An Evaluation of the Websites of Charities and Voluntary Organisations Providing Support for Young People: Case Study: Drugscope

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Abstract

This paper reports on a study examining the usage, usability and impact of a charitable Website 'Drugscope'. A range of methods were used to evaluate the site, including Inspection, examining the extent to which the site met recognised quality criteria; formal usability tests, including information retrieval tasks; an online user survey and computer log analysis. Log results showed that the site attracted around 300-400,000 page views per month, although two-thirds of all users accessed just one page before going somewhere else. Although search engines tended to take most users to pages other than the 'Home' page, it is still likely that many users did not take full advantage of the information offered on the site. Survey respondents, mainly drug workers or academics, had a variety of information needs, that were generally well served by the site. Overall, the site is very well organised for retrieving information. In order to promote best practice, the research suggests that charities need to take account more the international audience attracted by the Web, include quality indicators such as source attribution and currency stamps, and make sites more accessible to those with disabilities. Overall, however, Drugscope proved itself to be a highly effective information provider.

Keywords

Introduction and background

The Internet has affected the work of all kinds of organisations for whom information provision is a major element of the service they offer. The voluntary sector, possibly more than any other, should be able to profit from the low cost, massive reach and vast communication channel that is the Internet. As Andrew Blau (2001) writes: "Information is the lifeblood of non profit workâ€¦Non profit charities, whatever their stated function or service, also create, process and produce information at every stage of their work". Aitken

(2001: p3) found in a study of Internet usage by charitable organisations, that high importance was attributed to the Internet by voluntary organisations in the following areas: increased networking between organisations to develop new ways of working and exchange best practice; finding information for clients; interacting directly with clients and with government; and, reduced administrative costs. According to Joe Saxton "the Internet has the potential to revolutionise almost every aspect of the work of voluntary organisations" (Saxton and Game, 2000, p6).

These were very much the aspirations that were in the minds of managers at the Diana, Princess of Wales Memorial Fund[1] when they were going through the increasing numbers of grant applications to set-up Websites for disadvantaged youngsters. In order to test the benefits of having a Website, the Fund commissioned City University's CIBER group to undertake an investigation into the efficacy of providing information online for these groups. The evaluation brief was to determine the extent to which the Websites receiving grants from the Fund led to improved access to information and advice for disadvantaged young people. As part of the evaluation four Websites were investigated in some depth during the period 2002-2003. This paper describes the findings from one of the case study organisations researched, Drugscope, an organisation which addresses the needs of one such disadvantaged group, by helping drug users, those providing support for them, and others who may be researching drug issues in a more academic context.

Aims, objectives and scope

The overall aim of our investigations was to review the extent to which the aims of the funded organisations have been realised through the development of their Websites, and to develop a 'template' to provide for best practice within the Fund and sector. More specifically, we wished to examine:

- the extent and pattern of Website use
- whether the Website met the needs of its users
- if there were any barriers to use, in terms of information retrieval or understanding
- the extent to which users were involved in the design and evaluation of the site
- how the exploration of the above issues addressed and informed good practice

Aspects that were important to consider in the evaluation were predicated on the fact that the Websites being investigated were primarily information disseminators and not concerned with 'entertainment' *per se*, nor were they predominantly [internal] communication channels, although - of course - email links and other contact information was were provided. Of importance then were:

- *Site usage*: Perhaps the simplest and most powerful metric is whether anyone uses the site. We also wished to know who were the people using the site and whether they fitted the profile of the site's designers. Computer logs and questionnaires were the main methods of obtaining this data, as outlined in the Methodology section below.
- *Information quality*: As the researchers were 'information' and not 'subject' specialists, quality was principally assessed with regard to attribution and currency.
- *Information relevance*: Of importance here was the reported usefulness, and appropriateness of the information for the target group.
- *Information Accessibility/usability*: A great many factors affect the accessibility and, therefore, usability of a Website. Firstly, we can talk about the accessibility of the site itself, and also the material and information on that site, in terms of navigation/retrieval, and also the readability of the material. Secondly, there are

aspects of information presentation, such as colours, fonts and use of images, which relate to accessibility and usability.

