
HEIRNET: HISTORIC ENVIRONMENT
INFORMATION RESOURCES NETWORK

Users and their Uses of HEIRs

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***Cultural
Heritage
Consortium***

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Executive Summary

The *Users and their Uses of HEIRs* project has been commissioned by the Historic Environment Information Resources Network (HEIRNET) in order to review existing documents and data resulting from evaluation and data-gathering projects undertaken by individual HEIRs.

The scope and nature of the source documents and data contributed was extremely varied; it included qualitative and quantitative data gathered over recent years, complemented by background information relating to individual organisational and HEIR strategies.

The diversity of this existing evaluation material made it difficult to establish definitive, rigorous comparisons of the uses of different HEIRs but it was possible to identify common messages, key trends and issues across the community.

The material shows that there is a large and increasing demand for HEIR resources, and that users prefer online access, although the rate of increase of use of online HEIR resources is beginning to slow. Online access has reduced the number of in-person enquiries to some HEIRs, but the nature of enquiries has changed, becoming more complex and specific. This suggests a role for increased depth of information, as well as more interpretation and contextual information provision, both in order to satisfy raised user expectations and to develop audiences.

Very little is known about the actual user profiles of HEIRs, particularly for online services. Where users' identities are known, they indicate a shift in favour of use by the general public, although professional use, particularly of SMRs online, is very strong. There is widespread HE use of HEIRs, often in the design of research projects. Use of HEIR content by schools is very low, due to the apparent complexity and perceived irrelevance of existing HEIR content to the National Curriculum, however projects which mediate HEIR content and provide associated background information, demonstrate the potential for HEIRs to develop schools audiences and to meet the public's increasing demand for meaningful and contextual information services.

Similarly, little is known about *actual* use of HEIR information by any user group, and this is a key area for future evaluation work, together with the collection of consistent and comparable web statistics and user profiles. Future evaluation work could and should be undertaken within a community-wide framework, with a view to developing skills and best-practice within individual HEIRs in order that they can develop services to meet local needs, while understanding their place within the wider user community. A number of recommendations have therefore been made, which, if taken up in the form of the proposed Project Profiles, will begin to inform the HEIR community about their users and will help them develop effective strategies for the future.

1. Introduction and context

1.1 About HEIRNET

HEIRNET (the Historic Environment Information Resources Network) - was formed by a group of organisations with an interest in information relating to archaeology and the historic environment. HEIRNET enables access to Historic Environment Information Resources for conservation, research, learning and general interest. It does this by promoting HEIRs, informing information managers about new developments in information technology and by offering them technical advice.

HEIRNET provides a number of services to the HEIR community; these include:

- the HEIRNET Register, containing details of organisations holding information about archaeological sites, monuments, historic buildings and finds.
- HEIRPORT - the Historic Environment Portal, providing access to resources including the Archaeology Data Service (ADS), the Royal Commission on the Ancient and Historic Monuments of Scotland, Scottish Cultural Resources Access Network and the Portable Antiquities Scheme.
- a technical advisory service for organisations responsible for managing or developing an HEIR.

1.2 About this report: Users and their uses of HEIRs

The rapid growth of historic environment information resources and their use by a wide range of individuals and organisations means that there is an urgent need to evaluate the current and potential range of users of HEIRs and to analyse patterns of use of services. This will enable user needs to be taken fully into consideration in the development and presentation of HEIRs in the future.

HEIRNET have therefore commissioned a review of existing audience research and information resource evaluation material and this report is the result of that review.

The purpose of this report is to provide an initial guide to and analysis of patterns of use and user profiles for a range of current Historic Environment Information Resources (HEIRs), and to draw up a summary project design for a UK-wide project to provide a more detailed

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assessment of the user needs and the outcomes of developing access to HEIRs.

It is intended that this report will inform discussions by the Historic Environment Information Resources Network (HEIRNET) and future development work across the UK.

1.3 Aims of the report

The overall aim of this report is to provide a detailed analysis, with an Executive Summary, which focuses on existing users and the services offered by an identified sample of HEIRs in the UK set in its wider context.

The report should include:

- an Executive Summary
- identification of groups of users
- details of user feedback,
- outcomes of access projects and
- differences in patterns of usage across the sector, particularly where indicative of potential for developing the user base.

A further aim of the report is to make recommendations for:

- a methodology for recording of user statistics by HEIRs and for evaluating user feedback to current and potential services;
- an outline project design for a more detailed project for future user evaluation studies which would result in greater understanding user needs, which would inform the future development and presentation of HEIRs and provide further information about the social and economic outcomes of access projects

1.4 Scope of the review

This report is an analysis of current user services based on existing quantitative and qualitative market research into usage and statistics for services delivered across the Internet collected by a representative sample of HEIRs.

The project encompasses all areas of the UK and all the sectors where HEIRs are to be found (e.g. government departments, national specialist organisations, higher education, local authorities, museums and archives).

Details of all the documents reviewed in the development of this report are provided at Appendix A¹. In addition the report has drawn on consultation with representatives of HEIRs across the UK, chiefly in the form of focus groups, as well as telephone interviews. Details of the two focus groups held are provided in Appendix D.

1.5 Evaluating information resources – how and why.

The overriding purpose of evaluating an information resource is to gain a greater understanding of the needs of its users in order that the information resource is better able to meet those needs in the future.

In order to develop an effective information resource it is therefore necessary to establish who will be using it, and for what purpose. An information resource which is established without taking this into account will be unlikely to satisfy its users.

Evaluation can take many forms and is a highly specialised area, extending into other areas such as marketing, audience research, heuristics and interface design. For the purposes of evaluating information resources however there are two distinct phases of the evaluation process, each with its own tools. These are:

Formative evaluation – this stage helps to shape ideas for information resources and can be based on the analysis of use of other information resources, discussion of ideas and proposals for information resources with potential users, research of the market for an information resource ('gap analysis') and the use of questionnaires to identify the potential needs and preferences of users.

Summative evaluation helps organisations understand the extent of the success of a given information resource and can be based on interviews, user surveys, observation of use and statistical analysis of usage patterns.

Both evaluation stages can make use of quantitative information (e.g. user statistics, survey results) and qualitative information (e.g. interpretation of focus group results, user observation and interviews).

¹ Documents consulted and referred to in this report are identified by the number assigned in the alphabetical listing in Appendix A.

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However, the success of any evaluation project will depend on a number of factors, including:

- the successful identification of appropriate users;
- the quality and the appropriateness of the evaluation tools used (i.e. are the right users being asked the right questions in the right way?);
- particularly for quantitative data, the period of time for which data exists and the intervals at which it was captured.

It is for these reasons that any given evaluation project will, by necessity, be unique. It will need to reflect the aims of a specific information resource and reflect the questions which the owners of that resource wish to have answered.

These questions will be different for a given resource over time, as it develops and is refined; they will certainly differ between information resources which aim to serve different user communities in different ways, however similar their content may appear to be.

1.6 Methodology

The *Users and Uses of HEIRs* project is unusual in that it aims to provide a synthesis of a wide range of evaluation material, from different information resources over a period of time. At the outset of the project the consultants and HEIRNET agreed that it would be difficult to predict precisely how to tackle the review of available material until it was submitted for review.

For this reason it was decided that the first stage of the project should be an **initial review** of material to identify its scope and content and to identify likely **common issues** which were likely to bear fruit during the review, and which could be explored during the Focus Group discussions.

Two **Focus Group discussions** were then held, in order to explore these issues further, as well as to supplement the contents of the written evaluation material with undocumented, less formal feedback from the different HEIRs. Details of the Focus Groups are provided in Appendix D.

A **report outline** document was then produced as a first step towards structuring the synthesis of the evaluation. This was based on the early results of analysing the written evaluation and the outcomes of the Focus Groups.

The analysis of the written evaluation was undertaken in two stages, following the separation of the documents received into categories of quantitative, qualitative and

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background/strategy documents. The reason for this separation was in order to begin the process of identifying common issues at a more detailed level, and to explore in more detail, emerging trends by comparing similar types of evaluation. The importance of comparing like-with-like is particularly important for the analysis of quantitative data such as website access statistics, as detailed by Kilbride and Winters in *Observing the Game: what can Access Statistics really tell us?* (Appendix A: 4).

At this point the methodologies for analysing the different document groups necessarily diverged, although each was undertaken within the context of the issues which had been identified in the initial review and explored subsequently in discussion in the Focus Groups.

Quantitative data analysis

The methodology for analysing quantitative datasets was developed in the context of a number of constraints, including:

- differences in the size, format, scope and complexity of datasets delivered (see *Overview of documents* below);
- the absence of consistent baseline data for the analysis of trends;
- variances in the intervals and timescales for the collection of quantitative data;
- differences in the aims and objectives of the different data-gathering exercises which had resulted in the datasets.

Rather than provide detailed analysis of individual datasets, it was felt that the collective value of the project would lie in the identification of data which could be mapped between datasets (however broadly) and the identification of similarities and trends which might be relevant across the HEIR community. This type of data fell into two main areas:

- use of HEIRs by discrete groups of users (identified by domain name, registration or survey). Users were able to be broken down variously by geographical origin, age of user and purpose of use;
- longitudinal trends of use of HEIRs over a period of time.

