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PROGRESS IN IMPLEMENTING E-GOVERNMENT IN BRITAIN:

SUPPORTING EVIDENCE FOR
THE NATIONAL AUDIT OFFICE REPORT
GOVERNMENT ON THE WEB II

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Ruth Callaghan, and Hala Yared**

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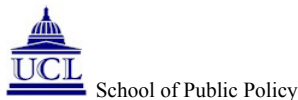
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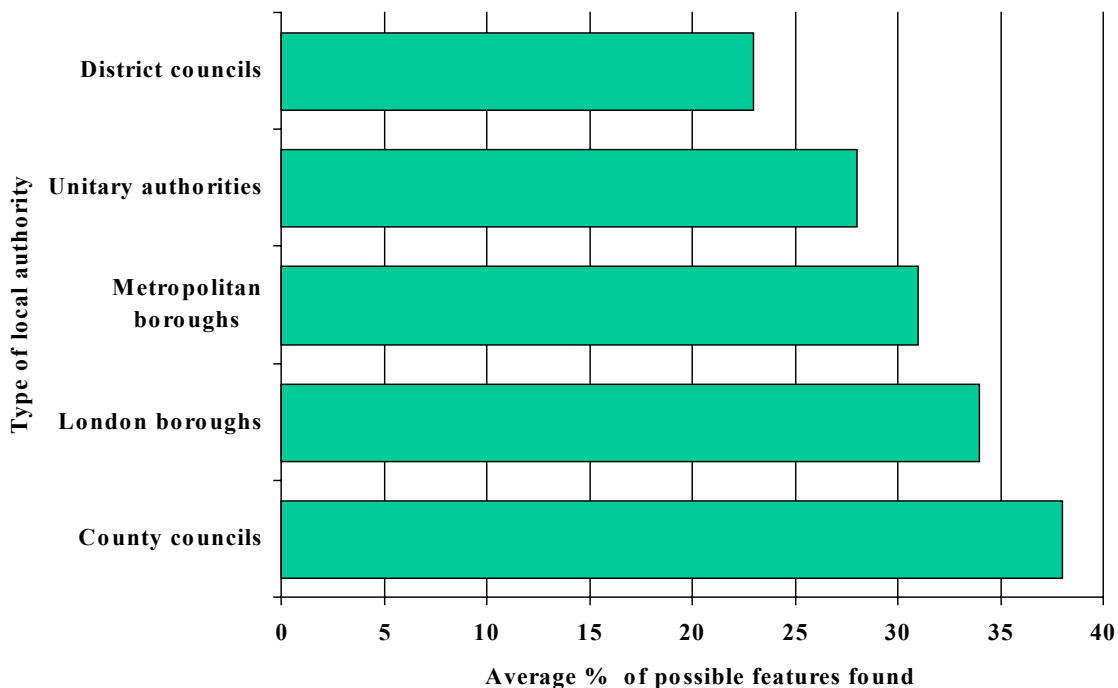
The following post-graduate students from LSE were the Website coders for the autumn 2001 censuses of central and local government:

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3. PROGRESS IN E-GOVERNMENT FOR LOCAL GOVERNMENT IN ENGLAND

In the census of local government Web sites in England we coded 172 variables about them, of which 166 concerned features on the sites themselves. (The remaining few variables not used here related to the sites' findability, our coders' subjective rating of sites, and a couple features not suitable for numerical compilation). Figure 1 shows the average scores across different types of local authority for these features. The least well performing group were district councils outside the cities, which are generally smaller and less well-resourced, followed by unitary authorities. The focus of most e-government attention has been on larger urban authorities, but county councils emerged with the best overall scores, although they have a different issue mix from London boroughs and the metropolitan councils, both with high but slightly lower scores.

Figure 1: The average performance of different types of local authorities in the proportion of possible Web features found



Looking at different broad types of features Figure 2 shows that basic site features were the best developed across all local authorities, and the harder to implement transactional features were the least advanced. Interactive features were best developed in the county councils and London boroughs.

Figure 2: The average scores for different types of local authorities' for four different kinds of Web site features

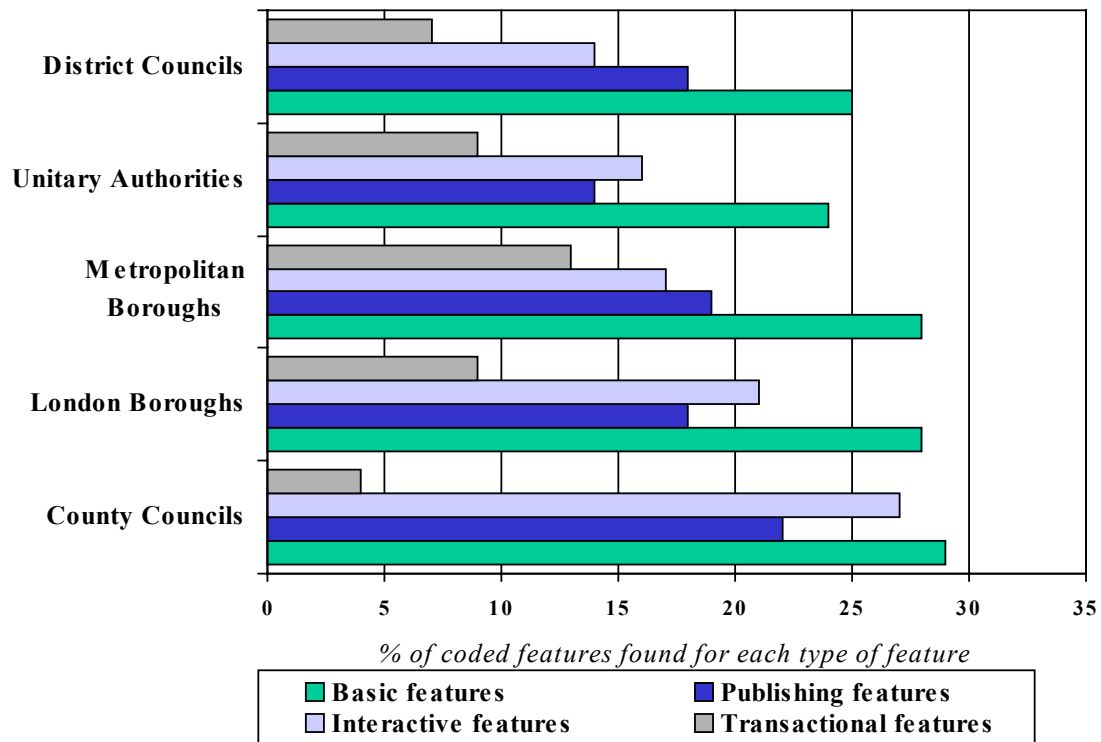
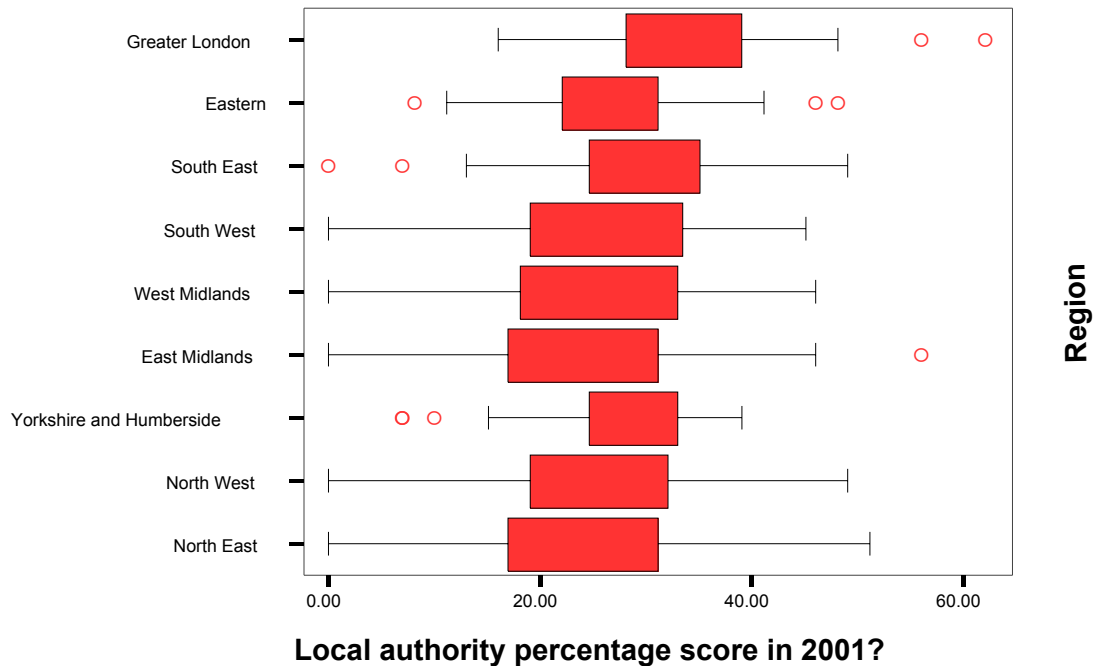
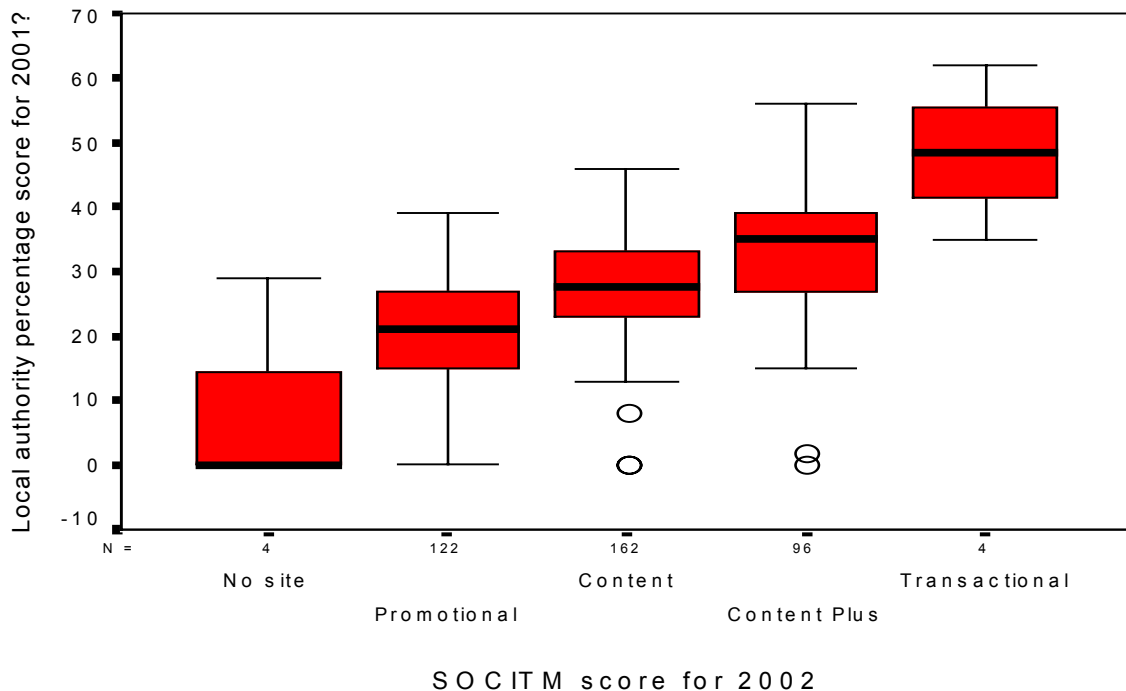


