine Deli & Deli | London | | SE16 3HR | | | Chicken Wrap | 01/04/2022 | 2022 | 9 | 01/04/2023 | 2023 | 6.4 | 30 |

[3] Data Quality & Iteration:

I got back good data, with values that show that a wide range of percentage increases: as low as 20% up to 100%!

However I've recieved data from different timescales (change over 1 year - 11 years) therefore I needed to represent the increase more accurately.

[4] % Increase per Year

| Current | % Increase | % Increase per year |
|---------|------------|---------------------|
| 2.5 | 25 | 12.5 |
| 1.5 | 50 | 50 |
| 4 | 100 | 50 |
| 4.99 | 25.062657 | 8.354218881 |
| 5.99 | 20.04008 | 20.04008 |
| 2.95 | 44.692737 | 44.69273743 |
| 5.5 | 83.333333 | 83.33333333 |
| 2 | 300 | 27.27272727 |
| 2.99 | 50.251256 | 25.12562814 |
| 1.5 | 50 | 50 |
| 8.99 | 50.083472 | 25.04173623 |
| 8.99 | 79.8 | 19.95 |
| 2.8 | 40 | 20 |
| 6.5 | 30 | 30 |

Therefore I added a new column, one that shows Percentage Increase Per Year, which is the % increase divided by years past. This created a better representation on the cost of living is going up right now rather than over time.

Going Further:

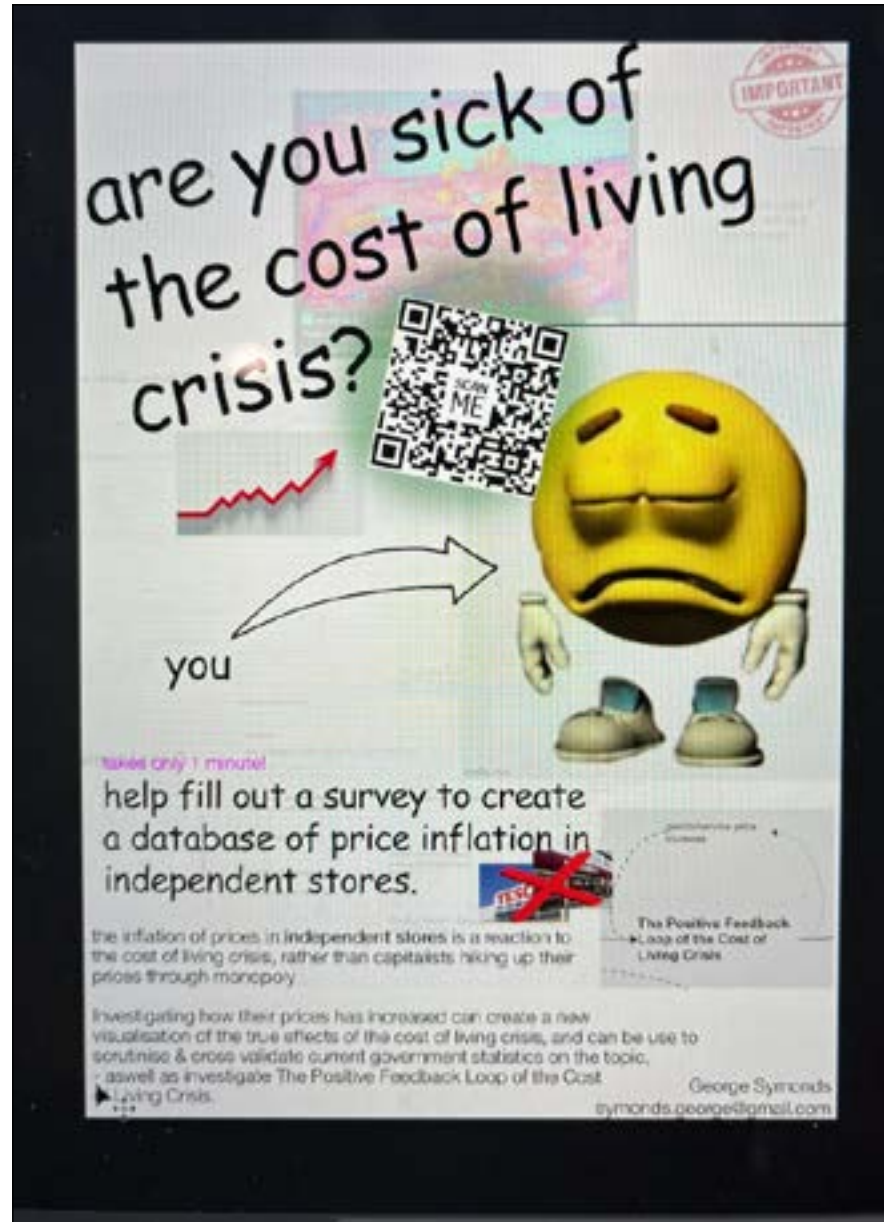
[1] Remote Data Collection (Posters + Online Form):