It was only possible to identify some limited correlations between the two data groups.

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Qualitative data analysis

The qualitative data analysis was also affected by the wide range of material submitted, and especially by the fact that much of the material related to specific questions asked by HEIRs which had resulted in highly localised information, relating to specific operational areas such as database interfaces or enquiry services. Tables 1a and 1b below illustrate the breadth of questions asked even by similar HEIR providers. It demonstrates the variance of approach even within specific areas of operation, and evidences the inherent difficulty in comparing responses.

Table 1a: Questions asked by Herefordshire SMR

Service – specific questions	General questions
What do you think of the current format?	What things interest you about the past?
What do you think of the descriptions in the SMR?	What periods interest you?
Should we provide locations for all sites?	How do you spend your leisure time?
What stops you using the SMR?	
What else would you like to see in the SMR?	
What prevents you from using the SMR?	

*Table 1b
Questions asked by Cheshire Archaeology (including Cheshire SMR)*

Service – specific questions	General questions
If you have used the SMR did you find it accessible / quite accessible / not accessible?	What is your age group?
If you have used the SMR did you find it useful / quite useful / not useful?	Are you a member of any Heritage Groups? If so, then which?
Would you be interested in period summaries from the SMR? If yes, then which?	
Which Cheshire Archaeology Services have you used?	
Was the service you received excellent / good / fair / poor?	
Would you be interested in topic summaries from the SMR?	
Would you be interested in information about major discoveries in Cheshire?	
Would you be interested in information about sites to visit in Cheshire?	

However it was possible to develop a methodology for analysing this material, based on the common issues which had been identified earlier, adding to these as required.

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One means was to identify evidence from the documents collected, which proved or disproved the assertions emerging from the Focus Groups. It was also possible to identify a number of common concerns and issues from the review of the documentation. Together, these provided a framework within which it was possible to draw out important aspects of the documentation.

Table 2 describes the key issue areas which were identified for further exploration and discussion in the review.

Table 2: Key issue areas.

Users of HEIRs	Who are the users and how do HEIRs know? Are user profiles changing, and how? How can HEIRs project and develop the future use of resources?
Purposes of specific HEIRs	Do specific HEIRs aim to provide original content, broker content or provide a portal service?
Uses of HEIRs	What uses were intended? What do HEIRs know about actual use and how do they know this? How can HEIRs learn more about uses of their resources?
Adding value to HEIRs	How do HEIRs and their users feel that HEIRs could be improved?
Mediating HEIRs	Why are some HEIRs mediated and what are the drawbacks of not mediating or interpreting content? Do users understand how to use HEIRs? What users and uses require the most interpretation or mediation, and why?
User expectations	What questions are being asked of HEIRs? Do users know what to expect of HEIRs? Are user expectations being met?
Quality of resources	Are users able to assess the quality and suitability of individual resources? What is the impact on HEIRs of the number of resources available online?
Developing audiences	What audiences do HEIRs wish to develop? What audiences are underrepresented and why? What are the political and funding issues which impact on audience development?
Disclosure of information	How do legal and professional concerns impact on the disclosure of information?

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A number of issues were identified in the review of documentation which were not discussed in the Focus Groups; these related to the development and implementation of evaluation strategies and included:

- gathering and using quantitative feedback effectively – what kind of information is worth collecting from websites and how should it be used?
- the need to use qualitative evaluation processes to answer specific questions;
- the need to develop and implement evaluation strategies which are meaningful across the HEIR community (not simply for individual HEIRs).

These issues are therefore not addressed in the detailed review of available material, but are reflected in the design of future evaluation projects (see Section 4: Next Steps).

Analysis of background and strategy documents

This group of documents was reviewed with the aim of:

- identifying and confirming the target audiences of HEIRs;
- gaining a greater understanding of the aims of the organisations involved in the development and provision of HEIRs and the reasoning behind the development of HEIRs (e.g. funding, statutory requirements);
- understanding likely future directions of HEIRs (necessary in the design of future evaluation projects).

Again, the contents of these documents is not reflected directly in the analysis but provided important contextual information and, in the absence of baseline data, they were able to provide information about the intentions and starting points of the services being reviewed.

2. Analysis

2.1 Overview of source documents

The purpose of this part of the analysis is to outline the scope and nature of the documents received for review.

A full list of documents received is provided in Appendix A: Documents Reviewed and the extent of this list is an indicator of the scale of the task in hand. The fact that over 50 documents and datasets were received meant that it was neither appropriate nor possible to review in detail any single resource; it was only realistic to determine any significant or common factors which arose from the review of the material, in conjunction with the outcomes of the Focus Groups.

In addition to the quantity of items received, it was immediately apparent that the range of types of material received was extremely broad. Not only were there substantial quantities of qualitative, quantitative and background material, but the documents and datasets had been produced for a variety of purposes, often relating directly to the originating HEIR's purposes. Key issues with quantitative data included the following:

- lack of baseline data for HEIR use, further complicated by the fact that usage data over any single period of time was inevitably skewed by the introduction of new content and services;
- different questions were asked for different purposes by different HEIRs (see Tables 1a & 1b);
- results of surveys and user feedback were categorised differently; sometimes into broad groups, sometimes into more detailed categories (see Table 4). The varying granularity and sophistication of results analysis by HEIRs made it difficult to map results sets onto each other and extrapolate reliable commonalities or differences.

Potential inconsistencies in analysing web statistics

The change of domain name by the CBA (from the British Academy) meant that website usage took 6 months to return to its previous level. (Appendix A: 13).

Sources used primarily by the HE sector or subject to fluctuation according to the academic term. To gain a consistent picture, samples need to be taken from the same time period in consecutive years, and should take account of events such as weekends Easter and exams (Appendix A: 1; 4)

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Furthermore the quantities and longitudinal range of quantitative datasets varied significantly, including for example:

- single tables or pie charts showing information about origins of users of, and form of contact with SMR enquiry services in a single year (Appendix A: 9) ;
- visitor and enquiry statistics gathered over a period of time and broken down by user type and/or subject (e.g. Appendix A: 20);
- web access logs delivered in a number of formats, including HTML web pages (e.g. Appendix A: 1; Appendix A: 35) and multiple raw text web statistics, each up to ten megabytes (Appendix A: 13)

In summary, no two source documents provided the ability to compare like with like. Different questions were being asked by individual HEIRs of a wide range of user groups, using a variety of evaluation techniques to gain feedback on a number of real and/or proposed information services, either at a given point in time or over an extended period. This is all in stark contrast to commencing an evaluation exercise from scratch, when a provider should know:

- **what** they wish to discover;
- **about** a specific service;
- **from** well-defined audience or user groups.

These differences mean that it was difficult to define absolute, quantifiable results with levels of certainty which would stand up to in-depth scrutiny.

However it was possible to identify a number of significant trends, common issues and areas of concern. With a view to the design of future projects it was also possible to identify gaps in our knowledge about existing HEIRs and so propose ways in which the HEIR community might discover more about the users and uses of its resources.

2.2 Services offered by HEIRs

2.2.1 Aims and objectives of services

The HEIR landscape is described in the *Mapping information resources: A report for HEIRNET* (CBA, 2000)². This report highlights the diverse nature of the HEIR community and as expected, the HEIR services contributing evaluation material to this review had varying origins and purposes.

Funding for HEIRs is derived variously from local authority, central and regional government, higher education and to some extent, commercial sources. This diverse funding pattern reflects the range of purposes of the HEIRs and their respective target audiences (see Table 3 below).

As might be envisaged, the aims of the different types of HEIR reviewed, differed accordingly, making many services difficult to compare and contrast, even within the SMRs, where although core audiences corresponded, additional target audiences often differed, ranging from no current additional target users (e.g. WOSAS), to planned widespread educational us (e.g. Herefordshire)

However, the origins and aims of specific HEIRs does not mean that the users of those HEIRs are similarly constrained, especially since the majority of HEIRs were created using public funding of some sort, and are increasingly making information freely available online. Tensions were therefore noted, particularly where:

- multiple funders had different expectations of the resources they were funding;
- funders (or managers) of HEIRs were expected to provide extended support for users who did not fall within the target group;

Staff in some HEIRs were aware that they were unable to meet the needs of specific audiences (e.g. the general public; school educators), that these user groups were therefore underdeveloped and that government expectations were changing to the extent that there was an expectation that they should be developing services in these areas.

Funding tensions

“We would like to extend the use of our SMR, since we exist within a community where developing audiences is seen as an important element of providing an effective service. However our local authority funders are reluctant for us to spend time or resources diverting from our core function.”

SMR representative,
from Focus Group.

² Available at <http://www.britarch.ac.uk/HEIRNET/rep1.html>

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However in some instances these same staff were experiencing senior management and funding constraints within their organisations which prevented them from developing services.

This applied to in particular to some (although by no means all) SMRs.

Focus group discussion revealed a high level of awareness of the way in which user expectations were changing, and that this in turn would eventually impact on the aims and objectives of their various services. Specifically, it was expected that services would need to provide more interpretation and appropriate access for users in formal and non-formal education.

