

A practical guide to developing and managing
websites

The logo for Arts Council England, featuring the text "ARTS COUNCIL" in an arc above "ENGLAND" in an arc, both in a white serif font.

ARTS COUNCIL
ENGLAND

A practical guide to developing and managing
websites

Roger Tomlinson and Vicki Allpress

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Foreword

Over the past two years I have spent a lot of time talking to people about websites and the most common feeling that people express (and I include myself in this) is one of inadequacy. I know they have been around for a while now, but to me this is still very much new technology.

Many artists and arts organisations have fully embraced the web and it has become part of the creative and business processes. But, this isn't always the case, and from Roger and Vicki's research for this publication it is clear that many arts organisations are still learning by experience and are already on their third website.

People are also unclear about who should be responsible for developing their website and deciding how it should work for the users. So we are producing this guide in response to the questions that people have asked:

- how can I be sure that my designer knows what they are doing?
- who in the organisation should take responsibility for managing the site?
- a member of the board has offered to design ours for free, what do I say?
- and the most frequently asked question of all – how much did you pay for yours?

This is a practical hands-on guide for arts organisations, aimed at the board and chief executive as well as staff of all kinds. As well as providing advice on all aspects of developing and managing a site, it helps you to decide what you need from your website. It even answers the question, do you really need a website at all?

This is one of a series of practical guides published by Arts Council England.

Phil Cave
Director of Audience and Market Development

Introduction

This is designed to be a practical guide to developing and maintaining a website that focuses on:

- setting the objectives
- planning the design and content
- tackling the key issues in its development
- monitoring and evaluating the results

It is as much about concepts, attitudes and approaches as it is about possible practical solutions. As with all such guides, each section will have different relevance for different readers. So at the end of this introduction we give advice on how the guide could be read to meet specific interests.

The advice is intended to be relevant and appropriate to all arts organisations throughout the UK. Examples quoted are not representative of any particular type or scale of organisation, but are there to illustrate points about websites. Where examples are website URLs (Unique Resource Locators, which are web addresses, eg www.organisation.co.uk) we apologise if the addresses are no longer operable or the pages different, but this reflects the ever-changing character of the Internet. As you will discover in the chapter on design issues, graphics for the web are prepared at a resolution of 72DPI, this is much lower than the resolution needed for printing, and as a result, illustrations of web pages used in the guide may not appear as sharp as they do on screen. For up-to-date examples of the points being illustrated do visit the relevant sites.

Most of the examples were found when researching this guide. This involved surfing numerous websites and assessing their functionality, whether they met their apparent objectives and what the user experience was like. We contacted some organisations and discussed their websites with many helpful people who shared their experiences: good and bad. This guide effectively contains the do's and don'ts from that research.

This is not a jargon-free subject. We have tried to write this guide in lay person's terms and to avoid obvious technical terminology or to explain such terms in the glossary. We hope to have succeeded in making a readable document. Undoubtedly, topics introduced here can be pursued in greater depth fairly easily, in books or most speedily on the web itself. Just type the word you want to look up into www.google.com.

But the Internet and websites are not about technology. This was always intended to be a medium that opened up access to information; a democratic medium sharing, linking and communicating. Think 'people to people' not 'computer to computer'. The people who use this technology are creative and think laterally, but are also creatures of habit, influenced by their lives and experiences. We should not repeat the 'video recorder experience' in which many adults were unable to operate a common piece of domestic equipment. Making websites effective and successful is about making them easy to use. The technology is merely the means by which people connect to communicate.

Websites are strategically important for all arts organisations. To be successful on the web, an organisation must decide what purpose its website serves and how it will be used, and think about the engineering design before applying the graphic design. 'Accessibility' and 'usability' are the keys to success.

Because this is intended to be a practical guide, there are **key questions to consider** and **key points** at the start of each section. While the content is presented in a logical order, it does not have to be read in a linear manner; like the web it is possible to read each section on its own or in the subject order which most meets your needs. In such a comprehensive guide there may therefore be some repetition.

To be accountable for a website as a senior manager or board member there is specific information you require and you should read **pages 7 to 29**. These will help you handle the corporate responsibility of your web presence and manage an effective website.

The information required to take on all or part of the responsibility in delivering a website involves the whole guide. Understanding **pages 39 to 58** in particular is crucial before anything else.

If you are a marketing person working alongside website developers, then you should pay particular attention to **pages 31 to 93**.

This guide is intended to give practical support and advice to the people developing websites in arts organisations, but the ultimate beneficiary must be the public, given usable, accessible and enjoyable websites.

Vicki Allpress and Roger Tomlinson

The importance of an effective website

Key questions to consider

- what is your organisation's website like? Evaluate it from a user's perspective. Does it work for you at home, on your domestic computer?
- what do you think visitors to your website will want to gain from it?
- what opportunities could your website offer to visitors that would help your organisation?
- do you think your website offers enough to hold visitors' attention or might they go elsewhere?

The importance of an effective website

The importance of an effective website

Why arts organisations must ensure they have a fully functional and effective website that meets users' needs

The challenges

The Internet has not been a satisfactory experience for most arts organisations to date. Some are on their second or third generation of websites and continue to be frustrated in achieving their aims. It is a similar experience for many of their users, frustrated by broken sites and links, content that is hard to navigate and failures to provide obvious functionality. This does not reflect well on organisations and it is likely it might impact on attendances and participation.

The Internet is still a relatively new medium and problems are universal. Arts organisations should take heart from the fact that many arts websites are better than commercial efforts.

'Across the board, websites are failing to meet expectations, according to a national survey of business professionals who actively use the Internet.'

The Customer Expectation Gap, Michael Reene, 2002

'...companies face a mounting challenge to provide a satisfying experience for their web users within a complex environment. It is a challenge many are woefully unprepared to meet. In fact, even once the issues are identified and potential solutions are put in place, companies are finding that many web initiatives are ultimately unsuccessful. In the meantime, customers are becoming increasingly dissatisfied with their online experiences...'

Review of top-rated US websites

The challenges come from a rapidly evolving medium, where often web developers are also on a steep learning curve and sometimes breaking new ground. The commonly quoted adage that 'an expert is simply someone who knows more than you do, today' is true, but the public uses websites today and wants them to work satisfactorily on their computers and Internet connections.

The 'dot.com' boom proved to be a 'dot.con' for many, but today the Internet is a real world tool used by the majority of the population.