Figure 3: How local authorities' average scores for their percentage of Web site facilities varied across government standard regions in England



The regional patterning of local authority performance is shown in Figure 3, where the variable recorded is the spread in each region of local authority overall scores (for possible Web features present on their Web sites). The shaded boxes show the position of the middle half of the local authority scores data for that region (the ‘midspread’), and the ‘whiskers’ above and below that show respectively the range covered by the top and bottom quarters of the scores in each region. In a few cases there are ‘outlier’ data points (highly unusual observations a long way from the middle body of the data), and these are shown by the blobs located beyond the end of some of the whiskers. (Technically an outlier is defined as being more than 1.5 times the midspread above the upper quartile or below the lower quartile). The best performing areas are London, and the southeastern region and eastern region which surrounds it. The most northerly regions of England did somewhat worse, but the inter-regional variation is not all that large. There was a considerable spread of scores *within* all the regions.

Figure 4: Correlating Government on the Web 2001 local authority survey results with SOCITM 2002 local authority results



Thanks to the help of Martin Greenwood of the Society of IT Management (SOCITM) we were able to compare our scorings of local authority Web sites with a classification developed by SOCITM in a series of well-known reports called *Better Connected*. SOCITM uses a different methodology from that deployed here, asking a jury of experts to access each local authority site and consider how easy they believe it would be for citizens to use the sites to carry out a number of common tasks or help solve everyday problems. The jury also consider the design and operations of each site and assign an overall grade to sites depending on the mix of features which they show. The data for their 2002 report was collected in middle 2001, shortly before our data collection period in October-November 2001. SOCITM's categories start with a basic site used for promoting a local authority or local area, predominantly including 'brochureware' leaflets in Web form. The next stage for SOCITM is a site which gives local citizens a good deal of local content but is not very interactive. Their 'content plus' category denotes a more interactively arranged and accessible Web presence for the local

authority. Finally a ‘transactional’ site denotes one where the local authority has Web-enabled a significant set of services which citizens or businesses can undertake on-line (such as, paying council tax online). Figure 4 shows that only tiny numbers of authorities made this grade, and that our data also included a small number of authorities which SOCITM classed as not having a site. Essentially though, virtually all local authorities were in the middle three categories shown in Figure 4, covering basic site, content, or content plus features.

Our scores mesh closely with the SOCITM grades. The shaded boxes in Figure 4 show the midspread or middle mass of the overall scores for the localities in each of SOCITM’s grades, with the ‘whiskers’ again showing the spread of the top and bottom quartiles’ marks. The thick line inside each middle box is the median score for all local authorities in that category. As we move rightward up the SOCITM hierarchy of different stages of development of Web sites so the overall scores on our Web census for local authorities of that type also increase. There is a spread of our marks around each central level in the middle three categories, as one would expect since the SOCITM jury have a difficult decision to make in categorizing local authority sites as being in one class rather than another, and must perforce cover a range. The association of the two scores in Figure 4 is supportive of both of the methods used.

HOW LOCAL AUTHORITIES PERFORMED ON PARTICULAR FEATURES

For the remainder of this section we move on to consider how local authorities as a whole performed on particular aspects of their Web provision. Because local authorities are multi-issue agencies, covering a wide range of issues (by contrast to the narrow scope of most central agencies’ concerns), our analysis is longer somewhat than its counterpart in section 2 above. We begin by looking at some general features of councils’ sites, and then at citizenship and related issues and links to other bodies. We move on to consider a range of ‘human services’ (such as education libraries, leisure and social services) and then a range of urban and environmental services (public transport, highways, housing, planning and environmental services).

Figure 5: Basic information and site facilities across local authority web sites in 2001

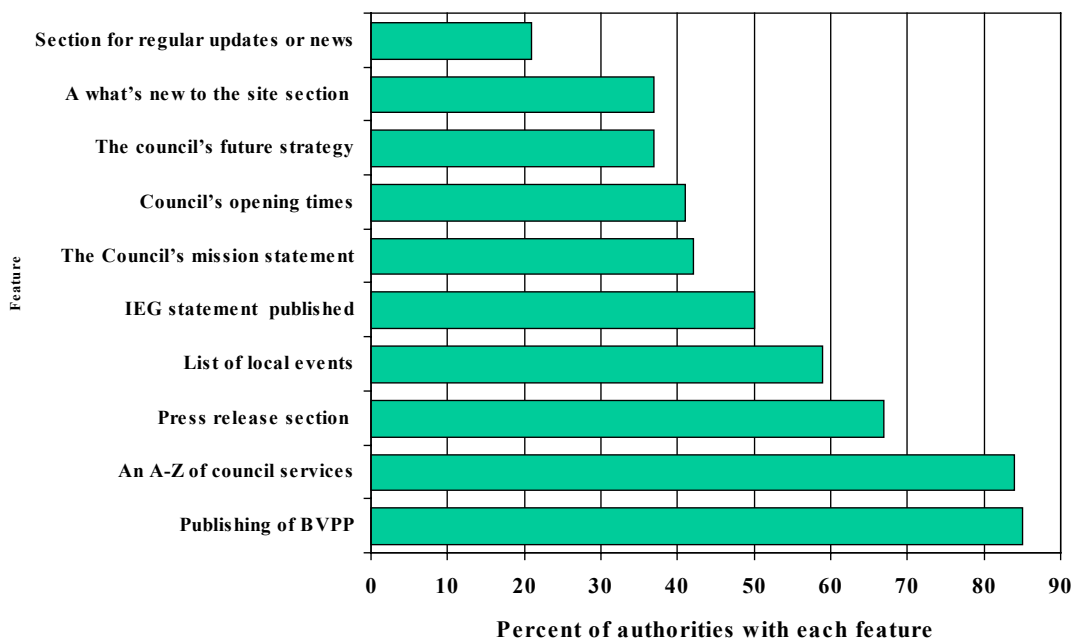


Figure 5 shows the proportion of all English council Web sites including a number of basic information features. The four most popular here are: an A to Z of council services (listing topics and issues the authority handles in alphabetical order) with links to relevant sub-pages, an indispensable feature usually found on the home page but still omitted by one in six sites; a section for press releases (missing on over a fifth of sites); a listing of local events (found on three fifths of sites); and a Web version of the council's 'Best Value Performance Plan' (BVPP), a statutory exercise which seems likely to be rarely visited by any average citizen. Other features shown were included only in large minorities of sites, even such essential information as the opening times of council offices.

Figure 6: Information on the structure and responsibilities of local authorities across local authority sites in 2001