2.2.2 Identifying and defining target audiences

There was a wide variation in the target audiences of the difference HEIRs reviewed. Generally, where there was a clear statutory or funding mandate, audiences were tightly defined and (in particular for SMRs) there were several instances where users of enquiry services for example, had been categorised for reporting purposes. However these categories tended to reflect the mandated user groups rather than analysing the additional, non-mandated users who tended to be categories under headings such as 'Other'; 'Commercial'; 'Media' and 'Education'. These categories were the ones where type of use was most difficult to ascertain and which therefore were of most interest in terms of this report, however it is understandable that the more detailed categories were implemented for known user groups, presumably to indicate levels of use within the mandated service provision.

However it was notable that *all* evaluation material reviewed suggested varying (and often increasing) levels of use by users outside the target user group where the target audience was defined. This was evidenced on a particularly large scale by the ADS whose website statistics, although showing a steady increase of use by UK-based universities, also indicated a steady increase in use by overseas users³.

Evidence of highly regionally and service-specific usage categories.

The WOSAS enquiry service logs detailed use by 22 different regional departments and only 3 categories ("Other public bodies"; "Other"; "Developers / Agents") which could have been shared by other, similar services. (Appendix A: 49)

³ This notwithstanding the fact that a number of IP addresses were unable to be resolved in order to identify country or domain of origin, and that, as discussed in 1.6: Methodology, it is the overall picture and trend which provides the most reliable information.

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It was notable however that target audiences were most often defined where this formed part of the funding or statutory mandate of the HEIR.

There was evidence that most HEIRs had defined audiences at a broad level, for example:

- English Heritage (EH) have targeted some resources at 'intelligent 12-year-olds';
- the Council for British Archaeology (CBA) aims to provide information services for the widest range of public users, whether in formal or non-formal education or pursuing lifelong learning;
- Internet Archaeology aims to interest "academic researchers to government agencies to interested members of the public".

Other examples of target audiences which were frequently mentioned, included those set out in Table 3.

Table 3: Examples of frequently named target audiences of HEIRs

Academic researchers
General public
Historical researchers
Lifelong learners
Professional and / or specialist researchers
Statutory reference uses (e.g. planners)
Teachers

However it was often unclear *how* organisations aimed to target *specific* user groups within very general categories. Evaluation material received did not indicate the extent to which these target audiences had been achieved, particularly where the target groups had been defined in very broad terms. For example, it was understood that although the CBA has undertaken some membership analysis, it has not yet researched the use of its website; in fact no HEIR was able to contribute website statistics which indicated which domains were accessing which types of material.

Conclusions

It is clear therefore that HEIRs have succeeded in defining target audiences where this is required at a funding or strategic level, but that the extent to which target audiences are being achieved is known only in broad terms and that there is little

Non-HE use of ADS

Examples of use of ADS by groups outside the target audience were local authorities and the US HE sector. In June 2002 the .ac.uk sector made up less than 15% of usage, with .com addresses comprising almost 30% of users. Given the scale of use this does not indicate lack of relevance to the target audience; rather, the potential broad appeal of the services offered. (Appendix A: 1)

Meeting the needs of specific users.

The [PATOIS](#) project undertaken by ADS demonstrates that it is both possible and necessary to target a specific user group (in this case, year 2 undergraduates) by offering highly specialised services. Feedback from the PATOIS target audience has been very positive ("*it is excellent ...and will be a great help to our students*") and take up by 10 universities and other UK institutions, as well as universities in the US, evidences the value in identifying and servicing a highly targeted user group.

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evidence of audiences being defined more closely in order to refine & target HEIRs resources and help develop the target audiences.

It is also clear that regardless of actual target audiences, online resources will always attract users from outside the target groups. Funders and HEIR providers may need to come to terms with this in the future by researching and defining these groups and assessing the extent to which this extended use might affect the strategies of specific HEIRs, potentially leading to commercial, funding or partnership opportunities in the future.

2.2.3 Types of HEIR service

The HEIR services contributing evaluation material fell into one or more of the following categories:

- subject-specific online information services and databases
- gateways to relevant databases
- websites relating to broader subject areas with subsets of HEIR-specific resources
- portals offering a variety of online information, publications, databases and other online information services
- internet publications
- websites providing information and/or online activities for specific user groups or membership organisations
- information about offline services
- offline enquiry services
- proposed online services

The key issue here is that all these services (many of which are defined further in *Mapping information resources: A report for HEIRNET*), attract overlapping user groups who are accessing the services for different purposes. In terms of the evaluation material in existence, each type of service tended to ask questions of its specific audience, in relation to the scope of the services offered, preventing the direct comparison of evaluation results.

The existence of different types of service does not mean that there is no value in a shared approach to evaluating users and uses of HEIRs. The diversity of HEIR types on offer is necessary to the range of research activities which many individual users wish to undertake. For example, As discussed in 2.6.3 *What will users want in the*

future?, a key finding of the review of existing evaluation is that many users seek to personalise their research, for example by finding specific *and* general resources about buildings. They wish to have contextual information made available to them and to be able to move between different types of HEIR in order to add depth and meaning to their research. Clearly projects such as HEIRPORT offer the facility to achieve this however it will be increasingly necessary to establish how and why each type of HEIR is used in order to provide access appropriate to different research activities.

At present it is clear from user feedback that many users do not consult multiple, potentially complementary information resources, but expect to find the information they require from a combination of available online or offline resources, augmented by individual mediation by knowledgeable staff in, for instance, the local SMR.

2.3 Analysis of HEIR use

2.3.1 Identifying actual user groups

Information about actual HEIR user profiles was provided in two ways:

- information provided by enquiry services (predominantly SMRs and NMRs) which had been gained by user surveys and user registration information. This information was often derived from the categories used to break down different user groups rather than from specific statements of user type;
- information derived from website statistics.

Analysis of enquiry service information revealed the following picture of a typical user⁴:

- user age tending to peak in the 30-60 age group (but with a growing, significant minority of 8%-14% use by retired individuals);
- users falling within a category of professional/senior management⁵
- overwhelmingly white
- slightly more likely to be female than male.

⁴ This information was derived through the analysis of the following information resources in Appendix A: 9; 11; 39; 45, as well as in Focus Group discussion.

⁵ This was according to self-categorisation by users who (despite the fact that many uses of SMRs are for routine planning purposes according to the recorded purpose of use) preferred not to categorise themselves as 'middle management', 'support staff', 'administrative staff' or 'clerical staff'.

Invisible users

This profile of existing users of HEIRS is disarmingly broad, however it is indicative of the striking lack of knowledge about actual users within the sector.

Where information about of user type was available, this were normally provided by NMRs and SMRs, and from the use of enquiry services rather than online services, where users remain largely anonymous.

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As discussed previously, website statistics are unreliable for a number of reasons but are useful in providing a broad picture of usage. The most significant feature of these statistics was the substantial use of resources by overseas users. (ADS, CBA, IA); a picture supported by Resource whose website sees 50% overseas use, 25% of which is by users in non-English speaking countries⁶.

However no particularly reliable information was provided about *actual* use of online information resources, either by user survey or self-selection of users. This is a significant gap in HEIRNET's knowledge of its user-base which needs to be addressed in order that future investment in HEIR development can be effectively targeted.

2.3.2 Expected and actual uses of HEIRs

Information about HEIR use fell into three areas as follows:

- the *area of interest* of the user (e.g. planning information, conservation, subject theme);
- the *background* of the user (e.g. local government department, academic research, personal interest);
- the *context or mode of use* of HEIR information (e.g. local history information for teaching, general information for a school project, postgraduate paper)

The vast majority of information drawn from existing evaluation material fell into the first two of these categories, and most of this feedback came from SMR users.

Consequently there is a good deal of information demonstrating the extent to which SMRs meet the needs of their chief users within local authorities, however these are known user groups who generally have quite specific requirements which have already influenced the development of specific HEIRs over time.

Even here however there are problems in analysing the use of HEIRs across different services. The user backgrounds are understandably categorised to demonstrate use within a given local authority and the other categories of use are divided into headings which

⁶ Information provided by Resource in Focus Group

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do not generally correspond across counties, or if they do, are expressed and different levels of granularity or using terms which it is difficult to map. 2.6.3 *Collective strategies for user evaluation* describes this issue further and includes examples.

A common feature however was the low use of HEIRs by formal education groups other than those in the FE/HE sector. Among the HEIR community, museums focused most on the 5-18 education age groups, and where a target audience was stated, this tended towards Curriculum subjects such as history and geography within Key Stages 2-3. However most other organisations professed difficulty in reaching schools audiences, stating the difficulty in integrating HEIR resources into the curriculum as a barrier, without specific efforts on the part of HEIRs to prepare education packs, although the potential for achieving this has been demonstrated in formative work by English Heritage. Teachers consulted by HEIRs tended to highlight the difficulty of using HEIR content in teaching and the apparent complexity of HEIR data.

Significantly, very little information was provided about the way in which HEIR information was actually being deployed within a particular area of use. For example, there were no examples of *how* teachers were actually using HEIR resources in the classroom, nor were there examples of the research methodologies undertaken by students or researchers when using HEIR resources. This would appear to be a significant gap in the understanding of HEIR use.

However the user feedback documented in 2.6.3 *What will users want in the future?* indicates that HEIRs are not yet delivering information in a form which users might find most useful for their specific purpose.

