





## **DON'T LOSE YOUR WAY -**CROWD SOURCING THE NATION'S LOST PATHS

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Using an online mapping system developed by Astun, the Ramblers walking charity mobilised thousands of volunteers in a high profile national campaign to find and map over 49,000 miles of historic rights of way before they are lost forever.

Astun Technology works with organisations of all sizes and the Ramblers' requirements were perfectly matched by the team's strengths.

Our relationship with Ramblers epitomises the way we work. They knew their audience well and they told us what they wanted to achieve. Our job was to develop the right solution, and our teams gave them the confidence to launch a national campaign, expect high volumes of people to use the tools, and deliver a qualified, doublechecked dataset that's ready for use on an ongoing basis.

#### WHO ARE 'THE RAMBLERS'?

The Ramblers is a charity whose goal is to protect the ability of people to enjoy the sense of freedom and benefits that come from being outdoors on foot. They are an association of people and groups who come together to both enjoy walking and also to ensure that they protect and expand the infrastructure and places people go walking. While the organisation doesn't have a GIS team working in-house full time, the teams have a keen sense of the role that mapping plays in delivering Ramblers' strategy and the value of curating location data to the highest standards.

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# THE CHALLENGE

From January 2026, it will no longer be possible to record public rights over any paths that haven't been recorded on the definitive maps of England and Wales since 1949.

As easy access to green space is vital for our mental and physical health, the Ramblers' charity launched "Don't Lose Your Way" an ambitious crowdsourcing project to find, map and save as many of those historic public rights of way as possible, before they are lost forever. With the launch being covered live on **BBC Breakfast Television**, in national newsprint including the **Guardian**, **Times** and **Telegraph**, on radio and social media, Ramblers needed an online mapping platform that looked fantastic, was intuitive to use and would perform well from day one under very high demand. Given the scope of the task, and the prominence of the project in general, there were many practical questions to answer. Of critical importance was creating a highly intuitive user experience that allowed volunteers without any training to *"spot the difference"* between historic and contemporary maps and record the missing paths as high quality spatial data.

## The project had several fundamental challenges:

#### USER EXPERIENCE

How to create an intuitive user experience for a complex mapping task that could be undertaken without training. It had to be exciting and engaging enough to make volunteers want to return again and again.

### **SCALABILITY**

How to create a highly scalable online mapping tool that could cope with substantial 'spikes' in traffic following promotion in national press and by celebrities on social media.

## PROJECT TIMESCALES

How to meet challenging project timescales, with a fixed and immovable campaign launch date.

### Dan Ormsby, Head of Operations

"We pride ourselves on helping people who understand the value of location data, but may not have used it themselves, and being in a position to scale up a complex, multifaceted solution – quickly – by using the right combination of tools, technology and open data ... all behind the scenes. This is truly what it means to have experts in place.

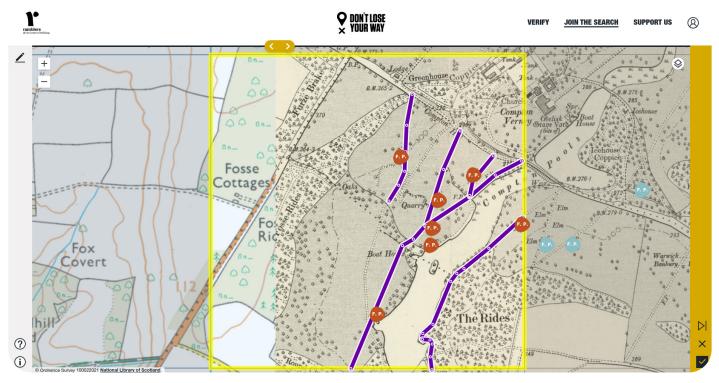
### **DATA QUALITY**

How to ensure high quality data was submitted from thousands of volunteers in a form that could be stitched together into a single seamless comprehensive network of lost paths.

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# THE SOLUTION

Astun Technology was invited to develop the "Don't Lose Your Way" crowd source mapping platform to ensure that as many rights of way as possible could be found, mapped and most importantly, be verified for accuracy.



The Don't Lose Your Way tool split England and Wales into 154,000 one kilometre squares, each of which was searched by two separate 'citizen geographers': a slider enabled these volunteers to 'spot the difference' between historic mapping (as shown on Great Britain - OS Six Inch, 1888-1913, and Bartholomew Half Inch, 1897-1907) and the information held in current OS maps at 1:25,000. The volunteers could then record any additional footpath, bridleway or public highway present on the historic maps as a potential 'lost' right of way or road, by using a cursor to 'draw' the route as accurately as possible.

Once all 154,000 squares had been reviewed, the most prolific contributors were invited to become independent 'verifiers', who were tasked with cross checking and combining the submissions in each square to create a final definitive version.

After verification was complete, Astun developed a suite of automated tools that could take all the verified submissions and stitch together the individual vectors into a final seamless path network. Further research will be needed now to determine if a right of way does exist based on other historic evidence.

## HOW DID THE TECH WORK?

Astun's solution used open source geo technologies including OpenLayers, MapProxy, GDAL and PostGIS. These systems enabled the team to create a highly intuitive interface, digitizing tools, and APIs that could handle large amounts of information easily.

High demands on the service were expected from the outset. The tile mapping caches were served from an Amazon S3 bucket and CloudFront, with a scalable Aurora PostgreSQL database at the back end for path submissions.

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## THE Results

#### Programme manager -Don't Lose Your Way:

"Working with Astun to create this bespoke mapping tool, has enabled the Ramblers to produce, for the first time, a comprehensive map of lost paths across England and Wales. Having this easy to use tool attracted thousands of volunteers and we managed to search the whole country in just six weeks. This national dataset will enable to us prioritise and start to save paths across England and Wales so they can be used and enjoyed for generations to come. It was a pleasure to work in partnership with Astun on Don't Lose Your Way - their problem-solving, flexible and expert approach to this project has been much appreciated."

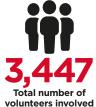
The benefits of being outdoors have long been acknowledged, both for mental and physical health reasons. For the Ramblers, saving these paths for future generations to use is imperative.

Before the Don't Lose Your Way project started, Ramblers estimated that there may be up to 10,000 miles of paths missing. In just 6 weeks, over 4000 'citizen geographers' used the online mapping tool to review 154,000 km squares, and found and mapped a staggering 49,138 miles of rights of way that are missing from the definitive

## 49,138 Total miles (79,079km) of lost paths found in England & Wales

**ENGLAND & WALES** 

Lost paths found



80% Volunteers from outside Ramblers membership 5% Lost paths found in

WALES

Total number of 1km x 1km

squares mapped (twice)

9,210 Total miles (14,822km) found in South West, the region with the most lost paths

**ramblers** at the heart of walking Total number of squares mapped by top volunteer mapper



2,947 Total miles (4,743km) found in Devon, the local authority area with the most lost paths 45 Average number of squares mapped by individual volunteers

Isle of Wight First area to be mapped

maps in England and Wales. Of those more than one fifth (over 9000) are in the South West. These results created significant media interest, featuring on the BBC Radio 4 Today program, in national newsprint and on social media. The final stage of the project is now commencing to build the historic evidence base needed for path applications.

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Products

Astun offer a range of products based on open source technology. Our products can be grouped into three categories - iShare, Data Discovery and Astun Data Services.



Services

Astun Professional Services help you make the most of the iShare products, integrating with your existing systems, enabling data sharing and providing Open Source Support and Training.



Use Cases

Our Cloud and On-Premise solutions both let you put experts in place - providing services that deliver outstanding results in every sector.

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