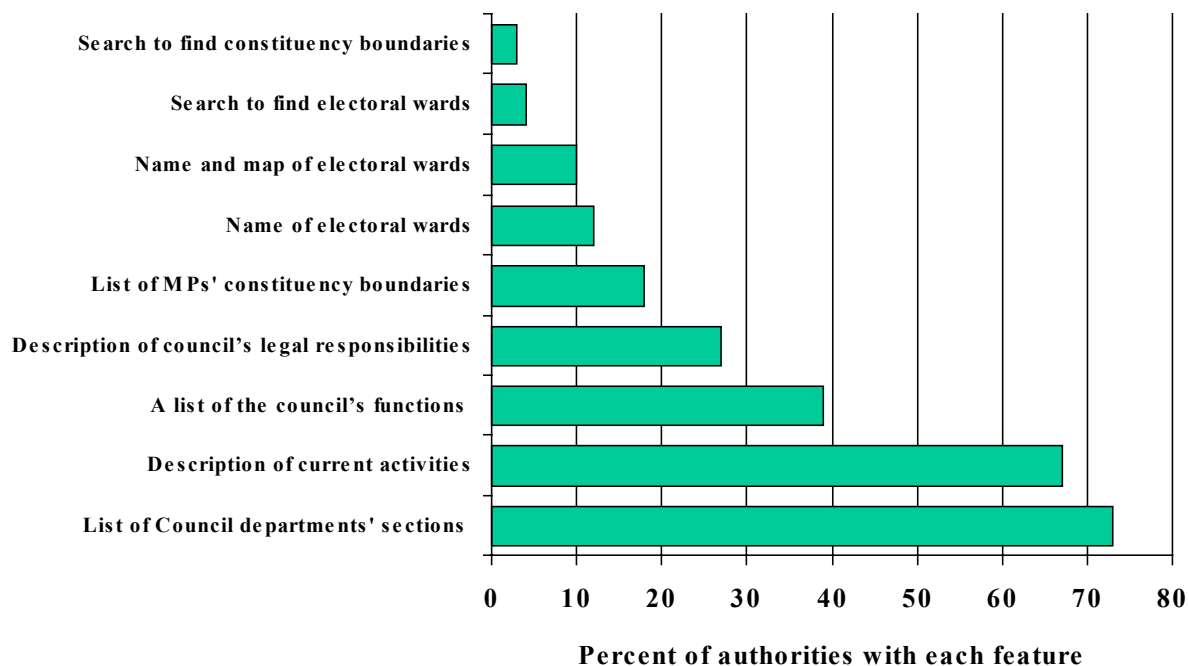
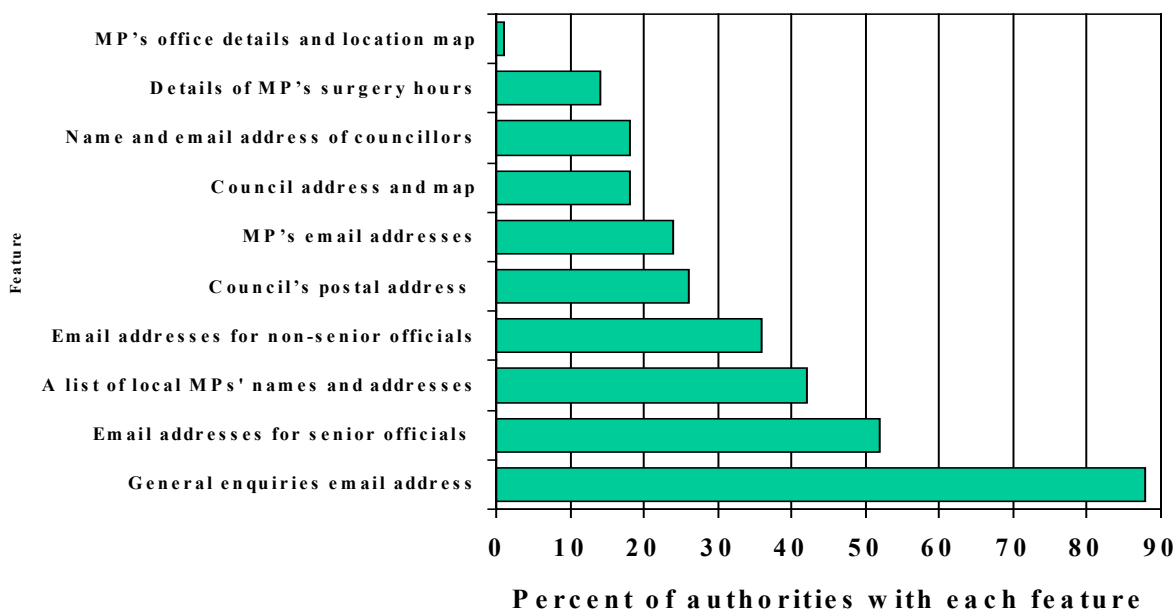


Figure 6 continues this look at general features by showing how far council sites give information likely to be of value to citizens wanting to find out what their council does or what ward or constituency they live in (a step often useful or even unavoidable in contacting an elected representative such as a councillor or a local MP to raise an issue with them). Nearly three quarters of sites provide some listing of or description of how their council is organized and of main sections inside council directorates. Two thirds of sites describe current council activities. Minorities of councils give separate descriptions of council functions or legal responsibilities. Levels of information provision were much poorer for citizens trying to find out what ward or constituency they are in.

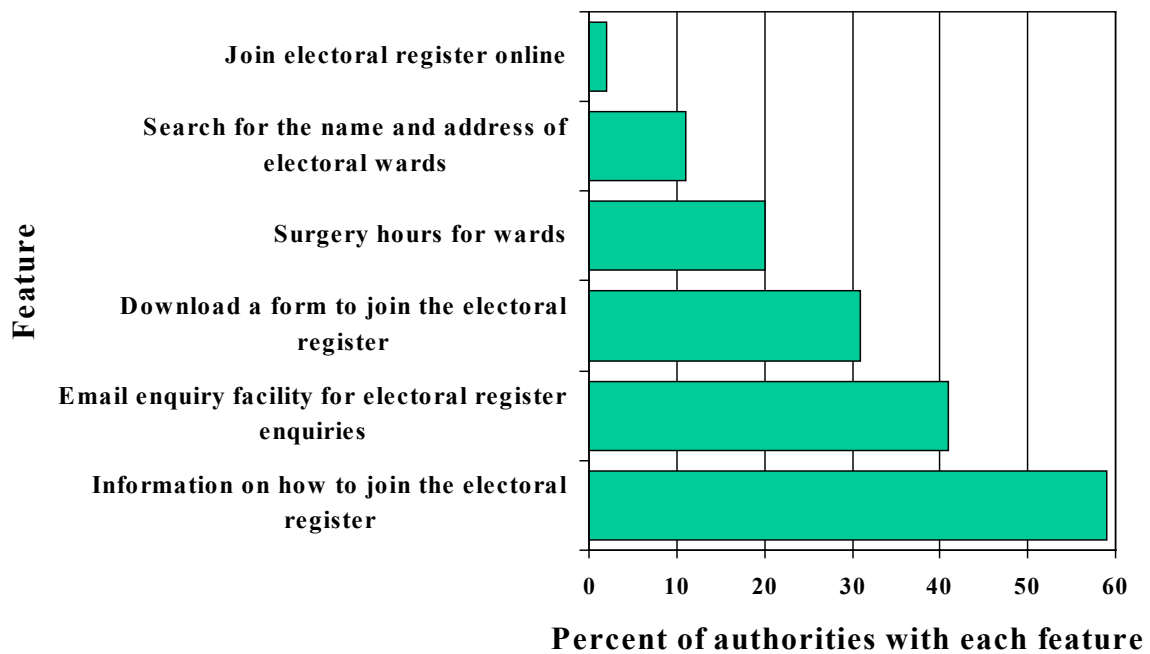
Figure 7: Facilities for contacting local authorities and relevant officials on local authority web site in 2001



Turning to more direct contacting information the provision was also rather patchy (see Figure 7). Five out of six councils with Web sites provide an e-mail address for general enquiries, which is a surprisingly strong performance, and over half provide e-mail addresses for senior officials. Over a third provide e-mail addresses for people to contact non-senior officials directly. But e-mail addresses for councillors are given on only one in five local authority Web sites (perhaps because of members' resistance to new technology). Addresses for MPs are given on less than half of all local sites (and MPs' surgery hours on only one in six sites). Even finding out the full postal address for the council is quite difficult and less than one in five sites provide a map of where council offices are located.

A related important area is the provision of information about political citizenship. Figure 8 shows the extent to which the Web sites of voter-registration authorities (that is, excluding the county councils) provide information or facilities to let people get on the electoral register. Only half the relevant local authority sites give information even in a simple list format, but over a third provide an e-mail address to enquire about voting. Just over a quarter of councils let you download a form to join the electoral register, which citizens must print out and fill in. But on-line registration is still very rare. However, one in five local authorities does provide information on the surgery hours for local ward councillors.

Figure 8: Information and services on local elections and electoral status across local authorities in 2001



Closely related in some ways are the more basic tasks of establishing oneself as a citizen by properly documenting and managing one's family affairs. Figure 9 shows how local authorities provide Web facilities for registering births, marriages and deaths (again looking at only relevant authorities, excluding districts within county areas). This seems to be a seriously laggard field, with only one in eight council sites including the names and addresses of registry offices, and only one in 25 providing a map. Very few authorities allow citizens to download forms to register births, deaths or marriages. Although registration is an apparently narrow bureaucratic activity, the fact that local authorities play a role in weddings and funerals means that they have a key opportunity to provide citizens with useful links to private sector actors with whom they may not often have dealings. The best country sites, such as Kent or Dorsetshire, provide extensive links from information on weddings formalities to hotels, restaurants and other places where receptions can be held. But this pattern is very unusual, as are links to funeral directors or florists from the registration pages.