Using HEIRs in schools

English Heritage commissioned an educational consultant to set out ways in which their Images of England project might be integrated into the National Curriculum (1995). (Appendix A: 23). This study demonstrated the broad potential for the use of HEIRs, not only in the Core Subjects (English, Maths, Science), but also in Foundation Subjects including Design & Technology, IT, History, Geography, Art and RE, through Key Stages 1-3.

However, Primary teachers consulted in the Herefordshire SMR Survey (Appendix A: 26), spoke of the current difficulty in using SMRs, citing presentation, interpretation, and ease/speed of use in the classroom as key issues.

2.3.3 Responses to form and content of HEIRs

There was a clear message from users throughout the HEIR community that they prefer to have internet access to HEIRs. This was apparent in two ways:

- consultation with users and non-users revealed a significant preference for online access, and that internet access was preferable to the provision of digital HEIR content via other media, e.g. CD-ROM;
- the take-up of internet services when offered was always rapid and no service had seen a downturn in online access once a service was established, except where an internet address had changed.

The provision of online access also resulted in the following:

- enquiries tended to reduce once online access was established, however these were normally more complex than before, requiring knowledgeable support for a particular research project;
- use by the general public tended to increase;
- overseas use tended to increase.

The increases in use clearly demonstrate the ability of online access to support audience development, however this trend was often accompanied by other issues, including:

- concern by HEIR providers that users were not aware of what constituted a 'quality' resource, that they may not therefore be able to distinguish between authoritative and non-authoritative information;
- concern that many users (particularly public and undergraduate users) were unable to undertake research beyond the use of obvious online resources.

The under-use of complementary resources such as the British and Irish Archaeological Bibliography and the extent to which enquiry staff were increasingly drawn into individual research were cited as examples of many users' inability to undertake research.

Evaluation of some resources, including English Heritage, demonstrated that many users wished to access images and basic information, but that they

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did not necessarily want to make use of detailed information made available online. At a more detailed level they often had very specific, personalised enquiries which, although requiring detailed information, was different to the detailed information provided online. For example, rather than information about the architectural detail of a specific building, they might have a question about a particular building type or the history of a building. This view was upheld by the experience of some SMRs which suggested that when detailed content was provided online, it was often not the information required to answer users' specific questions.

The inappropriate delivery of data was raised as an issue; this reflected the general lack of understanding of what users actually do with information provided by HEIRs (see 2.3.2). One suggestion was that HEIRs were too proprietorial with their data; they should explore new ways of providing data for use in the way that best suits users' needs. For example some users suggested that it would be useful to have access to subsets of data which could be downloaded in a user defined format for analysis. However in order to provide this type of service HEIRs would need to find out how people were using information.

The need for "meaningful" resources was highlighted – the CBA's Young Archaeologists Club (YAC) was cited as a means of providing contextual information for a specific audience and the University of Newcastle's Museum of Antiquities was perceived as being successful in delivering content meaningfully. However it was notable that both these resources provided content *in context*. The importance of context was repeatedly given by users as a primary means of improving HEIR information provision. One message repeated throughout evaluation studies, was the need to 'start local, get general'; i.e. to grab users' attention with locally relevant information, then to provide background and contextual information. This was perceived as particularly important in order to relate HEIR content to the National Curriculum. In the case of the YAC, more general and background information about archaeology is provided; at the Museum of Antiquities, information about people and ways of life were provided as well as HEIR content.

The need for links and context

Formative evaluation for Culture Online (Appendix A:15) provided evidence of a demand for information in context: "*It will be helpful for my history as I can find links between events and different people's opinion*"; "*diagrammatic aids are fabulous*". Responses to less mediated resources was negative: "*It looks a bit limited*".

Similar views and feedback were reflected in other evaluation projects (e.g. Images of England, Appendix A: 23), as well as by contributions made in the Focus Groups.

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Examples of useful contextual information which were highlighted by HEIR users are provided in 2.6.3: *What will users want in the future?*

The need to mediate or interpret HEIR information was broadly accepted as both necessary and a 'good thing' by HEIR providers, particularly in the light of favourable responses from users. User analysis undertaken by EH and some SMRs for demonstrated that users saw the need for HEIRs to mediate more *and* better. Mediation was thus perceived as a key means of developing audiences in the future; in addition HEIR providers were aware of the funding opportunities in this area. The PATOIS⁷ project demonstrated that mediating resources was important within the HE sector as well as for school users and the general public. It challenges assumptions about how and why users might wish to use HEIR material and therefore has the potential to help develop an improved understanding of users' actual uses of HEIRs.

Users and HEIR providers were broadly in agreement however that the priority was to make HEIR resources available online – even if initially in a raw format – on the basis that resources should be seen and used. There was agreement that this was preferable to withholding a resource because it was unable to be mediated and interpreted at a given point in time. There was broad agreement that effective mediation would grow out of dialogues with users and that this in turn would develop audiences in these areas, and that in order for this to happen, relatively unsophisticated access to resources might need to be made available in the 'early days' of an HEIR's existence online.

2.4 Developing audiences

2.4.1 Non-users of HEIRs

No research specifically into the non-users of HEIRs had been undertaken, however it was possible to infer from the results of user surveys and qualitative interviews that the key area for developing HEIRs usage was in schools. Use by under-18s and use by formal education groups rarely extended beyond 10% of use yet as evidenced by formative research undertaken by

⁷ <http://www.jisc.ac.uk/dner/text/development/projects/patois/>

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English Heritage, built-heritage and environmental content intersects with a wide range of curriculum areas. The barrier to increased use would appear to be the limited availability of teaching resources which would allow teachers to use content which is currently focused on specific buildings or sites, rather than being associated with more general curriculum themes such as design, materials or history. The success of museums in attracting these audiences by providing contextual information, demonstrates the potential in this area.

It was also clear from user surveys that many users, in particular the general public, were not aware of, and did not use, multiple sources of information for research they were undertaking. Users tended to ask questions which they knew a specific HEIR could answer, and that they were unlikely to look to multiple HEIRs for their research. This indicates the potential for a wide range of HEIRs to reach other user groups, (for example SMR users with interest in local history or particular types of buildings) who may not be aware of the range of complementary resources available.

2.4.2 Extending uses of HEIRs

A number of means of extending HEIR use were raised in the Focus Groups, and were also apparent from documented evaluation. These included:

- increasing the use of mediation and interpretation of HEIRs;
- increasing outreach activities associated with HEIRs (especially SMRs);
- improving search interfaces for HEIRs.
- working in partnership with key organisations including local history societies, schools, and existing education services (e.g. those in museums).

It was possible to infer the value of outreach activities such as talks and associated events by comparing the use of those SMRs which did undertake outreach with those who did not. The use of existing community groups to highlight potential use of HEIRs was demonstrated as one means of developing the use of HEIRs, and to share information about different sources of HEIR-based and community-based expertise. This was particularly relevant since non-user consultation indicated that many potential users were not aware of the information held by SMRs in particular.

Non-user surveys

There were very few examples of surveys of non-users. A good model was that undertaken by Herefordshire SMR (Appendix A: 26). This survey undertook focus group discussions with Primary, Secondary and HE teachers and Life-Long Learners. It also carried out a street survey to test assumptions about the SMR and to begin to understand how it might develop audiences in the future. The results fed into plans to develop an HLF funding bid to improve services. It established that 50% of the population might have an interest in using improved SMR services.

Where talks and other events have been held, (e.g. those held by Cheshire SMR and documented in Appendix A: 11), SMR satisfaction and use increases notably, and underlines the importance of relating SMR information to the needs and interests of audiences, particularly in the area of local history. However it is notable that the resources invested in this kind of activity are markedly less than those directed at other areas of activity, regardless of the potential for a much higher return in terms of user satisfaction. This area is clearly one with growth potential and illustrates the highly complementary nature of content provided in 'real' and 'virtual' environments.

Discussion in Focus Groups indicated that HEIRs have considered developing their services in partnership with their users, however there are few, if any, projects which have demonstrated this potential, with notable exceptions such as the Defence of Britain project and EH's Images of England.

2.5 Looking to the future – quantitative indicators

2.5.1 Levels of use of HEIRs

A common theme in the evaluation documents and in the Focus Group discussion was the sense that sustaining increases of user numbers for online services was difficult without the constant addition of new services, except where internet access was a direct replacement of a pre-existing enquiry service. This is borne out by the comparative analysis of website statistics which, although seasonal and subject to the variances noted in 1.6 and 2.1 above, tend to suggest that in the last 12-18 months, the rate of increase of use of services in the specialist, research and HE sector is beginning to slow and that annual increases in traffic of up to 100% per annum is decreasing to around 70%. (See Appendix C for details). This is unsurprising since no market can sustain such levels of growth indefinitely, however it is not possible to determine the reason for this slowed growth from the information currently available.

Real-life events complement HEIR use and help meet specialist interest groups.

A combined total of 275 positive responses to the prioritisation of "Talks" and "Events" by Cheshire Archaeology was contrasted with activities such as "Survey and excavation" (271) and access to the SMR (248).

Focus group discussion highlighted the user demand for increased depth of information provided in context. This type of provision could be made more cost-effectively by providing talks and other pro-active events designed to fulfil key areas of interest.