The organisation: Drugscope

Drugscope claims to provide 'authoritative and reliable' information on all aspects of drug policies and problems. It publishes a wide range of reference guides, books and journals for professionals and the general public. The Drugscope Information Service allows access to a library of over 80,000 documents from around the world. It has the following main aims:

- Improving knowledge
- Promoting effective responses to drug use
- Supporting informed policy-making and debate
- Providing drug education and prevention

Drugscope conducts research in areas of the subject where the information base needs improving for policy-making. It has in-house expertise in international drug trafficking, legislative issues and information systems. Drugscope also manages research and development programmes into many aspects of drug use in the UK and the different responses to it. Drugscope uses the knowledge of professional member bodies and its own expertise to influence Government policy-makers on drug-related issues.

Two key issues in Drugscope's work were identified by its staff. One was the accuracy of information posted. Medical advances and legislation both changed rapidly, requiring constant site updates. Despite a small number of staff available at the organisation, this was in fact considered the priority. The secondly, concerned bias. Staff were very concerned not to preach or to be seen to be against (or pro!) drug use.

The Drugscope Website

The researchers were funded specifically to look at the 'Drugsearch' section of the Website, although our questionnaires covered usage of the whole site. Also, as the site has a common banner running across each page, any description of the Drugsearch section applies to the site generally. The banner, as shown in Figure 1 acts as a main menu, giving links to areas of the site such as 'Good practice and research', 'drug information' and 'information and library services'. The latter gives information about the hardcopy library at the organisation's headquarters in London. The banner also has a search box included.

Figure 1: Drugscope's 'Drugsearch' home page

The Drugsearch section is arranged so that access to information can be achieved in four ways:

- Browsing the database alphabetically;
- Browsing a 'Drug terms' contents list;
- Searching the database using keywords;
- Consulting a Frequently asked questions page.

Methods

A range of methods was used in the investigation in order to be able to triangulate the data and so obtain a robust picture of Web use. They were:

- Inspection methods
- User evaluation:
  - Usability tests
  - Online user survey
- Log Analysis

Inspection methods

Inspection methods are those by which Websites are examined to see how closely they adhere to a pre-specified set of criteria set up to describe and practice. In the health field, a number of attempts have been made to devise a quality framework for electronic health information (e.g HoNF, 1997). For a review (albeit becoming somewhat dated) see Kim (1999). Inspection methods can be used in considering aspects related to accessing information or its quality.
The following aspects of the Drugscope site were examined by the researchers:

- Information quality: (Sources used/attribution; Currency; Breadth/depth of information)
- Accessibility/usability: (Retrievability, whether through hyperlinks or search facility; the functionality of different platforms/formats, multimedia, hyperlinks; and the readability level).

- Presentation issues related to accessibility: (Signposting, with icons or other symbols; and use of images/colours)

The readability level was assessed using the Flesch Reading Ease score[2] and the Flesch-Kincaid Grade Level score[3]. Flesch score measures the ease with which a document can be understood. A Flesch-Kincaid score rates text on a U.S. grade school level, where a document with a score of 8, for example, means a child at age 13-14 years should be able to comprehend the document.

User Studies

'User studies' is a broad term used to describe both usability work with users and also surveys of opinion, regarding wider issues such as information relevance, site appeal etc. The research involved both a test of the usability of the site, and an online user survey.

Usability tests

Test participants were given various information retrieval tasks to perform, and were also asked for their opinions with regard to site organisation and content. Tasks were based on various 'scenarios', which the researchers hoped would simulate a 'real' information need better than a non-contextualised fact-finding question. An example is: "*You are 17 and have suddenly found yourself in with the popular group at school. Your usually quiet and uneventful life is now filled with loads of friend and tons of exciting things to do. Last Saturday, you attended a party where you were encouraged to try drugs such as ecstasy, marijuana, speed and even cocaine. What information can you find about the health effects of each drug? What information would you now share with your friends*?"

Test sessions lasted forty-five minutes to one hour. Some subjects were observed, although others, who were not able to meet the researcher in person, completed a form that asked about their experiences in using the site and the tasks undertaken. Those observed were subjected to interview sessions where a variety of questions were asked relating their experience performing the tasks given.