Figure 9: Information and services on births, deaths and marriages across local authority sites in 2001

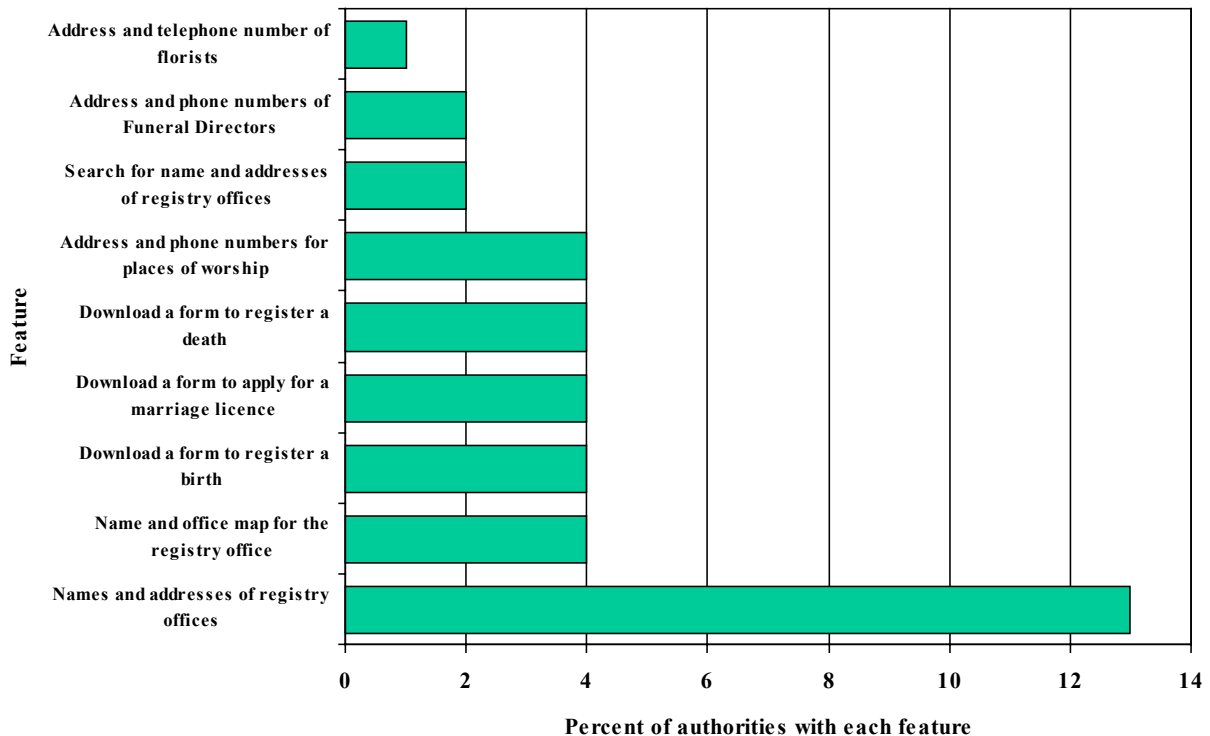


Figure 10: Facilities for searching information, receiving personalised information, and online advocacy across local authority Web sites in 2001

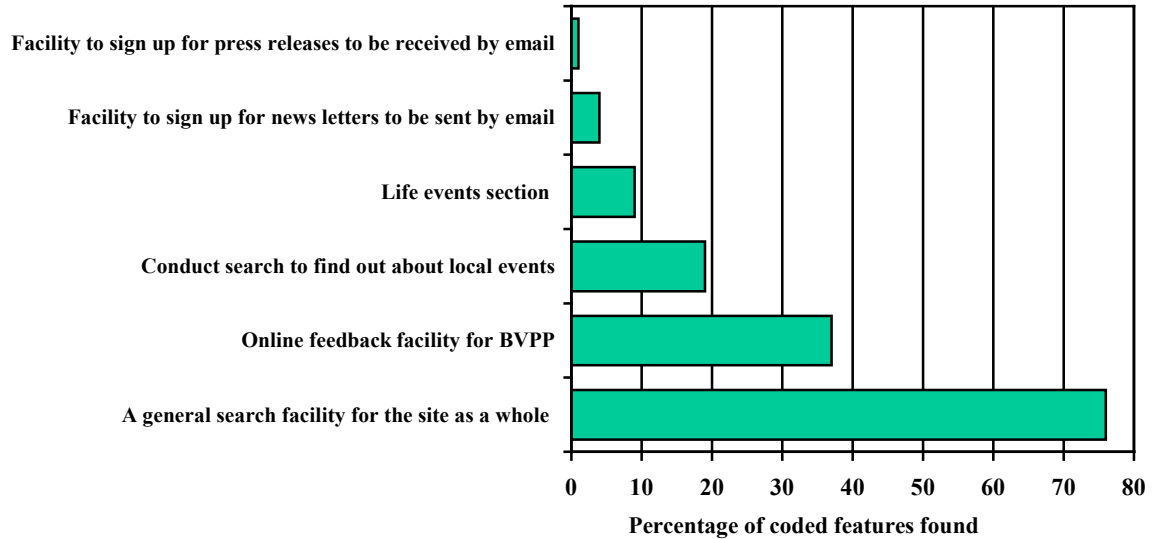
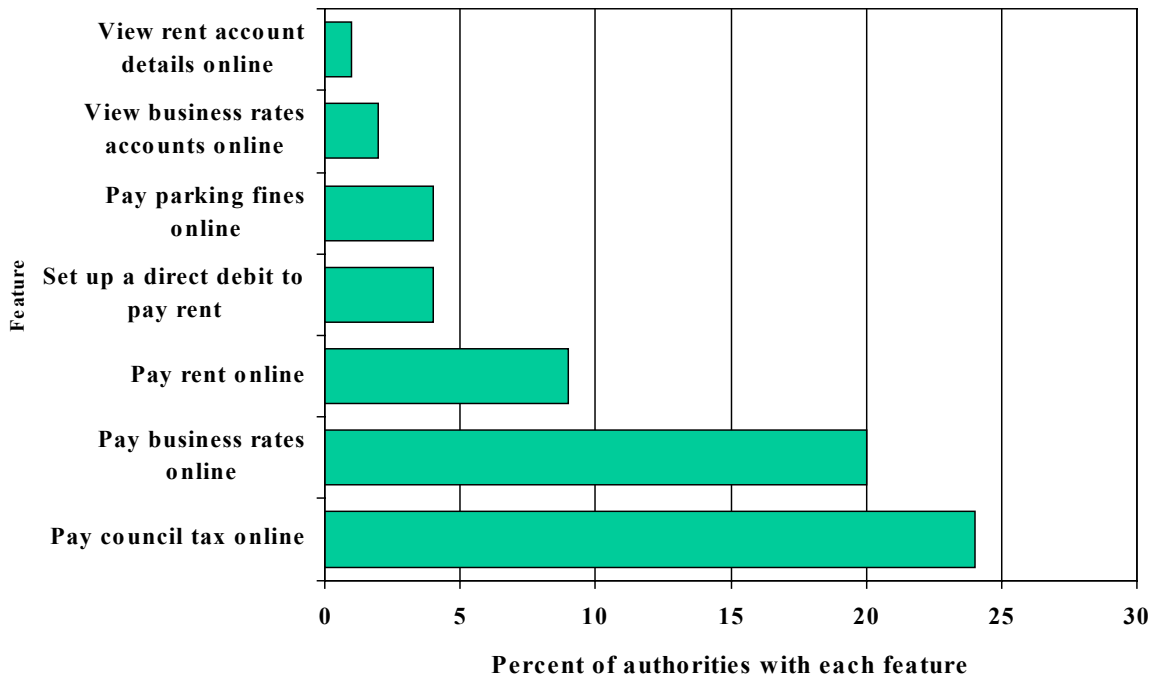


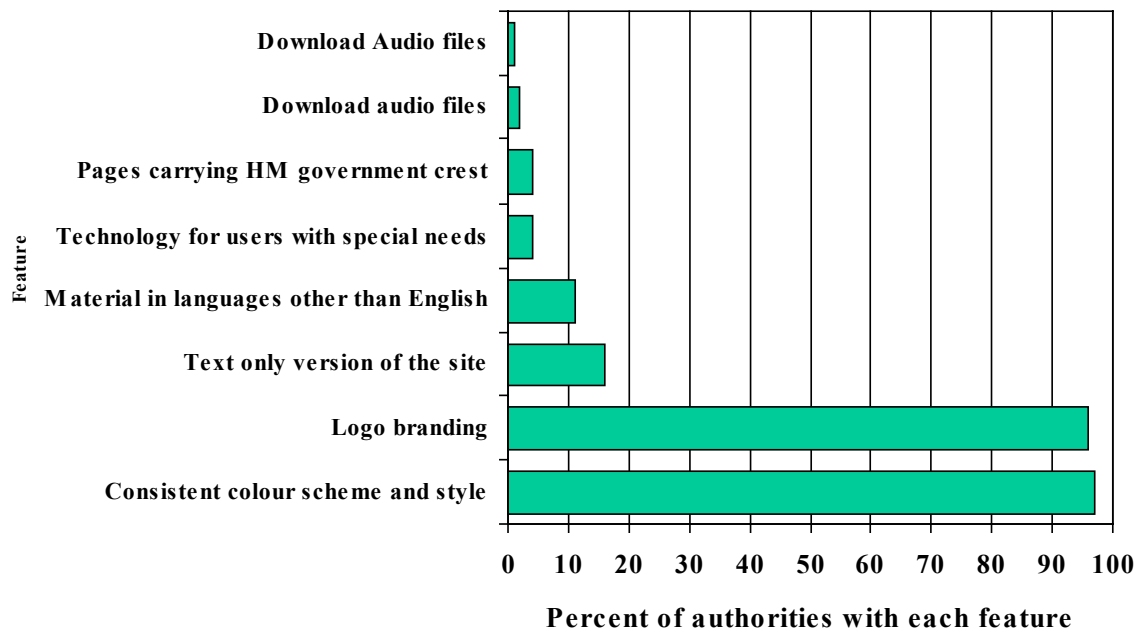
Figure 10 shows that the main interactive features for finding individual pieces of information (not in a list) on local authority sites is a general search engine. Over a third of councils give an on-line response option for people on comment on their Best Value performance plan (BVPP), although this is likely to be relatively little used. Facilities like pro-active e-mail alerts or notification are still in their infancy.

Figure 11: Facilities available for making transactions on local authority web sites in 2001



The most ‘advanced’ types of features on local authority sites (according to both the SOCITM schema and the views of most IT industry people) are those which allow citizens to conduct transactions online. Figure 11 shows that more than one in five councils now let citizens pay their council tax on-line or enterprises pay the business rate. One in six public housing authorities also lets their tenants pay their rents on-line, but only one in twenty councils allows people to pay their parking fines on-line. The ability for citizens to look at accounts (for instance, for business rates or for public housing rents) is just beginning to be provided.

