

Introduction to Londonmapper

<http://www.londonmapper.org.uk/>



Londonmapper offers some fresh perspectives on the city of London for teachers and students. The site is a development of the technology and approach which was developed as part of the well known Worldmapper website:

<http://www.worldmapper.org/>

This brought Ben Hennig's distinctive and intriguing cartograms to the attention of many geography teachers.

From the Welcome to Londonmapper page:

We've never had so much data. At Londonmapper we don't aim to collect more, but to show these existing numbers in a new light. We're building on the hugely successful Worldmapper website which produced images revealing social inequalities on a global scale. This is the first time we're applying the same, though more advanced, techniques to a **city**.

In many ways London is the world in one city, super diverse in the variety of communities living here. But it's also massively **unequal**. **Just take life expectancy: the difference between Hackney and the West End is the same as the difference between England and Guatemala**. The city has many disparities like this, though few are inevitable or insurmountable.

Our aim is to show these inequalities, as well as the issues on which we're more equal. We've taken data, mainly from government sources, on hundreds of different social, economic and environmental issues and created maps that are distorted according to what the numbers mean; for example, if it's much more expensive to rent in Westminster than in Enfield, then the borough of Westminster will be stretched out and be larger on the map than Enfield. We've also created several ways of seeing the same data, and **all of the numbers are available in traditional spreadsheets** for those who want to dig a bit more.

Too often we're unaware of the extent of inequalities within the city, or are presented with images, where, for instance, poor areas look small on the map because often they are crowded areas that become underrepresented in conventional maps. As a result we may think of poverty and inequality as problems which just blight the lives of a few people and that London is just a place for the very wealthy. Londonmapper will attempt to address some of these common misconceptions.

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Currently there are over 300 cartographic images that show London since the start of the new century. They cover issues such as the number of people not in work, air pollution and house prices – there's even one on hedgehogs! We'll be adding many more maps over the coming months. On a number of issues we'll be showing how the city has changed over time suggesting how London might change in the future if those trends continue.

We also plan to include comparisons to other world cities such as New York, Tokyo, Berlin and Paris. This will be limited to a smaller range of issues, but will highlight some of the stark differences, as well as the similarities. The site is an ongoing work and there are many more exciting new visualisations and commentaries to come.

Londonmapper has been created by [Danny Dorling](#) and [Benjamin Hennig](#), based at the University of Oxford.

It has been funded by [Trust for London](#). The Trust is the largest independent charitable foundation funding work which tackles poverty and inequality in the capital. A key area of its work is supporting projects providing greater insights into the root causes of London's social problems. Londonmapper is part of this work. In a world awash with data we hope it provides a new way to scan across all the detail to get a better overall impression of what it is we should know and care about.

Resources

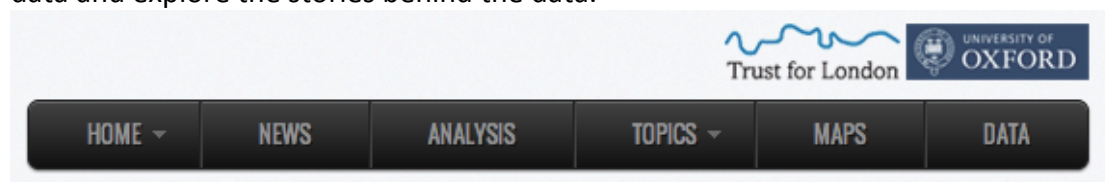
- The first thirty minutes of the site
- Londonmapper Home page map (PPT)
- Welcome to London – using our maps in the KS3 Geography Curriculum 2014
- Future Urbanists Unit

The first thirty minutes

Enter the Londonmapper URL into a browser: <http://www.londonmapper.org.uk/>
You will be taken to the home page of the website – see the **Home Page** map (PPT) for details of the elements of the page.

A **scrolling set of dynamic images** appears at the top of the page: one of these will take you to a Welcome page if required, where you can find more information about the website. Others are relevant to recent updates or changes, or highlight other features of the website. Click these images to visit the appropriate page.