Recruitment: An optional section was provided on questionnaires posted on the Drugscope Websites of the case study organisations, for respondents who wished to partake in usability sessions to submit their contact details. Those who did so were invited to take part in a controlled searching session. However, none of the users contacted were able to do this. Hence, participants were sought within the university community, and eight persons volunteered. The sample was small, but it is worth mentioning that even single figure evaluator numbers are considered adequate. Nielsen (1994) recommend the use of between three and five evaluators. They argue that only a small number of evaluators is required to elicit the major issues that arise in, for example, navigation or text size. Participants included expert Web users, although all were first time users of the site been tested.

Survey

An online questionnaire was used to collect data from site users, through a link placed on the site pointing to the questionnaires, and was active between May - August 2003. Questions pertaining to the frequency of visit to the site, information sought and action taken were some of the question asked to establish user behaviour and how they use the information provided. Users were also asked other questions relating to other types of information sources and other Website used to obtain similar information. The questionnaire is reproduced in the Appendix.

Sample: Researchers were interested in the views of all site users and so responses were not filtered to meet any demographic or other category of respondent. After a three month period the number of questionnaires submitted was 156. This was filtered to eliminate null and double submissions, which resulted in a total of 140 usable responses.

Log Analysis

All digital information platforms - the Internet, touch-screen kiosks, digital interactive television and mobile devices - have a facility by which computer transaction logs are generated that provide an automatic and real-time record of use by everyone who accesses them. They represent the digital information footprints of the users. By analysing them you can track and map their information seeking behaviour, and, when enhanced by user data (from databases or questionnaire) they can tell us something about the kinds of people who use the services and the outcomes that result from its use.

The great advantages of the logs are not simply their size and reach, although the dividend here is indeed a rich and unparalleled one. Most importantly, they are a direct and immediately available record of what people have done: not what they say they might, or would, do; not what they were prompted to say, not what they thought they did. The data are unfiltered and speak for themselves and provide a reality check that both represents the users and complements important contextual data obtained by engaging with relevant users and exploring their experiences and concerns.

Logs have another major advantage in this sector. Users in this sector are traditionally reluctant to offer their views and experiences. It is indicative of a certain reticence on the part of vulnerable people to engage in dialogue - probably the very reason why they might choose the anonymity of the Internet to consult. Logs tell (anonymously) the stories that users themselves are reluctant to discuss.

Unfortunately, it was not possible to obtain the 'raw' logs, just those processed by the ISP, so what could be done with the data was strictly limited.

Findings

Site inspection

Information quality:

Sources/attribution: Drugscope, unusually, does not source the information on its site. However, in a section about the organisation, it says that it '*provides authoritative and reliable information on all aspects of drug policies and problems. We publish a wide range of reference guides, books and journals for professionals and the general public*'. Users take it on trust or may feel, therefore, that no further proof of the authority and trustworthiness of information is required. It is worth pointing out that Drugscope does reference online links. For example, in a section on 'Good practice and research' it provides full bibliographic references - including abstracts, for 'key texts'.

Currency: Pages are not date-stamped on the site. As both the law and medical advances are likely to require frequent updating of information on this particular site, this is a significant omission. There is, however, a news section that is 'reasonably' current. On the day inspected the latest story was from two weeks previously (one does not expect relevant stories on drugs top appear every day), and each story was dated.

Breadth/depth of information: Information on the site is very comprehensive and wide ranging - an observation made not only by the inspection team, but also by participants in

the usability study. Entries are very comprehensive. That on alcohol, for example, is over 2,700 words long. Typical areas included are:

- Types available, (i.e. beers, spirits etc.)
- Latest UK news (including latest use statistics, trends etc.)
- History (for the entry on alcohol starts 'Making and drinking alcohol goes back many thousands of years â€¦')
- The Law
- Effects/risks

Unusually, the site does not act as a gateway to further information, tending instead to self-sufficiency.

Accessibility/usability

System accessibility: Both the internal and external hyperlinks worked when inspected.

Readability level: Four pages were tested for readability. Despite a number of official drug names included in the text (such as gammahydroxybutyrate), the average scores were 51 for the Flesch Reading Ease test (which is only 'fairly difficult') and 10.7 (reading age of 15 to 16) on the Flesch-Kincaid Grade Level test. One page was stripped of all uncommon drug names by the researchers, and here the level of difficulty was reduced to 64 ('Standard') and 8.1 (13-14 year old level). As the drug terms are explained fully, the information providers appear to have done an excellent job of giving detailed and comprehensive information at a readable level.