Now that I had some data, I needed more - quicker than me going around collecting it one by one. So I needed to make a poster that links to a form document with a qr code.

[2] The Poster:

The poster needed to be eye-catching and bring in passer-bys to read it and want to help me out. Which is why I designed it to look absurd - almost meme like to make people question "why is this here?" then the question - "Are you sick of the cost of living crisis" is one that almost anyone could instantly relate to and make viewers understand that my project is self-beneficial for them.

Once their attention has been caught, I added text and the bottom that explains what this project is about and what they need to do ->.



THE USER-FILLED FORM

Investigating & Interrogating the Cost of Living Poly-Crisis

made on google forms

<https://forms.gle/NZzZUH6s8TTLDPYu8>

Investigating & Interrogating the Cost of Living Poly-Crisis:

The Positive Feedback Loop of the Cost of Living Crisis:
How Has the Cost of Living Crisis Been Manufactured?

symonds.george@gmail.com [Switch accounts](#)

Not shared

* Includes required question

example of current data recorded:

| Establishment | Item/Service | Original Price (£) | Original Date (DD/MM/YYYY) | Current Price (£) | Current Date (DD/MM/YYYY) |
|---------------|--------------|--------------------|----------------------------|-------------------|---------------------------|
| ... | ... | ... | ... | ... | ... |

Data needed:

- Name of Independent Store/Establishment
- The Item/Service for sale (i.e. Chicken, Haircut, Menu Item, Eggs, Printing Cost, etc...)
- Original Price of Item/service sold (past)
- Original Date (DD/MM/YYYY)
- Current Price of Item/service (to calculate % increase)
- Current Date (DD/MM/YYYY)

The Data will be used to get a new visualisation on the impacts of the cost of living crisis, and can be used to cross-reference & scrutinise public governmental data on the topic.

View my research here: <https://www.comicbookresources.com/2022/07/22/2022-07-22-01/>
Share Link: <https://forms.gle/NZzZUH6s8TTLDPYu8>

Establishment/Store *

Your answer

Address: *

Your answer

Name of Item/Service for sale *

Your answer

Original Price (£) + Original Date (DD/MM/YYYY)

Your answer

Current Price (£) + Current Date (DD/MM/YYYY) *

Your answer

Your Name:

Your answer

Thank you 🙏

Sticking The Poster on Walls and on Bus-stops



The Poster In Space:

(Left) I printed the posters out and got to sticking

I placed them in visible high-traffic areas of CSM, and out in the streets in places where people would be waiting and have free time (bus-stops).

User Feedback

I watched some of the posters after sticking them on the wall, to see if it would catch people and response I got was instant! People would stop walking, look at the wall and read it for half a minute

Issues

Even though people would read it, I didn't catch anyone actually stop pull out their phone and help out in person :(Which was kind of disappointing, but to be expected.



Readings From the Data

The Final Dataset:

| No | Just Input | Product/Service/Store | City/Town | Address | Postcode | Latitude | Longitude | Item/Service | Original Date (DD/MM/YY) | Year (20..YY) | Price (20..£) | Date (DD/MM/YY) | Year (Current YY) | Price (Current £) | % Increase | % Increase per year | |
|----|-------------------|-----------------------------------|------------|--|----------|------------|------------|-------------------------------|--------------------------|---------------|---------------|-----------------|-------------------|-------------------|------------|---------------------|----------|
| 1 | George Simonds | Perfect Fried Chicken | London | 287 Hemsay Rd, London N19 4RN | N19 4RN | 51.5634872 | -0.1181303 | 6 Wings & Chips | 05/11/2021 | 2021 | | 3 | 04/04/2023 | 2023 | 3.5 | 25 | 12.5 |
| 2 | George Simonds | Patty Island | London | 40 Carlsberg Church St, London SE5 8QZ | SE5 8QZ | 51.4738093 | -0.0809906 | 1 Patty | 15/12/2021 | 2021 | | 1 | 05/04/2023 | 2023 | 1.5 | 50 | 50 |
| 3 | George Simonds | Pat's Chicken and Indian Takeaway | London | 265 Seven Sisters Rd, Hestbury Park, London N4 2DR | N4 2DR | 51.564488 | -0.10481 | 6 Wings & Chips | 01/11/2021 | 2021 | | 2 | 04/04/2023 | 2023 | 4 | 180 | 50 |
| 4 | Stanley Lucas | Big J | Leeds | | | | | Chip Curry | 05/07/2020 | 2020 | 3.99 | 18/11/2022 | 2022 | 4.99 | 25.04264 | 8.354218881 | |
| 5 | Stanley Lucas | Food + Wine Shop | London | 54 Westbury Road, Millwall, U9 0DN, E14 8JW | | 51.49884 | -0.01007 | 32 Eggs | 04/01/2023 | 2023 | 4.99 | 05/03/2023 | 2023 | 5.99 | 20.04068 | 20.04068 | |
| 6 | Elie | Stacy's Bakery | London | New Cross Road, London | SE14 6AS | 51.47161 | -0.05025 | Curry Burger | 11/06/2021 | 2021 | 8.95 | 01/04/2023 | 2023 | 17.95 | 84.69174 | 84.69174 | |
| 7 | Julie Thompson | Willoway Food Store | London | 535 Holloway Rd, Archway, London N19 4BT | N19 4BT | 51.56119 | -0.11603 | Laundry fabric | 05/11/2021 | 2021 | | 1 | 04/04/2023 | 2023 | 5.5 | 81.18333 | 81.18333 |
| 8 | Hadi Rachid | Thom Marine | Warrington | | WA9 6LE | | | Sweet Mix Bag | 04/09/2021 | 2021 | 0.5 | 04/04/2023 | 2023 | 2 | 300 | 27.1212121 | |
| 9 | Hadi Rachid | Deniz Market | London | Walthamstow, boundle road | E17 | 51.57604 | -0.01529 | Pingles | 11/10/2021 | 2021 | 1.99 | 05/04/2023 | 2023 | 2.99 | 50.25126 | 25.1251264 | |
| 10 | Emurch Simpson | Kona Sourdough | London | 25 Darnley Road | SE21 1HN | 51.48823 | -0.05414 | Pasta Dip | 15/01/2021 | 2021 | | 1 | 12/05/2023 | 2023 | 1.5 | 50 | 50 |