Figure 12: Style and format features across local authority web sites in 2001



Looking at style and format features, Figure 12 shows that virtually all council Web sites now have a consistent ‘look and feel’ throughout the site and use council logos and branding. But other format features are not much developed, even text-only versions of the site for disabled people (found on one site in six) or materials in different languages (found on one site in eight).

We turn next to the linking behaviour of local government Web sites. Councils stand at the centre of local communities and local economies, and because their sites cover multiple issues and concerns the chances are much greater than with central government sites that users who once find them may return or become regular visitors. Similarly citizens are in a position to know much more about their local authority than about most central government agencies. So on council sites there is an increased prospect of ‘collateral learning’ where someone logging on for purpose A actually learns about or notices materials on a separate issue B. A key aspect here is the extent to which

on the one hand the local authority's Web site sticks narrowly to only those concerns for which the council itself is formally responsible; or on the other seeks to act as a node linking together local information and other tiers of government, and bringing public sector together with information from the private or non-profit sectors.

Figure 13: Links to other general organisations across local authority web sites in 2001

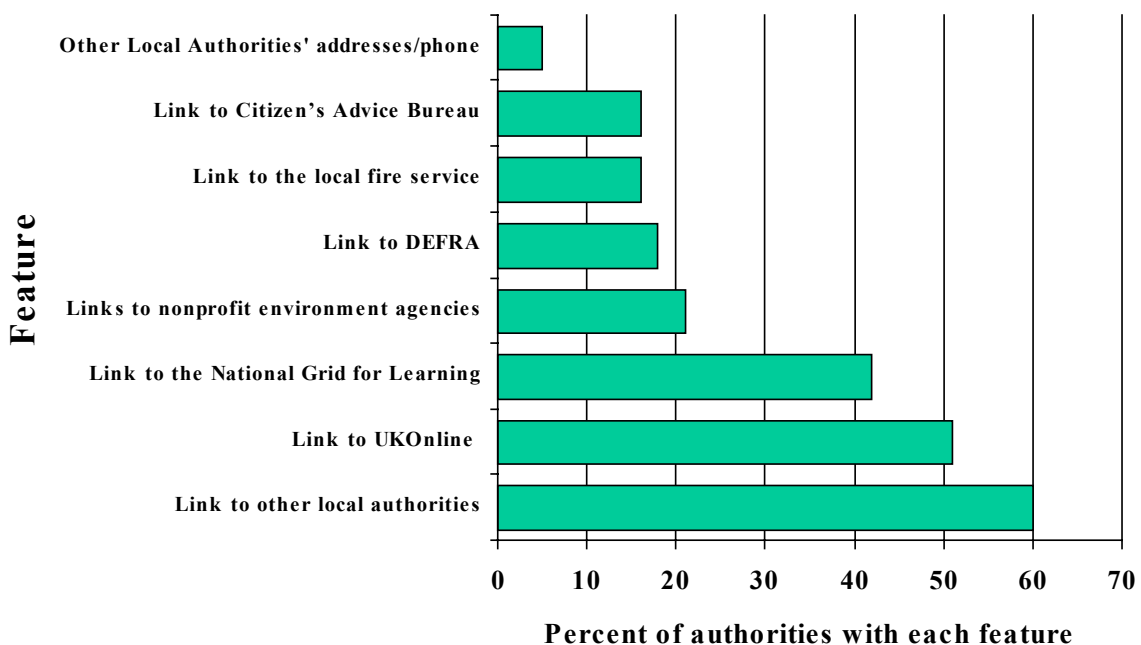
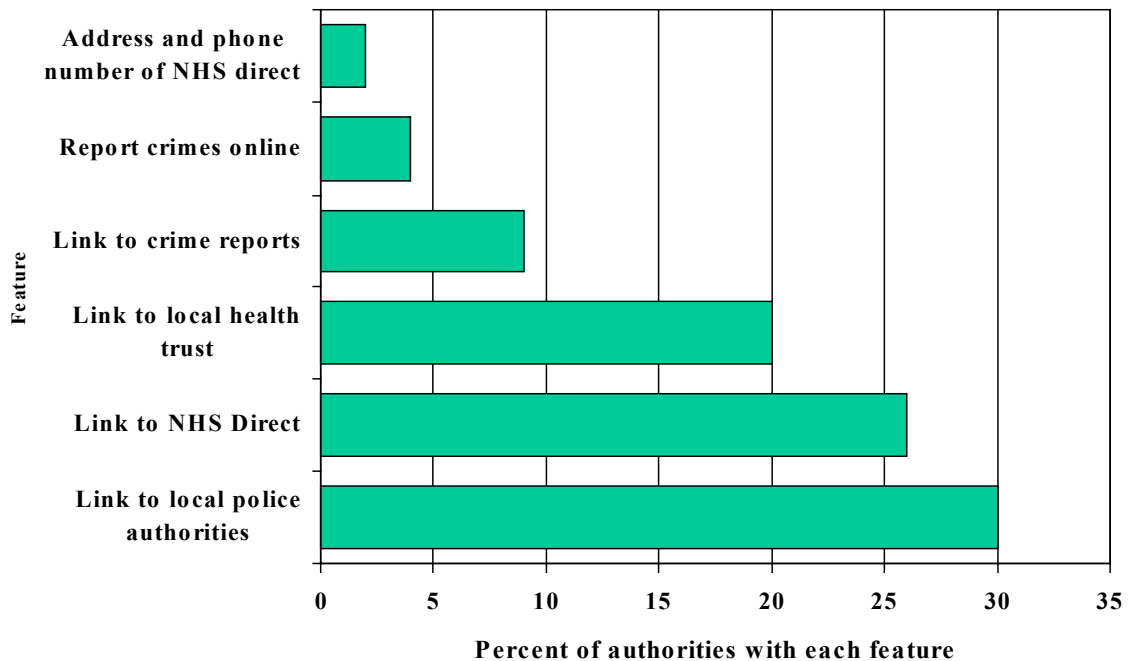


Figure 13 shows that the linking behaviour of local Web sites still leaves a lot to be desired. Around three fifths provide a link to other neighbouring local authorities, mainly in county areas where there are two tiers of local authority and there are frequent cross-links. Just over half of councils link to the central government portal site, www.Ukonline.gov.uk and over two fifths link to the National Grid for Learning run by the Department for Education and Skills. But other links to non-profit bodies, CABs or local fire services are distinctly a minority activity.

Figure 14 brings this impression into sharper focus by looking at how local authorities link to health and police bodies, two issue areas which are closely connected with the provision of council services. Under a third of councils provide a link to their local police authority, and one in twelve provides a link to crime reports. Only one in twenty local authority sites lets people file crime reports online, chiefly because this facility is so rarely made available by the police themselves. Just one in five councils link to their local health trust, slightly fewer than provide an on-line link to NHS Direct, the national help service for people with illness or health issues - although even here people will find it hard to find non-Web contact details, such as the NHS Direct call-centre number.

Figure 14: Police and health services and information available across local authority sites in 2001



Turning to service areas which are directly controlled by local authorities, the largest spending service by far is education. Figure 15 shows eleven easily provided features for school students or their parents which we would expect to find on all education authority sites. Four are present on a majority of sites, notably links to schools' own Web sites and their e-mail addresses, together with details of school term dates. Conventional listings of schools and adult education centres were unexpectedly less common. Two in every five education authorities provided a search facility for people to determine which school's catchment area they are in, but only one in eight sites provides a map of school locations. Some of the maps that are included are not very easily useable, but the best link to commercial map providers allowing users to see both the school's precise street location and where it is situated within a wider area. Adult education features and links are less well-developed and few authorities yet let citizens download applications for courses or apply on-line.

Figure 15: Information for parents or students across local authority sites in 2001

