

SCIENCE MUSEUM
Visitor Research Group

Profile of the Museum's Website audience
Report 1: Pop-up survey conducted
6 August 2001

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Summary

- Overall the profile of the Museum's virtual visitors was strikingly similar to that of its physical audience.
- There were no significant differences between the virtual and physical audiences in gender, educational attainment, country of residence, geographical spread within the UK, or ethnicity of visitors.
- Like physical visitors, most virtual visitors are white, live in the UK (mainly in London and the South East) and have a high (i.e.graduate) level of education.
- Compared to their numbers in London and the South East, people from the Black community are under-represented in the virtual audience, while Asian people are slightly over-represented. Again this reflects the profile of physical visitors.
- The age profile of virtual visitors did differ significantly from physical visitors. Fewer children visit the Website than the physical Museum. Most virtual visitors (84.5%) are adults aged 19-59.
- Most of our Website visitors access the Internet from home or work.
- More than three quarters of virtual visitors are first-time visitors.
- Almost three-quarters of virtual visitors are looking for information about visiting the Museum.

INTRODUCTION

The following report details the results of the profiling of the Science Museum's virtual audience. The work forms part of a larger project to gain a detailed understanding of the demographic and psycho-graphic profile of our total audience – both physical and virtual. It is therefore run in conjunction with a survey of actual visitors to the Museum. Both Web and physical audience surveys will be run as longitudinal projects, so that we can build up a picture of fluctuations and changes in the profile over the coming years.

METHODOLOGY

The following report is based on responses to a short pop-up survey, which was posted on the Science Museum homepage on Monday 6 August 2001. Log data were also used to supply additional information on virtual visiting patterns.

A cookie was employed to discourage visitors from completing the survey more than once, and to avoid irritating regular visitors. However, a link was provided further down the site so that anyone who had initially closed the survey could go back and fill it in later.

Survey responses were collected in the course of one 24-hour day. The survey was available for the full 24 hours to avoid excluding users accessing the site at night or in different time zones. A total of 252 responses were collected, representing 5.5% of the 4600 visitors to the site during the 24 hours of the survey period.

While the pop-up survey dealt specifically with the Science Museum Website, the questions were closely linked to those used to profile the Museum's physical visitors. This allows us to compare the data and look at both physical and virtual visiting patterns.

The Web survey was developed in close collaboration with the Science Museum's Web Management Group. The demographic questions within the survey had been extensively piloted through prior use in the physical survey.

Note of caution

It should be noted that the survey was up on the Website for one day during the summer holidays. It therefore represents a snapshot of visitors at a particular time of year, rather than a conclusive summary of annual visiting patterns. The survey will be repeated during the autumn term, and at intervals throughout the year to explore seasonal fluctuations in visiting patterns.

The return rate of 5.5% represents a relatively high response rate for web surveys where return rates of 2% - 4% are standard. However, it should be noted

that the responses of the sample taken may not be representative of the total population of Web visitors.

Please note that the physical audience profiling data has only been collected for 6 months. Therefore figures quoted for the physical visitor profile below may alter once a full year's data has been included. The data given for physical visitors excludes school groups to allow the best comparison for the Web survey, which was taken during school holidays.

RESULTS

GENDER

There is no significant difference between the gender profile of Web and physical visitors.

Table 1: Gender profile of the Museum's Website visitors

Web visitors	%	Physical visitors (excluding school groups)	%
Male	51.2	Male	54.5
Female	48.7	Female	45.5
	99.9		100.0
missing 14			

AGE

This data showed the most significant difference between the profile of the Museum's physical and virtual visitors. A much smaller proportion of Web visitors were children under-11 (2.8% against 22.5% of the physical audience). A much larger proportion of the Web audience were young-middle aged adults aged 19-59 (84.5% against 60.6% of the physical audience).

Table 2: Age profile of Website visitors

Web visitors	%	Physical visitors (excluding school groups)	%
Under-11	2.8	Under-11	22.5
12 to 18	7.7	12 to 18	7.5
19 to 35	45.7	19 to 35	32.4
36 to 59	38.8	36 to 59	28.2
60 to 65	3.2	60 to 65	5.5
66 to 75	1.2	66 plus	3.9
76 plus	0.0		100.0
	99.4		
missing 7			

COUNTRY OF RESIDENCE

Web visitors are predominantly from the UK (80.3%). Only 19.6% of virtual visitors live overseas. This broadly matches the proportion of physical visitors from overseas. Overseas virtual visitors are spread over many countries, a pattern which is similar to that of physical visitors. 8.4% of virtual visitors live in Europe, while 6.0% are from North America. The USA is the other major single country from which people access the site.

Table 4: Percentage of visitors to the Museum Website by country of residence.

