

Office of the *e-Envoy*

Guidelines for UK government websites

Framework for
senior managers



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First published 2001

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This document is available at:

<http://www.e-envoy.gov.uk/webguidelines.htm>

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Introduction:

High quality, easy to use, inclusive and joined up

The UK is online

1. Digital media are becoming mass media. New audiences and new platforms are opening up new opportunities for government communications and services in the following ways:
2. **A bigger audience:** by March 2001, 37 per cent of UK households could access the Internet from home (*Family Expenditure Survey*, National Statistics).
3. **A different audience:** the majority of users are still likely to be people from A, B or C1 socio-economic groups. However, according to a study from e-MORI, 31 per cent of Internet users are now from C2, D, or E socio-economic groups.
4. **Different technology:** in a recent Ofcom study, one in 20 users at home claimed to be accessing the Internet via a television set. New younger consumers are adopting new technologies including mobile phones, digital TV and, to a lesser extent, games consoles and personal organisers.

What this means for UK government websites

5. More members of the general public are visiting government sites than previously. Documents aimed at professionals may not meet the needs of these audiences. Users come expecting content and services that are engaging, relevant to them and effective. They will inevitably compare government websites with digital services in the private sector.
6. There are more than 1,000 central government websites. Some of these are concerned with policy issues, and as such are information-driven, providing information for people with a largely professional interest. Other government websites support information campaigns. These focus on inspiring action from a target audience and tend to be more engaging. Only a small proportion of government websites currently provide online transactions. These include the Inland Revenue website (electronic Self-Assessment Tax and PAYE) and DEFRA, formerly MAFF (Integrated Administration and Control System (IACS) Area Aid)
7. The government has set some ambitious targets to encourage progress:

to make the UK the best environment in the world for e-commerce by 2002;

to ensure that everyone who wants it has access to the Internet by 2005;

to make all government services available electronically by 2005.

8. Beyond these targets, the UK government has a range of ambitions for its digital communications.

The vision for government online

Multiple access media and channels

9. In the future owning a personal computer will no longer be the only way to interact electronically with the government. Users will have the choice of interactive digital television (iDTV), kiosks, games consoles and third generation wireless (3G) mobile devices such as personal digital assistants (PDAs). Access to government services will be available through public libraries, local UK online Centres and post offices.

Advanced human interfaces

10. Unfamiliarity with the Web or disabilities such as visual impairment will present fewer challenges to users. The vision is to develop an advanced 'human' technology interface that provides:

intelligent and natural language search capabilities;

interaction through voice recognition; and

speaking pages.

It will become easier in the future to provide multiple language content for minority language groups.

Advanced personalisation

11. Some UK government sites can already present the information the users are most interested in, or automatically alert users by email when something new is published. This means we need to encourage people to register with our websites by gaining their trust and ensuring we are providing the more individualised information and services they need. However, personalisation is not just for the Web: short messaging service (SMS) alerts could send updated information to mobile phones.

Joined-up service delivery

12. Until recently users had only one site to help them search through approximately 1,000 government websites. A number of new government sites are now structuring information around the needs of the citizen rather than the needs of individual government departments. The next step is to ensure that central and local government services are seamless, making it simpler and easier for users to find services that are local to them regardless of which department or local authority provides them.

Transactional services

13. Transactional online services could include:

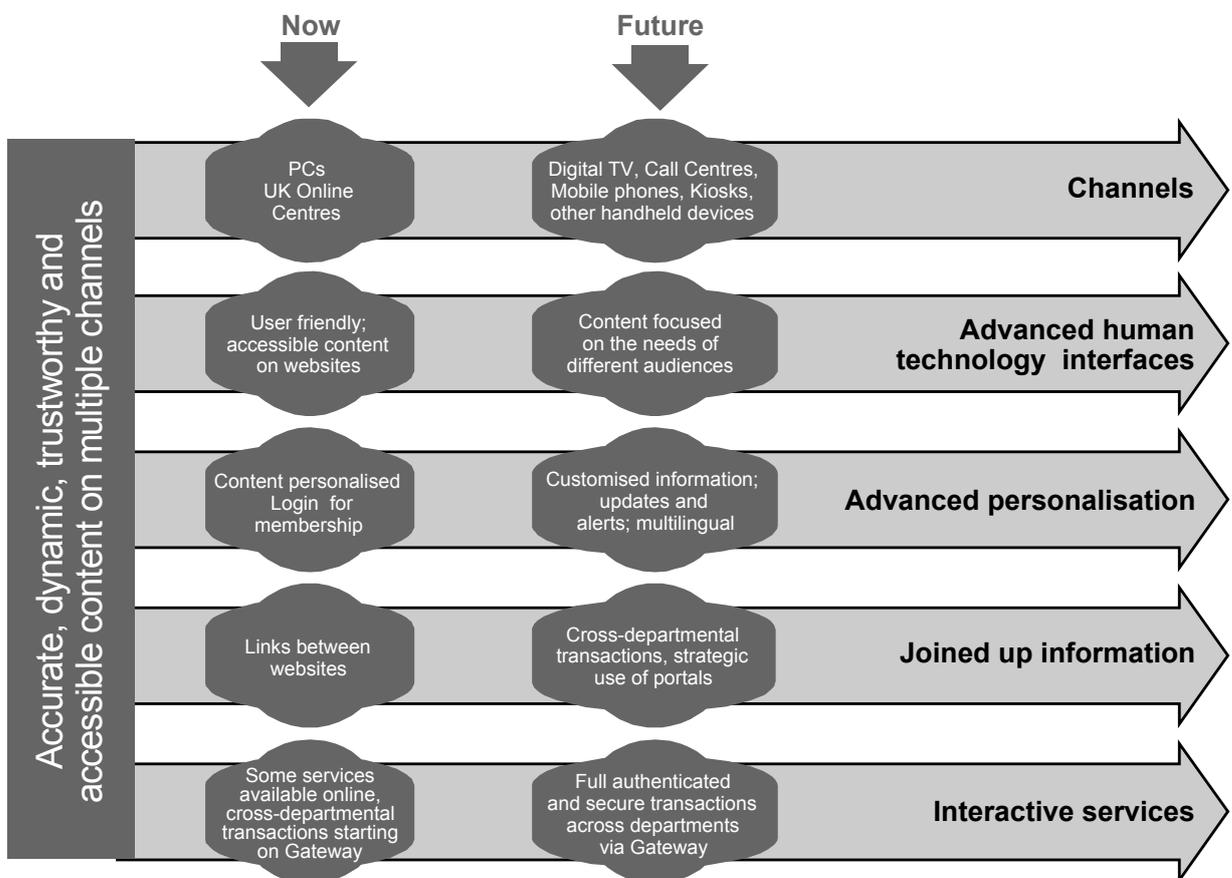
being able to change your records;
making an appointment;
applying for a permit or service directly; and
purchasing or paying for something.