Retrievability: The site has a main search engine, always visible in its top banner, which has both a simple and an advanced search facility, the latter of which enables searching of different sections of the site, for which users are invited to enter a word or phrase. However, the search works with separate keywords (i.e. two words entered are not searched as a phrase), and it is not made clear how to enter words to be considered as a phrase. There is also a search engine for the section 'Drugsearch', only available from the homepage of that particular section.

The links are well organised via a comprehensive menu list on the left side of the page and a main menu bar at the top (although the latter could be criticised for its use of images - see below). There is also a good system of internal cross-referencing hyperlinks. For example, in the text on alcohol, a paragraph describes long term effects. Within the paragraph appears the words 'withdrawal' and 'tolerance', both of which are hyperlinked to their definitions. Overall, the site is very well organised for retrieving information - a view supported by the usability study reported below - although, as outlined in that section, participants did question the presence of two menu bars.

Presentation issues related to accessibility: Signposting, with icons or other symbols: Symbols used include directional arrows, an email icon, and images to represent 'news', 'history', 'law' and 'effects', each of which is accompanied by the appropriate word and does not, therefore, rely on a picture to convey meaning. Other images, however, have words embedded. These are discussed below.

Use of images / colours: The site is predominantly text based, although signposting icons are used, as described above, along with photographs where appropriate (e.g. of heroine preparation etc.) Images are used in the main banner across the top of the page, acting as hyperlinks. Two of these are next to text boxes requiring user input (name and password, to access additional content). The researchers agree with the accessibility tool 'Bobby'[4] that

any images used with embedded text should be accompanied by adjacent plain text, to enable screen readers to detect the words and links.

Use of background colours and texture: Only the banner menu bar across the top of the page may be questioned (again) here, for its use of white on orange, a problem because of the lack of contrast between colours.

User studies

User survey

User questionnaires were posted on the site for a period of three months. The initial response rate was good (very good for the sector) with 150 responses.

Respondent characteristics: Forty eight percent of respondents were males and 39% were females. The remaining 13% chose not to indicate their gender. Of this figure, only 17% were first time visitors to the site and only 1% had reported using it once before (2% gave no response). The remaining were quite frequent users with 52% indicating they had used the site over 12 times since discovering it. The most frequent users were in the 36-45 age range (30%) with those under twenty five accounting for 12%, and those over 55 accounting for 4% .

Respondents were generally highly educated with 57% having a first degree or higher. What might be termed 'drug professionals' proved to be the site's main audience. Most respondents indicated they worked in a drug related field or with the government - they were not people who had a drug addiction problem, nor were they casual drug users. This is, perhaps, unsurprising. Although drug users might be expected to be interested in much of the material on the site (side effects of drugs, drugs and the law etc.), the section on the Website entitled 'About Drugscope' indicates at various points that it is 'for professionals and the general public', (particularly the former) rather than for young people specifically who take drugs. For example, the organisation 'conducts research â€¦ where the information base needs improving for policy-making â€¦ develop(s) and promote(s) national quality standards, national policy frameworks and good practice guidance for specialist and general agencies involved in drugs issues'.

Table 1 shows the percentage distribution by profession of respondents in the survey. Apart from the previously mentioned dominance of drug workers, the most noticeable aspect of the Table is the apparent failure to reach the general public or carers.

Table 1: User Distribution by profession

Capacity	%
Friend/family of a drug user	1
Drug user	6
General interest user/Private individual	3
Student/Pupil	1
Academic	10
Teacher	5
Journalist	0
DAT Member	6
Civil servant	6
Drugs worker	32
Policy Maker	6

Drugscope member	3
Other	9
No Response	11
Total	100

Method of accessing the site
Respondents were asked how they accessed the Website, that is, whether they did a general engine search, knew the URL or had it bookmarked. The data indicated that, in general, users had employed search engines to find the term "Drugscope". Access by URL was the second most popular approach, and bookmarking the site was the third. These latter two methods, however, accounted for over 45% of respondents, and is indicative of the behaviour regular users.

What information were people seeking?
Users were asked an open ended question as to what information they had been looking for the last time they visited the site.