| 11 | Arthur Polton | Japanese Grill | London | 173 New Kent Rd, London SE1 4AG | SE1 4AG | 51.49442 | -0.09008 | 1/2 Bonitos Chicken, salad & | 01/04/2021 | 2021 | 5.99 | 01/04/2023 | 2023 | 8.99 | 50.08147 | 25.04171621 | |
| 12 | Naye Wang | Panopus Printing PMS Ltd | London | 11 Swan Walk, London W1 1SD | W1 1SD | 51.54513 | -0.10885 | Publication printing | 03/09/2021 | 2021 | | 5 | 04/04/2023 | 2023 | 8.99 | 79.8 | 18.95 |
| 13 | Julia Urbica | St James Supermarket London | London | 181 Southwark Park Rd., London SE16 3TX, United K | SE16 3DN | 51.49494 | -0.05762 | Togurt | 01/08/2021 | 2021 | | 2 | 04/04/2023 | 2023 | 2.8 | 40 | 20 |
| 14 | Isak Ramirez | Japanese Palace n Grill | London | 183 Rotherhithe New Rd, London SE16 2BE, U | SE16 2BE | 51.49074 | -0.05329 | Chicken Shwarma | 01/04/2021 | 2021 | | 5 | 07/04/2023 | 2023 | 1.5 | 30 | 30 |
| 15 | Josephine | Wes Hair Salon | London | 8 Ravey Street, Shoreditch, London EC2A 4QZ | EC2A 4QZ | 51.52488 | -0.0802 | haircut + bleach | 05/08/2021 | 2021 | 800 | 04/04/2023 | 2023 | 400 | 51.18181 | 51.18181818 | |
| 16 | Ariana Jenkins | Devo Supermarket | London | 55 New N Rd, London N1 6JB, United Kingdom | N1 6JB | 51.53854 | -0.09004 | Sun | 01/08/2021 | 2021 | 80 | 04/04/2023 | 2023 | 85 | 41.86667 | 41.86666667 | |
| 17 | Kana Iain | Nap Head Pudding | London | 231 Rye Ln, London SE15 4TP | SE15 4TP | 51.46776 | -0.04684 | Double courgette cake | 01/10/2021 | 2021 | 4.3 | 07/04/2023 | 2023 | 6 | 39.33333 | 39.33333333 | |
| 18 | Se Kozal | Le Pain Quotidien | London | 72-75 Marylebone High St, London | W1U 5JW | 51.52123 | -0.15213 | Croque Monsieur | 13/03/2021 | 2021 | 13.5 | 04/04/2023 | 2023 | 14.5 | 7.407407 | 7.407407 | |
| 19 | Aura Anil | Laura Nails | London | 34 Couch Rd., Finsbury Park | N4 4AG | 51.5798 | -0.11549 | acrylic nails | 01/03/2021 | 2021 | 25 | 04/04/2023 | 2023 | 40 | 60 | 60 | |
| 20 | Apple | Ugly dumping | London | 1 Newbough St, Canaby, London W17 7TB, United K | W17 7TB | 51.51384 | -0.18863 | 6 dumplings | 06/06/2022 | 2022 | 6.5 | 04/04/2023 | 2023 | 7 | 7.692308 | 7.692307692 | |
| 21 | Kim | HLG Mini Market | London | 19 The Broadway, High Rd, London N12 6DS | N12 6DS | 51.60689 | -0.11185 | Coriander | 01/09/2021 | 2021 | 0.7 | 04/04/2023 | 2023 | 1.3 | 71.42857 | 35.71428571 | |
| 22 | Irene Liskhovenko | Mac Cosmetics | London | 27 James St London WC2E 8PA England | WC2E 8PA | 51.5124 | -0.12171 | Ruby Woo retro matte lipstick | 30/11/2021 | 2021 | 17.5 | 04/04/2023 | 2023 | 30 | 14.28571 | 7.142857143 | |