Web visitors	%	Web visitors	%	Physical visitors	%
UK	80.3	UK	80.3	UK	73.1
USA	5.6	Non-UK	19.6	Non-UK	26.9
Ireland	1.6		99.9		100.0
Germany	1.2				
Israel	1.2				
France	0.8				
Italy	0.8				
Sweden	0.8				
Argentina	0.4				
Belgium	0.4				
Canada	0.4				
China	0.4				
Denmark	0.4				
Greece	0.4				
Holland	0.4				
India	0.4				
Japan	0.4				
Malaysia	0.4				
N Zealand	0.4				
Poland	0.4				
Portugal	0.4				
Russia	0.4				
Spain	0.4				
Taiwan	0.4				
Thailand	0.4				
Netherland	0.4				
Vietnam	0.4				
	99.9				
Missing 3					

UK GEOGRAPHICAL SPREAD

A high proportion of the Museum's virtual visitors are from London and the South East (78.6%). This reflects the pattern among physical visitors.

Table 5: Geographical spread of Website visitors resident in the UK

UK Web visitors	%	UK Physical visitors (excluding school groups)	%
London and South East	78.6	London and South East	70.0
Other UK regions	21.4	Other UK regions	30.0
	100.0		100.0
Missing 4			

ETHNICITY

Bearing in mind that the majority of the virtual audience is from London and the South East, the proportion of virtual visitors from ethnic minority groups (11.6%) is comparable to that of the actual population in this area (9.9%)¹. It is noticeable, however, that Asian visitors are slightly over-represented in the Web audience (compared to their numbers in London and the South East), whereas black virtual visitors are under-represented. This pattern is repeated for the Museum's physical visitors.

Table 6: Ethnic/Cultural identity of Website visitors

Web visitors	%	Physical visitors (excluding school groups)	%	National statistics for London and South East ¹	National statistics for Greater London ¹
White	88.4	White	81.0	90.1	79.8
Asian	5.3	Asian	8.1	4.0	7.8
Arabic/mid-east	0.0	Arabic/mid-east	1.5	-	-
Chinese	2.0	Chinese	1.4	0.4	0.8
Black	2.4	Black	1.5	3.5	8.0
Mixed	1.2	Mixed	4.7	-	-
Other	0.0	Other	1.7	1.8	3.5
	99.3		99.9	99.8	99.9
missing 10					

¹Figures are from the Office for National Statistics, 1991 census.

EDUCATIONAL ATTAINMENT

The proportion of both Web visitors and physical visitors who have studied at Polytechnic or University level is very high compared to national figures. It is difficult to compare with national data exactly because of differences in categorisation. However, in 2000, only 12.6% of UK adults over 15 had finished their education when aged 21 or over (i.e. were probably graduates or post-graduates)¹. By way of contrast around 60% of both virtual and physical audiences are educated to Polytechnic/University level.

Table 7: Educational level of visitors to the Museum Website

Adult Web visitors	%	Adult physical visitors	%
School up to 18	17.6	School up to 18	24.5
Poly/University	60.0	Poly/University	58.0
Adult education/other	22.3	Adult education/other	17.5
	99.9		100.0
Missing 50			

¹ Figures are taken from National Readership Survey, January – December 2000.

Note: The quantity of missing data for this question on the Web survey was significantly higher than for any other question in the pop-up survey. Review of the missing data shows that it is made up mainly of adult UK respondents. It is not clear why this should be the case, though it is reasonable to surmise that this may be a sensitive or embarrassing question to answer.

EMPLOYMENT STATUS

The proportion of people in full time work is significantly higher for Web visitors than for physical visitors. There were no other significant differences.

Table 8: Employment status of adult (18+) visitors to the Museum Website

Adult Web visitors	%	Adult physical visitors	%
Full-time	61.0	Full-time	46.8
Part-time	8.8	Part-time	10.4
Self-employed	7.4	Self-employed	13.0
Unemployed	1.8	Unemployed	1.2
Perm sick	0.9	Perm sick	0.0
Disabled	0.9	Disabled	0.8
Student	14.8	Student	17.1
Looking after home/family	5.1	Looking after home/family	9.8
Retired	6.0	Retired	12.0
Other	1.4	Other	0.4
	108.1		111.5
Missing 10			

Note: Respondents could tick more than one answer to this question therefore the total percentages are greater than 100.

GENERAL PATTERNS OF INTERNET USE AMONG VIRTUAL VISITORS

Table 9: Where respondents usually access the Internet from

This question asked Website visitors where they *usually* access the internet from, not where they were accessing it from at the moment of answering the survey. Respondents could tick more than one answer, therefore total percentages are greater than 100.

	%
Home	77.8
Work	40.5
School/college	15.1
Internet café	4.0
Library	1.6
Other	0.0
	139.0
missing 11	

The above table suggests that a high proportion of the Museum's Web visitors are accessing the Internet from work (40.5 %). National statistics on where people access the Internet from show considerable variation. For example the figures for people accessing from work vary from 16%¹ to 37%². The findings for the Museum's Web survey are consistent with the higher figure.