Table 2: What users were looking for when they last visited the Drugscope site

Category	Example (quoting from responses)	No. of comments (n)
Current awareness	Recent articles concerning drug issues	8
Drug information - specific drug, general enquiry	Ecstasy info	12
Drug information - specific drug, legal / policy issues	Cannabis law	8
Drug information - specific drug, statistics	Statistics on benzodiazepines	1
Events and training	New events and training courses	2
General drug information - Legal and policy issues	Policies and legal issues for young people	8
General drug information - miscellaneous	The length of time certain drugs remain in the users bloodstream and suitable methods of detection/testing	9
General drug information -Effects of drugs	Effects of cocaine on nasal passages, occasional v regular use.	6
General drug information - Identifying drug users	Signs and symptoms of drug use	2
General drug information -Safer drug use	On safer injecting disposals for local employers	2
General drug information -Statistics	Abuse/frequency of prescribing'	3
General drug information - Treatment/withdrawal	Information of drugs prescribed to support withdrawal beyond methadone and buprenorphine	6

Other topics	The links between youth criminality, mental health and drug use	5
Pubs/referral to other info	Where to get help	2
Services available	Information on YP services	2
n > respondent total because some respondents cited more than one information need		

As can be seen from Table 2, the principal reason given for using the site was to find information about a specific (named or un-named) drug. A minority of respondents gave more detailed responses, enabling their answers to be more precisely classified. One respondent, for example, sought information about the effects of cocaine on nasal passages, and another required statistics on benzodiazepines. Several (six) also stated an interest in treatments and medication.

Apart from specific drug information, the next most common reason for consulting Drugscope was for information on legal and policy issues. Sixteen out of the 101 respondents who answered this question indicated specifically an interest in the law, legislation, or policy. Of these, eight cited specific drugs, with the reclassification of cannabis being an issue with three of them. It is very possible that many of those not specifically mentioning policy/legal issues - particularly those who indicated a need for 'up-to-date information, general information, or simply named a particular drug, were also interested in policy issues.

The Website was seen by some as providing current information. Eight respondents mentioned requiring some kind of news or current awareness service. Other respondents, again, may have required more current information than they had - such as with regard to the law, for example.

One of the general areas of interest for site users was the 'Talk to Frank' campaign recently launched by the government. This is a Â£3m drugs education campaign, delivered through a series of television and radio advertisements. The campaign is aimed at young people and parents, and is built around a confidential helpline and Website where young people and parents can 'Talk to Frank' and access well-informed advice, information and support (Website: www.talktofrank.com). Clearly, many users wished for information that the Drugscope site did not provide - a point that is discussed further below. However, when asked to state whether or not they were satisfied with the information found, almost 80% expressed satisfaction with just 3% refraining from giving a response.

Usability study

The four participants who undertook the usability study were heavy Internet users, spending an average of forty hours per week on the Internet, surfing and conducting research.

Site Layout and Presentation: The overall layout and presentation of the site was thought to be excellent. The fact that the information presented was precise and to the point made it clear and easy to follow. However, there were some comments made that indicated areas requiring attention;

- Too much text on the home page which might be a deterrent for people who have trouble reading
- The presence of two menu bars made things a bit confusing, as users were worried about menu options being duplicated, and whether one link led to the same page as

another entry with the same label.

Site navigation/ information retrieval: Both the search engines were well used by test participants (although no-one used the advanced search box), as were the drug index entries (accessible by clicking the 'Drug search' entry on a left-side contents list). One user pointed out that there was no site map or index to give the option for the user to see what information they would be accessing and from where. However, the other means of navigating around the site did seem perfectly adequate. All users were able to find appropriate information with regard to the set retrieval tasks, without any problems.

Information quality: Most users thought it of sufficient quality to use the site again and that they would recommend it to others. However, one user mentioned the fact that the origin of the information was not clear. Another said that they would not recommend the site to a teenager because they felt it was geared more towards professionals, which it was.

Log Analysis

Processed log data[5] was only available for analysis for the period February - September 2003. The log data showed apparently high levels of use over the period. Over the nine month period 21,320,975 hits were made on the Drugscope server. However, and here is the problem working with processed data supplied by the ISP, actual page views, a more accurate indicator of use, tended to be in the order of 300-400,000 a month - a still respectable figure. An average of 4 pages were viewed per session, with a session lasting approximately 4 minutes.

