Supporting Data Users in a World of Changing Technology

Changing technology has created many challenges for today's data suppliers and this paper will begin with a brief introduction regarding recent technological changes. It will then go on to look at the role of the 'User Services' section in the UK Data Archive and how this has now been split to create a new User Support role before finally raising some questions as to the direction user services will be taking in the future.

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brought with it an increase in the number of enquiries dealt with by the User Services section. There has also been a disproportionately higher increase in queries from less experienced users, who require much more help and guidance than other types of users.

In order to provide an efficient service to users within the Archive's constrained resources it was decided to divide User Services into 'pre' and 'post' data delivery. Thus User Services staff now specialise in assisting users before they order data and offering support to users who have queries after their data and documentation have been delivered.

Introduction

We are all aware that technology has advanced rapidly over the last few years with a huge growth in dispersed computing systems, such as personal computers, and the use of the associated networking facilities especially the World Wide Web. Along with this has come a much wider range of software for use by PCs and changes in media for data delivery with CD-ROMS in particular becoming popular.

The following graph shows the media used for the delivery of data from the UK Data Archive between 1993 and 1997 and how it has changed over this period of time.

The UK Data Archive has seen the number of orders supplied increase significantly over the years. This has

Pre-order queries in the UK Data Archive

Two User Services staff focus upon enquiries before any data or documentation have been delivered. These tend to fall into the following categories of 'pre-order' enquiries:

- General information
- Ordering data
- The forms required and how to complete them
- The datasets held by the Archive
- The costs which may be involved
- The formats available
    - The media available
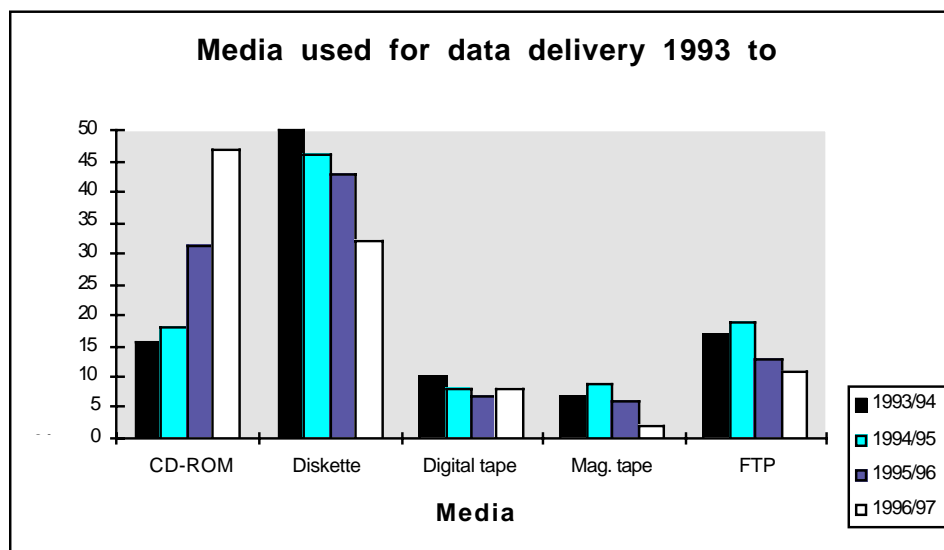
These sort of enquiries have been received by the Archive regardless of the technological changes that have taken place, but the detailed nature of these enquiries has changed as technology has changed.

Although there has always been a choice of media on which to receive data this choice has now expanded and users need advice on which would be most suitable for the dataset they are thinking of ordering. They may also ask about the formats in which a dataset can be delivered. Can it be converted to a format the user is familiar

Media used for data delivery 1993 to

Legend:
- 1993/94
- 1994/95
- 1995/96
- 1996/97

with? Will it be easily read by their favourite spreadsheet package?

These types of questions mean that User Services staff need to be knowledgeable about the various media that are available and the limitations of each. They also need to know more about the various formats appropriate for different data and whether the dataset can be converted to this format for the user. This means that it is important for User Services staff to keep up to date with changes in technology and that they should have an understanding of the various formats and media which are currently available.

Post-order' queries in the UK Data Archive.
'Post-order' queries tend to be more broader than other types of queries and often need some investigation to resolve. Therefore in order to provide a better 'post-order' service to the users of the Data Archive it was decided that one person should have responsibility for handling this type of query and take on a more supportive role. One of the advantages to users of this change is that they would have one key person to contact. This person has responsibility for ensuring that all queries received are dealt with directly or by redirecting them to the most appropriate person within the Archive.