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Based on the limited evidence it is possible that one or more of the following might be true:

- initial use will inevitably wane as the novelty of a new resource wears off and a core user community is established;
- competing services are entering the market (unlikely given the unique nature of much HEIR content);
- actual use of HEIR content is not easy within the intended user groups – HEIRs and their users may yet have to learn how best to integrate resources into research activities.

Whether the potential core user community for these services is present within the user numbers is not possible to say without further research, in particular feedback from existing users and non-user surveys, not simply at an interface-evaluation level but in order to investigate actual use of available content. The continued growth of UK-based university use in domain-name analysis suggests that the home education market is indeed still a maturing one and that academic organisations have still to fully adapt to the use of online resources in teaching and learning.

The NMRs appear to have an increasingly high level of public usage, although unlike with the departmental/local authority use of SMRs, it is not always possible to ascertain the purpose of use.

Commercial use of HEIRs is still very low compared to academic and professional use of these resources, and demonstrates the need to market the available resources where potential commercial uses exist, as well as to provide information in a form appropriate for use by the commercial sector.

2.5.2 Shifts in user profiles and uses of HEIRs

Where changes in user profile are able to be recorded, the overriding impression is that of increasing public use of resources. This was evident from enquiry service feedback, Focus Group discussion and from a number of other sources, not least the presence of probable home-based ISPs in website use statistics and evidence of surges in use in relation to national events such as television programmes (often referred to in discussion as the 'Time Team Effect').

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This type of use has not only impacted on user levels, it has also affected the *type* of question asked, which tends to be more personalised – i.e. relating to a specific building, site, or person, or specific to a personal research project, such as genealogy. For some HEIRs, this shift in user profile is a reflection of action on their part; targeting public users in response to changing government agendas. Lifelong learning and public access are key issues here, as is the need for national identity, hence the strength of evidence for this shift to public use of HEIRs at national level within each of the home countries.

The one area of growth of commercial use is in SMRs where information is provided for development projects, whether relating to the landscape, buildings or the rural environment. The provision of combined access to information about buildings and archaeology reflects this demand and supports the emerging need for contextual information to be provided in order to make HEIR content more meaningful.

As noted above, the availability of online information has resulted in fewer written enquiries but the remaining workload now tends to be more personalised and complex than before.

To date, audiences have not been defined in terms of what people might want to do with content, but on their demographic characteristics. It is likely that this will need to change in the future; as one Focus Group pointed out: “12-year olds can be quite sophisticated”, especially in terms of their expectations of internet resources. A “generational problem” was identified, relating to the lack of connection between those responsible for information resources, “traditional” users, and potential, often younger, users, who may themselves have been “born digital”. Students increasingly *expect* resources to be online and resources such as ADS provide a key starting point for initiating research. However relatively little is known about the way in which the research process will change as a result, and how HEIRs will therefore need to respond to this.

User feedback indicates that academic use tends to be subject focused whereas public use is more likely to relate to specific places, evidenced by enquiries relating to local history perspective. Trends at SMR level show that there is an increase

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in this broader range of local history enquiry (as would be expected from the increase in public use) with an increasing sub-number of 'new age' or 'paranormal' enquiries, from the Arthurian legends to ley lines.

Some organisations highlighted specific documents or collections which had resulted in markedly increased use of their respective HEIRs. The Museum of London had provided contextual information in the form of a best-practice guide for excavations; the ADS and others had noted increases in response to specific datasets being made available (for example items retrieved from the Royal Opera House site).

2.6 Strategic issues

2.6.1 Collective strategies for user evaluation

It is clear from the evaluation of the available material that while there is a need for individual HEIRs to consider their own, local user needs and to assess user feedback of their services, there is a need for evaluation to be undertaken at a community level which HEIRs will need to address collectively in order to develop their resources in the future. This is important for two reasons:

- there are savings of time, money and expertise which can be made by adopting a shared approach to evaluation, particularly in a sector where resources are complementary rather than competing;
- a 'bigger picture of users' needs and future trends is only achievable by gathering the same type of information, in the same way, across the sector, in order that it can usefully be compared. The current evaluation, although extensive, is far more relevant to individual HEIRs than it is to the community as a whole, for the reasons described at 1.6. and 2.1.

There is a need for consistency in the data which is collected; both qualitative and quantitative, in order that results across the HEIR community can be meaningfully compared. One clear example of the need for a common approach to data gathering is the use of categories for different types of user. Table 4 below demonstrates differences in the terminology and level of description used by an NMR and two SMRs in their user analysis.

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Table 4: Examples of variance in user categories

NMR	SMR #1	SMR #2
Archaeological Trusts Commercial and Media Education Other Government bodies Public Local Authority Learned Society Conservation bodies Family history Library/Museum	Regional planning Developers Agents Utilities Other Other public bodies Agri-environment scheme Development plan consultation Forest design plan General SMR enquiry Listed building application Other Consultation Statutory undertaking Planning application Policy liaison Pre-application enquiry SMR Information Management Development	Foreign colonial history Local history Legal history Military history Social / economic history Political / diplomatic history Local regions

Some information is particularly difficult to gather locally in a meaningful way. For example, baseline data will differ according to specific local circumstances which can be evened out in a national picture. Some difficult-to-obtain information (e.g. actual uses of HEIR content by users) might be impossible for an individual SMR to ascertain, but could be obtained by pooling expertise and effort. Similarly, there also exists the potential for sharing the development and implementation of online tools for gathering user information. The Public Services Quality Group's *Survey of Visitors to British Archives*⁸ is an example of the potential success of this type of initiative which could be adapted to gather information about HEIR users.

Whatever type of project the HEIR community wishes to pursue in order to learn more about the users of HEIRs and why and how they use HEIRs, there will be clear benefits from undertaking this work collectively.

⁸ See <http://www.pro.gov.uk/archives/psqg/default.htm>.

2.6.2 Issues for developing HEIR access

A number of common issues were identified relating to the development of HEIRs in the future. This did not arise directly from users, but from HEIRs responses to the feedback received from users. As in the previous section, they are issues which will benefit from being addressed collectively, even if they are not the focus of evaluation projects in the future. They included:

- the impact of, and tensions between, the Freedom of Information Act and the Data Protection Act. What information can be disclosed, should be disclosed, must be disclosed or must not be disclosed? There is a clear need on the part of SMRs in particular for support and clarification in this area in addition to the existing formal guidance.⁹ Disclosure of archaeological site information and images and precise locations of sites and listed buildings are sensitive information but some services are concerned at the apparent dilemma between a need for disclosure of publicly-available information, and the potential risk to the sites or buildings in question;
- the need to convince funders of the need to broaden audiences and invest in improved access, particularly where HEIRs exist for primarily statutory purposes (e.g. SMRs).
- the need for better guidance from national bodies in areas such as applying standards and achieving interoperability – there is a reported skills shortage in these areas, particularly outside the HE sector;
- the implications of Intellectual Property Rights (IPR) legislation when making material available online. For instance some national HEIRs were concerned that their data resources were being replicated by local or regional bodies without appropriate

⁹ See: <http://www.defra.gov.uk/environment/pubaccess/index.htm>, 'Public Access to Environmental Information', DEFRA
<http://www.legislation.hms.gov.uk/acts/acts2000/20000036.htm>, Freedom of Information Act 2000
<http://www.lcd.gov.uk/foi/datprot.htm>, Lord Chancellor's Department Data Protection website
Paul Cuming, Kent SMR, 'The Data Protection and Freedom of Information Acts: Implications for SMRs', SMR News Issue 13, July 2002, English Heritage
Sarah Fricker, Bond Pearce Solicitors, 'Database Rights and Copyright', SMR News Issue 13, July 2002, English Heritage

acknowledgement. This is an indication that awareness of IPR may need developing in some HEIR sectors, particularly among SMRs.

2.6.3 What will users want in the future?

From the qualitative evaluation material it was possible to extract a number of common themes. These reflected an overriding shift in emphasis to the provision of meaningful information to the general public, who appear to be in search of content which is:

- *relevant* to their individual line of enquiry;
- provided *in context*, with explanatory background information as required;
- *engaging* and easy to work through;
- *informative*, providing the right level of information for their level of expertise.

These results clearly set out an agenda for HEIRs to look at ways of *adding value* to the information they currently provide.

These four areas are a useful means of breaking down the common 'wish-list' which it was possible to derive from the evaluation material provided.

Relevance

- more intelligent user-profiling would allow relevant information to be presented in a form appropriate to users' specific needs;
- availability of appropriate data from other services should be made available according to users' needs, thereby enabling the research process for those less experienced in the subject area or in research methodologies;
- provide glossaries and avoid jargon.