The **ANALYSIS** page offers a chance to get a more in-depth look at some of the ideas that underpin the site: to explore some of the inequalities that are unearthed by the data and explore the stories behind the data.



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The first point of call is the **TOPICS** area. Click the **MAP TOPICS** button top right, to open the **MAPS** page.

This provides a short summary, and lists the nine topics which are available at the moment. These have been designed to link with the main aspects of urban life.

- Education
- Environment and Travel
- Health
- Housing
- Identity
- Population
- Poverty and Health
- Social Harm
- Work

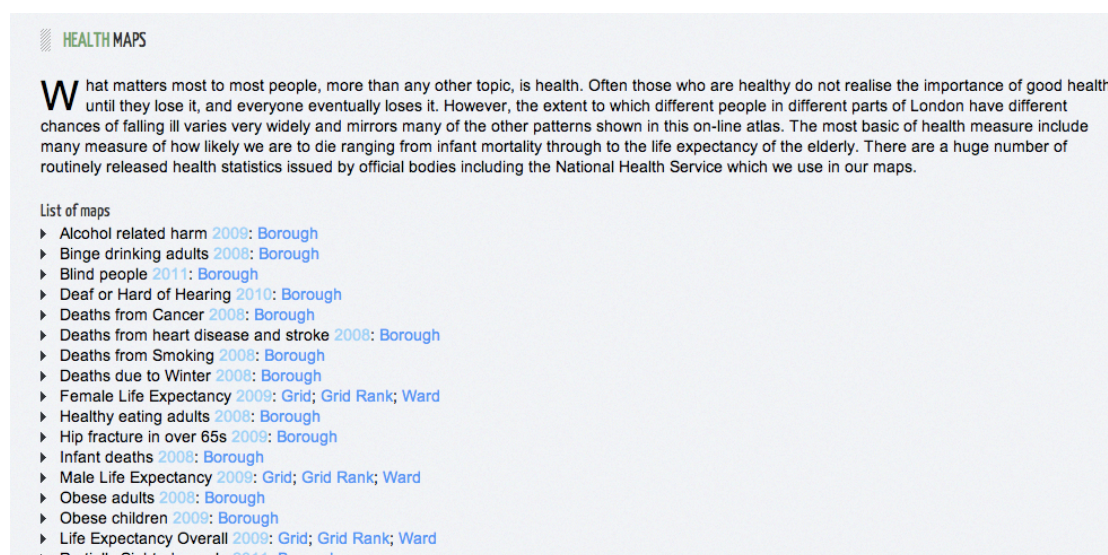


Topics

- Poverty and Wealth
- Population
- Identity
- Housing
- Education
- Work
- Health
- Environment & Travel
- Social harm

Click on a topic which is of interest to you, e.g. **HEALTH**.

This brings up a list of maps, as shown below.



HEALTH MAPS

What matters most to most people, more than any other topic, is health. Often those who are healthy do not realise the importance of good health until they lose it, and everyone eventually loses it. However, the extent to which different people in different parts of London have different chances of falling ill varies very widely and mirrors many of the other patterns shown in this on-line atlas. The most basic of health measure include many measure of how likely we are to die ranging from infant mortality through to the life expectancy of the elderly. There are a huge number of routinely released health statistics issued by official bodies including the National Health Service which we use in our maps.