Figure 2 shows that approximately two-thirds of all users were what the researchers call 'bouncers' - they visited just one page before going somewhere else. Few people appear to be exploring the site to any depth; in fact only 11% viewed six or more pages. However, the latter figure may indicate that only this number of pages was required to fulfil users' information needs - an indication of the effectiveness of the organisation of the site and the ease with which information can be retrieved, as well as the specificity of the need. Indeed, as outlined above, the site has very good retrieval facilities.

Figure 2: Pages Viewed per Session (site penetration)
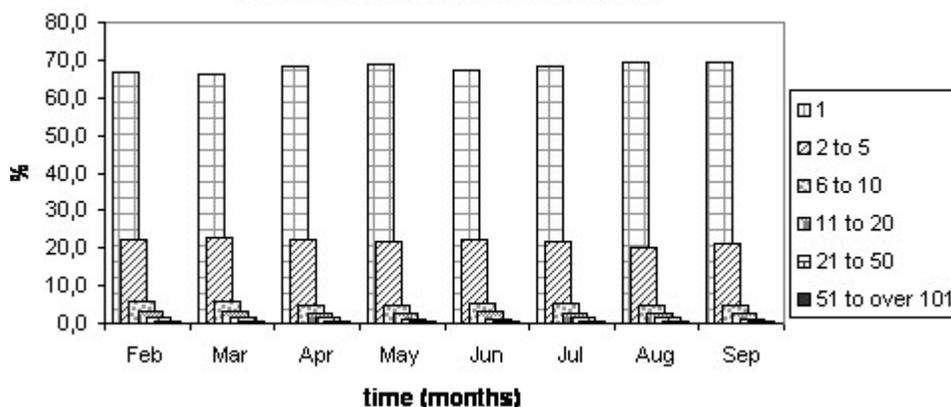
The most frequently visited pages are given in Table 3. As can be seen, 27% of all traffic directed towards drug information results page or 'hitlist'. A news page is the next most popular page, albeit accounting for under 10% of the volume of traffic, followed by the drugsearch facility[6], These results match closely the questionnaire findings. It is important to note that the site uses active server pages (ASP) and because of how the log data was

processed it was not obvious which page under each section was selected, as presented in Table 3.

Table 3: Most frequently visited pages

Most frequently visited pages (directory details)	Page contents	% of Traffic
/druginfo/drugsearch/ds_results.asp	Search results pages	27.43
/news_item.asp	Unspecified news item	8.67
/home.asp	Site home page	7.92
logs, just those processed by the ISP, so what could be done with the data was strictly limited. /druginfo/drugsearch/home.asp	Drugsearch section (home)	3.05
/druginfo/drugsearch/faq_template.asp	Drugsearch FAQ page	2.62
/druginfo/home.asp	Drug information (home) page	2.17
/dat/contacts.asp	Contacts page	2.09
/query.asp	Search hitlist page	1.57
/druginfo/drugsearch/home2.asp	Drugsearch section (home) - as above)	1.53
/dbtw-wpd/exec/dbtwpub.dll	Page accessible to Drugscope site developers only	0.67
Note: None of the other pages accessed, making up approximately 50% of the site traffic, accrued more than a 0.6% share, and are omitted from this table.		

Reflecting the high 'bounce rate' previously noted, seventy-eight percent of sessions lasted for just one minute and less than 1% of sessions extend for over 31 minutes.

Discussion

One of the major aims of this project was to review the extent to which the original aims of the organisation have been realised through the development of their Websites, and to explore good practice in terms of helping to define and develop a model that can be used as a 'template' for the development and design of similar Websites within the sector. Inspection of the Drugscope Website showed that a wealth of information was available, which was well organised and easily accessible, both in terms of its retrievability and readability. The organisations' aims of improving knowledge and of providing drug education and prevention have clearly been well addressed by the site developers. The important question is whether the information provision (and its presentation) reached its target audience. Survey results indicated that users were well educated and that nearly a third were drugs workers. Others described themselves as teachers, policy-makers, civil servants or other professional. Although only one was a declared friend or family member of a drug user, and only 6% said they were drug users, as the site does not claim to be for these groups, this can not be considered a failure, by its own terms. The site is primarily for people working in the drug profession and for policy makers; although staff at the organisation hope that it may also educate drug users.