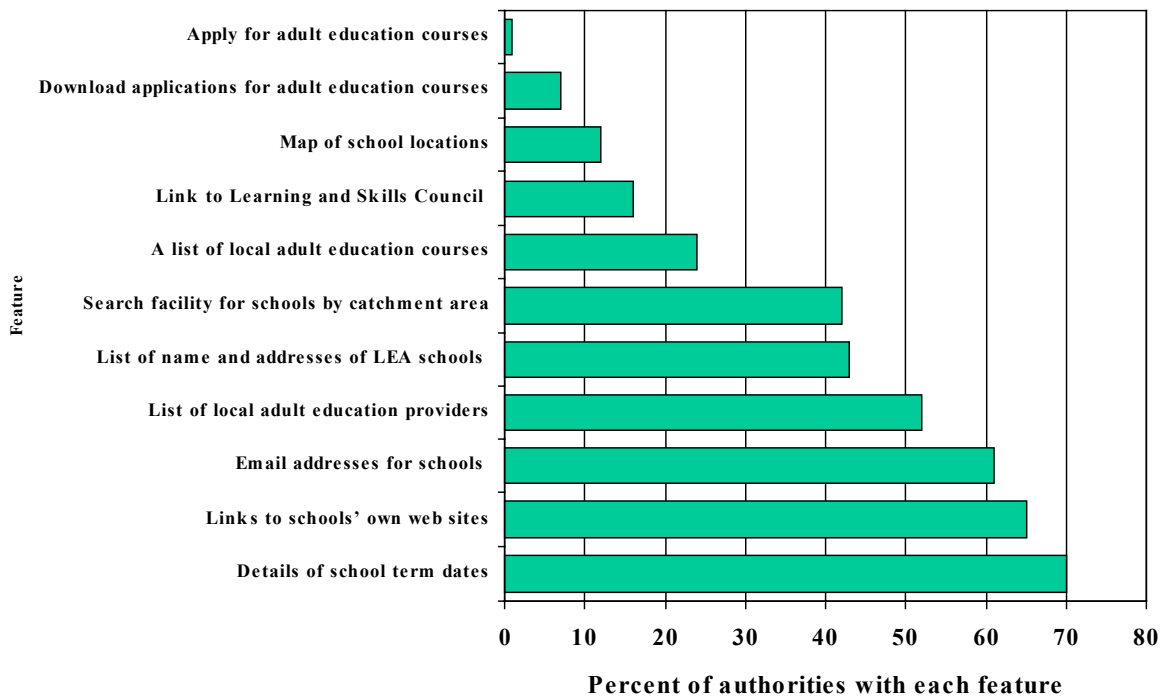
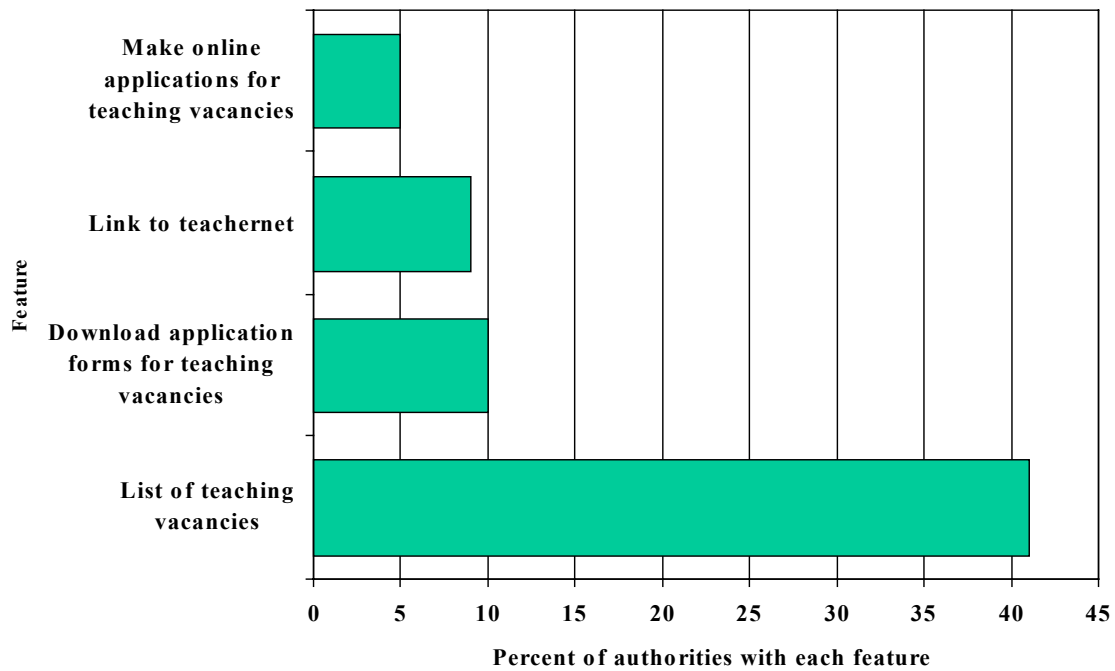
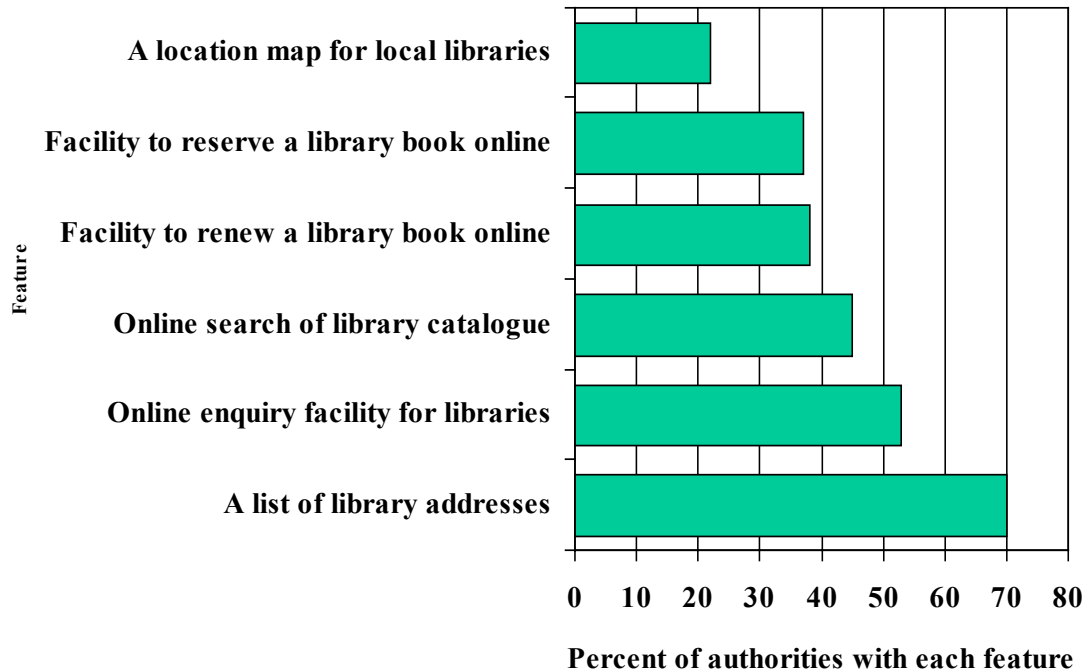


Figure 16: Information for teachers across local authority sites in 2001



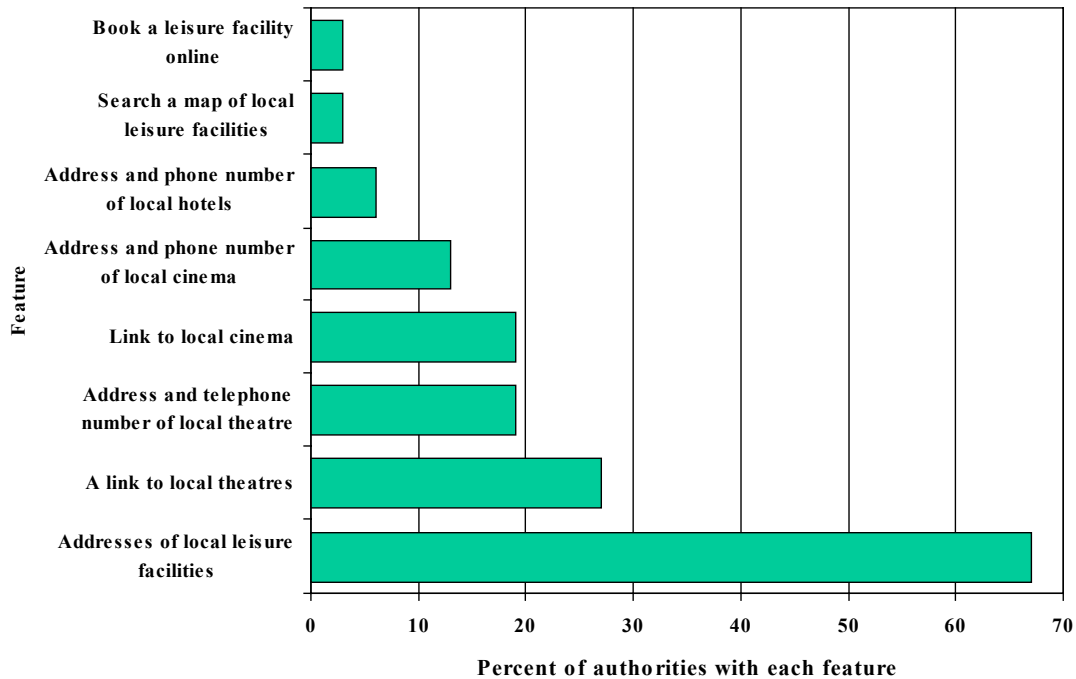
Local education authority Web sites also provide important facilities for teachers and prospective teachers, and we checked here for only a small fraction of issues, mainly to do with recruitment. Figure 16 shows that two in five education authorities post lists of their current teaching vacancies on their Web sites, but only one in ten let applicants download application forms for prospective teachers to fill in and send off, and only one council in twenty lets people apply for their teacher vacancies on-line.

Figure 17: Library information and services available across local authority sites in 2001