14. Currently there are only a limited number of government sites offering online transactions. The government has clear targets to provide services online. For example, filling in an application for a passport or paying for a TV licence is now possible online. The ambition is also to allow citizens to track where their application or purchase is in the government systems.

Rich, accurate, up-to-date services and content

15. The vision is to provide content that is constantly updated and appropriate for different access channels, such as iDTV and mobile devices, as cost effectively as possible and taking into account the limitations and opportunities presented by each.

Diagram 1: Ambitions for current websites and for the future



Achieving ambitions for current websites

16. The *Guidelines for UK government websites* support ambitions for current websites. We need to continue to progress from **informing** citizens to **interacting** with them and finally **transacting** with them. This framework document sets out key guidelines that should underpin all current government websites.

1. Government websites should be user focused. This means they are engaging; user demand; and achieve universal accessibility and usability.

2. Government websites must work together to join up the government and, in delivering this, adhere to the mandatory *e-Government Interoperability Framework* (e-GIF).

3. Government organisations must be working to provide their services online.

4. Users should be able to have reasonable expectations about the quality, brand.

5. Government websites must raise citizen confidence by abiding by the law and explaining their terms and conditions to users. They should also be secure from intrusion and address the issues raised by the draft *Trust Charter for Electronic Service Delivery* (e-Trust Charter) guidelines, which clearly set out the rights of the citizen with respect to the information held by government.

6. Users expect communication on the Web to be two-way. Government websites make enquiries.

7. Government websites should operate within a strategy that includes a full range of channels, such as iDTV and mobile devices.

8. Government websites should have systems for evaluating their success and determining if they are meeting the needs of users, making alterations where appropriate.

9. Government websites must provide consistent metadata (data about data) about their documents, as outlined in the mandatory *e-Government Metadata Framework* (e-GMF). Managers should also promote the site and register it with search engines.

10. Government websites should be well managed with adequate resourcing; databases and other digital media.

Who should read this document?

17. This *Framework for senior managers* is for people who want to know the main points of policy and practice.
18. The Guidelines will also consist of an illustrated handbook in the form of a website. *Guidelines for UK government websites: the illustrated handbook for web management teams* focuses on improving current sites and is intended for:

hands-on web management teams;

suppliers of design services; and

staff requiring an introduction to the Web and how it works for the government.

19. Web managers working within Devolved Administrations or related bodies should review these Guidelines in the light of their own policies and legal and regulatory frameworks.

Top 10 guidelines

This section describes key guidelines that form the foundation of any government website. They are evolving and will continue to be updated over time.

1. Engaging, accessible, usable

1.1. Government websites should be user focused. This means they:
are engaging;
provide the information and services that users want;
continually evolve to meet user demand; and
achieve universal accessibility and usability.

Why?

- 1.2. Social exclusion policies: information have-nots should have access to services.
- 1.3. Websites that do not identify and meet user needs cannot be effective.
- 1.4. The Disability Discrimination Act means that you must take reasonable steps to change practices, policies and procedures that make it impossible or unreasonably difficult for people with disabilities to use your services. You must take reasonable steps to provide auxiliary aids or services, which would enable, or make it easier for people with disabilities to use your services. One aspect to note is the emphasis on usefulness. This may be taken to mean that services must not only be **accessible** but **usable** by people with special needs.
- 1.5. One of five key commitments of the *Modernising Government* white paper is responsive public services that meet the needs of all different groups in society.
- 1.6. Accessibility involves more than individuals with special needs. Some company firewalls strip out scripts, which is an issue for sites with a business audience.
- 1.7. New audiences will have different expectations for engaging and relevant content.

Issues

- 1.8. Accessibility means that a broad range of software and audiences, including business users and users with disabilities, can actually receive your online content and services.
- 1.9. The World Wide Web Consortium's (W3C) Web Accessibility Initiative (WAI) is an internationally agreed recommendation for website accessibility. Adopting their guidelines means that we do not have to invent a standard of our own. You are asked to comply with their Level

A recommendation. This is defined in the *W3C Web Content Accessibility Guidelines (WCAG)*. See:

<http://www.w3.org/WAI/Resources>

New sites or redesigned sites should comply. Each revision of the WCAG will be examined by the Office of the e-Envoy to confirm our continued support.

- 1.10. WAI compliance alone will not give you a **usable** site. Usability means the site is easy to use by the intended audiences. For example the **structure of individual pages** may need to be made more understandable. It might mean that the **structure of the site** needs revision so that the site as a whole is more easily navigable.