Context

- link to other types of information resource such as maps, contextual background, general building/archaeology information, databases of building types;
- provide a portal to the historic environment which is accessible by region or interest
- increase the diversity of content available online (e.g. more images, use of appropriate multimedia);

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- investigate ways in which HEIRs can complement other services (e.g. relating HEIRs to literary resources such as those exploring the work of ‘environmental’ poets such as John Clare and Wordsworth).
- explore ways of ‘insinuating’ HEIRs into other communities

Engaging

- update access models and presentation of HEIRs online¹⁰;
- develop improved and diverse mediation tools,
- explore e-commerce opportunities to allow users to share the ownership of resources;
- provide appropriately detailed information written for *real* people;
- emphasise social history – explore *how* people lived in the past and make the environment relevant to peoples’ lives;

Informative

- use less jargon – public are clearly deterred by specialist terms
- provide access to information about the local environment and its history;
- provide access to easy answers to non-specific, background questions about the environment, people, society and their history;
- provide direct plumbing into other resources and increase levels of interoperability between resources

Finally, the research undertaken by MORI for EH (Appendix A: 18) indicated that users of the broader heritage sector increasingly seek to engage their emotions when learning about heritage. Museums and galleries are have long been aware of the need to personalise a visitor’s experience of a visit to an exhibition and MORI’s research applies a term to this need: ‘polysensuality’. This does not mean that users should be spoonfed or resources dumbed down. It is simply an extension of the fact that (as one SMR put it) ‘a local question requires a local answer’. The quantitative data available to us is evidence of a substantial demand for the information which is managed and provided by HEIRs, in both digital and human form. The message which is becoming clear from user feedback however is that this

Graphic search interfaces

Users of CANMORE (the RCHMS online database) responded positively to the proposed new geographic search interface, describing it as “*excellent*” and “*wonderful*” . As this type of interface is made available, it is increasingly likely to be seen as an essential component of any search facility.

¹⁰ The responses to CANMORE’s new CANMAP interface are documented in Appendix A: 39.

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information could and should be transformed into an extensive and rich body of knowledge to support and enhance the professional *and* the personal lives of users.

3. Next steps

3.1 Introduction

It is clear from the analysis of the material supplied to this review that notwithstanding the quantity of available evidence of HEIR use, there remains great potential for developing the sector's understanding of current users and non-users of HEIRs, and the use which is being made of the resources currently available.

Specific areas for further exploration have been described in the preceding chapters, however the single most notable aspect of the material provided concerns the discrepancy between user feedback provided by online and on-site HEIRs.

As the number of online resources grows, it is becoming increasingly evident that while HEIRs have been able to report on and analyse their enquiry-based or in-person services, HEIRs have been unable to replicate these processes with their online services. Online services are clearly able to reach far wider audiences than on-site enquiry and research services. They also have the potential to deliver a diverse range of user-specific, content-based services. However no existing online service was able to provide information about users or their uses of an online service which was comparable to the (relative) depth of user information available for enquiry services run by SMRs for instance.

This suggests firstly that HEIR providers should be made aware of the importance of including evaluation and analysis as an integral part of any new online project, also that a priority for existing projects should be to exploit their potential for user analysis and feedback.

It also suggests that the tools and techniques available to support this type of activity are not currently being adopted within the sector.

At a basic level, there appears to be a need for 'best-practice' guidance for HEIRs to use when undertaking their own local evaluation in order to ensure the ongoing quality and relevance of HEIR resources.

In addition, despite the extremely diverse nature of the existing evaluation material which has been reviewed it is clear that there is a convincing

argument for a collective approach to the gathering of qualitative and quantitative information about HEIR use and uses in the future. Any collective approach however should complement and not replace ongoing local evaluation, since there will always be a need for individual HEIRs to understand more fully the use of their local resources, and explore local issues. It would neither be cost effective nor practicable to centralise the evaluation process. However there is a need for:

- a shared evaluation framework for the collection of user profile and use information which will allow HEIRs to collect the same kind of information about users and uses in the same way, in order to identify common issues and trends, and to make meaningful comparisons of different types of HEIR service;
- shared access to specialist skills for the analysis of quantitative data;
- shared access to specialist skills for undertaking specific qualitative evaluation projects, particularly those requiring direct access to users and the evaluation of actual use of HEIR resources within different activities.

3.2 Recommendations

As a result of the analysis of the material made available to this review, the following recommendations are made with the overall aims of:

- improving the consistency and depth of evaluation material available to HEIRs;
- increasing awareness and expertise about evaluation across the HEIR community.

Recommendation 1 The research of target user groups, actual users and their uses of any service should form an integral part of developing and managing an HEIR.

Recommendation 2 HEIRs should ensure that they can define their target user groups, and work to increase their present understanding of actual user and non-user profiles.

Recommendation 3 HEIRs should work to increase their understanding of actual uses of information resources, increasing the use of qualitative research techniques to determine how users integrate HEIR content into their research and learning activities.

Recommendation 4 HEIRs should explore the potential of adding value to information resources (e.g. through mediation and interpretation) in order to develop audiences and respond to users' actual needs.

Recommendation 5 Quantitative data reflecting usage of HEIRs (in particular, but not exclusively of online services) should be gathered consistently across the sector and chronologically.

Recommendation 6 Quantitative data gathering should be undertaken with the aim of answering specific questions about the use of HEIRs, not simply because it *can* be gathered.

Recommendation 7 HEIRs should pursue means of developing expertise in evaluation and user data analysis both within the HEIR community and with specialist services where appropriate.

Recommendation 8 HEIRs should exploit the potential for implementing collective solutions for increasing the understanding of users across HEIR community.

3.3 Project profiles

The following project profiles are intended to support the recommendations made in 3.2 above, in ways which will promote the development and sharing of evaluation skills across the HEIR community. Each of the Project Profiles is cross referenced to the recommendations, providing a context for the work which might be undertaken.

The existence of one or more of these projects however, would not negate the need for individual HEIRs to address the areas of work described in each of the recommendations. Improving the level of knowledge about HEIR users and use will depend upon organisations working in partnership across the sector *and* individually, ensuring a bottom-up and top-down approach to the problem.

**3.3.1 Project Profile 1:
Collecting user profile and use
information**

Aim: To enable the consistent collection of information about users and their uses of HEIRs.

Purpose: The collection of user and use information has been undertaken at a local level by most HEIRs, often using the Public Services Quality Group's *Survey of Visitors to British Archives* as a model. However this has been undertaken by different HEIRs in different ways, meaning that it is difficult to establish a clear picture, nationally, of which people use HEIRs and how. Within this specific subject area it would be advantageous to have a far clearer picture of users and their reasons for using HEIRs particularly in light of the fact that there are emerging demands from users for access to information across the range of HEIR resources.

Context: The project would support the following recommendations set out in 3.2 above:
[Recommendation 1](#)
[Recommendation 2](#)
[Recommendation 7](#)
[Recommendation 8](#)

Method: The gathering of this type of profile information would take the form of a user survey which would be in printed form for enquiry services, but which could be mounted online for digital services. It would not need to be completed by all users, but could be implemented in two or more runs during specific weeks during the year to provide an indication of user profiles for instance, during the academic term and during holidays. The user survey should be agreed by the HEIR community as a whole, and should address the issue of common categories of user and the analysis of results. As with the MORI 'omnibus' survey, some questions could be placed in each survey run in order to provide longitudinal results over time; others could be inserted according to need simply in one run.

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Issues: The key issue with user surveys is that they only provide information about users; non-user information can only be derived. Also there is a problem with online surveys in that users who complete them are self-selecting, unless the survey is integrated into the use of a particular service or database. An online survey could be implemented across the different HEIR services however each service would need to decide how best to implement it in order not to deter use of their service.

Project Outline:

- Identify key questions about HEIR users which would enable HEIRs to gather information which would be comparable across the sector. These questions would be broadly based on those included in the [Survey of Visitors to British Archives](#) but using categories appropriate to HEIRs.
- Commission a user survey questionnaire for completion by users of in-person enquiry services and online HEIRs, designed to capture information about users.
- Make the questionnaire available in printed and HTML format. The HTML version could be mounted in a central hyperlinked location to enable data to be collated automatically. This type of implementation would be easier for HEIRs to implement locally, but would need to ensure that users were directed to the questionnaire in a way which did not deter them from using their selected HEIR, and which returned them to their place of origin after completion. This could be achieved by implementing an optional window at the point of access to an HEIR.
- HEIRs using the printed version would report statistics annually; the printed version could be distributed periodically or at key points during the year.

3.3.2 Project Profile 2: Quantitative website data analysis

Aim: To enable the consistent collection and analysis of HEIR website use data.

Purpose: The analysis of website statistics from the different HEIRs was a major issue within this review, as detailed in 1.6 and 2.1 above. Of the datasets submitted, all were in different formats which would have required a substantial amount of time to analyse fully. Even had full analysis been undertaken, the results would have been compromised due to the differences in the datasets which have been documented. The purpose of a common approach to website analysis would be as follows:

1. To agree what measurement criteria would be useful to collect for comparative and longitudinal purposes.
2. To analyse existing website statistics for these criteria and to establish clear baseline figures.
3. To advise HEIR members on the implementation of appropriate software tools.
4. To provide a regular analysis and reporting service.

Context: The project would support the following recommendations set out in 3.2 above:

[Recommendation 5](#)
[Recommendation 6](#)
[Recommendation 7](#)
[Recommendation 8](#)

Method: Stages 1-3 of this work could be contracted out by HEIRs to a third party or to an HEIR member with appropriate expertise. Stage 4 could be the subject of an agreement within HEIRNET whereby members could subscribe to an annual service conducted by an HEIRNET member or a third party.

Issues: The key issues for this work would be skills, available tools and technologies. However by using common tools and data reporting formats, and by agreeing the scope of the statistics to be measured, the cost of regular analysis could be kept to a minimum.