Here's the final set of data I received! (as of 7/6/2023), I got results back from 22 individuals.

Concerns With Data:

While Formatting my data, I came across an important realisation. Although the data shows the increase in prices for certain goods and services, that in itself is not a true representation of the increase in cost of living, as some some in the data more essential than others.

I feel though this data still has a lot of value (as neither is the government data), as it sheds new light on the positive feedback loop of the cost of living crises. It's just important to address my concerns in data when creating a dataset.

Visualising the Data + Comparing it to Government Data:

Progression:

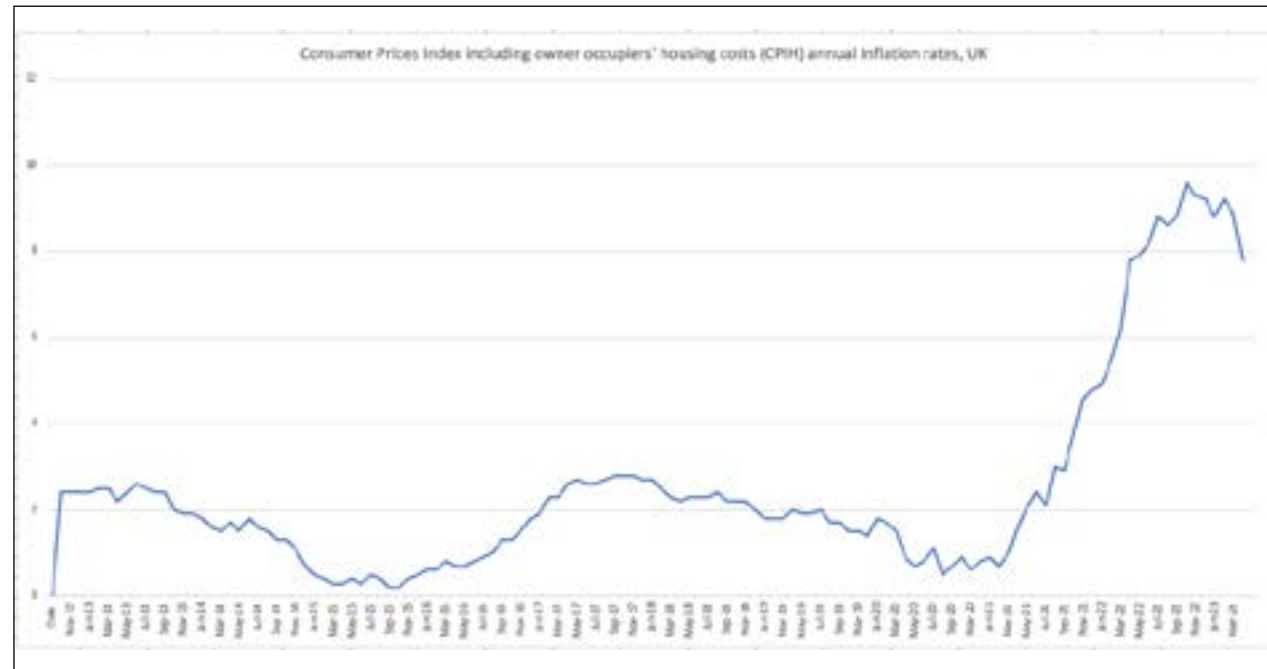
I found a dataset by the ONS, on the increase in inflation and prices.

I used this data as the UK Parliment uses it to research the Rising cost of living in the UK.

<https://www.ons.gov.uk/economy/inflationandpriceindices/articles/costofliving/latestinsights>



I visualised their data on the annual inflation rates of the CPI in excel:



(Above) The CPI, or Consumer Prices Index including Owner Occupiers' Housing Costs, is a measure of inflation used and by the UK government, and regulated by the Office for National Statistics. It aims to capture the overall price changes of a basket of goods and services, including housing costs for owner-occupiers. The calculation of CPIH involves several steps:

Establishing a representative “basket” of goods and services: The UK Office for National Statistics (ONS) selects a diverse range of products and services that represent the spending habits of the average household. This includes items like food, clothing, transport, housing, and leisure activities. **Collecting price data:** for the selected goods and services on a regular basis. **Weighting the items:** Each item in the basket is assigned a “weight” based on its relative importance in spending. based of a survey in consumer spending patterns. **Calculating price changes:** they compare the current prices of the items in the basket to their prices in a reference period (usually a specific year). The percentage change in prices is calculated for each item. **Aggregating the price changes:** The individual price changes are combined using the assigned weights to calculate an overall inflation rate.