Practical advice

- 1.11. Design should be professional, attractive and engaging depending on the needs of the different audiences.
- 1.12. Content aimed at the public must be written plainly and, where possible, be web-friendly: ie at least 50 per cent shorter than printed text, broken up into lists and easily scanned.
- 1.13. Any formats or applications included in the e-GIF framework can be used. However hypertext mark up language (HTML) or other universally accessible alternatives must be provided to portable document formats (PDFs), JavaScript, Shockwave or other features that are less accessible. To be accessible, PDFs must be created as version 1.4 files using the latest Adobe Acrobat (currently version 5). PDF files created as earlier versions such as 1.3 will need to be amended or replaced. Even so, these files will be accessible only for users with Adobe Acrobat Version 5 readers. However, PDFs may be the best way to publish information in some minority languages which are not supported in HTML.
- 1.14. All new or redesigned government websites should comply with the Web Accessibility Initiative's (WAI's) Level A recommendation for accessibility. This can be achieved by following the Priority 1 checkpoints of the Web Content Accessibility Guidelines. For example, alternatives should be provided to less accessible scripts or formats.
- 1.15. The Disability Discrimination Act Code of Practice section 5 gives both explanations of what auxiliary services may be as well as some examples. Visit:
<http://www.disability.gov.uk/dda/finalcode.html>
- 1.16. A key aspect of this is providing alt tags to images that communicate important information. Images that are only decorative should be tagged as `"*"`
- 1.17. EasyAccess pages found at the government portal [ukonline.gov](http://www.ukonline.gov) are one model of how to write content and design a structure that is useful for some special audiences. See:

<http://www.ukonline.gov>

- 1.18. Bespoke content that meets the needs and preferences of different target audiences will improve communications online.
- 1.19. Accesskeys are keyboard shortcuts to particular kinds of information. For example hitting the 0 key could take the user direct to the menu of accesskeys. These shortcuts are helpful for people who have difficulty using a mouse. Some government websites are already implementing accesskeys. However, because there is no agreed standard, different accesskeys on different government sites lead to different options. The Guidelines recommend a uniform menu of accesskeys for UK government websites. See Appendix C.
- 1.20 In the case of web-based kiosks and some other special circumstances, you may need further guidance on accessibility. In the first instance contact:

webguidelines@cabinet-office.x.gsi.gov.uk

There are 2 million visually impaired people in the UK – can they access your site? (RNIB ‘Accessible Web Design’)

‘I would just like to see it look more interesting’ – quote from an evaluation of a government website.

2. Working together

The guideline

- 2.1. Government websites must work together to join up the government and, in delivering this, adhere to the mandatory *e-Government Interoperability Framework* (e-GIF).

Why?

- 2.2. Users do not want to know which government body does what or what the approximately 1,000 separate government websites provide. They want simple access to information and services organised around their needs not the needs of government organisations.
- 2.3. Many transactions will be provided across departments. For this to happen, government needs to be able to share information and services. This requires a minimum set of technical policies and standards to achieve interoperability and seamless information flows. These policies and standards are set out in the e-GIF.
- 2.4. Joined-up government in action is one of the keystones of the *Modernising Government* white paper, especially in the provision of electronic services.

Issues

- 2.5. All important government documents should have a stable URL, so that portals and search engines can readily link to information.
- 2.6. Departments must be considering how to work within the e-GIF framework and with the Government Gateway to provide online services.

Practical advice

- 2.7. Departments should link to other relevant sites and deep link to relevant documents.
- 2.8. Departments and their executive agencies should exchange links and clarify their mutual roles.
- 2.9. The UK online toolbar will link government home pages to a central site, and to important new announcements or documents on government websites
- 2.10. All government sites should link to cross-government sites if appropriate. These include the Civil Service Recruitment Gateway site, the local government gateway info4local.gov, Inforoute and official legislation sites.

Webmasters are pointed to the mandated, newly revised e-GIF framework at:
<http://www.govtalk.gov.uk/interoperability/egif.asp>

3. Services for the citizen

The guideline

- 3.1. Government organisations must be working to provide their services online.

Why?

- 3.2. Government policy is to use IT to provide integrated, imaginative and convenient public services. For this reason the target is to make all government services available electronically by 2005.
- 3.3. As commercial sites increasingly provide effective and easy-to-use online transactions, users will begin to expect the same from government.

Issues

- 3.4. Government bodies will need to identify the services most in demand by users and those which will bring the greatest cost-benefit to their organisations. The real aim is to provide services that people will want to use.
- 3.5. The provision of online services reaches deep into the business processes of the rest of the organisation. It is not only a content or IT issue.

Practical advice

- 3.6. Older PDF forms cannot be filled in electronically even when downloaded. Simple webforms are still the preferred alternative for forms.
- 3.7. Departments should now be looking at the business process and resource issues involved, and need to identify how they can best use the Government Gateway.
- 3.8. They must be working within the *e-Government Interoperability Framework* (e-GIF) to achieve this important target.

Twenty per cent of the UK electorate would vote online if they could. (Forrester Research)

“Overall I was quite impressed, but obviously you need more agencies to be able to accept electronic requests before this can be truly integrated (eg online birth registration).” ukonline.gov user comment.

4. Effective content

The guideline

- 4.1. Users should be able to have reasonable expectations about the quality, accuracy and uniformity of government content using, for example, the UK online brand.

Why?

- 4.2. Users should not have to learn an entirely new navigation system for each of the approximately 1,000 central government sites or to know which department does what.
- 4.3. Users have a right to expect that content will be up to date and current.
- 4.4. Users should be able to know that certain kinds of information such as contact addresses will be available from any government website.
- 4.5. Users expect to have news and new content highlighted.
- 4.6. We should be building relationships with citizens, trying to earn their trust so that we can meet their needs.