List of maps

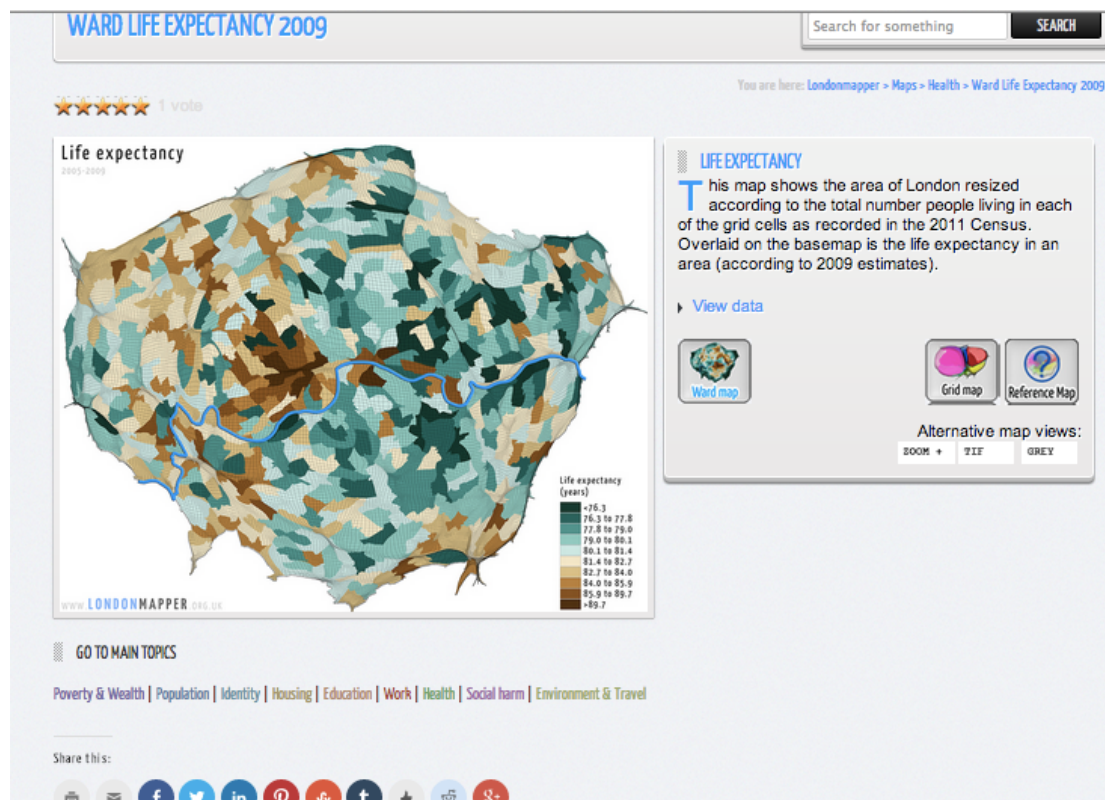
- ▶ Alcohol related harm 2009: Borough
- ▶ Binge drinking adults 2008: Borough
- ▶ Blind people 2011: Borough
- ▶ Deaf or Hard of Hearing 2010: Borough
- ▶ Deaths from Cancer 2008: Borough
- ▶ Deaths from heart disease and stroke 2008: Borough
- ▶ Deaths from Smoking 2008: Borough
- ▶ Deaths due to Winter 2008: Borough
- ▶ Female Life Expectancy 2009: Grid; Grid Rank; Ward
- ▶ Healthy eating adults 2008: Borough
- ▶ Hip fracture in over 65s 2009: Borough
- ▶ Infant deaths 2008: Borough
- ▶ Male Life Expectancy 2009: Grid; Grid Rank; Ward
- ▶ Obese adults 2008: Borough
- ▶ Obese children 2009: Borough
- ▶ Life Expectancy Overall 2009: Grid; Grid Rank; Ward
- ▶ Partially Sighted people 2011: Borough

You will see for each map, the age of the data that is used to create the map, which could vary between 2008-11

The area shown on the map is also shown – for some this is a London Borough, for others, this is for the Wards used in elections.

For some maps, the format is a Grid or Grid Rank instead of / in addition to the usual map. We will explain what that means in a later section of the resource.

If we select the map on **LIFE EXPECTANCY**, choosing **OVERALL**, and at a **WARD** level, the page for that map will be displayed, as shown below:



Please note that a WARD map might be harder to interpret than a BOROUGH map as the areas covered are smaller, and there may be more variation in the colours used to display the data. This increase in detail accompanying the change in scale is called **granularity**, and is a feature of all maps which are scalable. One thing to remember when studying cities is that ultimately they are places where stories combine, and each individual person living in a city adds to these stories and contributes to the whole population. As one zooms out, the individual stories may be lost, but the trends within a sector of the population can be revealed. It is the analysis of the patterns of these trends, and the formulation of enquiry questions that arise from this which give rise to some exciting geography.