An organisation's website is no longer an add-on. When we create an online presence, we expose our organisation to potentially large numbers of website visitors with high user expectations including immediate response.

Web usage

Web usage in the UK is increasing daily, and a wider audience brings new challenges. Now the mainstream population is the majority of users, websites have to be universal in achieving easy access.

e-MORI reported the percentage of the population online in October 2003 in their Technology Tracker, based on monthly surveys of the British population aged 15+. The top social grade categories ABC1, the principal arts attenders, make up 65 per cent of web users, and 74 per cent of ABs and 62 per cent of C1s are Internet users.

Figures from Nielsen Net Ratings in May 2003 show 34 million Internet users in the UK (home and work combined) of which 22.6 million are regularly active. Seventy-seven per cent of online Britons earn more than £30,000 and 70 per cent of visitors say they have made a purchase online.

The majority of web users say one of their primary interests is finding out about entertainment opportunities, and buying tickets is one of the principal e-commerce purchases they would like to make.

'In 2003 many arts organisations in London report online ticket sales averaging over 20% of the total, some as high as 60% for some events.'

www.ticketing.org.uk

It appears that many people find out about the existence of arts organisations through the web. There is little formal research on this but a wealth of anecdotal evidence.

'The website IS the company.'

Homepage Usability, Jakob Nielsen and Marie Tahir, 2002

Jakob Nielsen makes the point that for web users 'the website IS the company'. Nielsen is considered to be the guru on effective web presence with more than 80 research papers published on web usability. Just as an organisation with a building has a physical presence, then the website is the virtual presence. Just as on the ground the whole organisation is reflected through and in the building in which it is housed, it is important that it is also reflected through the website. However, the Internet also offers unique opportunities to open up access to information, interact with communities and enable 'customer self-service management'.

UK online

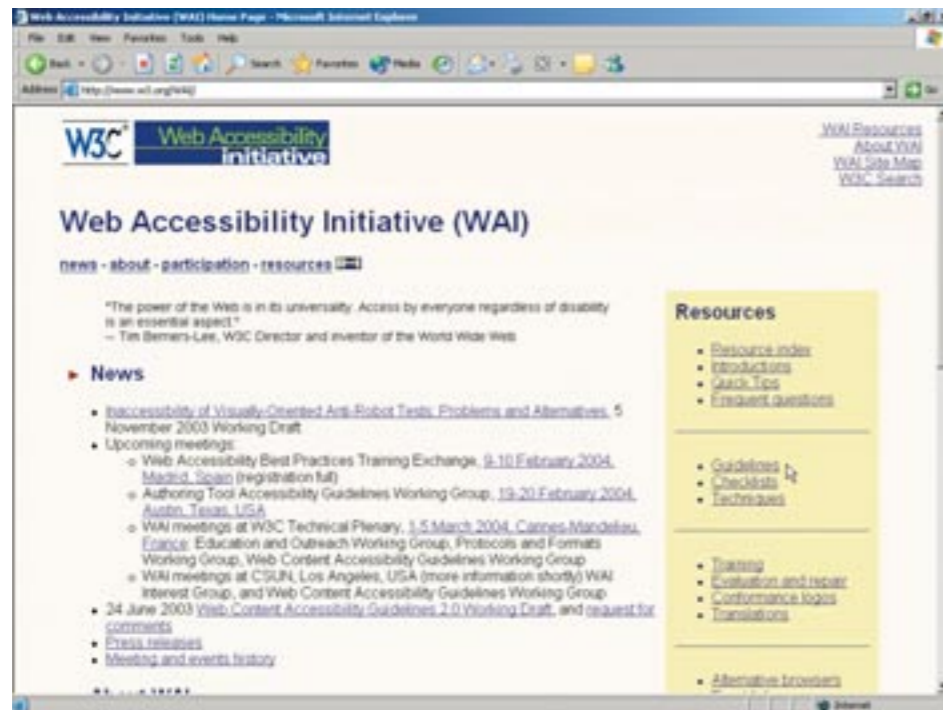
It is government policy for local authorities and UK government to be able to transact most activity online by 2005. Public funders will expect organisations in receipt of public funds to be equally online by 2005, and that their websites will meet the needs of all web users. For the first time, for many arts organisations this means meeting the needs of non-visitors to the physical organisation, people who are unable to visit it or have a different interest in it, or different information requirements from it.

Accessibility and disability discrimination

'I would love to see a few web designers thrown in jail. It is not enough but it would be better than nothing. The RNIB is backing a number of individuals in taking legal action against as-yet unnamed websites that they say do not comply with the Disability Discrimination Act. It is a betrayal of the principles of the web.'

Jack Schofield, Editor, Guardian On-Line

Accessibility on the web is covered by the Disability Discrimination Act and all arts organisations need to ensure their websites enable access for disabled people. This is a great irony as fundamentally the web was conceived as an accessible environment. Designers have to make conscious decisions to make it inaccessible, and they do, often not realising they are breaking web protocols and sometimes the law. Further, public sector websites are currently expected to meet WC3 accessibility guidelines, published by the Web Accessibility Initiative (WAI). See pages 39 to 47 for more on the subject of accessibility.



The Web Accessibility Initiative (www.w3.org/WAI) issues guidelines on accessibility.

The arts can be credited with helping to create the Internet revolution by leading many innovations in what is provided on the web. There are new methods of creating, presenting and disseminating art or information, new forms of publishing, new channels of communicating with audiences, new tactics for reaching and capturing visitors, and new ways to serve customers. This revolution has also raised audience expectations.

Resources

Steve Krug's Advanced Common Sense website: www.sensible.com

Web Accessibility Initiative (WAI) website: www.w3.org/WAI

E-Mori Technology Tracker: www.mori.com/emori/tracker.shtml

Nielsen Net Ratings: www.nielsen-netratings.com

Who should be responsible?

Key questions to consider

- who is responsible for managing your website? Is this effective?
- what skills and advice will you need to implement your website project?
- do you have internal skills you can recruit to the team? How will this impact on their existing responsibilities?
- what is your plan for recruiting external suppliers and what selection criteria will you apply?

Who should be responsible?

Key points

- compile the outline job description and skill set for your web manager
- identify whether this will be an internal appointment, by changing responsibilities in another post, or a new post
- carry out an appropriate appointment process
- agree the timetable for the web manager to prepare a project plan
- produce a matrix of the skills required on your team and their likely source

Who should be responsible?