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Project Outline:

- Identify key questions which quantitative data could be used to answer. The best questions would be those drawing on comparisons and trends rather than absolute figures or statistics, which would be less meaningful. In order to confirm the questions being asked, HEIRs may need to propose hypotheses for what these usage patterns might indicate and test these by analysing much smaller, more detailed samples and by undertaking highly specific qualitative research, through consultation with representatives of key users.

- Appropriate questions might include:
 - *What are the peak and trough usage times within daily, weekly and yearly periods?*
 - *What domain types are accessing HEIRs and how are these changing over daily, weekly and yearly periods?*
 - *What areas of the website are used by which domains, and during which periods of activity?*

- Participating HEIRs would ideally select a single data-capture tool which could be implemented across all online HEIRs; this should be configured to collect data according to defined frequency and granularity of web page access.

- Statistics would then be output to a central point of analysis by either a nominated HEIR with the appropriate expertise, or a third party organisation which might be contracted for this purpose.

**3.3.3 Project Profile 3:
Improving understanding of HEIR use**

Aim: To find out more about *actual* uses of HEIR services.

Purpose: Although the aim of the current review was to review existing material describing HEIR use, none of the material submitted for review actually described the uses of HEIR content by users. HEIRs had documented the background and origins of users, as well as (in some instances) the subject areas they were interested in and the jobs they did. However the community knows very little about actual use of HEIR content and how users are integrating what they learn from HEIRs, into work or research activities. Only by developing this level of understanding will it be possible to deliver services and content which meet real user needs, as opposed to perceived needs. Questions which need to be asked include:

- What kinds of questions do people have for HEIRs and why?
- How do academic users design and execute their research?
- If users need HEIRs for teaching, how do they integrate HEIR content into the teaching process?
- What do personal users *do* with the information they gather from HEIRs?

Context: The project would support the following recommendations set out in 3.2 above:

[Recommendation 1](#)

[Recommendation 2](#)

[Recommendation 3](#)

[Recommendation 4](#)

[Recommendation 7](#)

[Recommendation 8](#)

Method: The design of this project will benefit from development by a specialist in research methodology and/or evaluation and a very specific evaluation methodology drawn up. Quality and depth of information will be more important than quantity, although a representative sample of users will be required from across the HEIR community, reflecting the different HEIR types, the range of audience groups and the types of uses to which HEIR information is applied.

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Issues: Specialist expertise will be required for this work, which could be undertaken for the HEIR community as a whole. The selection of users willing to spend some time with evaluators may be difficult, but will be critical to the quality and success of the project. HEIRNET may consider working in partnership with related 'coal-face' organisations such as libraries or museums.

Project Outline:

- This type of research would best be undertaken by identifying priority user groups of interest to more than one HEIR in order to make best use of the feedback obtained.
- An evaluation strategy would be drawn up and agreed, which would related specifically to a defined group of users and an area of use which was also able to be defined at least in broad terms (e.g., post-graduate research, planning, use in schools at KS3).
- Users may need to be observed or interviewed at their place of work/research. Individual users might be selected on the basis of enquiry analysis from telephone or in-person use of HEIRs.
- The evaluation might include information about:
 - which HEIRs were being used;
 - what information (content and format) was being used;
 - the activity within which it was being used;
 - how content was being incorporated into the activity;
 - how HEIR content and delivery enabled this use;
 - what potential uses were difficult/impossible;
 - how changes to scope and format of content might facilitate use.

3.3.4 Project Profile 4: Developing best-practice guidance

Aim: To guide HEIR staff in the development of effective local evaluation strategies and appropriate skills within existing staff.

Purpose: A raised awareness of best-practice in developing and implementing evaluation projects will help HEIRs not only to implement the shared evaluation projects more effectively, but will assist them in developing a greater understanding of local users and their information needs. The importance of local responses to user needs was highlighted in the review of material, including for example, the benefits of establishing complementary service-specific events to promote and enhance HEIR use within specific user groups. Guidance in user evaluation has been developed for several museum, library and archive communities as well as within the HE sector. This guidance could readily be adapted and promoted within the HEIR sector.

Context: The project would support the following recommendations set out in 3.2 above:
[Recommendation 1](#)
[Recommendation 2](#)
[Recommendation 7](#)
[Recommendation 8](#)

Method: The guidance could be drafted either by existing staff within the HEIR community, or by an appropriate external specialist. It should be reviewed and agreed by the HEIR community. Guidance should be mounted online and made accessible from the different professional sites within the HEIR sector. In order to promote the guidance online, HEIR members should be encouraged to share details of evaluation projects and results online.

Issues: Clear distinctions should be drawn between the different types of evaluation which could be undertaken by individual HEIRs. In order to apply specifically to the HEIR community, the guidance should include ideas for involving specialist groups (e.g. local history societies) in the development of resources relevant to specific groups of users. It might also address issues of audience development.

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Project Outline:

- There is existing precedent for the collective development of standards and 'good practice' guides within the sector, for example the range of information standards available (e.g. MIDAS¹¹ and the Building Types Thesaurus¹²). The consensual means by which these resources were developed would provide a model for the proposed 'best-practice' guidance.
- As has been the case in other standards work, the proposed guide should draw on existing evaluation practice¹³ and should be coordinated and produced by an individual or organisation with appropriate expertise.
- The guidance should be made available online and compliance should be encouraged across the HEIR community, particularly when project funding applications are being developed.

¹¹ MIDAS: The Manual and Data Standard for Monument Inventories at <http://www.rchme.gov.uk/midas/newuser/local.html>

¹² NMR Thesauri at <http://www.english-heritage.org.uk/thesaurus/thesplash.htm>

¹³ Museum Learning Online: guidelines for good practice at <http://www.resource.gov.uk/action/learnacc/muslearn/contents.asp> may help in the development of a model for the proposed guide

Appendix A: Documents reviewed

The following documents were reviewed as part of the review users and their uses of HEIRs.

No	Source	Description / Title	Type
1	Archaeology Data Service	Web logs 1996-present (on disc) + printout for June 2002.	Quantitative
2	Archaeology Data Service	User focus group report - internal report, June 2001	Qualitative
3	Archaeology Data Service	Strategies for digital data, Frances Condron et al.	<i>Background / strategy</i>
4	Archaeology Data Service	"Observing the Game: what can Access Statistics really tell us?" Kilbride & Winters, CAA 2000	Background
5	Archaeology Data Service	ADS Publicity and Training Strategy 1.1	Background / strategy
6	Arts & Humanities Data Service	Strategic Plan 2002-2005	Background / strategy
7	Association of Local Government Archaeology Officers	Assessment of English SMRs, David Baker, p40-49 'Using SMRs'	Background / qualitative
8	Association of Local Government Archaeology Officers & English Heritage	DRAFT REPORT: Historic Environment Records: Benchmarks for Good Practice, June 2002	Background
9	Buckinghamshire SMR	User & enquiry statistics	Quantitative
10	Cambria SMR	User & enquiry statistics	Quantitative
11	Cheshire County Council	How are we doing? User survey, 2000	Qualitative
12	Clwyd-Powys SMR,	User statistics	Quantitative
13	Council for British Archaeology	Web use statistics (on disc) + summary	Quantitative
14	Council for British Archaeology	'From the ground up: the publication of archaeological projects: a user needs study', Sian Jones et al.	Background / qualitative
15	Department of Culture, Media & Sport	Culture Online, study by SRU	Qualitative
16	Department of Culture, Media & Sport	Culture Online, Taylor Nelson Sofres Phonebus survey	Qualitative/ quantitative
17	Dyfedd SMR	User statistics	Quantitative
18	English Heritage	Attitudes towards Heritage, MORI research study	Qualitative / Quantitative
19	English Heritage	Archaeological Archives: Documentation, Access & Deposition. A way forward, K. Perrin, March 2002	Background / strategy
20	English Heritage	NMR E&RS users and contact 2000-2001; 2001-2002.	Quantitative

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21	English Heritage	Access to the SMR, from Fernie & Gilman (eds) Informing the Future of the Parts: Guidelines for SMRs.	Background / qualitative
22	English Heritage	Images of England web user statistics	Quantitative
23	English Heritage	Images of England: User Evaluation and Market Research, 1997	Qualitative / Quantitative
24	English Heritage	National Monuments Record: Departmental Plan: 2002-2005	Background / strategy
25	Essex SMR	Essex Heritage Conservation Record. Paul Gilman	Background
26	Herefordshire SMR	Herefordshire SMR survey, Autumn 2000	Qualitative
27	HEIRNET	Mapping information resources: A report for HEIRNET, Gill Chitty, David Baker, Julian Richards & Damian Robinson	Background / strategy
28	IFA	Background information, from IFA Yearbook 2002	Background / strategy
29	IHBC	Specialist Information systems for conservation officers, David Baker,	Qualitative/ quantitative
30	Internet Archaeology	Web statistics	Quantitative
31	Internet Archaeology	Editorial Policy	Background / strategy
32	Internet Archaeology	Annual reports	Background / strategy
33	Internet Archaeology	Evaluation reports	Background / strategy
34	Internet Archaeology	Subscription/Access information	Background / strategy
35	Hampshire Museum Service	'Hampshire History' web statistics	Quantitative
36	National Museums & Galleries on Merseyside	Website statistics	Quantitative
37	Portable Antiquities Scheme	Review of Portable Antiquities scheme, Gill Chitty	Background
38	Portable Antiquities Scheme	Web statistics	Quantitative
39	RCAHMS	User consultation 2002	Qualitative / Quantitative
40	RCAHMS	Corporate Plan 2002-7	Background / strategy
41	RCAHMS	Operational statement 2002-3	Background / strategy
42	RCAHMW	Enquiries database	Quantitative / background
43	RCAHMW	Web user statistics	Quantitative
44	RCAHMW	Policy review summary, 1991-2	Background / strategy
45	RCAHMW	User survey questionnaire	Quantitative
46	RCAHMW	National Monuments Record of Wales, 1998	Background / strategy
47	RCAHMW	Annual Report, 2000-2001	Background

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			/ strategy
48	Robinson, Ben	Draft of thesis in progress: Users and uses of SMRs	Qualitative
49	West of Scotland SMR	User statistics	Quantitative

Appendix B: Individuals consulted

The following individuals were consulted either as part of the Focus Groups in London and York, or individually in person, by telephone and/or email.