Issues

- 4.7. Government websites publish both high-level documents such as white papers and service-based information such as guidance. This means they are large and require updating and maintenance.
- 4.8. Many government documents are not aimed at the general public nor are they written to be read online. Web managers need to consider providing some content aimed at different audiences specifically written to be read online.
- 4.9. Information on government sites is subject to the conventions on government publicity, advertising and sponsorship.

Practical advice

- 4.10. Government websites should strive to be engaging to users and relevant to the different needs of different kinds of visitor to the site.
- 4.11. Government websites should provide the following minimum content:
 - details of ministers and management boards;
 - the organisation's aims and objectives;
 - full contact information;
 - complaints procedures;
 - command papers;
 - press notices;
 - consultation papers;
 - research reports;

statistical information;
published forms;
recruitment policies;
details of advisory groups.

News and updated content should also be provided and, when updates occur, shown on documents.

- 4.12. Government information must not be polemical and must be procured in a proper way that achieves value for money. Guidance on government information is available from:

<http://www.cabinet-office.gov.uk/central/1999/workgis>

and

<http://www.gics.gov.uk/handbook/index.htm>

- 4.13. The EasyAccess approach (as seen on the ukonline.gov portal) provides a structure and content that meets the needs of new or disorientated users as well as those with communication or visual difficulties. For example, often the elderly need an additional helping hand with complex sites when they are not familiar with the Web and may find learning everything at once difficult.

*A recent evaluation of a Devolved Administration site shows that users' top priorities were **speed of download** and **up-to-date, accurate information**.*

5. Building trust

The guideline

- 5.1. Government websites must raise citizen confidence by abiding by the law and explaining their terms and conditions to users. They should also be secure from intrusion and address the issues raised by the draft *Trust Charter for Electronic Service Delivery* (e-Trust Charter) guidelines, which clearly set out the rights of the citizen with respect to the information held by government.

Why?

- 5.2. This protects the government and helps build user trust.
- 5.3. Some users are reluctant to give government information about themselves. This reduces our ability to give them the information and services they individually need.
- 5.4. Advertising and sponsorship partners must be selected so that trust in websites is not reduced.
- 5.5. Security is an absolute necessity if users are to trust us with their details or make online payments.
- 5.6. Users' trust in the security of government websites will be reduced if these sites are hacked and defaced.
- 5.7. Government websites should support efforts to build users' trust in the Web as a whole.

Issues

- 5.8. Government webmasters must inform themselves about their legal obligations.
- 5.9. Departments need to have a security policy and ensure that their web hosting service or in-house server is secure.
- 5.10. Users must know what we are going to do with their data.

Practical advice

- 5.11. Websites must have a policy on the following areas which is explained on the site: the Disability Discrimination Act, the Data Protection Act, copyright etc.
- 5.12. Government websites should address the issues raised by the draft *Trust Charter for Electronic Service Delivery* (e-Trust Charter) guidelines. Information about the e-Trust Charter can be found at: http://www.e-envoy.gov.uk/publications/guidelines_index.htm
- 5.13. All government websites should be securely hosted and regularly penetration-tested. Passing this test on a regular basis should be a condition of all hosting contracts.
- 5.14. Government websites should have a Platform for Internet Content (PICS) rating. This works rather like the ratings system for film, except

that it allows users automatically to filter out sites with certain kinds of content. Web managers need to register the site with at least the Internet Content Rating Association (ICRA) PICS service. They will need to include the site's rating in metadata. For more information visit:

<http://www.w3.org/PICS/>

and

<http://www.icra.org>

“(You’ll) get yourself on some subversive anarchist list” female 50+ ABC1 user on why she distrusts giving government information about herself.

6. Listening – two way communication

The guideline

- 6.1. Users expect communication on the Web to be two-way. Government websites should provide opportunities for users to contact officials, express their views or make enquiries.

Why?

- 6.2. The Internet is two-way by its very nature. Websites that do not provide channels for electronic enquiries or comments will be regarded as trying to evade them.
- 6.3. The Freedom of Information Act will require that enquirers be answered in their preferred format. This will include email.

Issues

- 6.4. Departments need to decide how best to handle email enquiries and response to them.
- 6.5. Web managers need to resolve the many issues of running discussion groups. Among these issues are resolving accessibility for people with disabilities to enable them to be included.
- 6.6. The Freedom of Information Act will require that all enquiries be responded to within 20 days in the enquirer's preferred format.

Practical advice

- 6.7. Full contact address information for the organisation should be provided.
- 6.8. Full contact information including email addresses for enquiry points or individuals and maps showing 'how to find us' should be provided.
- 6.9. Any discussion group should have a clear policy on what can and cannot be posted. Moderation is recommended.

“It's got to be seen as a two-way street – to me it's like they're going to do it anyway, but they'll throw the public a wee sweetie.” (female 30-49, C1C2DE) Consensus Research for ukonline.gov.

7. More than just the Web – multiple access channels

The guideline

- 7.1. Government websites should operate within a strategy that includes a full range of technology channels, such as interactive digital television (iDTV) and mobile devices.

Why?

- 7.2. The *Modernising Government* white paper commits government to keeping pace with technological change including the use of new channels.
- 7.3. These new platforms will help us reach new audiences, sometimes audiences that we have difficulty reaching through PC-based digital media.

Issues

- 7.4. It is possible to design websites that can also be viewed directly on iDTV or WebTV. Some will need to be automatically transcoded. For others, transcoding may not be enough. Care should be taken to meet the different needs of television audiences.
- 7.5. For many channels, such as wireless application protocol (WAP) or portable devices, bespoke information and services will be needed.