Who should manage and implement your web project and what functions need to be covered?

Your website IS your organisation. It is a virtual presence enabling access to your organisation and presenting a public face. It is therefore of high-level importance to your image and profile. Ultimate responsibility and accountability for your website lies at board and senior management level. The board should approve the overall strategy for the website and agree time-based targets.

Board responsibility should be at a macro, not micro, level. Accountability does not mean that the board or senior management should become involved in the day-to-day decisions about the site.

Within arts organisations, responsibility for the website has often been given to an existing department or staff member, eg marketing. Although this can be the most practical and cost-effective solution, there are associated problems. The website represents the organisation, not just marketing. Furthermore, as an addition to existing workloads, the website may be neglected or given secondary importance.

Web manager

A solution can be found by appointing a dedicated web manager with overall responsibility for the project. This individual should report directly to senior management and be supported by internal staff and external suppliers who are assigned specific responsibilities. This ensures a dedicated focus is given to the project, and that existing staff members can be utilised without overloading their workloads. It also ensures that no one department claims ownership of the website and biases it towards any single agenda. The position of web manager need not be a full-time post, and could be incorporated with another role.

The web manager should take responsibility for the website's day-to-day functioning as well as its broader development. The web manager should prepare a project plan, and then liaise closely between all the relevant people involved. The skills and knowledge required for this role are wide-ranging and include familiarity with the web environment, editing and people management. Equally important is the ability to manage a project, pulling together external suppliers and internal staff, and keeping schedules on track. This requires this person to have excellent strategic and communication skills and the ability to lead a project.

The first key responsibility of the web manager should be to prepare a project plan, which should be signed off at senior management and board level. It will determine where internal staff and external suppliers need to be brought onto the project to form the web team. More detail about the content and structure of a web project plan is outlined on pages 95 to 103.

The skills you may need to have on your web team include:

- brief writing: the ability to clearly brief internal staff and external suppliers
- web architecture: planning the site's technical and navigational structure and organising the information
- design: creating a cohesive look and feel consistent with your organisation and with the site's purpose
- web development: depending on the technical complexity of the site, the skills required will begin with HTML programming (the basic hypertext mark-up language) and could extend to other programming skills
- content creation: compiling all text and other content (photographs, video, audio) that will populate the finished site, and delivering this in a suitable format to the designer and developer
- editing: ensuring consistency of style and accuracy of content
- quality assurance and testing: thoroughly checking the entire site for errors and bugs
- content management: developing processes and systems prior to launch so that updating can begin smoothly once the site is live

Depending on the size and complexity of your site, you may be able to find one person or a company externally who possesses most of these skills, and others internally who have some of them or are willing to learn them. The advantages of using internal staff are the cost savings, company knowledge and sense of ownership. However, external suppliers are necessary where advanced technical, design or editing skills are required.

If internal staff are to be involved, it is important to consider what other work they will be responsible for during the site development period, and how their involvement will impact on this. Depending on the mix of internal, external, freelance or company personnel on your team, those involved may not always be working physically close together. This need not be a disadvantage if everyone is clear about the project objectives from the outset. Meetings and short presentations are recommended to help communicate the ideas and thinking, show examples, and encourage feedback and debate.

If you do not have an existing relationship with a web development or design company or freelancer, you can start by asking around your networks for recommendations or by visiting the websites of similar organisations and locating the designer or developer of those you like. Internet magazines and online directories can also be used to source possible suppliers. Pages 105 to 116 give more information about the process of briefing your web developer and designer.

Checklist for building a successful team

- is everyone clear about their role in the team?
- is everyone clear about the purpose of the site and the target audience?
- does everyone have an understanding of the culture of the organisation and the objectives it wants to achieve?
- has everyone agreed to a timeframe and individual deadlines?
- are there effective communication channels?
- has the management of internal team members' existing responsibilities been considered?
- have external freelancers or companies been recommended by someone trustworthy?
- are successful examples of their completed work available?
- is it easy to communicate with them and do they appear to have an understanding of your organisation and website vision?
- do they speak in a way which is understandable without too much jargon and in a non-patronising manner? Do they explain their decisions rather than expect their wisdom to be accepted?
- what other work commitments do these people have for the project timeframe?
- how will they keep the project on track and how will they evaluate success?
- what sort of reporting and communication processes are they proposing?
- are there any skills missing on the team or knowledge gaps that need to be addressed?

Resources

Collaborative Web Development: Strategies and Best Practices for Web Teams, Jessica Burdman, Addison-Wesley Pub Co, 1999

What is your website for?

Key questions to consider

- what is the primary purpose of your website? Is this agreed at corporate level and accepted by the key internal stakeholders?
- what are the implications of your primary purpose and the other objectives for your website?
- do you understand your potential visitors and the context in which they will use your website?

What is your website for?

Key points

- write down in summary form the primary purpose of your website and the other objectives
- produce a matrix of the objectives and the likely functionality required
- write up shorthand pen pictures of your target users and your ideas on when and how they will access and use your website

What is your website for?

The importance of defining the purpose of your website and how to communicate this to your users

The first step in planning your web project is to define the primary purpose of your website. It is vital to have complete clarity and internal agreement on this. Not only will this ensure the smooth running of your project, but your website's purpose – and how you decide to communicate it to users – will determine the structure, design and content. This is why a discussion on purpose has to take place at the outset, before your web project begins.

'Why should users do anything at a site if they can't figure out what there is to do there?'

Homepage Usability, Jakob Nielsen and Marie Tahir, 2002

It is easy for multiple agendas to arise, as a website has the potential to benefit various aspects of an arts organisation's operations. For example, your website can be a box office, a 'What's On' guide, a community, an education resource or an archive. However, it cannot do all of these things equally and simultaneously. Having a primary purpose does not preclude aiming to achieve additional objectives with your website. What it does is ensure a clear hierarchy of services or activities is communicated to the user, with its primary purpose being the most prominent.

When setting your purpose, you need to understand your audience. What you may see as the purpose of your website may not be what your user expects. You might intend your website to help your audience gain a deeper understanding of the art, while the user may wish to find out what is on and buy tickets. To deal with this challenge you must understand your potential users and the context in which they will visit your site.

Priorities

It is reasonable to expect your website to achieve three to four objectives, with one of these defined as your overriding primary purpose and the remainder being clearly prioritised. Consider how your website will work to achieve your organisational goals.