Click on a map and further options will appear on the top left:

ZOOM+ - see a larger copy of the map, almost full screen
TIF – automatically download a TIF image of the map
GREY – view the map in greyscale

Click the X in the bottom right to return to the main map page, once you have finished looking at the map.

To the right of the map image, you will also find a description of the contents of the map as a short paragraph of text.

The data that were used to create the map can be downloaded as well. These might be of interest for those who want to do additional analysis of the data using a spreadsheet program, or use it in other ways.


Each map can also be **shared** in various ways. Maps are made available under **Creative Commons** licenses, and one feature of this resource (and other similar projects completed by Ben Hennig) is that the maps are intended to be shared as widely as possible, to promote discussion on a (potentially) global scale.


Sharing options include Twitter, LinkedIn, Pinterest and Google+.


Each map can also be rated. A five star rating is possible for each map. This might be a way of remembering useful maps, and also guide decisions on which maps could be prioritised for future updates or tweaks of the data to increase accuracy.


Detail of each map type is also included on a dedicated page, so that any user who is uncertain about the nature of a map they are using can find further information. This may not need to be referred to.


Map types featured on Londonmapper

Borough maps
 The borough maps are cartograms that resize the boroughs of London according to the topic of the map. These are based on one single number for each borough, thus are the maps which provide the most general overview of how London is structured. These maps use the Londonmapper colour scheme shown in the map above allowing the boroughs to be identified in the map image.

Grid maps
 Grid maps are based on a gridded cartogram transformation of a certain topic. These provide the most detailed cartogram perspective of a topic because they show each individual grid cell in the map resized according to the information that is displayed in the map. The larger a grid cell, the higher is its corresponding data so that the dominating areas of a certain topic are shown as the largest areas in the map. Grid maps use the Londonmapper colour scheme shown in the map above allowing the boroughs to be identified in the map image.

Ward maps
 The gridded population cartogram shown above is the basis for the ward maps. Each ward map therefore shows London in its population shape, meaning that the least populated areas disappear from the map, while the most densely populated parts of the city are the largest areas in this map. The ward maps include an additional choropleth layer showing additional information in relation to the population distribution. A legend in each map explains, what information the colours in the map show.

Rank maps
 Rank maps are an alternative map display of the Borough- and Grid maps. They provide additional statistical detail, while at the same time are more abstract with their yellow-green-blue shadings. These visualise how the particular topic is distributed in relation to relative shares across the city. The colours show the areas ordered by their particular shares so that unusual patterns in the distribution of the data become visible (going from yellow for the lowest via green to blue for the highest shares).

Reference map
 The reference map button brings you straight to this page here and allows you to compare the maps shapes to a population cartogram of London. The reference map also contains labels for the boroughs which have been removed in the other maps on this website to not obstruct the actual map image. Once you are familiar with the colours for each borough, you will be able to read the cartograms much easier.

A reference map has been provided for comparison. This map shows the true areal extent of each London borough, which can be compared with the cartograms if required:

<http://www.londonmapper.org.uk/maps/reference-map/>

This might be useful for students who are unfamiliar with London in particular, and also to help new users of the site 'orient' themselves.

Finally, those who are interested in updates to the site can follow the project on Twitter: @LondonMapper

There is also a Facebook page, which provides links and information on updates to the site, and also suggests a Map of the Week and a Map of the Month.

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Click the FACEBOOK icon to go the page, and click LIKE if you would like to be kept up to date with further additions:

<https://www.facebook.com/londonmapper>

There are also links to some external websites which are related to the project.

The **LONDON.GOV** website provides a downloadable Excel template for London boroughs and wards:

<http://data.london.gov.uk/datastore/applications/excel-mapping-template-london-boroughs-and-wards>

This could be used alongside the data from the LondonMapper website to produce other maps. Students could be challenged to identify their own data to put into these templates and produce their own maps. This would support a trend for students becoming producers as well as/instead of consumers.

You can now start to go further into the site, but this half-hour primer has introduced the main elements of the website.