

Geospatial UK Higher Education – status, challenges, and outreach initiatives

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Abstract

Geospatial education in the United Kingdom is undergoing significant transition at a time when demand for spatial data skills is accelerating across government, industry, and academia. Despite the expanding economic importance of the geospatial sector, the domestic pipeline of graduates with specialist geospatial expertise continues to decrease. This paper synthesises current evidence on the state of UK geospatial higher education, highlighting declining enrolments in traditional surveying and geomatics programmes, the closure of long-standing undergraduate degrees, and the increasing reliance on postgraduate conversion routes to meet workforce needs. Alongside higher-education provision, including doctoral cohort training via the EPSRC Centre for Doctoral Training (CDT) in Geospatial Systems, the paper evaluates national and international outreach initiatives designed to raise geospatial awareness among school-aged learners, with particular focus on the creation and uptake of geospatialuk.org, a UK-based platform offering curriculum-aligned STEM resources. Analysis of site analytics demonstrates sustained global engagement and strong demand for classroom materials and careers information, indicating a critical role for outreach in strengthening the skills pipeline. This paper synthesises the state of UK geospatial education as of March 2026 by drawing together a range of sectoral, institutional, and labour-market evidence. The paper concludes that coordinated (inter)national strategy, coupled with sustained investment in education and outreach, is essential to safeguard future capacity in geospatial engineering and science.

1. Introduction

The practice of measuring, describing, and representing the Earth has been fundamental to human societies for thousands of years. Over time, however, the language used to describe this professional and scientific activity has evolved in response to major shifts in technology and the digital landscape. The movement from surveying to geomatics, and more recently to geospatial, reflects not only advances in instrumentation and computation, but in the way the subject is known and promoted to the public.

Surveying has long served as a cornerstone of exploration, land administration, and scientific inquiry (International Federation of Surveyors, 2010). For much of its history, surveying centred heavily on measurement-focussed technologies to complete tasks such as determining land parcels, establishing geodetic control, and producing topographic mapping, (Ghilani, 2022). By the late Twentieth Century, however, emerging technologies such as satellites and digital sensors began to push the field beyond what the term surveying could adequately capture.

In response to these changes, the term geomatics was introduced in Canada during the early 1980s and gained international prominence in the following decade (Industry, Science and Technology Canada, 1991). Combining *geo-* (Earth) and *-matics* (informatics), the concept emphasised the fusion of surveying, geodesy, photogrammetry, remote sensing, cartography, and geographic information systems (GIS) (Figure 1). As such, geomatics signalled a transition from a focus on data acquisition to the broader tasks of managing, analysing, and integrating spatial information within digital systems (Konecny, 2002). Professional bodies and academic institutions adopted the term as part of an effort to modernise the field and attract students interested in high-technology, interdisciplinary careers.

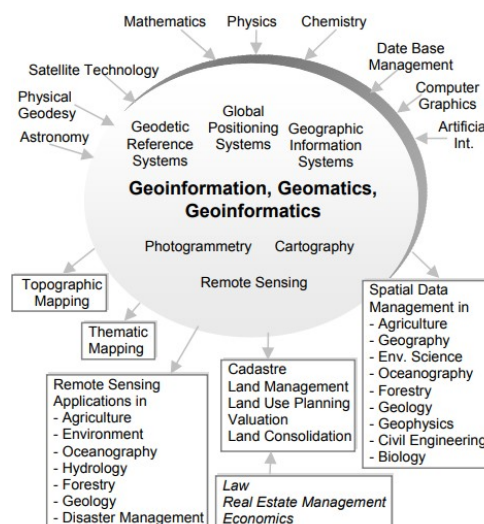


Figure 1. Geomatics definition by content (Konecny, 2002).

Rapid technological expansion in the early 2000s—marked by advances in Global Navigation Satellite Systems (GNSS), high-resolution satellite imaging, unmanned aerial systems (UAS), cloud computing, and Artificial Intelligence (AI)—led to another conceptual shift. The term geospatial emerged as a more inclusive descriptor adopted widely by government agencies, industry, and academia, emphasising spatial data, spatial analytics, location intelligence, and the integration of geospatial information with computational systems.

