

Dudley's got a GIS-MO: project case study

Summary

Dudley Metropolitan Borough Council has developed an in-house, online geographic information (GI) service that has become central to their business systems.

By making GI available on the council's intranet, Dudley has extended its use to every council desktop. This allows staff direct access to the information they need, saving the council time and, more importantly, reducing bureaucracy.

Key learnings

A technology-based solution allowing more efficient ways of working has become a business-critical product within the council.

This system is based upon a 'toolbox' of functionality. Actively engaging with end-users makes it possible to tailor solutions quickly and easily. Identifying specific business processes at a very early stage aids this process.

By sharing the success of GIS-MO with all Dudley's 112 schools, a solution to their needs for GI has been achieved. This works for not only for the area's 50,000 school pupils but for every citizen of the borough.

Who was involved?

The Geographical Management Information Solutions (GMIS) unit – part of Dudley's ICT services – developed the system. They named it 'Getting Information Simply – Mapping Online', or GIS-MO (pronounced 'Gizmo') for short. GIS-MO is the intranet-enabled version of the council's geographical information system (GIS).

The problems and how we tackled them

Historically, disparate requests were made for maps, information and analysis of data throughout the council. Work was often repeated or started from scratch. Wheels were regularly re-invented. A more efficient and effective solution was urgently required and GIS-MO was developed in direct response to this need.

Different sections of the council require different information

Obviously, the planning team have somewhat different GI requirements to that of a front office customer care department. GIS-MO provides a basic template which allows parts of the service to be turned off or on, depending on the requirements and capabilities of that particular department.

For example, the customer care team did not require sophisticated mapping capabilities. They simply wanted the latest aerial photography and annotation functions to help them quickly manage incoming calls to the customer centre. The 'default' GIS-MO interface was therefore refined by the GMIS unit and tailored, following consultation with the end-users, to allow for this.

GIS-MO demonstrates how technology can be used sensitively to work for the user, not the other way around. It provides easy access to more than 350 major datasets held by the council. These include imagery, mapping, electoral, planning, housing stock and social services information, with all data secure to employees only.

Different users have different capabilities

In order to deliver accurate information with the minimum of outlay, GIS-MO is currently being developed in three main forms.

'GIS-MO Lite' is intended for employees who have little or no experience of mapping and GI. It therefore has the minimum amount of functionality and data access with which to trip up the unwary.

'GIS-MO Standard' is targeted at employees with an average level of capability and confidence. This version encompasses a comprehensive range of data and tools and appears to suit the majority of users.

'GIS-MO Professional' is aimed at employees with advanced mapping or information management capabilities. It will fulfil their requirement for full GI functionality, including oblique aerial photography and multiple-screen display.

Training is currently provided for all employees as online 'help pages' and tutorials.

Different parts of the council need to share information to deliver services to citizens

GIS-MO includes the capability to email live links from the system from one council employee to another. This means that in real time, they can view the same information or image base to ensure they are discussing the same locality or address.

Borough schools require GI to support teaching

'GIS-MO for Schools' has been developed to fill an increasingly important niche. The joint project involved the GMIS Unit, Research Machines (RM) – the private finance initiative (PFI) contractor supplying schools' IT as part



of Dudley Grid for Learning, the local education authority, teachers and a curriculum advisor.

The system has been simplified and modified to be shown on whiteboards or PCs in a classroom setting. It appeals to the 50,000 pupils it serves, who range from five to 16 years of age. GIS-MO is regularly used within all 112 council schools.

'GIS-MO for Schools' includes interactive teaching aids, local history, online tasks for children and a direct link to an established children's book.

The 'Katie Morag' book series, written by Mairi Hedderwick, is loosely based on the Isle of Coll off western Scotland. GIS-MO therefore contains aerial and panoramic images of the island as well as pupil exercises. These are aimed at engaging pupils and teaching them about different geographical locations, comparative lifestyles, cost of living and local experiences.

Citizens also require maps and local information from the council...

As a further development, GIS-MO was refined and embedded within the council's own public-facing website. 'GIS-MO Lite' has been incorporated as the interactive mapping element into the website's 'My Neighbourhood' facility.

It can display a variety of information, depending on where the customer is on the website. This interface can be enjoyed by the consumer, who can explore local information on the interactive map as and when they wish.

Outcomes and impact

The impact GIS-MO has had in its various forms to date has been quite staggering. Ninety-two per cent of computers within the council have used it, with over 4,000 staff accessing the application regularly.

A director at the council stated that GIS-MO is the most important programme on his computer. It is a business-critical system which cross-cuts the council horizontally and vertically. It is said to be the largest single expansion of access to corporate information that the council has so far delivered.

The introduction of GIS-MO into schools has also produced many benefits. GIS-MO enables the curriculum to be delivered more effectively, which is a major service delivery improvement. It also allows information to be displayed flexibly and instantaneously while ensuring that the information is consistent.

It aids school teaching by making it a more interactive and enjoyable process, while still delivering the National Curriculum. Pupils are becoming the geographically aware citizens of the future.

It has enhanced the council 'brand' by demonstrating that enjoyable, interactive services can be provided. Feedback from users is encouraged and acted upon to further refine the look and feel of GIS-MO.

Next steps

One of the next major developments planned is to enable pupils to access 'GIS-MO for Schools' from home via a secure internet portal. This facility will further develop the value of GIS-MO as a learning tool for all ages within the borough.

GIS-MO's online training is also about to undergo a radical new face-lift in the near future. New 'on demand' tutorials developed in-house are to be presented through online demonstrations and exercises. Only by ensuring all the users have a comprehensive knowledge of the tool will the full benefit be gained from it.

Further information

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