Your website's key purpose may be among the following examples:

- provide in-depth What's On information (greater than that provided through any other medium) and persuade more people to attend
- reach a worldwide audience with your works of art and create an additional merchandising channel
- sell tickets online to improve the self-service options to purchasers and enable sales 24/7
- support your education and outreach goals with online resources for specific-needs visitors, including teachers, students and socially excluded people
- provide in-depth information about your organisation and its work and help in interpretation, appreciation and understanding as a means of developing audiences and ticket sales
- develop e-commerce opportunities as a way of increasing revenue streams
- provide support and services to a community of artists

Be prepared to restrict your ambitions. It is unrealistic to set objectives for your website that you are unlikely to achieve. Consider in reality what resources and efforts can be put behind each objective. For example, as much as you may see an exciting opportunity to publish your archive online, the cost may simply outweigh the benefit.

Clarity

When visitors reach your website, they should be able to immediately identify its purpose. It should be clear to them who you are, what role your website plays, what they can use it for and how to get started. Elements like clear branding, obvious navigation, defined links and legible text achieve this, hence the importance of defining your purpose before you and the site's designer begin work. Keep in mind that visitors may enter your website via a page other than the home page, so the website's purpose should be communicated throughout.

It is not necessary to overtly state your website purpose in writing, as the Durbeck Archive has chosen to do. At www.durbeckarchive.com, it states that 'the primary purpose of this website is to promote the sale and distribution of discographies of the complete opera recordings in The Durbeck Archive'. Although this is helpful, a clearly communicated purpose will be apparent to the visitor with clear labelling of the navigation and the correct hierarchy of elements.

The Sadler's Wells website's home page (www.sadlerswells.com) is a good example of clear presentation of purpose, with the following elements helping to capture users and lead them through to the desired action:

- the company name and logo is prominent
- branding is consistent with all other offline communication
- it clearly indicates what it expects visitors to want to do, eg 'Book now...'
- current programme details are prominent and command immediate attention
- the navigation is clearly labelled and reflects the website's priorities:
 - what's on
 - booking
 - supporting us
 - memberships
 - your visit
 - corporate hire
 - about us

Sadler's Wells
taste water again

keyword search

- home
- features
- links
- forum
- whats on
- booking
- supporting us
- memberships
- your visit
- corporate hire
- about us

flamenco festival
5, 9 - 17 feb
sadler's wells
book now

wim vandekaybus and ultima vez
7 - 8 feb
sadler's wells
book now

Carlos Acosta's Tocaroro - A Cuban Tale
now on sale The Cuban ballet star's sell-out 2003 show returns to Sadler's Wells.

Now booking up to July 2004
See the entire season [here](#)

coming soon

21 & 22 Feb	Introdans
21 - 23 Feb	Bill & Ben and Andy Pandy
23 Feb	Renois de la Dance
25 - 28 Feb	Richard Alston
2 - 6 Mar	Nina Ananiashvili
9 - 13 Mar	Welsh National Opera
17 - 27 Mar	Northern Ballet Theatre
17 Mar - 24 April	Tango Par Dos

Register to receive our monthly email bulletin and occasional email offers.

home/what's on/booking/supporting us/memberships
your visit/shop/about us/contacts/feedback/privacy

Prominent branding and clear hierarchy of tasks communicate Sadler's Wells' purpose of providing event information and selling tickets online (www.sadlerswells.com).

Let's look at two examples of how your primary purpose could impact on your website's design and content.

1. Purpose: to provide in-depth What's On information (greater than that provided through any other medium) and persuade more people to attend

Navigation and choice of text and images should minimise mouse clicks to speed people into and through the process. While simple lists of events in calendar and/or subject form are helpful, users will want to access the information their way, which might include date order listing, art form listing and calendar access. Video clips, soundtracks, images or embedded music may be useful items to offer, all focused on leading to purchase. The search functionality on the site will be an important feature and needs to be configured to meet users' needs. Bridgewater Hall's website at www.bridgewater-hall.co.uk is a good example of a website that aims to achieve this purpose.

Manchester's 44 million performance a year and boasts an award-winning restaurant and cafe bar. Its established location in the heart of the city makes it an ideal conference and event venue.

This architecturally stunning building hosts over 230 performances a year and boasts an award-winning restaurant and cafe bar. Its established location in the heart of the city makes it an ideal conference and event venue.

THE BRIDGEWATER HALL

WHAT'S ON | BOOK TICKETS | CORPORATE | ABOUT THE HALL

An Audience with Alastair Campbell

There is no doubt that Alastair Campbell is a major player in our recent history. You now have the opportunity to meet the man behind the headlines and hear his story from his own lips. 'An Audience with Alastair Campbell' talks politics with people and engages the audience in political debate.

'I have always enjoyed the cut and thrust of political debate. I feel I have something to say about the state of modern politics and the state of modern media and I'm looking forward to discussing these ideas with audiences.' **Alastair Campbell**

More Info Book Online

This Week's events

Monday 9 February Orchestra of the Age of Enlightenment	More Info Book Online
Wednesday 11 February Hallé	More Info Book Online
Wednesday 11 February Gold Piano Trio & Robert Pinner clarinet	More Info Book Online
Thursday 12 February Hallé	More Info Book Online
Friday 13 February Valentine's Eve Gala	More Info Book Online
Saturday 14 February Major Beethoven & Mozart	More Info Book Online
Sunday 15 February Hallé	More Info Book Online

Users can find out what's on at the Bridgewater Hall website at www.bridgewater-hall.co.uk

2. Purpose: to develop e-commerce opportunities as a way of increasing revenue streams

The site will need to be able to handle an inventory of items for sale and show these, preferably with thumbnail illustrations, together with the stock position, typical delivery times, and costs including postage and packing (also allowing for overseas delivery) and VAT. The functionality of a shopping cart is essential. Purchasers must be able to register and view terms and conditions, available currencies and Data Protection implications before completing their purchase. Britart's website at www.britart.com is an example of a site providing e-commerce capabilities.



The Britart website at www.britart.com has the primary purpose of selling British artists' work to online buyers.

As with all objectives, those you set for your site should be measurable. It is important to determine quantifiable targets in order to measure success. Pages 129 to 136 outline the ways in which you can monitor your website's activity to determine whether you are achieving your objectives.