The U.S. Department of Labor subsequently identified geospatial technology as a high-growth industry (Johnson & Sullivan, 2010). Spatial data now functions as a core digital asset, prompting substantial change across scientific, governmental, and educational domains (Jackson et al., 2009).

The shift from surveying to geomatics and subsequently to geospatial therefore represents more than a change in nomenclature: it captures the transformation of a long-established technical profession into a dynamic, data-driven scientific discipline. Today, geospatial engineering encompasses not only measurement and mapping, but also advanced computation, modelling, analytics, and decision-support functions that influence nearly every sector of society. These changes in scope and meaning are reflected directly in how the subject is taught and communicated, making outreach and education increasingly vital as the field continues to evolve. Although the geospatial sector is well understood within allied industries and among professional practitioners, the term *geospatial* remains far less familiar to the public - and even more so to school-aged learners. While the terminology accurately reflects the evolution and broadening of the profession and has strengthened its recognition and status within industry and governmental settings, it simultaneously presents a communication challenge. For individuals who are unfamiliar with the field, particularly younger audiences, the term can be abstract and inaccessible, making it difficult to convey the nature, relevance, and societal value of geospatial work.

2. Geospatial Education developments

Education and training in surveying, geomatics, and geospatial disciplines have historically been well established across universities in Europe and North America, with particularly strong emphasis in Russia and China (Konecny, 2002). In many countries, the profession of surveyor or geomatics engineer is formally recognised through licensing or chartership systems, and employability within the sector has consistently remained high (Mills & Hall, 2025). Despite this long tradition, enrolment patterns have shifted. As students increasingly choose broader engineering subjects, interest in geospatial programmes has declined. Reduced student demand has placed several programmes at risk of closure, including at institutions such as TU Berlin and TU Delft (Konecny, 2002). At the same time, geospatial technologies have become essential for developing spatial reasoning, necessitating changes not only in professional terminology but also in curriculum design (Muñiz-Solari, Demirci & van der Schee, 2015).

As the conceptual boundaries of geomatics and geospatial science expanded, more universities began offering geospatial-related courses within geography departments, typically focused on GIS and remote sensing (RS) (Perkins, 2015). In the United States, for instance, approximately 450 of the nation's 1,200 community colleges offer geospatial courses or programmes: 287 offered individual geospatial modules, 96 offered certificate programmes, 19 offered degree programmes, and 49 offered both certificates and degrees (Johnson & Sullivan, 2010; Rudibaugh & Ferguson, 2010). However, only about 35% of colleges maintained formal transfer agreements with universities, an issue shaped by low institutional awareness, resource limitations, and scepticism toward the field in academia (Johnson & Sullivan, 2010). Targeted outreach was seen as essential for building a balanced and nationally responsive US geospatial education infrastructure (Rudibaugh & Ferguson, 2010).

The broadening of geospatial education has enabled students from diverse disciplines to acquire geospatial skills, reducing the exclusivity once associated with specialist geomatics programmes (Jackson, Schell & Taylor, 2009). Despite the increasing relevance of spatial data across sectors, only a

minority of universities offer dedicated geospatial pathways, and many of these programmes report difficulties in sustaining enrolment (Perkins, 2015). Across Europe, these pressures are intensified by declining student numbers in surveying and geoinformatics—an issue that contrasts sharply with labour-market demands, which increasingly require geospatial expertise (Potůčková, 2006).

2.1 Geospatial Education in the United Kingdom

Geospatial education in the United Kingdom is entering a pivotal period. Although geospatial technology underpins a wide range of scientific and industrial applications, the subject remains marginal within UK higher education. Despite the existence of both a government-led Geospatial Commission and the internationally respected national mapping agency Ordnance Survey, the absence of a coordinated national skills policy has contributed to a steady reduction in geospatial undergraduate provision. Decisions regarding programme continuation or closure have largely been devolved to institutional financial considerations.