In having a more 'professional' focus Drugscope is unusual in terms of the Diana Websites - others examined during the course of the evaluative investigation are aimed more at those

who are themselves disadvantaged - bereaved children, those with a mental illness etc. - rather than at policy makers or support workers. The majority of users said they were satisfied with the site and found the information they required, so the focus has clearly worked. However, one recommendation would be to offer other users a gateway service to sites more appropriate for the needs of those who are interested in or involved with drugs in other capacities. There are research grounds for this. Firstly, several respondents (9) mentioned the 'Talk to Frank' initiative, in answering an open question on their information needs. As mentioned earlier, this is a resource intended more for young people and their carers. Interest in this service appears to indicate that information for this group would be welcome on Drugscope's own site - or that a gateway facility would be useful. Secondly, log data showed that two-thirds of all users visited just one page before going somewhere else. Thus, whilst questionnaire respondents were happy with the site, a large number of people - those accounting for 200-300,000 page impressions - declined to look further than one page. Survey findings, however, show that there is a relatively high percentage of regular users, once the 'bouncers' have been filtered out.

Although results suggested that the Drugscope website was easy to use, and fulfilled people's information needs, there were nevertheless areas where it could be improved. These included:

- Taking into account the international audience
- Improving the presence of quality indicators
- Search engine modification
- Accessibility issues

Taking into account the global reach of the Internet: The site states in the heading to its account of what the organisation is about, that it is 'the UK's leading independent centre of expertise'. In its fact pages, the section on latest developments is prefixed by using 'UK news', and the URL itself ('.co.uk') also indicates the origin of the information and its base. Overseas users are therefore left in no doubt that information on, for example, legislation, applies to the UK. However, the Website also points out that 'Drugscope's reach extends across the world, from being a United Nations collaborating centre to advising other governments on drug prevention strategies'. Also, the ethos of Drugscope - as indicated particularly by its desire to inform and educate - suggests that although the target group may be well-defined, there is much potential to address the needs of others who may be interested in information from a slightly different perspective, for a different but related audience. It could, therefore, be argued that it is incumbent on the organisation to at least point overseas Website 'visitors' to sources of information more applicable to other countries. Indeed, the experience of the present authors shows that, in fact, international users will often dwarf UK users (see, e.g. Nicholas et al., 1999). It may be that there are not the staffing resources to deal with everyone. In this case it is relatively straightforward to provide links to the equivalent organisations around the world.

Improving the presence of quality indicators: A noticeable and important part of the Drugscope service is that of providing up-to-date information related to the law and medical advances regarding drugs. It appeared that the organisation's credentials are sufficient for the majority of those consulting the site, but having a date stamp (and possibly, where relevant, a review date) would clearly be desirable.

Search facility modification: The Drugscope site was shown to be well organised, with information easily accessible. Good advice for other information providers would be to include cross-referencing and make the search facility accessible from any page on the site. Having a more specialist search engine, visible only from a particular section of the site, may not be advisable. Although the rationale for this may be understandable, a better solution to restrict searches to particular sections of the site might be to employ an

advanced search facility that enables searchers to limit their queries in this way. As mentioned above, Drugscope does have this, so the search engine on its 'Drugsearch' section is somewhat redundant. More advisable would be to inform users accessing each section that the search facility does enable section-specific searches.

Accessibility - presentation: One finding - made by the inspection team rather than the usability participants - was poorly contrasting colour scheme, which did not facilitate access by visually impaired users. Advice to potential Website developers would be to check that the foreground and background colours contrast sufficiently with each other. Also, the use of images to convey text was highlighted above, along with the need to provide text-only alternatives.

Conclusion

Overall, it seems that Drugscope has managed to realise its aims through the Website. It has attracted its target user group, whose needs appear to be met by the information offered. Few barriers were found inhibiting use. Indeed, the site's structure facilitates information retrieval, and the language is admirably pitched at a level the general reader can understand. In many ways, then, Drugscope is an excellent Website for use in exploring good practice, albeit, even with such a good example, this paper has shown that there still some lessons that could be learned. These include being clearer about source attribution and currency of information, optimising presentation for disabled users, and making more provision for the international audience the Web attracts.