Practical advice

- 7.6. Organisations have a responsibility to ensure that their information and services are available through digital media where appropriate, for example interactive television, kiosks and mobile devices.

Sixty to 75 per cent of UK households will take digital TV by 2005. By 2005 broadband Internet will be available to between 55 per cent and 75 per cent of households.

e-government policy framework: interactive digital television, draft version, November 2001).

8. Is it working?

The guideline

- 8.1. Government websites should have systems for evaluating their success and determining if they are meeting the needs of users, making alterations where appropriate.

Why?

- 8.2. Public money is being spent – some means of verifying value for money and effectiveness is needed.
- 8.3. Users' needs should drive the site.
- 8.4. Uniform use of access statistics across government will allow a clearer picture of user needs across government to develop.
- 8.5. The sale of advertising space or gaining of sponsorship when appropriate will be made easier if sites can prove they are attracting an audience.

Issues

- 8.6. Different hosting services provide different access statistics. You need to be clear what access statistics you require when procuring hosting services or when setting up a server in-house.
- 8.7. Raw data is not information. It must be converted to useful information about user behaviour or preference.
- 8.8. Offline research will be necessary to find out the needs of the target audiences who do not visit your site or fill in feedback forms.

Practical advice

- 8.9. Government websites should collect, as a minimum, the following statistics:

number of users (visitors);

number of visits (unique visits);

number of page impressions.

They should also collect these statistics:

successful requests;

unsuccessful requests;

most frequently visited pages;

least frequently visited pages;

top entry pages; and

top referring pages.

- 8.10. Additional information on who is using the site, the level of data transferred and notice-of-error logs should be monitored. Other criteria

for evaluating the site should be based on communication or service targets. Quarterly evaluations are recommended.

- 8.11. It is acceptable to use cookies to identify or track users' use of the site. The site must contain a clear statement of policy on the use of cookies, and the site should still work when the cookies are turned off.

9. Can your site be found?

The guideline

- 9.1 Government websites must provide consistent metadata (data about data) on all new documents as outlined in the mandatory *e-Government Metadata Framework* (e-GMF). Managers should also promote the site and register it with search engines.

Why?

- 9.2. Users may not be able to find your site unless you promote it and ensure search engines list it.
- 9.3. Search engines of many types use metadata to locate documents and pages within your site.
- 9.4. Metadata will improve the ease with which government information can be joined up.
- 9.5. Metadata will improve ease of archiving and retrieval.

Issues

- 9.6. There are millions of websites. You will need to promote your website as appropriate through online search engines and directories, and through such means as press releases, PR, your stationery and brochures, and perhaps advertising.
- 9.7. Web managers are not subject specialists. The authors of documents should help provide metadata about the content of their documents.

Practical advice

- 9.8. Webmasters are directed to the published framework on government metadata:

<http://www.govtalk.gov.uk/interoperability/metadata.asp>
- 9.9. Metadata should be added to hypertext mark up language (HTML) pages and documents in metatags.
- 9.10. Information should be based on the e-GMF framework.
- 9.11. Metadata should increasingly be provided by the authors of the document rather than webmasters. This includes classifying all pages and documents with terms from the *Government Category List*, due for publication in November 2001. This will work with your own organisation's thesaurus of keywords.
- 9.12. Don't abuse metadata. Adding subject terms describing every aspect of your organisation's work to every page may initially increase the number of visits but is frustrating for users. Metadata should be used to take users directly to the information they want, wherever on your site it may be.
- 9.13. Web managers should be familiar with how to register the site and additions to it with the major search engines/directories.

- 9.14. Is your URL memorable and easily understood? Is it within government guidelines? Advice on naming policy in the .gov.uk domain is available at:

<http://www.ogc.gov.uk/naming/domains.html>

Search engines are the leading way users in the United Kingdom locate websites. Eighty-one per cent said search engines helped them find sites. (Forrester Research)

10. A well managed service

The guideline

10.1. Government websites should be well managed, with:
adequate resourcing;
clear strategy, aims, and target audiences;
publishing and business procedures in place;
a strategy for future development including moves to dynamic databases and other digital media.

Why?

- 10.2. Government websites typically publish more documents that are more detailed than commercial sites. Some sites now have roughly one 120,000 documents. Maintenance and updating alone is a logistical challenge.
- 10.3. Government websites have different and more complex aims and requirements than commercial sites – only good management balances all these priorities.
- 10.4. Good management may help retain skilled staff.
- 10.5. Good management will ensure that sites plan for change, evolving to meet user needs and moving away from static hypertext mark up language (HTML) to more efficient, dynamic websites.
- 10.6. Good management is the only way to build in and check for quality.
- 10.7. Good management is not a technical web issue – it requires senior management involvement.

Issues

- 10.8. Many government sites are not adequately resourced to carry out their publication tasks.
- 10.9. A clear editorial policy needs to be supported by clear procedures.
- 10.10. Legal obligations for Welsh language provision, archiving of public records and freedom of information may not be met if management is poor.
- 10.11. Requirements to provide online services, metadata on new documents, and Web Accessibility Initiative (WAI) Level accessibility may not be met, or maintained, if management is poor.
- 10.12. Some sites need to provide information in European Community languages. We also have a moral obligation to reach ethnic minority communities in the UK. To translate and update material in other languages requires clear procedures.
- 10.13. Specialist skills may be difficult to recruit and retain. Training your own staff is one option.

10.14. A full mix of skills is needed to set the goals for, brief designers of, and manage websites. These skills include communication strategy, content and publicity, marketing, IT, information science and business process.