The geospatial industrial sector itself has expanded considerably: according to the Geospatial Commission's 2024 market report, the UK hosts more than 2,600 companies for which geospatial data forms a core capability, with a conservative annual sector valuation of at least £6 billion and a workforce exceeding 37,500. The same report identifies at least £1.2 billion in investment raised between 2013 and 2024, signalling strong market confidence and sustained demand for geospatial expertise (Geospatial Commission, Cabinet Office, 2024). Policy responses in the UK have tended to emphasise broad strategic ambitions rather than coordinated curriculum development, despite the clear relevance of geospatial capabilities to the National Data Strategy and wider digital-skills priorities. This creates a structural tension: geospatial technologies are recognised rhetorically as strategically important, yet they remain only weakly embedded within mainstream education pathways (Association for Geographic Information (AGI), 2023). The higher education system sits upstream of this labour market, responsible both for training graduates and for advancing geospatial research. However, the visibility of geospatial as a discrete subject is obscured by institutional coding: degree programmes may be registered under geography, environmental science, engineering, or computing (Geospatial Commission, Cabinet Office, 2024).

Skills-gap studies consistently show that shortages already constrain employers, with recruitment and retention difficulties in the geospatial sector. Further concerns in the UK were based on the closure of programmes such as Newcastle University's Surveying and Mapping degree has been identified with direct implications for industry capacity (Academy Geomatics, 2025; Fitzgibbon & Murphy, 2024). The reduction of similar courses at other universities means the UK faces a critical juncture. Despite the growing importance of geospatial technologies in industry, geospatial education remains a niche offering within UK higher education. Notwithstanding efforts of government led initiatives, the lack of a coordinated national approach to geospatial skills, has inevitably led to a decline in the number of geospatial graduates. Internationally, geospatial skills shortages mirror this pattern, with analyses suggesting the issue is now global in scale (Ball, 2022).

Dedicated GIS and geospatial programmes are offered across all four UK nations. According to UK Universities and Colleges

Admissions Service (UCAS), ten institutions offer programmes explicitly focused on geospatial subjects, while GIS is included more widely across seventeen courses (UCAS, 2026). The Royal Geographical Society's programme directory lists a significantly larger set of GIS-related master's degrees (Royal Geographical Society (with IBG), 2026).

2.1.1 Geospatial undergraduate degree programme provision in the UK: Within the UK, two institutions have traditionally played a central role in geospatial undergraduate education: the University of East London (UEL) and Newcastle University. UEL has offered surveying and mapping sciences programmes since the early 1990s and is now the only UK university delivering a dedicated undergraduate degree in surveying. UEL has also developed a geospatial apprenticeship programme in collaboration with industry partners, which has gained positive momentum in recent years (University of East London, 2026). Newcastle University has one of the longest and most established heritage in UK geospatial education, with a surveying department active for more than 75 years and a dedicated undergraduate degree first launched as a joint honours programme in 1963 (Newcastle University, 2026). Over several decades, Newcastle educated geospatial students not only from the UK but also internationally, including learners from Brunei, Malaysia, the United States, Saudi Arabia, Cyprus, Oman, Hong Kong, and China. In 2023, however, Newcastle University announced the closure of its undergraduate geospatial programme. Annual intakes of 30–40 students were deemed insufficient for long term sustainability, and the university noted increasing entry requirements, including expectations that 75% of entrants meet ABB at A level. The final cohort was admitted in September 2023, marking the conclusion of a significant chapter in UK geospatial education. The closure has prompted considerable concern across the geospatial sector. Industry stakeholders have long depended on a consistent supply of high-quality graduates, and Newcastle's programme historically served as a key feeder into professional roles.

Nevertheless, many geography degrees incorporate substantial training in GIS, remote sensing, and spatial analysis, for example the University of Exeter's BSc Geography with Applied GIS, offering a structured GIS pathway from the second year onwards (University of Exeter, 2026).

2.1.2 Geospatial postgraduate taught degree programme provision in the UK: To address the shortage of specialist geospatial skills, a number of UK universities now provide master's level programmes, many of which function as conversion pathways for graduates entering the field from non-geospatial disciplines. These courses are typically situated within geography or environmental science departments and place strong emphasis on GIS, remote sensing, and associated analytical methods. This includes, for instance:

- University of Edinburgh: MSc GIS and Earth Observation
- University of Aberdeen: MSc GIS
- University College London: MSc Geospatial Sciences
- University of Sheffield: MSc GIS
- University of Manchester: MSc GIS
- University of Glasgow: MSc Geospatial & Mapping Sciences; Geoinformation Technology & Cartography, and Land & Hydrographic Surveying
- Cranfield University: MSc Advanced GIS and RS
- University of Southampton: MSc Applied GIS and RS

From September 2026, Newcastle University will also introduce a postgraduate taught MSc in Geospatial AI. This development helps secure the continuation of geospatial education at the

institution following the closure of its undergraduate programme and reflects a strategic commitment to producing highly skilled graduates for both the national and international geospatial labour market.