¹ Figures are from 'Social Trends' National Statistics © Crown copyright 2001

² Figures are from the National Statistics Omnibus Survey, April 2001

Table 10: How often Website visitors use the Internet per week

	%
Less than 1 hr/week	5.0
2-4 hrs/week	38.1
5-10 hrs/week	30.5
11+ hrs/week	25.1
	98.7
missing 16	

Note: Website visitors were asked how often they used the internet each week. As well as giving an idea of general patterns of internet use among the Museum's Website visitors, this data can also be used as an indication of how 'internet-savvy' the audience is.

Table 11: Main reasons for using the internet in general

	%
General knowledge	76.7
E-mail	72.9
Travel & leisure	42.1
Hobby-related sites	42.1
News	37.5
Research (college/uni/tertiary level)	33.8
Shopping	28.8
Finance/business/banking	25.8
Fun/educational sites for children	24.6
Fun/educational sites for adults	24.6
Homework/school project	15.4
Job hunting	12.5
Preparing teaching material	10.0
Planning school trips	7.1
Other	2.5
	456.4
missing 12	

In this question visitors were given fifteen options to choose from. Respondents could select more than one option if applicable. Within the 'other' option, respondents were asked to specify their reason.

FREQUENCY OF VISITS TO THE SCIENCE MUSEUM SITE

The proportion of Website visitors who were first time visitors to the Museum Website, is very similar to the proportion of first time physical visitors (76.9% versus 78.4%)

Table 12: How often respondent visits the Science Museum Website

	%
First visit to the Website	76.9
Visit less than once/year	7.1
Visit 1-6 times/year	13.4
Visit more than 12 times/year	2.5
Visit more than once/week	0.0
	99.9
missing 14	

REASONS FOR VISITING THE SCIENCE MUSEUM WEBSITE

Table 13: What respondents were looking for on the Science Museum Website

	%
Information to help plan a personal visit	57.3
An overview of what's in the Museum	29.7
General information about science & technology	25.0
Information about new exhibitions	21.8
Online access to collections and exhibitions	14.2
Fun/interactive activities	14.2
Links to other sites & resources	8.8
Information about contemporary issues	5.9
Hobby or special interest	5.9
On-line shop	5.9
Information to help plan an educational visit	5.8
Material for use in teaching	5.4
Special on-line exhibitions	5.0
Research (college/uni/tertiary level)	4.6
Information for a homework project	2.9
Chance to comment about science issues	2.5
Staff contact details	2.5
Information about job opportunities	2.1
Follow up information after a visit	0.8
Other	4.6
	224.9
Missing = 13	

Respondents were asked to choose which of twenty possible options they were looking for on the Science Museum Website on the day of the survey. They could select more than one option if applicable, therefore the total percentage is greater than 100.

Within the 'other' option, respondents were asked to specify their reason. Of the 11 people who ticked this category 2 specified In Touch and 2 mentioned IMAX.

REASONS FOR VISITING THE SCIENCE MUSEUM WEBSITE (GROUPED BY TYPE OF MOTIVE)

Almost three quarters of virtual visitors were visiting the site for information related to visiting the Museum.

Table 14: Motive for visiting the Science Museum Website, grouped by whether these were visit-related, research-related, or 'other'

	%
Visit-related motive	74.5
Research-related motive	42.0
Other motive	21.2

Table 14 was calculated by grouping responses to the question 'what were you looking for on the Science Museum Website today?' shown in table 13 above.

Visit related motive

The variable 'visit-related motive' includes the options:

- Information to help plan a personal visit
- An overview of what's in the Museum
- Information about new exhibitions
- Information to help plan an educational visit
- Follow-up information after a visit.

Research-related motive

The variable 'research-related motive' includes the options:

- General information about science and technology
- Online access to collections and exhibitions
- Links to other sites and resources; Information about contemporary issues
- Chance to comment about science issues
- Information related to a hobby or special interest
- Material for use in teaching
- Information for a homework project
- Research (college/university/tertiary level)
- Special on-line exhibitions.

'Other' motive

The variable 'other motive' included the options:

- Fun/interactive activities
- On-line shopping
- Looking for job opportunities
- Looking for staff-contact details.

BACKGROUND INFORMATION ON WEBSITE USAGE FROM LOG DATA

Log data information

Detailed statistics on usage of the Science Museum's Website are collected via the log data. The following selected tables and graphs give useful background to the profile of the Museum's Website visitors. Please see <http://www.sciencemuseum.org.uk/usage/> for full statistics from the log data.