Practical advice

10.15. Websites should:

be developed in a coherent manner;

be under the control of senior management with board members taking active responsibility;

have active input and ownership from all units; and

be supported by specialist expertise in technical, editorial, accessibility/usability and business process areas.

10.16. All staff should have ready access to the Internet and to their department's own websites. Training in preparation of documents for the Web should be available.

10.17. Set up sites to allow authors of information to input updates directly themselves.

10.18. Provision of minority languages in non-Roman alphabets will be difficult for a while. Web managers are advised to avoid graphic formats such as graphical interchange formats (GIFs) as some users turn these off. Portable document formats (PDFs) for non-Roman scripts are recommended. Anchor pages linking to all material in a particular language are recommended. This will make it easier to link all government information in these languages.

Conclusion

- 11.1. These guidelines have been adopted by the Office of the e-Envoy on behalf of government e-Champions, e-Communications Group. It is expected therefore that all departments and agencies developing government websites will make all reasonable efforts to comply with them. This pertains to all new sites and existing sites that are being revised.
- 11.2. The *Guidelines for UK government websites* will be supported by *The illustrated handbook for web management teams* in the form of a website. This provides detailed advice and reminders for hands-on web managers.
- 11.3. The illustrated handbook will also include checklists, summaries, useful uniform resource locator (URL) links, example screenshots, sample coding and specimen terms and conditions for exporting.
- 11.4. The illustrated handbook will also include a design for a website. This takes the form of fully encoded hypertext mark up language (HTML) pages with accompanying Cascading Style Sheets and sample EasyAccess pages. This template is provided free of charge so those government organisations that cannot afford a redesign can revamp their site to comply with these guidelines.

Appendix A: Background information

1. These revised guidelines grew out of the first edition, which was published in December 1999. This first version was commissioned by the Central IT Unit of the Cabinet Office and written by Cyberia and underwent a lengthy consultation process.
2. This second edition was commissioned as a result of advancements in technology and changes to government priorities. It builds on the previous version by updating, clarifying and extending the range of advice.

Ongoing consultation and revision of guideline documents

3. This version was commissioned by the Office of the e-Envoy from the former CCTA Internet Services. The Government Internet Working Group acted as a steering committee. The Government Internet Forum and delegates to the e-Communicators Conference were also consulted.
4. The Office of the Information Commissioner updated the advice on data protection. HMSO wrote sections of the advice on copyright. Office of the e-Envoy specialists wrote the sections on interactive digital television (iDTV), extensible mark up language (XML), metadata, and e-commerce. The section on security was drafted by a Communications-Electronics Security Group security adviser attached to the Office of the e-Envoy. Other Office of the e-Envoy documents, to which this document refers, provide key advice.
5. The advice was then read and validated by:
 - technical expert, Tim Levy;
 - the World Wide Web Consortium UK office;
 - the Office of Government Commerce buying.solutions;
 - web developer, Robin Brattell.
6. The Royal National Institute for the Blind has also read and supports the advice given. The e-Law e-Communicators group commented on the sections on legal matters.
7. The advice on EasyAccess pages refers to work originally developed by Julia Schofield Consultants Limited.

Getting better all the time

8. The Guidelines come in easily updated sections. Forthcoming new sections include:
 - websites and Public Private Partnerships/Private Finance Initiative (PPP/PFI);
 - archiving of websites (with the Public Records Office).

9. The Guidelines will not do the necessary creative thinking for government bodies. Departments and other bodies will have to decide what the benefits of their websites are for themselves and their users. Creative suppliers will be able to provide engaging, communicative and easily managed sites while meeting basic government standards.
10. A forthcoming series of Quality Briefings will look at creative and business issues. Forthcoming Quality Briefings currently in preparation include:
 - case study comparing the benefits of advertising and sponsorship on government a websites.
 - a methodology for determining the resources necessary to run websites: commissioned through the London Business School.

Appendix B: New advice in Version two

1. This section is intended for those who have read the first edition (December 1999 issue) and need to know how advice has moved on. The shift in advice has been driven by advancements in technology and the government's vision to enable citizens to interact electronically with the government by 2005. Research within the government webmaster community identified a need to be more specific, providing a solid core of best practice information.
2. Since publication of Version one, two mandatory frameworks have been published, the *e-Government Interoperability Framework* (e-GIF) and the *e-Government Metadata Framework* (e-GMF). Version two supports and refers to these and other framework documents.

Engaging, accessible, usable

Web Accessibility Initiative

3. It is now policy that government websites comply with the World Wide Web Consortium's (W3C's) Web Accessibility Initiative (WAI). This is an evolving international recommendation that ensures that your website is universally accessible. This policy is interpreted as meaning that all new or redesigned UK government websites should achieve a minimum A rating, which is the lowest level of WAI compliance. Refer to:

<http://www.w3.org/WAI/Resources>

The W3C states that there are basically 10 quick tips which should be used to produce web pages that can be seen as truly accessible. They are listed as:

Images and animations	Use the 'alt' attribute to describe the function of each visual. (We advise that for usability's sake "" should be used for images that are only decorative, invisibly take up space, or are very repetitive such as buttons.)
Imagemaps	Use client-side imagemaps and text for hotspots.
Multimedia	Provide captioning and transcripts of audio and descriptions of video.
Hypertext links	Use text that makes sense when read out of context. For example, avoid 'click here'.
Page organisation	Use headings, lists and consistent structure. Use Cascading Style Sheets for layout and style where possible.
Graphs and charts	Summarise or use the 'longdesc' attribute.
Scripts, applets	Provide alternative content in case active features are

and plug-ins	inaccessible or unsupported.
Frames	Use <noframes> and meaningful titles.
Tables	Make line-by-line reading sensible. Summarise.
Check your work, validate	Use tools, checklist and guidelines at: http://www.w3.org/WAI/Resources