Resources

Homepage Usability, Jacob Nielsen and Marie Tahir, New Riders Publishing, 2002

Don't Make Me Think, Steve Krug, Circle.com Library, 2000

Designing Websites for Every Audience, Llise Benun, How Design Books, 2003

Design issues to think about

Key questions to consider

- what is the visual appearance? How does this relate to existing corporate identity, other physical manifestations of the brand and your organisation's values? How might the website reflect this and how and why might it be different?
- what key design elements are necessary to meet the needs and characteristics of your users? Is there anything the design must not include?
- have you found enough examples to communicate your design brief adequately to the designer?

Design issues to think about

Key points

- familiarise yourself with the web to understand how web design differs from print
- find as many examples as possible of websites that you like and provide the designer with the appropriate links
- where possible, scan images in-house to save time and money
- ask your designer to prepare mock-ups as HTML pages that you can view on your own computer

Design issues to think about

An introduction to website page design issues

If this is your first experience with website development, it is a good idea to familiarise yourself with the web environment to ensure good understanding and communication with project colleagues on the key issues in web page design:

- how designing for the web is different
- preparing images for websites
- using colours and fonts
- working with web designers

Forget about print

Most people in arts organisations have learnt about design through print. It can come as a surprise that many of the rules that apply in print do not apply at all on the web. For example, on the web the colour palette is limited and colours do not appear the same on every monitor, so it is not possible to guarantee that corporate colours will appear correctly. The web is dynamic; variables such as computer platform, browser software, Internet connection, screen resolution and individual preferences impact on the way each user experiences your website in terms of layout, font and even functionality.

Thinking in terms of print and graphic design is therefore the most dangerous misapprehension when approaching web design. Some people have difficulty accepting the apparent limitations of the web when making the transition from print and do not immediately see the immense alternative potential offered by the web. A good web designer must be able to explain why they are recommending certain design solutions for your website.

Preparing graphics for the web

The biggest problem users experience with web graphics is waiting for them to download, but there are a few simple things you can do to speed this up.

Make sure the picture is the right size

Images on the web are made up of pixels. The more pixels you have, the bigger the file will be and the longer it will take to download. It is often possible to put a big image file into a small space on the page, but this will slow down your website with more detail than it is possible to display.

Your designer should specify image sizes in pixels, and when you resize a picture, you should remember to do the same. Don't adjust sizes in inches or centimetres – these settings (combined with the resolution) control the way the image will appear on paper, not on screen. Remember that your monitor cannot display anything like the same amount of detail as a printed document.



Computer monitors (right) cannot display the level of detail a printed document (left) can.

Use the GIF for logos and line drawings

The GIF (Graphics Interchange Format) compresses pictures by reducing the number of colours (or specific shades) in the palette. If your image contains just a few colours, this can be a great way of speeding up your website. A good graphics package will let you choose the number of colours in the palette, so you can select a suitable level of compression.



Turning logos and line drawings into GIF files saves on size.

Use the JPEG format for photographs

The JPEG (Joint Photographic Experts Group) format reduces the amount of detail in a picture. By making the edges a bit fuzzy, this makes pictures radically smaller than the equivalent bitmap (BMP) files. In the example below, compression was set to 75 per cent of the maximum. Less-extreme levels of distortion are available where picture quality is important.



The JPEG format (right) is radically smaller than the bitmap equivalent.

Colours

The standard web palette has only 216 colours in it, which may seem a lot until it is broken down into greens, blues, reds, etc and there are only a limited number of options. Designers do use colours outside the 216 'web-safe' colours, but not every user will see the colours accurately, and sometimes colour combinations can end up looking poor on a user's screen.

While newer computers are increasingly able to display a wider range of colours correctly, it is important to think about the users and the still-significant number with older machines and monitors, and eight-bit video cards. The website Lynda.com features a useful article about browser-safe colours, with examples of how things can go wrong as well as links to the web-safe palette (www.lynda.com/hex.html).

Fonts

HTML code does not contain the actual fonts that the browser uses to display the text on a web page. Rather, it contains instructions to the browser to use a particular font or font family. If the browser can't find a font on your computer, it will check back to the HTML code and see if there is an alternative. For example, Arial is a standard Mac font and Helvetica is the PC equivalent, so a designer will often give the option of using Arial or Helvetica. Specify fonts to aid reading on screen – San Serif fonts are easier to read on computer screens, which are relatively low resolution compared to print. Avoid capital letters which are harder and slower to read.

Newer computers will have a larger array of fonts pre-installed, but to ensure readable copy it is wise to keep to the standard font families. If there is a good reason for using an unusual font (such as it being part of the logo) then this text must be within an image if you want it to be presented accurately. This will not then be read by a text to speech reader (unless the content of the image is explained in an 'alt tag', which describes any image that is to be downloaded).

If you are likely to require special characters such as umlauts and accents, there is a number of different conventions for including these within the HTML code. Your designer should be able to advise about this. If you need to use a different alphabet, eg Japanese, Cyrillic or Arabic, you may need to include instructions on the page to help users download the appropriate font(s). This is a lot to expect of users.

Research for this guide illustrated that most websites look good at 1024 × 768 resolution on a 17" monitor. Most pages work well via a Broadband connection viewed on Internet Explorer 6 on Windows XP or even better on a Macintosh. Less than 25 per cent of users have this combination. 100 per cent of designers do.

Interpreting the proposal

One of the challenges of working with designers for the web is understanding and assessing what they propose. Visuals are static and do not reflect the technical circumstances of the web. Ask your designer to present design mock-ups as HTML pages that you can view on your own computer. Print-outs of QuarkXpress or PhotoShop designs will not give you accurate colour display, nor will they allow you to see how the site will appear on computers with different browsers and screen resolution. Static digital files will also not give you the full impression of a working design. Some designers set up a test site, so that you can view the design as it will be seen in practice, although there may be significant work and investment required just to reach this stage.

Flash and Shockwave

Flash and Shockwave are the technologies that enable developers to create highly interactive, multimedia experiences for website visitors, generally including graphics, text, video and sound packaged together in one manageable file. It is important to understand the degree of risk of these technologies related to accessibility.

For a number of reasons they can render a site inaccessible to certain users, eg they require plug-ins that some older browsers or Internet-enabled technologies do not support, and because certain assistive technologies such as screen readers require a linear format and can't find the 'top of file' in non-linear formats such as Flash.