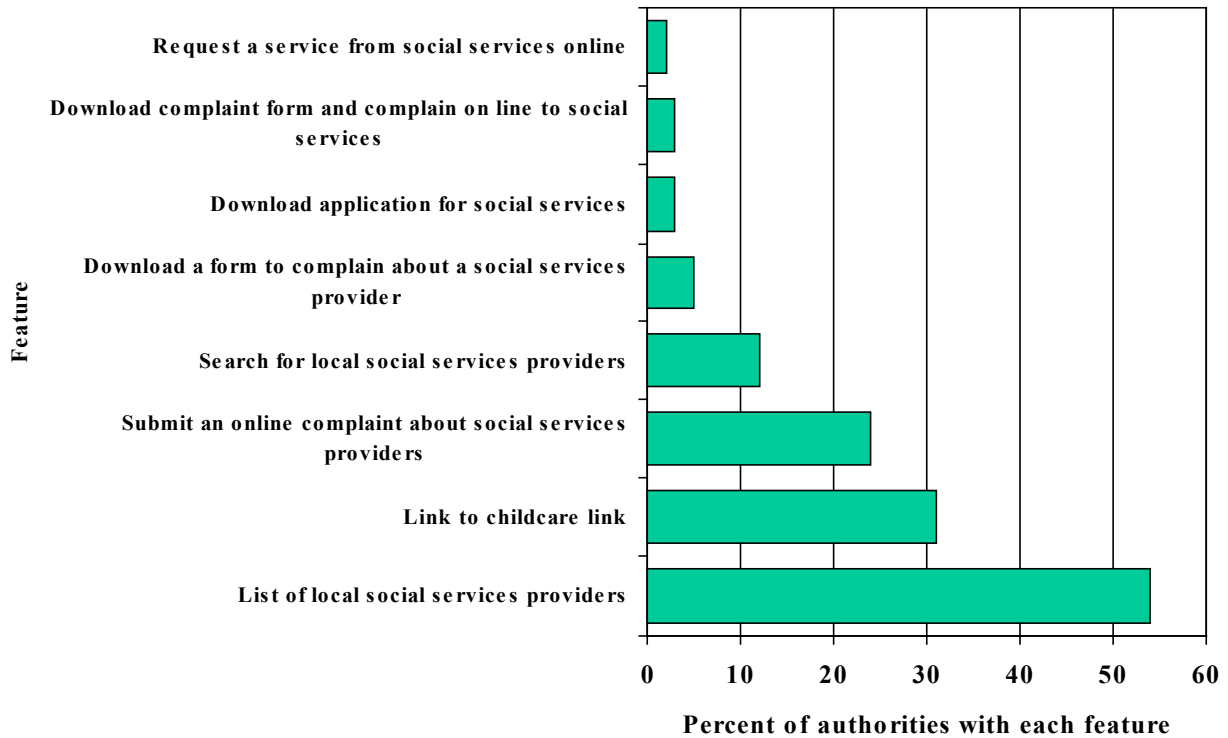
Library services provide a ready area of application of Web technology, since library catalogues can be much more easily browsed and books ordered or reserved over the Web than via the phone. University libraries have had on-line public access catalogues for many years and of course Amazon.com and other bookshop sites have been prominent in a similar area of the commercial sector. Figure 17 shows that over two fifths of local authority libraries now provide an on-line searchable catalogue, and somewhat fewer let users reserve or renew books online. Over half of councils have an on-line enquiry facility for their library via e-mail, and over two thirds provide a list of library addresses. But fewer than a quarter give a location map for local libraries. Again the best mapping services link to a commercial map-provider.

Figure 18: Information on local leisure facilities and services across local authority sites in 2001



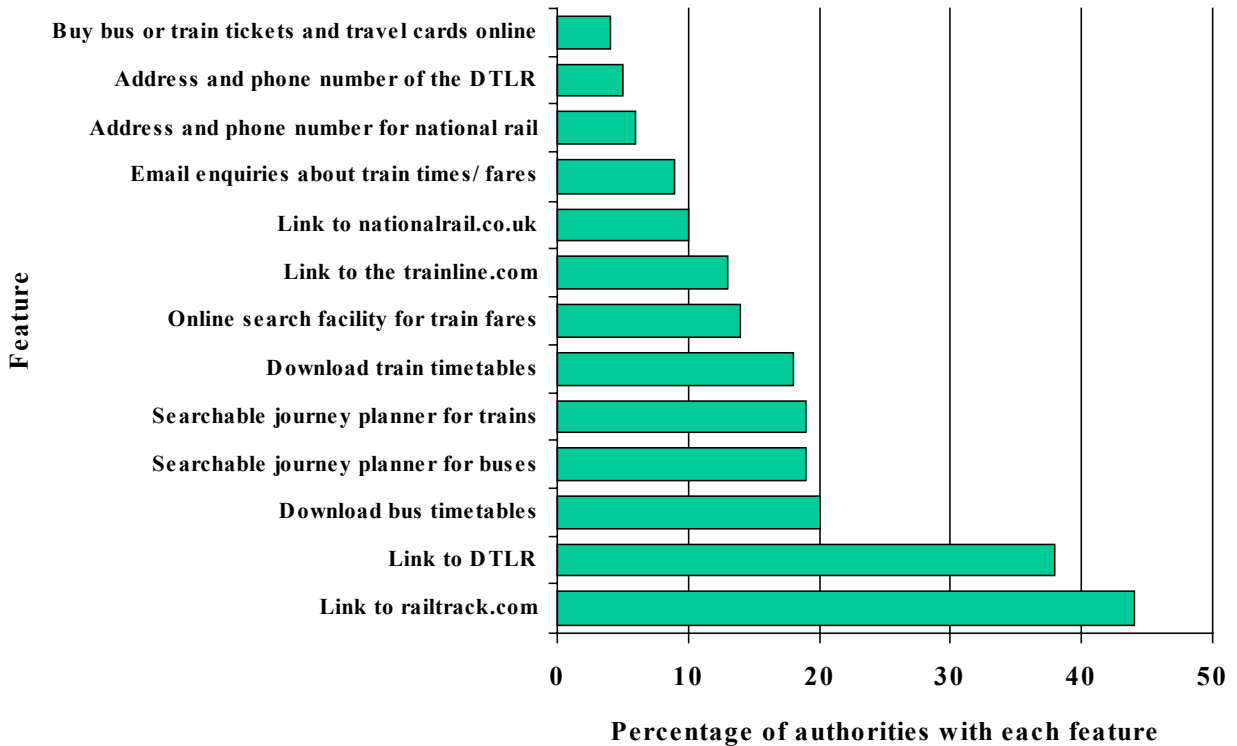
If local authority sites are to be regularly used and to mesh with local community concerns then their links to the local private sector are also likely to be important, especially in an area like leisure where local authorities often play a role already through their own facilities, encouraging tourism, etc. Figure 18 shows the extent to which council sites provide information on local leisure opportunities. Two thirds of sites give conventional addresses for such facilities, but Web links to local theatres and cinemas are not common. Maps of leisure facilities or links to facilities for on-line booking are very rare.

Figure 19: Social welfare information and services available across local authority sites in 2001



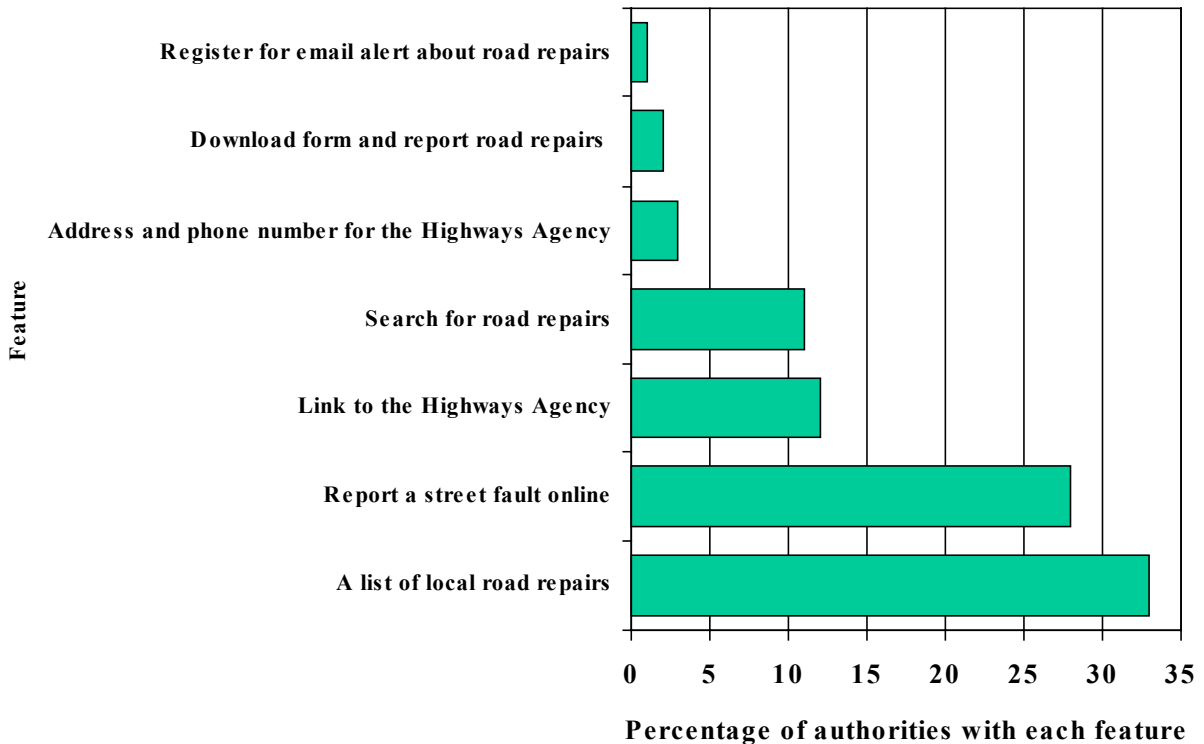
Social services information on council Web sites is shown in Figure 19. Over half of relevant council Web sites (excluding the many rural districts which are not social service authorities) provide a listing of local social services providers. But fewer than a third have a childcare link and very few let citizens apply on-line for social services or even download a form to fill and send back in the post. There are facilities to complain about a local social services provider on nearly a quarter of council Web sites, an important provision given the reliance on private sector providers in many areas.

Figure 20: Information on local transport networks across local authority sites in 2001



Local authorities are also responsible for a wide range of urban and environmental services. Their Web sites could especially provide a useful way of helping to overcome some of the difficulties of finding out information about public transport, and helping citizens to devise connected journeys across different forms of local transport. Figure 20 shows that around two in five council sites provide links to Railtrack.com (the main national railway timetable site) and to the Department of Transport, Local Government and the Regions (DTLR), the Whitehall department with public transport and highways responsibilities. One in five local authority sites allowed users to download bus timetables, and searchable journey planners for bus and rail are almost as common. But other facilities were still developing.