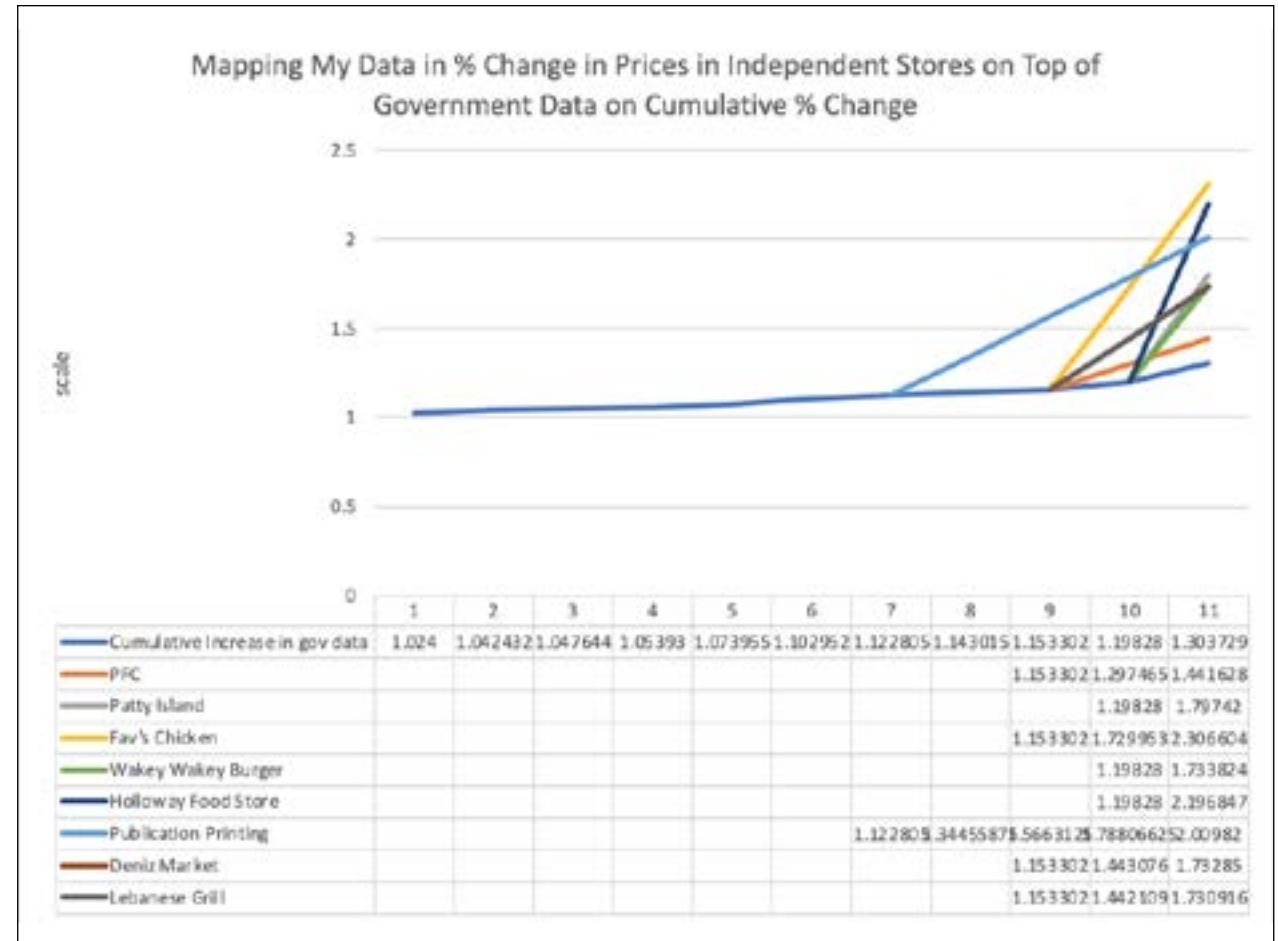
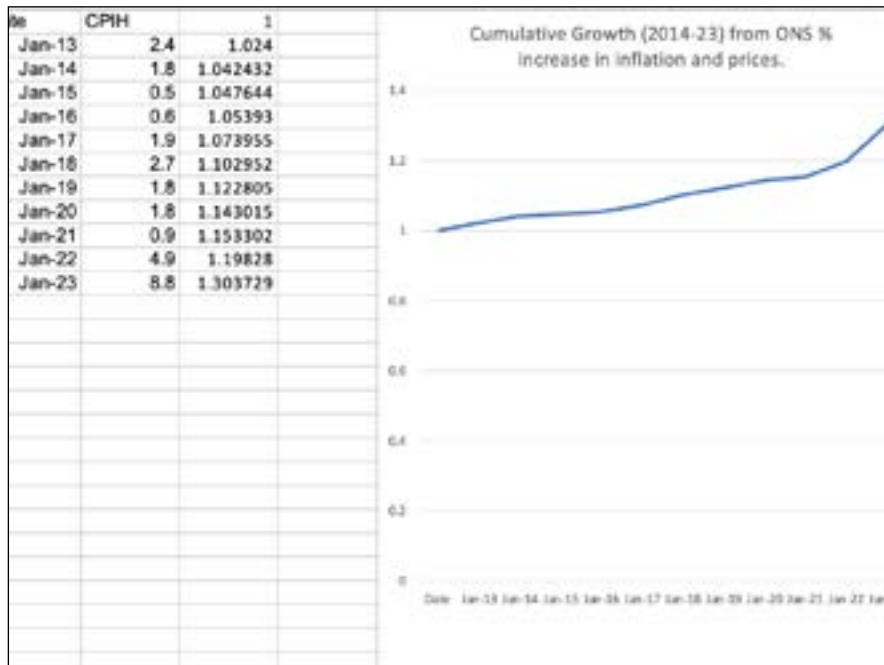
Mapping my data against government data