It is possible to incorporate Flash and Shockwave content into your site with awareness that this content will never be fully accessible and therefore the content must also be

provided in secondary form. This could either be as a second page for each page of content or as database content that is served to the user in the form that they want. The onus is on Macromedia (which provides Flash and Shockwave) and the developers of assistive technologies to fully resolve this issue and there is indication that they are working towards it. In the meantime, the web manager may wish to consider the use of interactive multimedia and balance its purpose against the associated risk.

Checklist for website designs

- do you understand why the designer has chosen this solution?
- do you and others in the organisation identify with this design?
- will your target audience identify with this design?
- does the design support the objectives and primary purpose of the site?
- has the website been tested across different platforms and browsers?
- are there any aspects of the design that will affect content management and future updating of the site?

Resources

Web Bloopers: 60 Common Web Design Mistakes, and How to Avoid Them, Jeff Johnson, Morgan Kaufmann, 2003

Web Design in a Nutshell, Jennifer Niederst, O'Reilly & Associates; 2nd edition, 2001
Vincent Flanders' Web Pages that Suck website: www.webpagesthatsuck.com

Understanding your users

Key questions to consider

- do you understand the key usability and accessibility principles and how these apply to your website?
- are you confident your web developer has high awareness of these principles?
- how will you put into practice usability and accessibility testing for your site?

Understanding your users

Key points

- educate yourself on the basic principles of usability and accessibility to gain an understanding of standard practice, which you can then adapt to your situation
- include those criteria in the brief for the web developer and champion them on behalf of the user
- put into place an ongoing usability and accessibility testing programme
- ensure user responses effect website change

Understanding your users

The disciplines of usability and accessibility and the importance of meeting the needs of your website visitors to achieve your goals

If your website is to achieve its purpose and provide a service to its users, then it must be both usable and accessible, two vital concepts for the success and effectiveness of websites.

Usability and accessibility

Usability has been described as the science that addresses the relationship between tools and their users. It is a key element in planning your web project. A usable website is one where visitors are able to undertake the task they expect to achieve on the site and leave satisfied their needs were met.

All elements of your website contribute to the overall level of usability, including content, visual look and feel, functionality, navigation, text, links and use of images.

Accessibility describes the principle of reducing obstacles on web pages to ensure access for everyone. People with different kinds of disabilities can experience difficulty using the web if there are barriers in usability and content or if the site cannot be viewed by the user's agents (browsers, multimedia players, assistive technologies such as screen readers, eg Window-Eyes or OutSpoken, and voice software such as FreeSpeech).

'The power of the web is in its universality. Access by everyone regardless of disability is an essential aspect.'

Tim Berners-Lee

Tim Berners-Lee was the first advocate of web accessibility. He is the recognised primary inventor of the World Wide Web and the Director of W3C, a forum aimed at leading the web to its full potential. W3C runs the Web Accessibility Initiative, which, in coordination with organisations around the world, pursues the accessibility of the web.

Usability issues

Usability problems can be caused when websites do not conform to the universal web standards that have developed over time. In the same way that we inherently know a music CD has the title and artist on the spine, the tracks listed on the back and the CD inside, we are coming to expect websites to follow a certain format. Particular standards have become anticipated by users, for example the colours of visited and unvisited links, the location of navigation bars and where to find the 'contact us' information. Not complying with these universal standards can add to the level of anxiety and disorientation experienced by the user and their ultimate failure to complete the task.

Understanding how people use the web can help us to appreciate why we need to take usability and accessibility seriously. For example, think about the following:

- users jump around (they are not captive) and view many web pages (an average of 30) in a single session
- external links, bookmarks and multiple browser windows make it easy to leave at any moment
- they skim-read in a hurry and only dip into interesting text
- links are scanned for what's important and information on where to go
- they look at text before images
- users 'make do', eg as soon as they find a link that appears to lead to what they are looking for, there's a very good chance that they will click on it

'...when I look at a web page it should be self-evident. Obvious. Self-explanatory. I should be able to "get it" – what it is and how to use it without expending any effort thinking about it.'

Don't Make Me Think, Steve Krug, 2000

Users of your website can therefore easily give up at any point. Visitors will leave a website either because they have come to the conclusion that you do not have what they are looking for (rightly or wrongly) or they become sufficiently frustrated and leave.

Accessibility issues

Disabled users can be particularly frustrated gaining access to websites. For some disabled people, access to web technology can be even more critical than for other users because it may be the only way they can get to the information or receive the experience. This can be an even more important issue for funded organisations, as they have responsibilities to a range of constituents and stakeholders and are not just accountable to themselves.

Users may be affected by website barriers when they have:

- difficulty with sight, hearing, movement or processing of some types of information
- difficulty with reading or comprehending text
- problems with using a keyboard or mouse
- technical restrictions, such as slow Internet connections or small screens
- language comprehension difficulties
- older software (eg earlier versions of browsers) or assistive technologies (eg voice recognition programmes). These may not be able to decipher Flash, for example

Making your website usable and accessible

What determines a satisfying experience for users? Professional usability companies tend to measure usability in terms of goal achievement. Some of the most basic usability principles include:

- logo and tagline prominent on the home page
- description of who you are and what you do on the homepage
- clear, intuitive, consistent navigation and naming system
- demarcation between the site and any outside advertising (eg banners)
- ability to quickly scan clickable and non-clickable items
- inclusion of 'About Us' and 'Contact Us' sections
- customer-focused, non-jargon language

- readable text and font sizes which can be increased by the user
- most important content 'above the fold' (ie in the first screen of content)

See *Appendix 2: Detailed usability checklist* for a detailed usability checklist.

Comprehensive accessibility guidelines are published by the WAI (Web Accessibility Initiative) referred to earlier in this section. These are universal and an excellent guide for your web developer. They can be found at www.w3.org

Testing usability

The best way to measure the usability and accessibility of your site is to test it. Usability tests generally involve observing users who have been asked to complete a task on a website. This would then help identify the design changes or functionality problems which would remove any difficulties they experienced. It is typical to test between 10 and 20 users to get enough information to make accurate assumptions.

Using a professional usability company can be expensive, but if your website relies on profits from e-commerce, then usability tests take on a higher importance. There is, however, no reason why arts organisations cannot undertake usability tests themselves. The important thing to remember is always to follow a systematic process of testing and resist the urge to make usability changes to a website based on a single user's feedback or the whim of an individual such as a board member.