Figure 21: Road and highway information across local authority sites in 2001

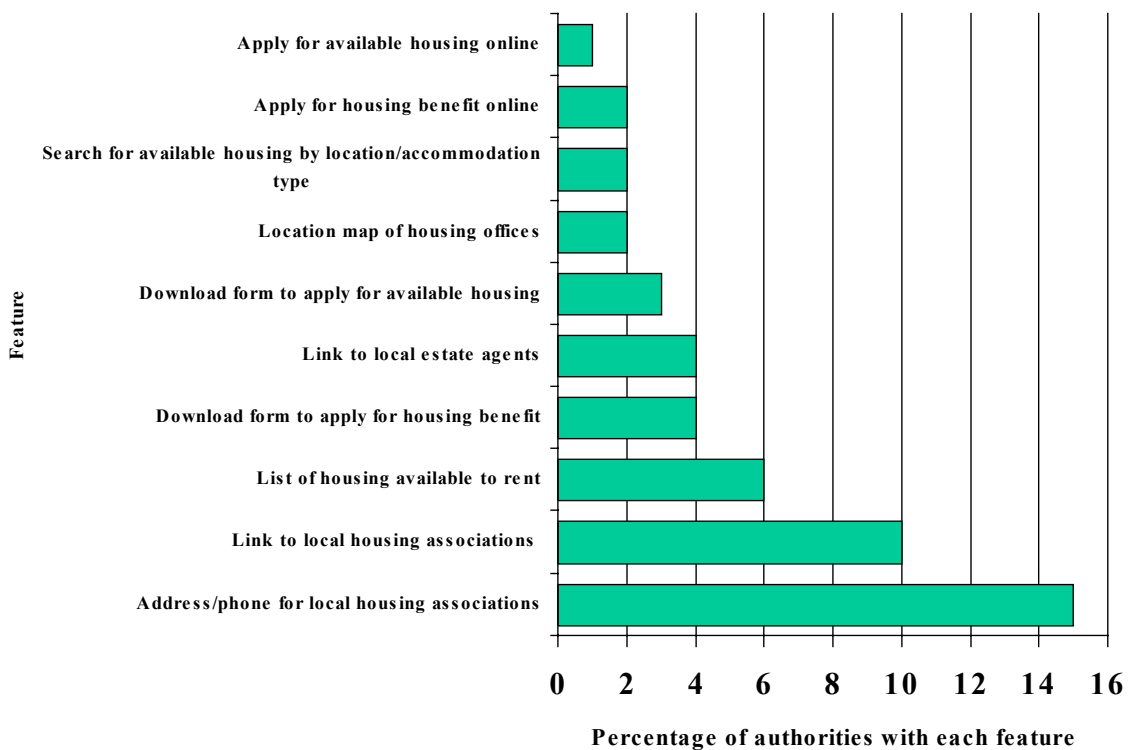


The development of features about roads and highways on local authority sites is also just beginning. Figure 21 shows that a third of councils provide a list of local road repairs, and small numbers let users search for repairs or provide a link to the Highways Agency site, which has useful route planning features. A quarter of council sites include provision for people to report street faults online, especially street lamps which need replacement bulbs and pavement defects.

Local authorities' roles in housing are changing and there is some variation across the country between areas where the local authority still runs a substantial council housing stock and those areas where this role has been hived off to housing associations. Housing services on the Web are poorly developed as yet. Less than one in six housing authorities even provides addresses for local housing associations, which Figure 22 shows is the most widespread of the housing features we coded. One in ten councils

provides a live Web link. Only tiny numbers of authorities allowed residents to download forms for housing benefit, and only one in a hundred allowed applications online. Some authorities may feel that social housing tenants or those needing housing benefit will be unlikely to have access to the Internet via a PC. But we noted earlier that facilities for paying rents online were somewhat better developed than most of the features here.

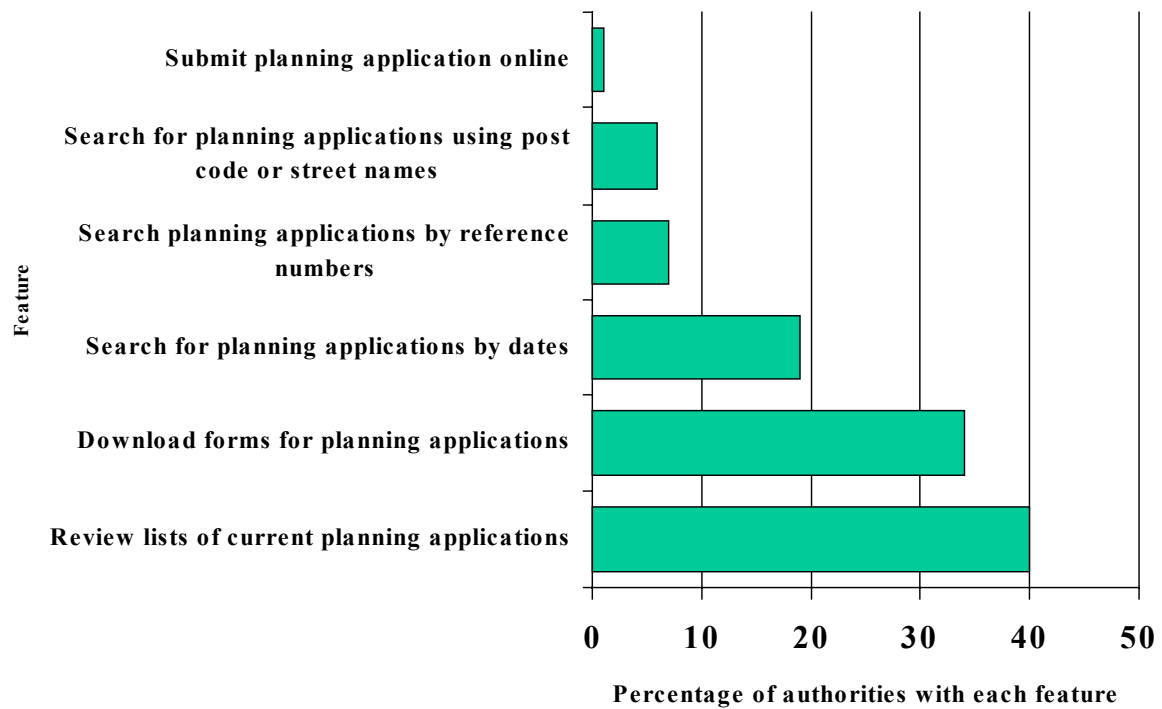
Figure 22: Information and services available on housing across local authority sites in 2001



By contrast planning uses of the Web have been much more developed, perhaps because planning issues are potentially of concern to all citizens, or perhaps because planning sections of directorates are more used to handling Web-enabled information. Figure 23 shows that two in five councils with a local planning role provide lists of current planning applications on their sites, and a third allow users to download the forms needed to make a planning application. Nearly one in five authorities also let users search online for applications by date order, but very few (one in sixteen) yet enable searches by postcode or street names, which would be much more useful features. Although planning

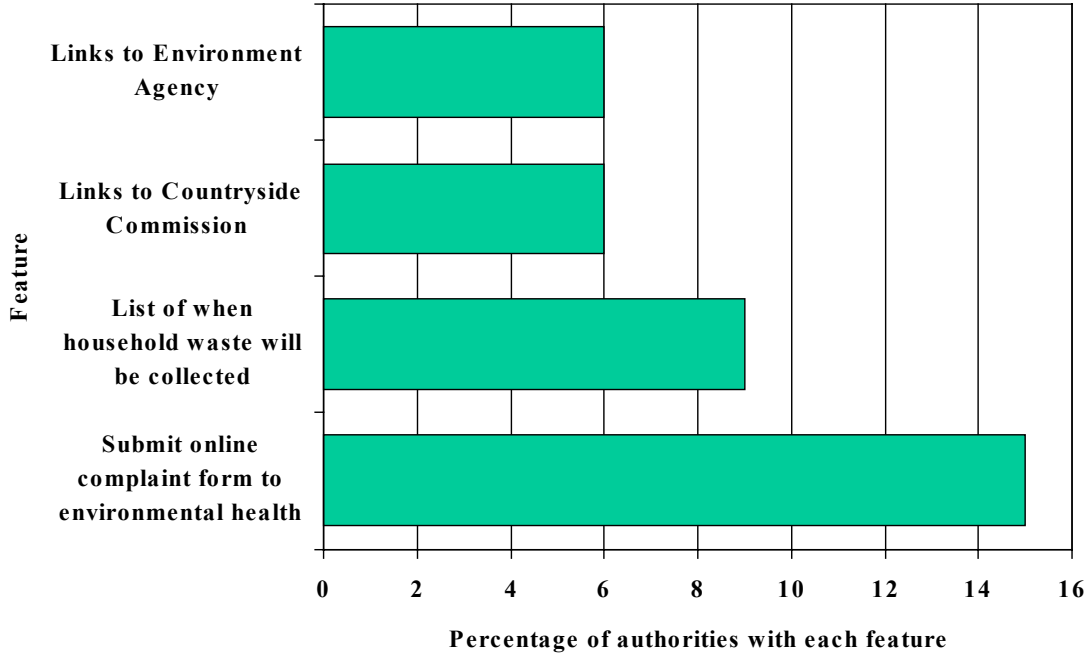
could be seen as a candidate for fully ‘digitizing’ local authority administration, and one or two councils have gone a long way towards this goal, the general picture remains one of rather modest progress.

Figure 23: Information and services available on planning across local authority sites in 2001



Finally Figure 24 shows the frequency of another set of links to environmental bodies, with only one in sixteen councils linking to the Environment Agency (even after the floods problems of 2000-1) or the Countryside Commission. Fewer than one council in ten provides online information about when household rubbish and waste is collected. But one in seven localities allows citizens to submit a complaint online to their local environmental health department.

Figure 24: Environmental information and services available across local authority sites in 2001



The range of services covered for this coding frame was an extensive one, but even so it did not exhaust the areas where interesting Web developments have already been proved to be feasible by pioneering local authorities. In future years the range of questions will need to be expanded to take account of changing developments. But this analysis already shows the huge gains which could be made if the lagging local authority Web sites could begin to catch up and emulate the performance of the best of the sites surveyed in 2001.