Acknowledgments

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Footnotes

1. The 'Diana Fund' was established in 1997, with the aim of maintaining the essence of the Princess's work by highlighting the situations faced by some of the most disadvantage people in the UK and the world, and seeking to make a real and lasting difference to their lives.
2. The formula for the Flesch Reading Ease score is: 06.835 - (1.015 x ASL) - (84.6 x ASW), where ASL=Average Sentence Length
3. The formula for the Flesch-Kincaid Grade Level score is: (.39 x ASL) + (11.8 x ASW) - 15.59 where ASL=Average Sentence Length
4. See: http://bobby.watchfire.com/bobby/html/en/index.jsp
5. CIBER prefer to work with raw log data but they were not available
6. This search facility is available from the 'Drugsearch' page, and is not the same as the main search box visible from all pages.

Appendix: Drugscope user online questionnaire

[Note that the online formatting included drop-down menu lists and radio buttons. The following shows only the questions, and not the format of the survey]

Your input is vital in the evaluation of this site. Kindly assist by responding to the questions below:

1. How often do you visit the site?
First visit
Once
2 - 6 times
7 - 12 times
Over 12 times

2. Have you used the Drug Information section of Drugscope?   Yes   No

3. With regards to the Drug Information section, have you used the following sections?
(The options to state the amount of use are: Not used, Used once, Used occasionally, Used regularly)
DrugSearch
Safety Study
Drug Report
Drug Policy Library

4. What are you interested in finding from the site?
(The options for ranking the interest in finding information are: Not, Fairly, Important, Very)
Drug information
Drug Advice
Where to get help
Library
Training Information
News
Contact information about us
Professional guidance
Official documents
Drugscope books and publications
Events

Useful links

5. Did you find what you wanted?   Yes   No

6. Did any information found lead you to take any action?   Yes   No

6b. If Yes please state the action taken:

7. How important to you are each of the following sources of information?
Please rate the following:
(The options for ranking the importance are: Not, Fairly, Important, Very)
Leaflets in the surgery
Practice Nurse
Magazines
Newspapers or Radio
Cable or satellite TV
Other television
Touch screen kiosks
Friends or Family
NHS Direct telephone
Your Doctor
Other Internet sites

7b. Please state any other Internet sites used.
First choice: â€¦
Second choice: â€¦
Third choice: â€¦
Fourth choice: â€¦

8. How did you hear about Drugscope and the site?
News paper
Friend/collegue
Teacher/lecturer
Direct contact with Drugscope
Medical professional
Phone line
Support group
Linked from other website
Search engine
Other (Please state)

9. How did you locate the site?
Typed in the address (URL)
Got it bookmarked
Looked for the term "Drugscope" in search engine
Did a general search
Linked from other site

10. If selected "Did general search" or "Linked from other site", please state the word(s) used in search or the site linked from.
Search words or Site linked from: â€¦â€¦

11. When you were last interested and searched for Drug Information, what information were you looking for?

12. In general, what was the best section on the site?

12b. In general, what was the worst?

13. In what capacity are you searching? Please select one:
Friend/family of a drug user
Drug user
General interest user/Private individual
Student/Pupil
Academic
Teacher
Journalist
Civil servant
Drugs worker
Policy Maker
Drugscope member
Other (please state)

14. What is your gender?   Female   Male

15. Where do you live?
Scotland
England
Wales
Ireland
Europe
North America
South America
Caribbean

16. What is your age group?
Under 16 yrs.
16 - 25 yrs.
26 - 35 yrs.
36 - 45 yrs.
46 - 55 yrs.
Over 55 yrs.

17. Please select your highest level qualification.
Postgraduate
Undergraduate
DegreeHND/HNC/BTEC/A Levels
GNVQ/NVQ/GCSEs/ O Levels
Other
None of these

18. Please indicate what most closely describes your ethnic origin.
White
Asian
    Bangladeshi
   Chinese
    Indian
    Pakistani
    Other Please Describe

Black
   African
   Caribbean
   Other Please Describe

Any other ethnic group, Please describe

We are also seeking individuals who would like to assist us further by participating in a 1 day pilot study at the University. Please indicate your interest in participating by supplying the contact details requested below.
Contact details for Pilot Study
Name:
E-mail address:
Telephone:

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