Moving from accessibility to usability

4. However, compliance to the WAI recommendations alone does not necessarily mean that a website will meet the needs of different users. Just because a broad range of technologies and users can receive your content, it doesn't necessarily mean people find it easy to use. A text-only version of your site may not be the answer if it contains too many links or is confusing when presented through assistive technology. Rather than invest in a text-only version that is not usable, it may be better to clarify the navigation and text of either the graphic or non-graphic version. One example of a usable non-graphic version is the EasyAccess pages developed for ukonline.gov.uk. These text-based pages lead off from each graphical page. They are specially designed and written to improve both accessibility and usability for people with visual impairments and for those who are unfamiliar with the site including users new to the Internet.
5. It is vital that users are able to control colour and font size. This will assist users with visual impairments or reading difficulties.
6. Hypertext mark up language (HTML) Version 4.0 and above is now recommended for new or redesigned websites versioned for PC browsers. Version 4 supports Cascading Style Sheets and new usability features such the 'accesskey' attribute. It also is backward-compatible with some older browsers. As with all HTML mark up, pages compliant with HTML 4.0 and above should be tested on older browsers, most especially those that support HTML Version 3.2. HTML Version 3.2 is mandated by the e-GIF framework for websites aimed at non-PC devices. All government websites must continue to work for browsers that support HTML Version 3.2.
7. Accesskeys are an attribute that can work with HTML Version 4.0 or above. We recommend a uniform list of accesskeys for UK government sites to help users who have difficulty using a mouse. See Appendix C.
8. HTML frames, tables and forms – there is no limitation on the use of HTML frames, HTML tables and HTML forms. However they should be built in such a way to ensure sites are widely usable. *The illustrated handbook for web management teams* provides sample mark up for web managers to use or consult.
9. Browser plug-ins – some elements can only be included on a web page using additional software, ie portable document format (PDF), Flash (to convey large amounts of graphical detail in a short space of time), Shockwave (for demonstrating presentations and for electronic games), QuickTime (for playing digital videos on the Web) and RealPlayer (for

viewing audiovisual material). These files can contribute to the attractiveness of the site but will also add to the document weight and download times for the user. They will both complicate the accessibility of the page and in many cases exclude users. Webmasters are welcome to use browser plug-ins as long as there is a meaningful accessible alternative available.

Working together

10. UK online and branding – the Office of the e-Envoy has produced a UK online government toolbar to identify central government websites and join up government content online. Integration of the toolbar to the homepage of government websites is realised by means of a frameset which integrates the homepage and toolbar into the same browser window. Displaying on the homepage only requires some changes to the code. If your current homepage already uses frames then the code should be modified.
11. Inforoute is a new gateway to the government's Information Asset Register (IAR), a database of an organisation's information assets. Individual departments have primary responsibility for putting in place their own IARs, which they will maintain on their own websites. Entries must be indexed using 'directory listing'. This will be an important tool in ensuring freedom of information.
12. The info4local.gov portal website provides a one stop gateway for local authorities to get quick and easy access to local government-related information on the websites of departments and agencies:
<http://www.info4local.gov.uk>
13. Extensible markup language (XML) is a universal format for structuring documents and data, developed especially for the Internet. Future development must fall within both the e-GIF and e-GMF frameworks

Services for the citizen

14. Cookies – a cookie is a unique token, sent for future use, by a web server to identify a particular machine and browser. It is then stored on the user's machine, as a result of the server instructing the browser to do so. Some cookies, described as persistent cookies, can be used to tie client information into server-side data and permit such features as personalisation. It is important that the user is made aware that the site uses cookies and is able to disallow them. The site should be able to work with and without cookies. A privacy statement must be included when they are used.

Effective content

15. Platform for Internet Content Selection (PICS) – the Internet is used by people of all backgrounds and ages. Whilst individuals' rights to freedom of choice and freedom of speech have to be observed, these need to be balanced against the rights of younger users. One way of

achieving this is through the monitoring of web content. Information managers can set a certification rating for the content of a site so that a browser configured to use the PICS rating system will read the classification contained within the data and display the page only if it meets the user-defined specifications. This is achieved by registering the website with the Internet Content Rating Association (ICRA) or an alternative. A metadata instruction is then inserted in the head area of the HTML document. All pages must be checked to ensure they meet the defined rating. The major Internet browsers, eg Microsoft's Internet Explorer and Netscape have integrated this standard into their software.

Building trust

16. Guidance on securing websites – detailed guidance procedures are provided for departmental and agency security officers within the UNIRAS constituency for securing websites. Attacks on websites are normally made possible by misconfiguration of the web server and failure to install security patches. The security of the website is determined by the security of the web server application and remote administration, the operating systems of the web server computer, the local area network, the 'backend' applications supporting the web server and the authoritative domain name server.
17. Up-to-date, law-abiding government sites – webmasters should revisit the laws/policies relating to the Data Protection Act, copyright notices and the Disability Discrimination Act. There has been an update of the type of copyright notices that must be applied to Crown sites. When the Freedom of Information Act is implemented, it may have an impact on response times to customer enquiries, and on the kinds of information that are published and archived on websites.

More than just the Web

18. Other channels – web managers should be aware of how their sites work when accessed through other channels. Games consoles and browsers on personal digital assistants (PDAs) only allow a small viewable area at a time and users can find it difficult to scroll up and down. Wireless application protocol (WAP) is a completely different protocol and will not interact with a standard HTML website. In order to produce friendly sites for interactive digital television we will need to be entertaining, more graphical and simple. We will need to meet specific rules for design, screen size, colours, text, plug-ins, frames, etc. If all these different browser modes are to be supported, a number of versions of a website may have to be maintained. Multisource XSL-T may repurpose the same content for different platforms, but much of the technology is quite new and untested by public or commercial sector organisations. Transcoding or repurposing will not work for all digital media – a rethinking of purpose, content and presentation will be necessary for some media such as WAP phones.