Together, these programmes represent the core of the UK's advanced geospatial training infrastructure and form a critical component of national capacity in this domain.

2.1.3 Geospatial doctoral training courses (PhD): To support the development of advanced geospatial expertise in the UK, the EPSRC-funded Centre for Doctoral Training (CDT) in Geospatial Systems—delivered jointly by Newcastle University and the University of Nottingham—has operated since 2019 (Geospatial Systems CDT, 2026). The CDT was established to address major societal challenges, including climate change, urban sustainability, and public health, through the application of geospatial science. Its cohort-based training model is designed to produce highly skilled specialists capable of working with large-scale spatial datasets, applying advanced analytical methods, artificial intelligence, and modelling techniques, and developing geospatial tools and solutions targeted at pressing societal problems. This training is undertaken in collaboration with leading geospatial and engineering organisations, ensuring alignment with industry requirements and providing doctoral researchers with enhanced supervision, placement opportunities, and exposure to real-world problem-solving contexts (Mills et al., 2026).

With the current funding cycle now complete, the final cohort entered the programme in 2023, and the CDT will conclude in 2027. Recruitment over the lifetime of the CDT also highlighted an ongoing pipeline challenge: only a proportion of applicants held undergraduate qualifications directly in geospatial disciplines, with many entering from related fields such as geography or physics. This reflects the broader national issue of limited undergraduate geospatial provision and the consequent difficulty in cultivating a sustained supply of geospatially trained doctoral candidates. In recognising this problem, CDT funding included a budget for doctoral students to promote geospatial education in schools and elsewhere.

3. Geospatial outreach activities

The strategic significance of geospatial technologies has been acknowledged by the UK Government. In 2018 the Geospatial Commission was established to lead the national geospatial strategy and promote the sector more widely (Geospatial Commission, Cabinet Office, 2024). Nevertheless, projections indicate a substantial shortfall of suitably qualified geospatial professionals in the future. A further challenge is the limited public understanding of engineering and related professions; almost 47% of young people aged 11–19 report knowing "little or almost nothing" about engineering, reducing the likelihood that they will pursue associated pathways (Civil Engineering Surveyor, 2023). The *State of Engineering report* report highlights lack of awareness at primary and secondary school levels as a key factor contributing to reduced recruitment into engineering. That report concludes that addressing recruitment challenges will require improvements in career awareness and outreach, strengthened diversity and inclusion measures, clearer pathways into technical and academic routes, and greater support for students to develop confidence in STEM subjects (Civil Engineering Surveyor, 2023).

As geospatial data and technologies became central to national digital strategies, and in-light of persistent skills shortages

within the geospatial sector, it has been recognised that geospatial needs to be included in early educational experiences to strengthen the pipeline of future practitioners. Middle and high schools (12 – 18 year old pupils) represent a particularly important stage for introducing geospatial technologies. At this age, pupils are expanding their understanding of physical and social environments, are highly receptive to new technologies, and are developing higher-order cognitive skills associated with spatial reasoning (Alibrandi & Goldstein, 2015). Exposure to geospatial tools in school has been shown to enhance students’ capacity to analyse spatial patterns and apply geographic reasoning to real-world challenges (Chen & Wang, 2015). Geospatial literacy is often defined as the ability to interpret maps and spatial patterns, understand scale, spatial resolution and geographic relationships, and apply spatial reasoning to real-world contexts (Lee, 2023).

