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Running as a catalyst for environmental data inquiry: Closing the distance between 'everyday' and 'expert' knowledges

Abstract

Public misunderstanding of environmental data is often framed as a skills deficit on the part of the audience, but in truth, 'data' is multifarious and manifold in everyday life. Drawing on my experiences as an exceedingly average runner with a geographer's appreciation for maps, this essay charts how running has catalysed my own inquiry with environmental data, acting as an embodied methodology for thinking about place-based environmental change and risks, like flooding. I argue that communication of such risks could be enhanced by integrating data into the everyday spaces and activities where people encounter maps, aiding them to make connections between familiar forms of data and new knowledge.

Keywords: running, maps, flooding, place, risk communication, knowledge production

Author's accepted version: See *cultural geographies* for final version.

Cambridge, 2023. This essay began as a thought during a run on which I had to alter course due to flooding. It's often said that running is one of the easiest sports to take up, requiring little equipment or specialist infrastructure – just you and a pair of shoes, putting one foot in front of the other. However, I like to know where I am going, which is why every run starts with a map. It was only when I started running that I realised the extent to which maps can't be trusted. Local authority maps of public rights of way (PROW) might signal the presence of a path, but not always a passable one. Helpfully, 'heat maps' on apps like Strava, where the popularity of routes is represented with different colours, can signal which paths are really used. Or Google Streetview can help assess whether the start of the supposed PROW is overgrown with brambles. Despite all the digital data, I still end up every so often on the wrong side of some water, debating whether to go around, or through.

Running (*with*) maps

Harmon muses that humans have 'an urge to map'.¹ In this era of mobile data, runners have perhaps taken this to an extreme. The crossover between running and mapping is arguably both practical and performative. While some of us are just trying not to get lost, others are using GPS tracks to 'draw' works of art² or interpret the data in aesthetically pleasing ways.³ In these ways, a map can be something that the runner creates (either digitally or materially) and runs *with*, or something they run to create (running as a *making* method or 'running maps' as a verb).

There are now numerous apps that facilitate the sharing of maps and statistics. Runs can be further personalised and embellished with photos taken enroute, in what might be described as a process of 'everyday curation'.⁴ Sharing to online platforms can be experienced as performative or competitive,⁵ in line with critiques of other social media platforms.⁶ This practice can also be considered an act of community knowledge-building,⁷ as environmental knowledge is woven into digital maps created and uploaded online. Strava's heat map feature may illuminate permissive paths that don't feature local rights of way. The names other runners assign to saved segments on Strava provide glimpses into the features of a route, such as animals (e.g. "Rabbit Hole Run"), plants ("Through the NETTLES") and topography (infinite references to hills) in the same way that place names do.⁸

Maps are also a cornerstone of risk communication for a range of weather-related hazards including flooding. Such maps are regularly critiqued for their failure to resonate with

residents at risk or reflect their needs⁹. The knowledge deficit model that persists in science communication may suggest that a lack of data literacy is to blame: that a lay audience may lack the technical skills to interpret such maps.¹⁰ Yet, on running apps, we observe people making sense of places and communicating knowledge about places through maps, in a way that is closely woven with their own identities. We see cultural geographies in motion, in practice.

Running past landscapes

After my rerouted run, I wanted to learn more about the location where I altered course, as once again, my crafted route map had missed or underplayed some crucial detail about the world or 'weather-world' outside.¹¹ Contemporary flood risk maps indicated that the area was designated as 'high risk' for river flooding (meaning a greater than 3.3% chance in a year).¹² In fact, historic maps up until the 1960s labelled it *liable to flooding*. However, in the 1960s, these labels disappear. Exploring the wider area reveals many places where these labels vanished at various point between the 1920s and 1960s (Figure 1). Could improvements to river management have reduced flood risk in *all* these areas? The answer, it turned out, was in Oliver's *Ordnance Survey Maps: A Concise Guide for Historians* which identified that the classification was officially discontinued after 1948, to avoid impacting land sale values.¹³