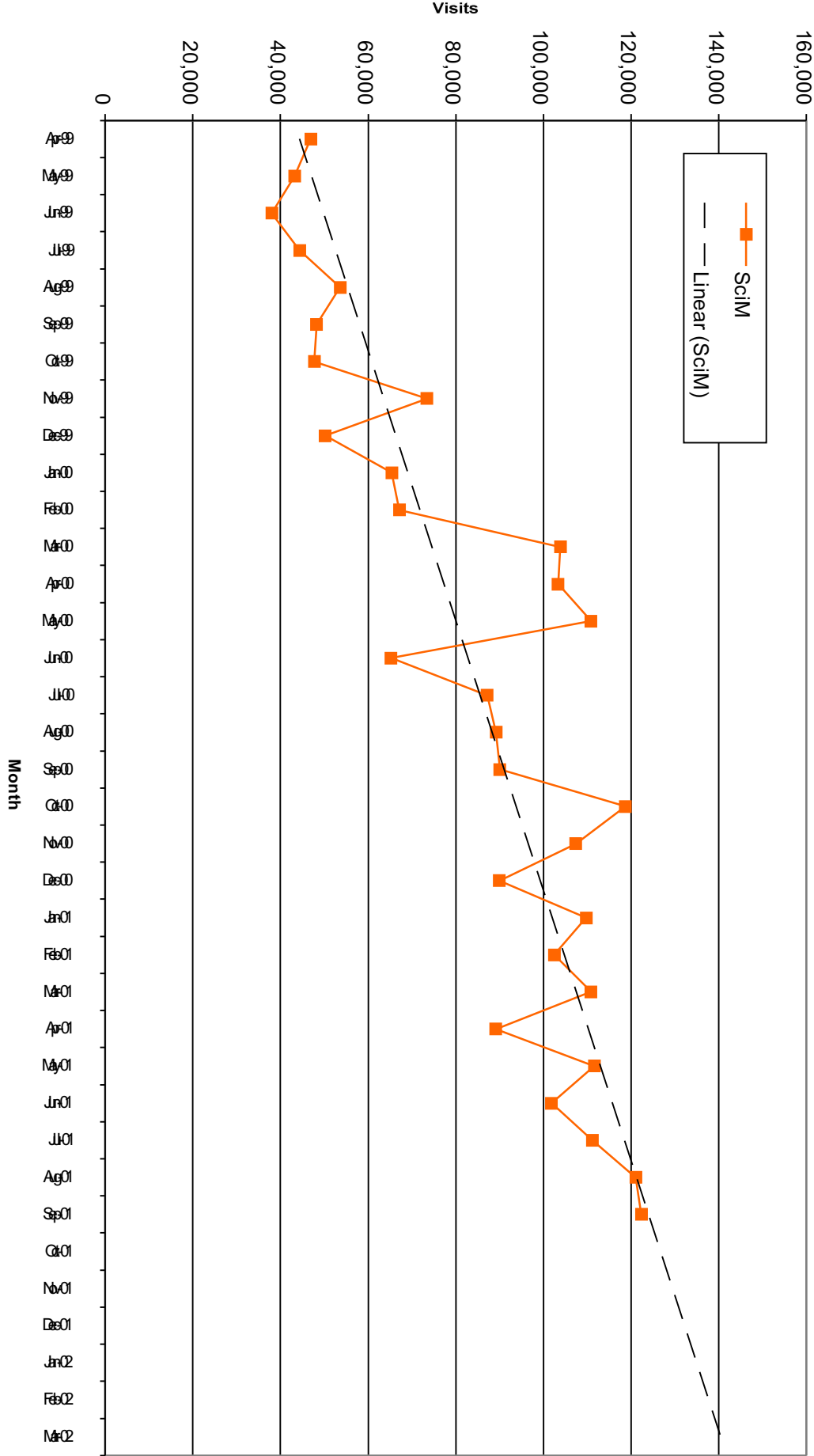
Table 15: Information on how the Science Museum Website is used, obtained from log data for 2000-2001

Annual no. of visitors to site	1,184,894
Weekly no. of visitors to site	22,500
Average no. of pages viewed / visit	6.5
Most common duration of visit (mode)	128 – 255 secs (2.1 – 4.25 mins)

Graph 1: Two-year visiting patterns

The following graph shows fluctuations in patterns of Website visiting over the past two years. It is difficult to interpret the individual peaks and troughs in the graph due to changes in collection methods. However, the overall trend is an increase in visitor numbers to the site.

Science Museum Website Visits 99-01



Note on search phrases

The log data also provides data on search phrases used to access the site from external search engines. This data provides interesting information on the sorts of topics users are interested in when they enter the site. An initial review of the data showed that a very wide range of search phrases are being used. A high proportion of these comprised combinations of the words 'science' and 'museum'. A detailed analysis of the search phrases would give an idea of the most common topics under which visitors enter the site. However, because of the amount and range of data, this analysis would need to be done separately to this report.

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