International variation in the adoption of geospatial technologies in schools is marked, shaped by differences in the status of geography within national curricula, uneven access to digital infrastructure, and significant variation in teacher preparation and opportunities for professional development (Chen & Wang, 2015). Research examining the integration of geospatial technologies into school-level geography demonstrates that the subject is well placed to be incorporated for such content, such as geospatial activities—analysing disaster vulnerability with flood-risk or wildfire-risk mapping—GIS-supported fieldwork, or activities linking AI with coding (Lee, 2023; Mathews and Wikle (2019)). Despite this potential, multiple barriers impede the wider adoption of geospatial technologies in schools. Technical constraints include the demands of software, device availability, and data management; teachers’ limited familiarity with geospatial tools; and the historically high cost of software and datasets prior to the expansion of web-based GIS (Chen & Wang, 2015; Kerski, 2015; Mathews and Wikle (2019); Alibrandi & Goldstein, 2015). Pedagogical challenges stem from the rapid evolution of geospatial tools, gaps in curriculum alignment and the absence of a clearly defined disciplinary “home” for geospatial thinking. Administrative barriers include competition for limited instructional time, budget constraints relating to technological infrastructure, and curricula that are slow to accommodate innovation (Kerski, 2015).

The importance of geospatial outreach has been recognised in many countries, prompting the development of a wide range of initiatives designed to increase public awareness of geospatial science. In Germany, the national campaign *Arbeitsplatz-Erde.de* represents a comprehensive and professionally coordinated effort. The initiative provides a dedicated website introducing the public to geodesy and geospatial careers and regularly releases child-friendly educational content via social-media channels such as Instagram and TikTok (Arbeitsplatz Erde, 2026). A key factor behind the success of this outreach programme is the collective support of Germany’s professional surveying and geodesy associations, which jointly underpin and fund the initiative, ensuring sustained production of high-quality materials aimed at future recruitment into geospatial professions.

Another international initiative is ‘*SheMaps.com*’, an Australian education organisation that specialises in delivering drone-based and geospatial STEM programmes for schools and teachers. Its central mission is to make geospatial technologies accessible, engaging, and aligned with curriculum requirements for classroom implementation (She Maps, 2026). SheMaps.com provides an extensive suite of structured support materials for

educators, including curriculum-aligned teaching resources, ready-to-use lesson plans and guidance for schools wishing to establish drone-based learning activities (She Maps, 2026).

Internationally, commercial and governmental organisations also contribute significantly to geospatial outreach. Esri, the leading global GIS software provider, hosts an extensive collection of openly accessible learning resources—including tutorials, curriculum materials, and online mapping tools—designed to support the integration of GIS into education at all levels (Esri UK, 2026).

3.1 UK based geospatial outreach

The UK-based initiative ‘*Get Kids Into Survey*’ (GKiS), established in 2017, focuses principally on primary-aged children (Get Kids into Survey, 2026). GKiS is now an international initiative designed to increase early-stage awareness, while providing freely accessible educational materials—ranging from illustrated posters and comics to curriculum-aligned STEM resources—that introduce children aged roughly 8–12 years to key geospatial ideas, such as drones and laser scanning. Supported by industry sponsors and an international network of volunteer Brand Ambassadors operating in more than 30 countries, the initiative delivers school visits, careers presentations and community outreach intended to normalise surveying as a STEM field. Its stated ambition—“to get every child to understand the terminology of survey and geospatial in every language globally”—positions GKiS as a strategic intervention focused on enhancing global geospatial career awareness (Get Kids into Survey, 2026).

In Great Britain, the national mapping agency Ordnance Survey similarly provides a range of mapping and spatial learning resources (Figure 2). However, these materials are typically framed within the context of *geography* rather than explicitly labelled under the broader term *geospatial*, reflecting a disciplinary tradition that emphasises geographical skills and place-based learning over technical geospatial terminology (Ordnance Survey, 2026)

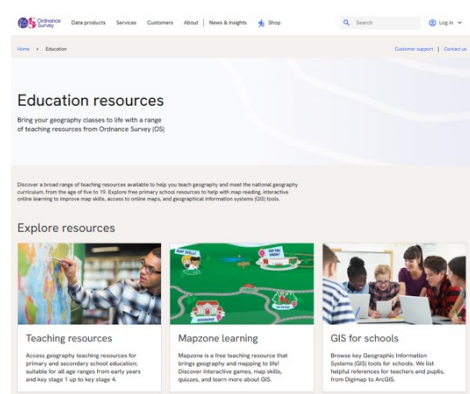


Figure 2: Ordnance Survey education promotion (Ordnance Survey, 2026).