A well managed service

19. Use of other languages – guidance is now provided for webmasters on publishing information, where appropriate, in other languages, to avoid excluding sections of our population. This includes the META CHARSET tag, using PDFs where the page cannot be displayed in HTML, placing the language name within the URL and avoiding if possible displaying text in a graphic format. This also includes the introduction of a language anchor page, that is, a menu page listing all material published in a specific language.
20. Procurement – ensure you cover protective actions in your contract such as frequency of backup, safeguarding of back up copies on and off site, the supplier's responsibility in the event of 'denial of service' and action if connectivity of the service is compromised by power loss, or structural or similar damage to the location. Also, if you host your website outside the UK then it is important that you comply with your security policy and continue to follow EU/WTO procurement rules.
21. Discussion moderation – we now provide advice on the moderation of discussion groups. Terms and conditions of use of the discussion group should be posted. Participants in government discussion groups should not be able to bypass this notice before inputting data onto a discussion forum. We do not recommend any one model of moderation, but advise against live posting during periods when the group is not in moderation.
22. Cascading Style Sheets (CSS) enable the author to separate the text and content of the website from the styling elements ie design and feel elements. We recommend that webmasters ensure their government websites are consistently formatted using this technique.
23. Database driven sites – when webmasters develop a database driven site, they should make it a condition that URLs of important documents are stable. This is because documents mainly exist as objects in a database and to ensure that when users bookmark a document, they can return to it later without having to reconstruct the original search query. This will also assist other websites to link to documents.
24. Sponsorship and advertising – advice on sponsorship of websites has been added. Sponsorship must not give an appearance of endorsement of the sponsor. Sponsors must not be organisations with which your organisation is in negotiations. More than one sponsor should be offered the opportunity. Guidance is given on ensuring that credit to the sponsoring company does not detract from the branding of the site. Webmasters are advised to consider the commercial benefit of both overt and covert credit to their suppliers when negotiating contracts and refer to the detailed advice on this topic. Advice on general publicity, advertising and sponsorship is available from:

<http://www.gics.gov.uk/handbook/guidance/sponsorship.htm>

and from:

<http://www.gics.gov.uk/handbook/guidance/giswork/index.htm>

Appendix C: UK government accesskeys standard

Webmasters who have used hypertext mark up language (HTML) 4.0 or above in marking up their sites can introduce the use of the accesskey attribute. This is designed to assist users who have difficulties using a mouse or who prefer to use keyboard shortcuts. Some government websites have already implemented accesskeys. Because there is no accepted standard, these accesskeys are not consistent across UK government sites.

We recommend a core of 10 links assigned to numerical values rather than letters. This will avoid conflict with other software. Webmasters should also provide a menu of accesskeys on their site and the information they link to. Webmasters can of course extend this system by attributing appropriate letters from the remaining 25 alphabetic characters to pages within their website.

Listed below is the suggested standard:

- S skip navigation
- 1 home page
- 2 what's new page
- 3 site map
- 4 to the search facility on the site
- 5 frequently asked questions (F A Qs)
- 6 help page/facility
- 7 complaints procedure
- 8 terms and conditions (including privacy statement)
- 9 feedback page
- 0 the menu page of accesskeys detailing the accesskeys are being used within the website and the information or services they link to.

Appendix D: List of supporting documents and abbreviations

Supporting documents

e-Government Interoperability Framework

<http://www.govtalk.gov.uk/interoperability/egif.asp>

Info4local.gov

<http://www.info4local.gov.uk>

Inforoute

<http://www.inforoute.hms0.gov.uk>

Digital TV (interim version)

<http://www.e-envoy.gov.uk/publications/frameworks/digitaltv/digitaltv.htm>

Government Information and Communication Service Handbook

<http://www.gics.gov.uk/handbook/index.htm>

Guidelines for UK government websites (handbook as well as this framework)

<http://www.e-envoy.gov.uk/webguidelines.htm>

e-Government Metadata Framework

<http://www.govtalk.gov.uk/interoperability/metadata.asp>

Draft Trust Charter for Electronic Service Delivery (e-Trust Charter) guidelines

http://www.e-envoy.gov.uk/publications/guidelines_index.htm

e-Envoy publications

There is a range of further documents of interest available from:

<http://www.e-envoy.gov.uk/publications>

and from

<http://www.govtalk.gov.uk>

Abbreviations

CSS	Cascading Style Sheets http://www.w3.org/Style/CSS/
e-GIF	<i>e-Government Interoperability Framework</i>
e-GMF	<i>e-Government Metadata Framework</i>
HTML	HyperText Mark up Language http://www.w3.org/MarkUp/
ICRA	Internet Content Rating Association http://www.icra.org/
iDTV	interactive digital television
PICS	Platform for Internet Content Selection http://www.w3.org/PICS /
PDF	Portable Document Format
W3C	World Wide Web Consortium http://www.w3.org/
WAI	W3C's Web Accessibility Initiative http://www.w3.org/WAI/
WAP	Wireless Application Protocol http://www.wapforum.org
XML	eXtensible Markup Language http://www.govtalk.gov.uk/schema/home.html http://www.w3.org/XML/
XSL-T	Extensible Stylesheet Language Transformations http://www.w3.org/Style/XSL/

*A complete glossary of terms will be provided with **The illustrated handbook**.*