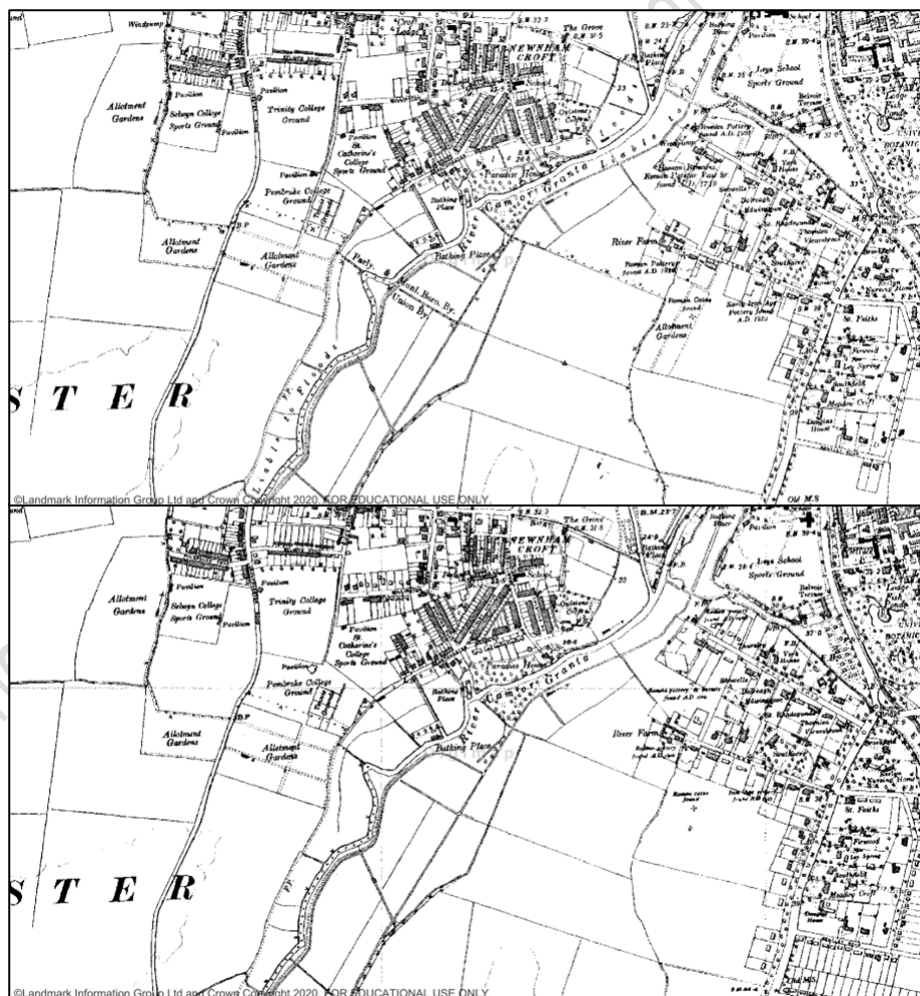


Figure 1. 1926 version of OS map of South Cambridgeshire, with *liable to flooding* sections indicated (top), and 1938 version of same map. © Crown Copyright and Landmark Information Group Limited (2023). All rights reserved. (1926 and 1938).

Turning to Hansard, the official parliamentary record, also illustrates a similar change in attitudes towards the notion of 'land liable to flooding'. Parliamentary debates on the Land Drainage Bill in 1930, and again on amendments in 1961, hint at shifts in how flood-prone areas are perceived. Debating the Land Drainage Bill in 1931, Captain Bourne, MP for Oxford, framed flood-prone land as known, unassailable, 'common' knowledge, stating:

Anyone who lives near a river should know the maximum rise of the river. Our ancestors knew and never built below a certain level, and it should not be necessary nowadays for us to spend great sums of money because certain people have not this common and ordinary knowledge.¹⁴

Later, in the 1961 debate, we see 'flood plains' discussed for the first time and framed as 'controversial', malleable, and politicised, with Earl Waldegrave arguing that:

A river flows between banks which can be shown clearly in a map, but the boundaries of a flood plain are highly controversial. River boards, with their strong lobby, will no doubt wish to put their flood plains as widely as possible, on the basis that the more land over which the board has control, the better.¹⁵

As Johnson et al. note, policy discourse on flooding in the UK has been through a series of transitions, from a focus on land drainage (1930s-70s) to flood defence (1970s-90s) to the current emphasis in flood risk management.¹⁶ Alongside this, Penning-Rowsell et al. highlight changes in risk communication, away from local and traditional knowledge towards expertisation of flood risk.¹⁷ The shift from 'common' to 'controversial' knowledge might be viewed as an early signal that beliefs about flooding and flood-prone land were in flux.

A route ahead?

Today, flood risk maps are available online in the form of the EA's online mapping tools. Porter and Demeritt trace how contemporary flood risk maps developed by the Environment Agency were initially intended to inform local planning decisions and deter development in flood plains, but the validity and utility of the maps, and the underlying planning behaviours they were intended to promote, were contested by local planners.¹⁸ This in turn led to flood maps being framed as a public engagement tool, which can be interpreted as both a democratisation *and* an expertisation of environmental knowledge. Flood risk information is freely available and accessible, but like much information in a data-rich society, it is stored and accessed separately from maps people might engage with in their everyday. Perhaps this is the paradox of the disparate nature of our data-rich society; we have plentiful data about certain dimensions of environmental risks and change, but one must know where and how to access it.

Could risk information be better integrated into maps that people already encounter, create and care about in their everyday life? Can we close some of the distance between 'everyday' and 'expert' knowledges? I imagine an app that could draw together and connect some of these multifarious maps and threads of knowledge; perhaps it would draw on real-time rainfall data and remind me before I set out that the route may be flooded, drawing on prior user reports of conditions. Of course, at such local scales, prediction would be folly. But communities of runners, aided by digital tools, are arguably already forming new bodies of 'common' knowledge; an opportunity lies in facilitating the making of connections with the kinds of data that policymakers and planners might want the public to engage with more deeply. Such 'alternative' maps may prompt noticing the hidden layers of our landscapes; a kind of 'counter-mapping' that sheds light on situated social-environment relations.¹⁹

There is a rich literature on performative walking and its capacity to foster deeper engagement with space²⁰ and an emerging body of scholarship is exploring the intersections between running and different artistic and academic disciplines.²¹ This article contributes to this discourse by exploring how running can act as an embodied methodology for thinking about place-based environmental concerns. Running, and other locative practices like walking and cycling, might act as a bridge between 'everyday' and 'expert' environmental knowledge, sparking new engagements with environmental maps and data. The journey towards better preparedness for extreme weather events and climate change starts with understanding *where we are*.

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Notes

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