How I Could Develop My Dataset Further

I converted the percentage% change data in the government data to cumulative increase (**Below**) data (assuming jan-2013 is 1), which paints a very different picture of exponential growth.

$$\% \text{ increase} = 100 \times \frac{(\text{final} - \text{initial})}{|\text{initial}|}$$

From there I mapped my percentage% increases in independent stores on top of the government data (**Right**). I used their data as a starting point for the first recorded year), and forked off with my %+.



As you can see the results were that the prices in independent stores have increased on a scale larger than what the government data has proposed the Increase of prices to be.

Interactive 2D Visualisation of My Data:



| Establishment | Item/Service | Latitude | Longitude | N Increase p |
|---------------|---------------|-----------|-----------|--------------|
| Perfect Fried | 4 Wings & C | 51.563487 | -0.11853 | 12.5 |
| Patty Island | 1 Patty | 51.473803 | -0.089951 | 50 |
| Fav's Chicken | 6 Wings & C | 51.56488 | -0.10431 | 50 |
| Food + Wine | 32 Eggs | 51.49884 | -0.02607 | 20.04008 |
| Wakey Wake | Katsu Burger | 51.47741 | -0.05025 | 44.692737 |
| Holloway Fo | Laundry Tab | 51.56219 | -0.12603 | 81.333333 |
| Deniz Marke | Pringles | 51.57604 | -0.01629 | 25.125628 |
| Bona Sourd | Pizza Dip | 51.43823 | -0.05414 | 50 |
| Lebanese Gr | 1/2 boneles | 51.49442 | -0.09008 | 25.041736 |
| Panopus Pri | Publication | 51.54513 | -0.10385 | 19.95 |
| St James Sup | Yogurt | 51.49434 | -0.05762 | 20 |
| Lebanese Fal | Chicken Shw | 51.49074 | -0.05329 | 30 |
| Haco Hair Sa | haircut + ble | 51.52468 | -0.082 | 33.333333 |
| Zeyno Super | Gum | 51.53834 | -0.09204 | 41.666667 |
| Nags Head P | Double cour | 51.46776 | -0.06684 | 33.333333 |
| Le Pain Quot | Croque Mon | 51.52123 | -0.15213 | 7.407407 |
| Laura Nails | acrylic nail | 51.5708 | -0.11549 | 60 |
| Ugly dumg | 6 dumplings | 51.51364 | -0.13863 | 7.6923077 |
| Y&S- Mini M | Corlander | 51.60689 | -0.11135 | 35.714286 |
| Mac Cosn | Ruby Woc | 51.5126 | -0.12373 | 7.1428571 |

Here I've mapped the data I've recorded onto a map (using mapbox). To visually show the rate of increase between different regions of London.

It seems like prices have increased at a larger rate at the outskirts of London compared to central. However I do not have enough data points to conclude any patterns, this probably happened for many reasons such as the stores selling different things instead of a correlation. I need more data to get anything useful out of this, but it's still interesting.

Webpage:

It's important the research and data I've created is accessible to everyone, open, and transparent.

