ROADS TO NOWHERE

How maps change the way we travel and experience the world around us

Google Maps started its life in February 2005 and became a mobile application in 2007, extending its reach and usability. By 2016, 700 trillion pixels of satellite data were added, and in 2020 the map helped combat COVID-19 by making case rates and vaccination centre data globally available. Along with this development, Google made millions of tiny changes to its maps and apps to ensure their ease of use, improving their data and increasing the number of ways we can interact with the map.

One of the most significant changes Google made is that it changed the number of cities that are shown on the map. Justin O'Beirne (2016) carefully documented the reduction in the number of city and town labels between 2010 and 2016, noting up to an 83% reduction in cities labelled — and it wasn't just small places that ceased to have labels. Some of the biggest cities in the USA disappeared. What is going on?

The first thing to note is that these place labels disappeared to be replaced by roads. The proportion of roads shown on Google Maps has grown significantly since 2010. This isn't because more roads have been built or because Google didn't know those roads where there, but it is because they have now been given preference over other things.

A map can only hold so much information, and when we are looking at a large area on a small screen, like on a smartphone, not all the information can be included. Google has moved from prioritising information about city names to making roads stand out more. What does it mean for how we use Google Maps for navigation? And how might it change our relationship with the world?

KEY RESOURCES

O'Beirne, J. (2016). What happened to Google Maps? (Online) From: bit.ly/3eNAyKT

Kobie, N. (2019). Why Google Maps and Citymapper are terrible for walking directions. (Online) From: bit.ly/3eQtxsl

Duggan, M. (2018) Navigational Mapping Practices: Contexts, Politics, Data. WPCC 13(2). From: bit.ly/3ETwSBO

Specht, D. (2018). Did you find the world, or did you make it up? WPCC 13(2). From: bit.ly/3ENQd7v

Inventing the world with maps

In his short essay, Justin O'Beirne makes some suggestions as to why these changes have happened. Because there is only enough space to include either cities or roads on most screens, the early versions of Google Maps had lots of cities that appeared to have no road connections at all. Although the newer version of Google Maps might have roads that seem to go nowhere, we know that there will be cities and towns along these roads.

As a tool for navigation, this makes Google Maps much better. We likely know the names of the places at which we are located (or can turn on our GPS), and we almost always know the names of the places we are going. We can pop these two pieces of information into Google Maps, and hey presto! We have our directions. Who cares what we will pass along the way, the names of towns we aren't visiting?

Researchers from the Turing Institute have suggested that navigating in this way might mean that we are not always taking the best routes. Google Maps is always looking for the fastest route but struggles to understand other things like air quality, how attractive the route is, or even whether it is fully accessible. Not only this, but researchers such as Chanuki Seresinhe suggest that we might be missing out on a lot of the world around us because it doesn't appear on maps.

When we look at a map, we often think of them as true representations of the world we live in. We know the people who made them would have been careful to be as accurate as they could be with the information included, and when we see that a road is just where they said it would be, then the map becomes in our mind a 'true' representation of the place in which we are located. But pause for a moment. Although the information that is shown is accurate, what about what is missing? The person making the map must make lots of choices about what to include and what to leave off. If we tried to include all of the data we have about a place, a map would be so crowded it would be useless. So, maps make choices, which are most often informed by their usage but which can have unintended consequences too.

The way Google Maps has changed can lead us to ask lots of research questions about what maps are for and how they change our interactions with everyday life. Every map we read has a different set of data included. Some might prioritise roads, and others might include more information about hills and paths. Try out the activities on this page to explore this further.
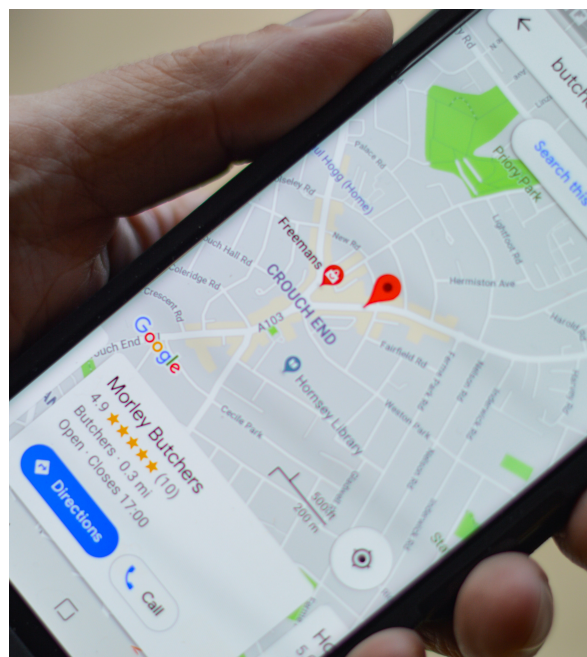
ACTIVITIES

1. Visit the National Library of Scotland map comparison site and try comparing some maps from different periods: bit.ly/3sW6PYt

2. Set one map to be 'OS One Inch, 1885 - 1900 – Online' and the other to be 'OS Maps API'. These are both maps made by Ordnance Survey (The UK Mapping Agency), but they look quite different. Think about the following questions:
   i. What are the key features shown on each map?
   ii. What do you think the mapmakers prioritised when making the map?
   iii. Which map is easier to use for navigation by a) car and b) foot?
   iv. What do you think we can learn about how people lived in 1885 by comparing these maps?

3. If you were going to make a map of your local area, what would you include and why? What would you leave off? How might you find out what other people need on a map?

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