3.2 Geospatialuk.org introduction

To strengthen geospatial awareness and encourage future engagement with the sector, Newcastle University hosted the creation of *geospatialuk.org*, an outreach platform funded by a range of industry partners, including Leica, Hexagon, Trimble, RICS and several UK based geospatial companies (Geospatial UK, 2025). Conceived as a single, accessible point of entry for

educators and pupils, the platform introduces geospatial concepts, applications, and career pathways suited to school settings (Figure 3). The website connects users to current employment opportunities across the UK geospatial sector and offers guidance on study routes, including university programmes, college courses, and apprenticeships. The website was developed in response to the anticipated skills shortage within the geospatial sector, with the intention of making geospatial themes more visible and more integrated into school education (Ball, 2022). By working closely with teachers across diverse educational contexts, as well as with industry stakeholders, the initiative aimed to embed the term geospatial more firmly within educational discourse.

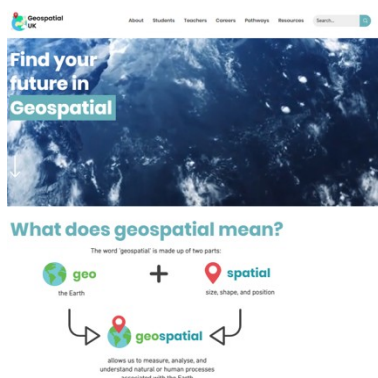


Figure 3: The geospatialuk.org landing page.

The geospatialuk.org project purpose was to serve as a central platform for geospatial learning resources that could engage young people in STEM activities while illustrating the relevance of geospatial thinking to existing curriculum areas, including mathematics, information technology and geography. A core objective of the initiative was to collaborate with industry in order to broaden the project’s outreach network and to supply the wider geospatial community with resources that could be used in schools and other extra-curricular settings. Funding for the three-year development period was provided by several industrial partners, with Leica Geosystems UK acting as the principal sponsor, alongside contributions from RICS, The Survey Association, Plowman Craven, Malcolm Hughes Land Surveyors, Fugro and Trimble (KOREC Group).

Prior to the launch of the geospatialuk.org website in 2021, an earlier platform—Geomatics.org—had served a similar purpose until its closure in 2006 (Bramald et al., 2009; Mills et al., 2004). Its discontinuation was associated with a marked decline in applications to geospatial programmes at Newcastle University, demonstrating the influence that outreach infrastructure can have on recruitment into the discipline (Figure 4).

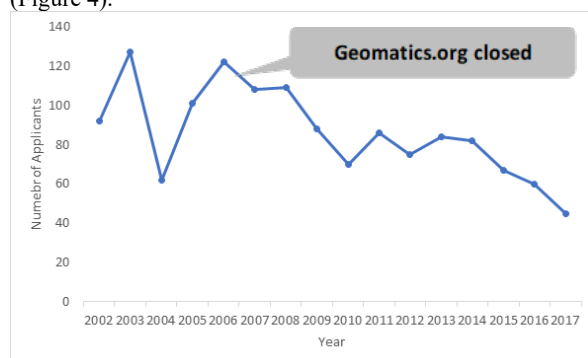


Figure 4: Overview of application to geospatial related degree courses at Newcastle University.

To ensure that the materials developed were directly relevant to school practice, the project aligned its resources with English schools GCSE and A-Level curricula. Consultation with focus groups comprising geography and mathematics teachers helped identify curriculum areas where geospatial tools could meaningfully support learning. These discussions confirmed that most candidate topics naturally intersected with geography. The resulting classroom resources introduce pupils to fundamental geospatial concepts through short activities—typically 30 to 45 minutes in duration—covering themes such as tectonic hazards, wildfires, and the analysis of UK census data. Each activity is designed to reinforce conceptual understanding through geospatial visualisation, primarily using Esri ArcGIS tools. The datasets employed are freely available, and direct links are provided; for example, recent earthquake events can be mapped using USGS data. These materials were co-developed with doctoral researchers from the Geospatial Systems CDT, ensuring a clear link between contemporary geospatial research and school level outreach. The CDT doctoral students played a central role in delivering the activities in a series of visits to educational institutions across the UK, contributing their time, in-person engagement, and specialist knowledge. The EPSRC CDT in Geospatial Systems provided support for both development and delivery of materials. These visits also offered doctoral researchers with opportunities to communicate their work to wider audiences and gain experience in public engagement.