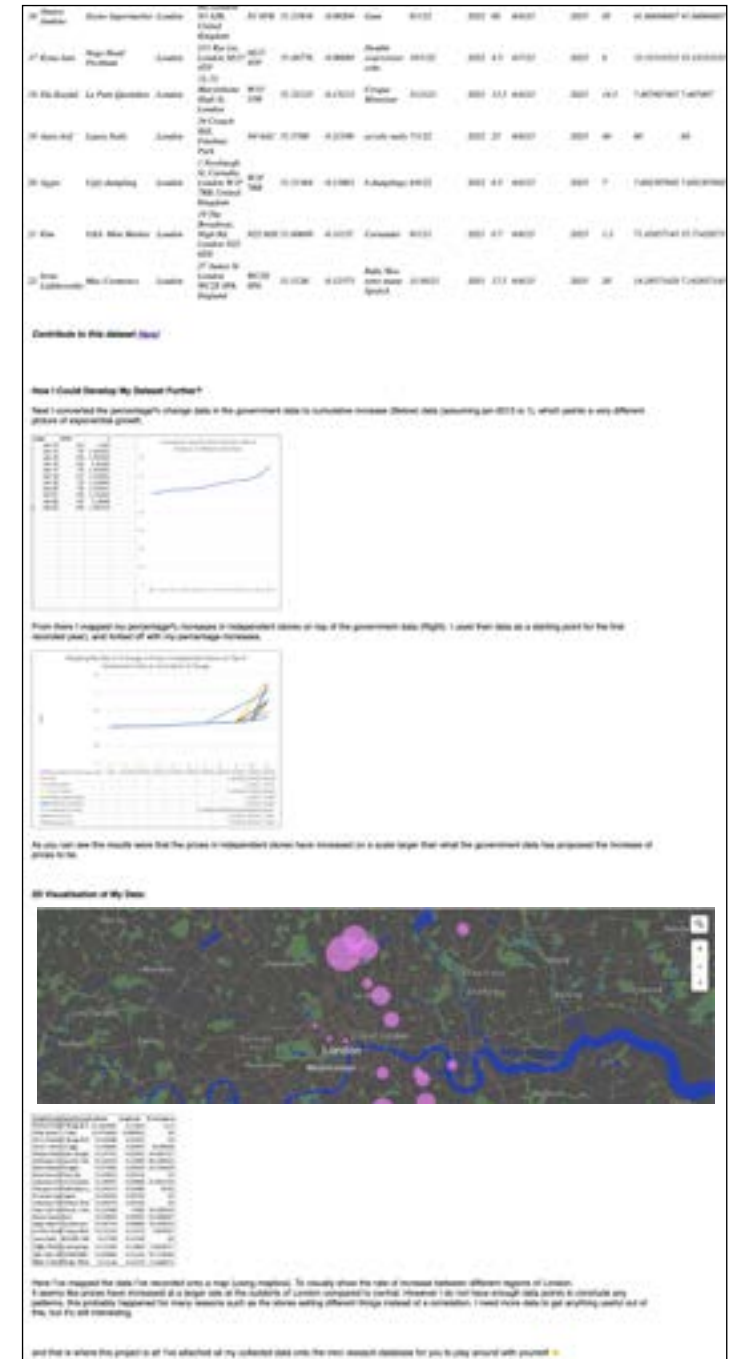
So I've made a webpage on my website dedicated for all of the work I've done, that guides users thorough my process from beginning to end, on what I've done and why I've done it.

Here:

<https://gsymonds1.github.io/pages/CI/index.html>

FINAL WEBPAGE

*Investigating & Interrogating the
Cost of Living Poly-Crisis:
2023*



Evaluation + Reflection:

The Present:

In this critical reflection, I will explore my critical infrastructures project, examining what I achieved, how I reacted to challenges along the way, and propose ideas for future developments.

I am happy with what I have accomplished, as well as achieving almost everything I wanted to do in my aims. This project has allowed me to learn a wide range of new skills in data collection, recording, and visualisation. Data is a really interesting media of art, and now I've got this project to inspire my future ones it's looking good.

At the beginning of project I'd find myself frustrated with sifting through loads of data, trying to find the theme of my project, but I'm happy with what I went with (I almost decided I'd go to every park in London to record the quality and quantity of them)

maths

- calculating cumulative increase from percentage increase was complicated, but I overcame it by using online calculators to calculate what it was one by one.



[2] Challenges Faced: The Map Visualisation

Although it looks cool on the webpage and is interactive, I did not have enough data for this visualisation to result in any interesting conclusions. Which is a shame, I didn't get as many responses from creating the online forms as I wished. But this map is easy to update so I aim to continue collecting data.

Future Project proposals

Next Steps and Future Developments:

2 Months from now I want to go back to all these recoded places, two get a second reading of prices to see if they've gone up or have stayed the same. This would enrich my data and give me new opportunities of ways I could visulise it.

I also will continuing updating my research database - sharing it and making it public. Next year for my final year at uni I will be using it to piece together a video documentary on the cost of living crisis - which I've been working on for a long time.

