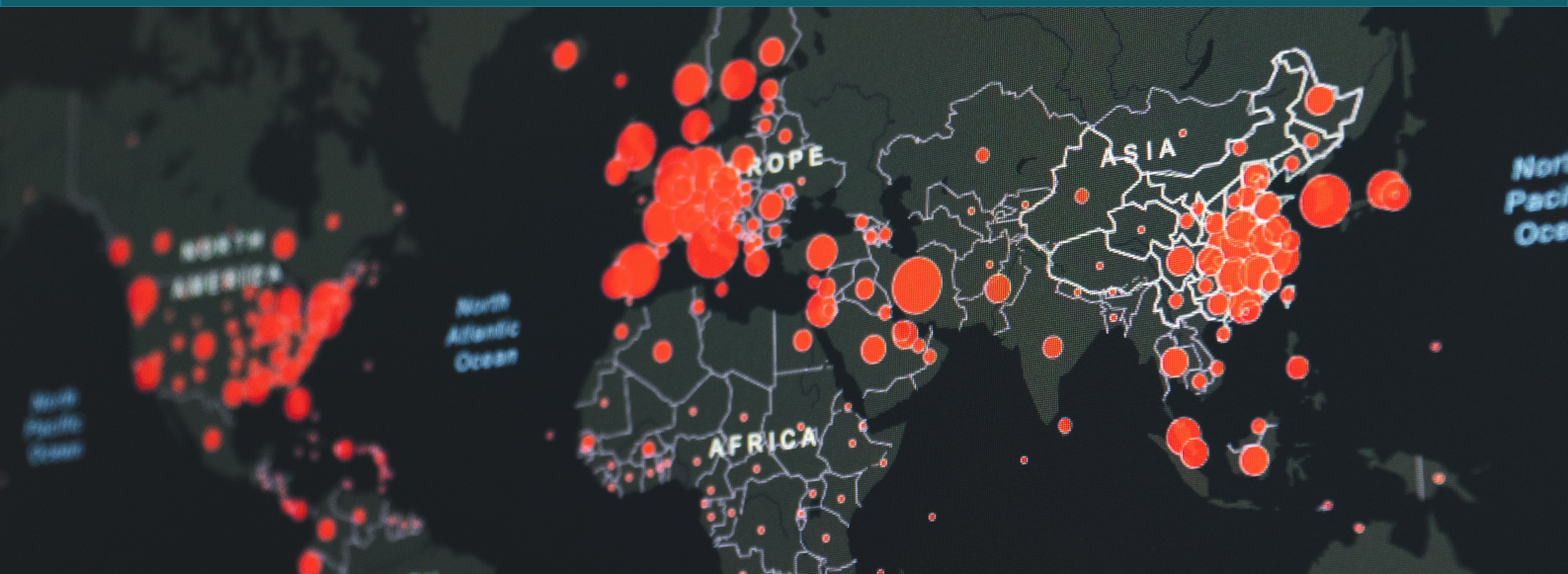


ETHICS AND GEOSPATIAL DATA

Applying ethical frameworks to your geospatial data collection and analysis



The last 10 years have seen a massive explosion in the amount of geographic data that is processed and collected. It has also seen a huge increase in the number and types of companies who are involved in using and analysing this kind of data. From the data collected through smartphones, Fitbits, public transport and satellites or uploaded online by people, companies from Meta to Google to local government and even schools are keen to get their hands on as much as they can.

2.5 quintillion bytes of data are now created every single day, and much of this is geographic data or has geographic data attached to it. As companies and organisations scramble to use this data for everything from fighting COVID-19 to making driverless cars to predicting what you might like to buy, people have started to question how ethical it is to collect and use this data.

From a concern that lots of data is collected that shouldn't be, that data is used in ways that are not appropriate, or that data is sold without people knowing about it, 2021 saw the development of two new ethical frameworks for using geospatial data. The guidelines and rules for data use created by the UK Statistics Authority and by EthicalGEO both have similar aims and objectives, but how might you use them to support and influence your research and project work? And are they really able to hold big tech companies accountable?

KEY RESOURCES

UK Statistics Authority. (2021). [Ethical considerations in the use of geospatial data for research and statistics](#) (Online) From: bit.ly/3zmA0VQ

EthicalGEO (2021). [Locus Charter](#). (Online) From: bit.ly/3HAlSDI

Specht, D. (2021). [Is the Locus Charter enough to rein in the power of tech companies?](#). Geography Directions (Online). From: bit.ly/3304h0s

Specht, D. and Halkort, M. (2020). [The way we use data is a life or death matter – from the refugee crisis to COVID-19](#) The Conversation (Online). From: bit.ly/3f58TWd

Ethical principles and your research

Geospatial data, also known as “location data” or “spatial data”, is data that represents where people or objects are in relation to the Earth’s surface, whether in the air, on the ground, at sea or under our feet. Having this kind of data can be incredibly beneficial, providing new means of integrating, analysing and interpreting information for the public good. These data allow us to locate services such as schools and hospitals and to plan local transport and housing. They allow us to monitor weather and traffic events and plan flood defences. Geospatial data and tools have proven vital in managing the response to the COVID-19 pandemic (UKSA, 2021).

Collecting and analysing all of this data, though, can bring with it a great many problems related to ethics and privacy. All data has these kinds of issues, but because geospatial data can often be used to identify individuals, as well as where they live and work, and because much of it is collected through personal devices such as smart watches, these issues are even bigger.

Both the UK Statistics Authority and EthicalGEO set out to solve an increasingly important problem: how can we ensure we are being ethical in our use of geospatial data? How can we strike a balance between individual privacy and benefits to society?

To do this, both set out to write a set of ethical principles. Ethical principles, broadly speaking, are a set of rules that govern how we might behave in different situations. They set out how we expect others to behave and why. There are many ethical things we agree on as a society — for example, that murder is bad. But there is also a lot that we don’t agree on, such as whether it is okay for TikTok to sell your data if it makes your experience on the app better.

Both the Locus Charter and the UKSA frameworks go further to look at the specifics of how we use geospatial data. Although both are designed to help companies and governments ensure they are being ethical, they can also be used as we consider our own research projects and ideas.

For example, you will need to think carefully about confidentiality if you are surveying or interviewing people. You will need to ensure that your sampling is inclusive and that it avoids bias and discrimination. And when you write up your project, you need to present your data in a way that is fair and representative. Try the activities on this page to help you experiment with these ideas.



ACTIVITIES

1. Open both sets of ethics frameworks (links on other side) and find the UKSA Ethics Checklist and 10 Locus Charter Principles.
 - i. What do they say that is the same?
 - ii. What is different about these guidelines?
 - iii. Why do you think they are different? – Think about who wrote them and for whom they are written.
2. Which do you think is the most important of the principles (from either list)? Why do you think it is the most important?
3. Do you think there is anything missing from these principles? What would you add if you could change them?
4. Think about your own project or research. How will these principles influence the way you carry out your work? Is there something you might need to change? A new skill you might need to learn? Or something you need to read more about?