See *Appendix 1: Do-it-yourself usability testing* for guidelines on do-it-yourself testing.

To ensure your website meets accessibility standards, you can use a number of testing measures. Ask your web developer about these:

- validate your web pages using a free online validating tool such as the W3C Markup Validation service at www.validator.w3.org
- try your site as if you were a different type of user, eg without a mouse
- use your site on a text-only browser, such as Lynx
- ask a range of people with various abilities and disabilities to test your pages and

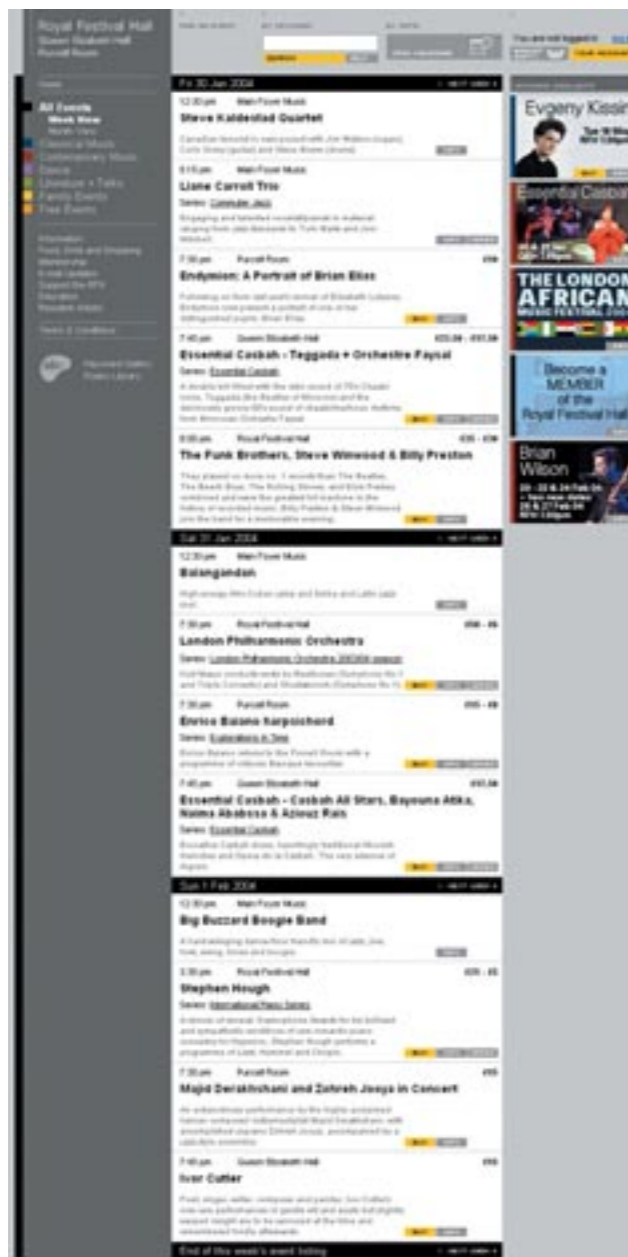
give you feedback

- use 'Bobby' to test your pages for compliance with the WAI Web Content Guidelines at www.cast.org/bobby/

The legislation

Be aware of the anti-discrimination legislation impacting on accessibility of websites, eg the Disability Discrimination Act 1995, the Disability Rights Commission Act 1999 and the Special Educational Needs and Disability Act 2001. In addition, the UK's Disability Rights Commission announced in March 2003 that 1,000 websites are to be investigated for their ability to be accessed by Britain's 8.5 million-plus disabled people – the first study of such breadth and depth of its kind in the UK.

Incorporating (or improving) usability can make a tangible difference to the bottom line. Following research into users' experiences on the Royal Festival Hall website and follow-up work on the site to meet their needs, London's South Bank Centre achieved a marked increase in users and online ticket sales, often over 30 per cent of the total sales for an event.



The Royal Festival Hall website at www.rfh.org.uk was changed following usability testing, resulting in a marked increase in ticket sales.

For many web developers, usability and accessibility are not viewed as priorities and they may not even be aware of them as disciplines. Your appointed web manager must take responsibility for understanding the guidelines and championing these issues on behalf of the user.

Usability principles should be defined during the planning process and incorporated into the brief for your web developer, who must be reminded of these principles throughout the project.

Resources

Designing Web Usability: The Practice of Simplicity, Jakob Nielsen, New Riders, 2000

Jakob Nielsen's Website: www.useit.com

RNIB website – 'Accessible info' section: www.rnib.org.uk

Content issues to think about

Key questions to consider

- have you planned to create original content for the web, rather than repurposing existing print copy?
- have adequate resources been allocated to content creation (eg photographs, video, copy editing) with a realistic timetable for content delivery?
- has search engine optimisation been considered in the creation of your website's content?
- have you considered ongoing updating and content maintenance?

Content issues to think about

Key points

- assign responsibilities for each area of content management
- produce a content plan and content template
- check that all content material is being commissioned or prepared and appropriate permissions obtained
- prepare a list of relevant keywords and phrases to be incorporated into the site text, titles and metadata

Content issues to think about

The importance of your website's content, the unique requirements for preparing text for the web and how to optimise your content for search engines

'Content' refers to the text, images, graphics, rich media, downloadable files and links that populate a website. For example, the content of the website for The Whitworth Art Gallery, Manchester, at www.whitworth.man.ac.uk, comprises:

- headings and sub-headings
- text
- images
- lists of events
- online searchable catalogue database
- maps
- hyperlinks – internal (within the site) and external (to other sites)

Content as the end not the means

The content of your website is there to enable users to achieve their purpose. Therefore, planning the content for your site is one of the most important aspects of a web development project. Content is often underestimated as being merely the text that fills the gaps of the new website design. However, content is the very reason people visit websites (the end), with the design simply providing the route to that content (the means).

'Content is the focus of the web user's attention.'

Homepage Usability, Jakob Nielsen and Marie Tahir, 2002

The strategic development of the content and managing the resources required to produce and maintain it are two of the most important responsibilities of your web manager. The extent to which aspects of these responsibilities are delegated or self-managed will depend on the particular skills the individual brings to the role.

Responsibility needs to be assigned for:

- coordinating the content (sourcing, compiling and commissioning)
- generating new content
- editing the content to prepare for publishing

It is possible for one person, such as the web manager, to be responsible for all three areas, but it is important to understand that each requires specific skills.