3.2.1 Geospatialuk.org developed activities: As a central component of the project, a series of workshops was developed that teachers could download and deliver independently in the classroom aimed at secondary school pupils aged approximately 12 to 18. Schools were also able to request in person delivery by the geospatialuk.org project manager if geographically possible. Although the list of activities is not exhaustive, an illustrative example is provided below. All workshop exercises are freely available via the website and can be accessed and downloaded by any user.

3.2.1.1 Exercise 1: Geography and Beyond: This 30 minute presentation aimed at Year 10 – Year 13 students (15–18 years) provides an insight into studying geography at university, an explanation of each of the geography-related degree options, such as geospatial and also civil engineering.

3.2.1.2 Exercise 2: Sea, Sounds and Surveying: This workshop explains how hydrographic surveyors use sound to measure the depth of the ocean and create underwater maps. It includes a hands-on exercise to map ‘the seafloor’ without sight.

3.2.1.3 Exercise 3: Exploring the Physics Behind GPS: This presentation explains the physics behind Global Positioning Systems (GPS). It is usually followed with a 20-minute ‘Where On Earth?’ mathematics activity.

3.2.1.4 Exercise 4: Pitch Perfect: This activity was designed to guide students through using levelling equipment to gain the changes in height from one end of a pitch to the other and thereby assess ‘how flat’ the schools’ playing field is.

A range of additional activities is available on the geospatialuk.org website, each of which aligns in some way with the UK curriculum—most commonly the Geography

A-Level specification. These resources are designed to address specific curriculum requirements by introducing geospatial concepts through structured, activity-based learning.

3.2.2 Geography focused activities

Tectonic Hazards: visualise global patterns of earthquakes and accessing live update earthquake data.

UK Coasts: focuses on erosion of the East coast of the UK over time and how coastal land use is managed.

USA Wildfires: focuses on the spread of the 2020 wildfires along the West Coast of the USA.

Glacier Melt: explores Arctic and Antarctic sea ice melt as well as global glacier retreat.

UK 2011 Census Data: explores the 2011 UK Census data using GIS.

Crime and Punishment: explores examines how real crime data helps to inform police strategies and operations.

3.2.3 Maths focused activities

Surveying without Sight: simulates how hydrographic surveyors map underwater topography.

Construction Calculations: demonstrates some of the mathematical techniques when working on construction projects.

Where On Earth?: demonstrates mathematical techniques applied when using GPS positioning from satellites.

3.2.4 Data focused activities

Survey123 for Students/ Teachers: shows how to collect data using the Survey123 app while examining the geographic relationship between public transport and the retail/service industry.

Most recently, the University of Edinburgh, Location Data Scotland and the Scottish Government have taken over the platform, expanding its offerings to include mathematics, coding, and geography resources.

3.2.5 Further resources on geospatialuk.org

3.2.5.1 Students section: The *Students* section offers an accessible introduction to what geospatial technologies are and illustrates their relevance through examples of how spatial data is used in different contexts. It emphasises the growing significance of geospatial skills for interpreting environmental change, informing urban planning, and addressing climate-related challenges. The site also illustrates the pervasive role of geospatial data in everyday life, highlighting its use in navigation apps, weather information services, travel-disruption alerts, parcel-tracking systems, and fitness or activity-monitoring tools.

3.2.5.2 Teachers section: The *Teachers* page on Geospatial UK is designed to support educators who want to integrate geospatial concepts—such as mapping, spatial analysis, and GIS—into their curriculum. It emphasises the growing importance of geospatial data in understanding Earth processes, informing decision-making, and addressing global challenges such as climate change.

3.2.5.3 Career section: This most visited part of the Geospatial UK website provides guidance for anyone considering a career in the geospatial sector (Figure 5). Career information is deliberately framed through relatable examples—such as disease-control specialist, urban planner, or satellite

mission planner—each accompanied by brief role descriptions. It emphasises the importance and versatility of geospatial describing it as technology that supports environmental monitoring, public health, renewable energy, and climate change mitigation. It highlights that geospatial skills are transferable, enabling individuals to work across diverse sectors that rely on location data, such as transportation, logistics, urban planning, emergency response.

One of the central features of the webpage is a detailed set of career profiles using geospatial: GIS Analyst, Drone Operator, Land Surveyor, Climate Scientist, Urban Planner or Games Designer (Figure 5).