1. David Baker, Council for British Archaeology
2. Jonathon Bateman, Council for British Archaeology
3. Duncan Brown, English Heritage; National Monuments Record
4. Nigel Clubb, English Heritage
5. David Dawson, Resource
6. David Easton, Royal Commission on the Ancient and Historic Monuments of Scotland
7. Kate Fernie, HEIRNET
8. Glyn Goodrick, Museum of Antiquities, University of Newcastle
9. Mike Heyworth, Council or British Archaeology
10. Caroline Ingle, Association for Local Government Archaeological Officers / Essex Sites & Monuments Record
11. Stuart Jeffrey, West of Scotland Archaeology Service
12. William Kilbride, Archaeology Data Service
13. Michael Lewis, Department of Culture, Media & Sport Portable Antiquities Scheme
14. Christine Longworth, Society of Museum Archaeologists / Liverpool Museum
15. Nick Poole, Resource
16. Julian Richards, Archaeology Data Service
17. Ben Robinson, Peterborough Sites & Monuments Record
18. Hedley Swain, Museum of London
19. David Thomas, Royal Commission on the Ancient and Historic Monuments of Wales
20. Judith Winters, Internet Archaeology

Appendix C: Quantitative analysis

C1 Levelling-off in user access

There is evidence that usage of HEIRs online is beginning to level off, following the major increases in usage seen as services were established, and as general awareness and use of the internet grew.

Table 1: Access to CBA website, 1996-2000

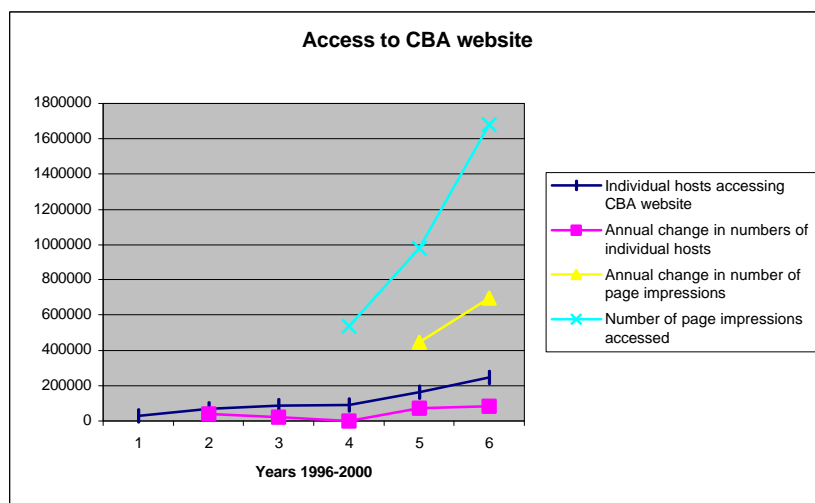


Table 1 shows the number of page impressions accessed from the CBA website, which would appear to indicate a continuing increase in usage of the website. However when the annual increase figures for the number of hosts is analysed it becomes clear that there is a levelling-off in pages accessed and also that the number of individual hosts accessing the website has reduced. Initial examination of access figures (Table 2 below) for the ADS also appears to indicate an overall levelling off, although not to the same extent as for the CBA.

Table 2: Access to ADS website: 1997-2002

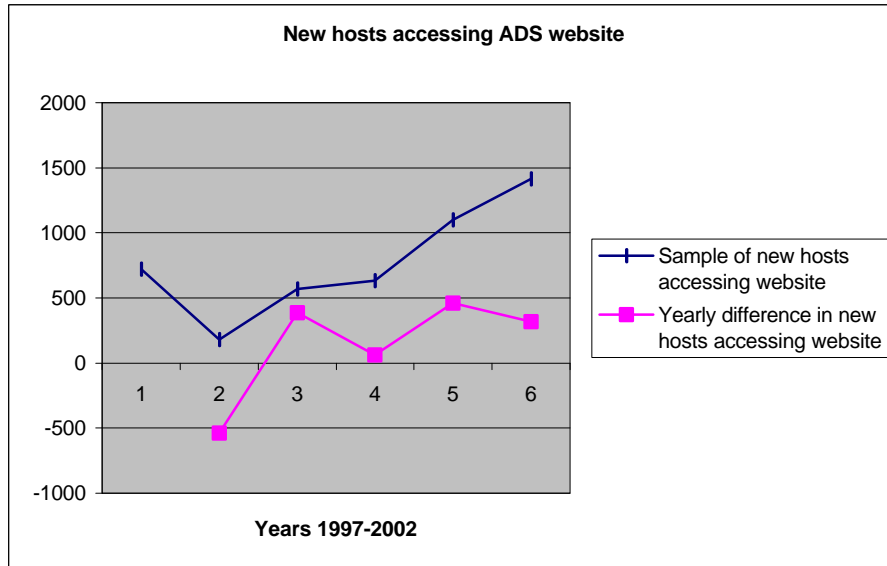
Page impressions			Distinct hosts		
Year	Page impressions	Yearly increase	Year	Distinct hosts	Yearly increase
1997	34445		1997	18810	
1998	26501	-7944	1998	8455	-10355
1999	282007	255506	1999	20976	12521
2000	652302	370295	2000	36731	15755
2001	937882	285580	2001	51559	14828
2002	1414552	476670	2002	69936	18377

However, by comparing the number of new hosts accessing the ADS over a period of time, an underlying trend is revealed. Table 3 shows that although the number of new hosts accessing the website continues to rise, the year-on-year increase has begun to fall. This appears to

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indicate a slowing in demand by new hosts which may in time be reflected by a levelling-off in the overall number of users of the website, even though those users may indeed be using the website more intensively, or for longer periods of time.

Table 3: Numbers of new hosts accessing the ADS website



Appendix D: Focus Group Briefing Paper

Two Focus Groups were held in order to explore issues relating to the usage of HEIRs and also to identify issues which might not be documented in formal evaluation material. The Focus Groups were held in York and London in order to enable attendance from a wide area of the UK.

The following briefing paper was distributed to individuals attending the Focus Group in order to provide them with background information about the project and to prompt their thinking about issues which had been identified in the initial review of material submitted to the project.

Historical Environment Information Resources: Users and Uses of HEIRs

Focus Group consultations

York, 18th July 2002

London, 22nd July 2002

Aims of Focus Group consultation

The Cultural Heritage Consortium are undertaking an analysis of existing evaluation material produced by HEIRs in order to identify and explore different user groups and the uses they are making of these information resources. Although we have a substantial amount of documented quantitative and some qualitative information about HEIR users and use, the Focus Groups will provide an opportunity to gather anecdotal and undocumented information about the users and uses of HEIRs. The aims of the Focus Group consultation are therefore to:

- inform the process of analysis of existing evaluation material from HEIRs
- develop a greater understanding of the users and uses of HEIRs from a qualitative perspective

Discussion areas

Through discussion we aim to explore the following issues in relation to each of the HEIRs represented at the meetings.

The scope and nature of the each of the HEIRs represented

Who are the target users of each of the HEIRs represented?

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Do target users differ between HEIRs, and if so, how and why?

Actual users of HEIRs

Do actual users differ between HEIRs?

Have user profiles shifted over time?

Has actual use impacted on the scope and content of HEIRs?

Assumptions about uses of HEIRs

What uses of HEIRs was envisaged at the time they were established?

How did this impact on the form and content of HEIRs?

Actual uses of HEIRs

How much about actual use is known?

How, if at all, have HEIRs explored actual use?

Are actual uses the same as, or different from, expected use?

Are type of use and purpose of use diverse, or focused in specific areas?

Non-users of HEIRs

Which user groups are not present, or are under-represented?

Have specific user groups been targeted or developed by HEIRs?

Under-use of HEIRs

Where are HEIRs not fulfilling their potential?

In order to prepare for the Focus Groups it would be helpful if HEIR representatives could take time to consider these issues in relation to their own HEIRs and, where possible, discuss them with colleagues not attending the meetings. If any documentation exists, however informal, which relates to these issues and which has not yet been submitted, please bring it to the meeting.

Alice Grant
Cultural Heritage Consortium
July 16th 2002