Be careful not to fall into the trap of 'repurposing' your brochures or press materials to fill your website. This is not a viable solution, as web content operates in a very different environment from print and has to fulfil unique requirements. It is important that the web manager comprehends this and approaches the strategic development of the website content with this in mind.

Planning the content

After creating the brief for the developer, the web manager should produce a content plan for which the starting point should be fulfilling the primary purpose of the site. The website design and content should work in synergy, successfully leading users to complete their intended task. This will involve thinking about:

- what content is required – not only text, but also images, photographs, video, audio, downloadable files, graphs, maps and charts
- who will be responsible for content coordination, content generation, proofing and final editing
- what approval and checking processes will be employed
- where to source existing content and which content has to be generated from scratch
- how frequently content will need to be updated
- how content will be archived or replaced once it becomes dated
- the timeframe for compiling and generating content, taking into account aspects such as briefing writers, researching information, sourcing images, preparing downloadable files, securing copyrights and permissions, liaison with other departments, proofing and editing
- how ongoing content maintenance will be managed and by whom

The web manager needs to map the content into sections and subsections, prioritising these in relation to the site's purpose. Typical sections might be Performances, News, Press Centre, Box Office or About Us. Typical subsections of a section such as About Us might be Company Description, Our History, Members of the Company, Finding Us or Contact Us.

A hierarchy should also be created in terms of what is top-level content and what is deep content that only visitors with a specific interest would seek. This hierarchy should be driven by the primary purpose and secondary objectives of the site.

Web not print

When you are generating the text content for your website, it is important to appreciate that writing for the web is different from writing for print. The three most important rules are:

- be concise
- structure your content in a way that it can be easily scanned
- layer long information into multiple pages, with the most important content at the top level

As you have read in the usability section of this guide (pages 39 to 47), web users tend to be in a hurry and wish to scan content quickly for what they need.

Checklist for writing for the web

- write specifically for the web – forget writing for sustained reading
- adopt a journalistic writing style: use shorter words; use shorter, more concise phrases and sentences; make only one point per sentence; emphasise facts; and avoid hyperbole
- use bullet points and short paragraphs
- aim for a simpler vocabulary and a lower reading age
- structure so conclusion and key points come first
- be clear and don't exaggerate to retain attention

Preparing a content outline

A content outline will help you subdivide your sections into separate pages. A section may have one or more pages. As an example, a content outline for the Milton Keynes Theatre website at www.theambassadors.com/miltonkeynes/index.html (at the time of going to press) would look something like this:

What's On:

- Diary
- Search
- Mailing list
- Comments
- Concessions
- How to book

Theatre Information:

- Map and directions
- Seating plan
- Access information
- Jobs
- Mailing list
- Comments

Education:

- Background
- Classes
- Holiday courses
- Workshops
- Talk backs
- Resources
- Backstage tours

Friends:

- Benefits
- Edit your details
- Special offers

Corporate membership:

- Benefits
- Contact information

The content template

Your content outline can then be turned into a content template. This will speed up the process of content delivery and ensure that everything is provided effectively at once rather than having to be constantly added. A content template should contain all the necessary information to enable the input of the content, including:

- the filename of the HTML page where the content is to go
- a list of the filenames of the images for that page, any captions and alt text (the text that replaces an image that doesn't appear)
- filenames of any other content for that page, such as audio or video clips and downloadable files (PDFs, Word documents, etc)
- the text copy, formatted as it should appear on the page, with headlines and subheadings clearly indicated

If a content template had been created for the location page on the Artsadmin website at www.artsadmin.co.uk it might have looked something like this:

Page:	Location
Date:	26/3/03
Filename:	aaresources/location.html
Author:	HVJ

Primary navigation:

Artists
Information
Artists' advisor
Resources
Current news

Secondary navigation:

Rehearsal Spaces
Video Resources

Page copy:

Artsadmin is based in Toynbee Studios in East London. The building contains a 240-seat theatre, four rehearsal spaces, a fully licensed café serving hot meals, and a video resource including cameras and editing facilities.

Location of Toynbee Studios

Toynbee Studios is part of the Toynbee Hall complex at 28 Commercial Street near Aldgate East in London.

For further information on, and exact conditions of, studio and equipment hire, contact Artsadmin by telephone +44 (0) 20 7247 5102 or email admin@artsadmin.co.uk

Text links

Email link to: admin@artsadmin.co.uk

Image filename:

Alt Text:
[mapillustratoreps.gif](#)

All copy should be edited by one person to ensure consistency of style and appropriateness for the web. If you are re-using print copy, take care to remove page references and any other indications that the copy was written for print, such as 'PTO'. Ideally all copy for the web should be rewritten to maximise effectiveness.

Search engines

A key consideration while you are creating content is optimisation of your site for search engines. This impacts the main content of your site as well as the 'metadata' in the code behind it. Search engine crawlers are more likely to index and highly rank websites that appear very relevant to particular search terms. They will pick up on key words in your content that match the terms users type into their search fields.

Keeping in mind that quality content and good usability (see pages 39 to 47) are still the best tools for ensuring a high search engine ranking, you should also include keywords and phrases prominently in the most visible content areas. These keywords should be those you would expect to be used in a search by your desired target audience when they are looking for the services you provide, eg 'theatre tickets in Cheltenham'. Without destroying the readability of your text, you should aim to include these in body text (particularly on the home page), headings, alt text and hyperlinks.

Keywords should also be included in the metadata of the site. Metadata is HTML-embedded text containing browser information mainly for search engines or for screen-reading software for visually impaired users. This text should be written by your copywriter for consistency across the website. Metadata includes the title tag (the text that appears in the top blue bar of your browser), description tag and keywords tag.

Resources

Web Word Wizardry A Net-Savvy Writing Guide, Rachel McAlpine, Ten Speed Press; 1st edition, 2001

Developing Online Content: The Principles of Writing and Editing for the Web, Irene Hammerich and Claire Harrison, John Wiley & Sons; 1st edition, 2001

Hot Text: Web Writing that Works, Jonathan and Lisa Price, New Riders, 2002

Online Content UK, network for online content professionals:

www.onlinecontentuk.org

Companies which work with arts organisations on search engine optimisation and search engine placings include: Eureka Marketing: www.eureka-marketing.co.uk/hi/aboutus.html and Receptional: www.receptional.com/