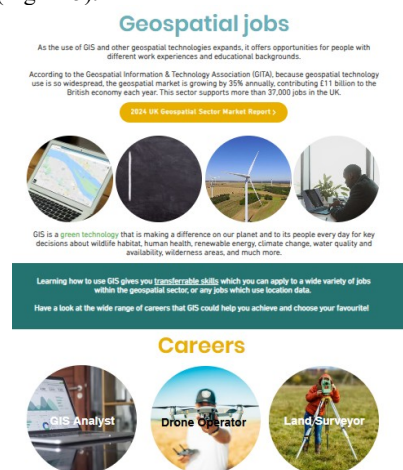


Figure 5. The geospatialuk.org careers landing page.

3.2.5.4 Pathway Section: The *Pathways* page on Geospatial UK provides a comprehensive overview of the different educational and training routes that individuals can take to enter the geospatial industry. The webpage includes a scrollable roadmap showing progression routes based on qualification levels. An interactive map lets users explore geospatial-related degrees and college courses offered across the UK and Ireland.

4. Analysis of the geospatialuk.org outreach success

Since its launch, geospatialuk.org has been accessed internationally, with regular visitors from Canada, the United States, Indonesia, the United Kingdom and Australia (Figure 6). The careers and classroom resources pages consistently attract the highest levels of engagement. Notably, the site continues to receive daily traffic despite the absence of active promotion since 2023, underscoring the value of a central, curriculum aligned geospatial resource.



Figure 6: Overview of access locations to geospatialuk.org between March 2025 – March 2026.

Although active funding for the portal ended several years ago, resulting in no ongoing recruitment or promotional activity beyond routine maintenance, the site continues to attract regular visits and user engagement (Figure 7).

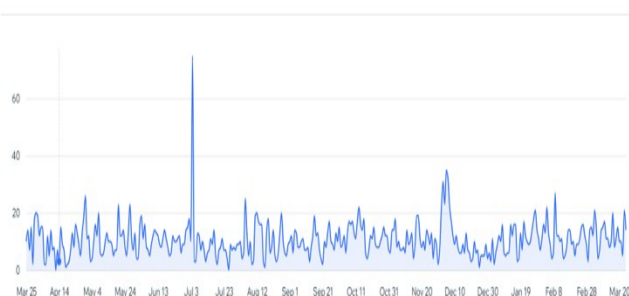


Figure 7: Overview of visits to geospatialuk.org between March 2025 – March 2026.

Since launch, the portal has attracted over 37000 visits (Figure 8).



Figure 8: Overview of visits to geospatialuk.org following its launch June 2021 – March 2026.

The most visited page is related to careers and job opportunities besides the landing page (Figure 9). Additionally, the pathways in geospatial and resources exercise pages are regularly visited.

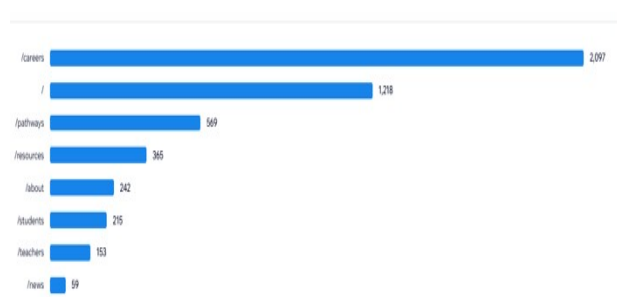


Figure 9: Overview of page views of geospatialuk.org between March 2025 – March 2026.

5. Conclusion

This paper highlighted the need for coordinated national strategies to sustain and grow geospatial education with particular focus on the UK. It demonstrated how geospatialuk.org has built up a resource designed to promote the subject of geospatial within the UK school sector to stimulate and capture early interest in the subject. Despite the lack of

continued funding the paper presented details of the geospatialuk.org portal and its uptake serve to underpin the continued relevance of the subject to UK education. However, without further coordinated strategic intervention, the sector risks further shrinkage and the resulting shortage of skilled graduates and diminished research capacity, threatening its ability to meet future technological and societal demands. Outreach initiatives such as geospatialuk.org offer a promising model for engaging the next generation and securing the future of geospatial science.

6. Acknowledgements

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