If a query can not be answered by archive staff, and the data depositor needs to be contacted, then the post-order support person is also responsible for contacting the relevant depositor and also for keeping track of the progress of the query with them. The user is kept informed at all times of the progress of their particular query.

Examples of 'post-order' queries?

- "I'm having problems importing some export files from the CD you recently sent me. What should I do?"
- "I seem to have more categories for one of the variables in my file than there are labels. Could you tell me what this one means?"
- "Could you give me some more information about this variable, I'm not sure exactly what is included in it?"

The Queries Database
To enable queries to be tracked through the Archive and in order to ensure that we improve our service in future by learning from the queries we receive, it was decided that all of them should be logged into a database. As all the queries are channelled through one person, this person has responsibility for ensuring that all the necessary details are entered before being assigned a query number. This person is also responsible for initially examining every query and dealing with it when possible or deciding who is the most appropriate person to pass it to.

The database is accessible by all members of staff. This is to provide everyone with the ability to check the current status of any query and to enable them to add any relevant information they may have as to the current status of a particular query. This is particularly important if a query has been re-assigned as any relevant information must be added to the query so that anyone can find out the current status of it.

It was decided that a Microsoft 'Access' database would be used to record the information for each query. This was decided in part because other databases within the Archive were also to be written in Access, including the new order tracking system, and it would therefore be easier to link in any common information such as names and addresses. But what information should be recorded? Discussions took place with different members of Archive staff as to the use which would be made of the information recorded in order to determine the choice of fields.

The information recorded for each query is as follows:

- Date query is logged onto the database
- Name of person logging the query
- Name and address of person reporting problem
- Priority of query (assigned by the archive on a High, Medium or Low basis)
- Study number
- Order number
- Brief details of the problem
- Name of person to whom the query has been assigned

As more information is gathered regarding each query further comment fields can be added, which are also dated, thus allowing the progress of a query to be seen at any time. When a query has been resolved details of the resolution are entered. A brief note of any action that has been taken is also recorded, examples of which are:

- Referred to depositor
- Advice given
- Re-order entered
- Data re-acquired

A field containing a category relating to the type of query will be added shortly. This was not included when the database was designed as we wished first to monitor the types of queries we received. We have used this information in order to decide on a standard list of query types. A standard list will be used for analysis purposes in order to identify the types of problems we receive.

The queries database has been operating for the past seven months and the following graph shows the number of queries logged per month.

Advantages of, and information provided by, the queries database

Logging 'post-order' queries enables problems to be tracked, provides the Archive with information which can be used to enhance and improve the support given to its users, and also results in statistics on the performance of the Archive as detailed below:

■ No query is lost. As all queries are logged in one database none can be lost within the Archive as could happen if the query details are not recorded and passed on orally, or emailed, from person to person. The information is also being maintained in a database accessible to all staff.

■ Depending on the resolution to a query additional information may be needed to enhance the documentation for future users of that particular dataset. An example of this would be where a user has identified a variable with no variable or value labels. Once information has been received from the depositor this is added to the documentation supplied with that particular dataset so that other users do not experience the same problem.

■ The database also provides information on Frequently Encountered Problems (FEPs) as opposed to Frequently Asked Questions (FAQs)! By logging all queries it is possible to identify the types of problem users are having and enables us to make appropriate improvements to the Archive's services in order to reduce future problems. For example if a number of users are having difficulties reading files from CD-ROMs then perhaps there is a problem with the way they are being written, or the way a users' hardware or software handles CDs. Problems with extracting compressed files from floppy disks may be due to users not understanding the instructions they have been given, or possibly to inadequate instructions

provided by the Archive. These types of problems are investigated and action taken if it is thought necessary. The database allows a range of problems to be identified, monitored and resolved.

■ Particular datasets which result in a number of queries can also be identified. These could be examined further to see if there is anything 'peculiar' to these datasets. Perhaps they are only provided in a certain format and this is proving to be problematic for users. Alternatively these could be known to be difficult to use so perhaps additional documentation is needed to make them more 'user-friendly'.

■ Queries which have had to be referred to depositors can also be identified. This allows the Archive to identify which datasets have needed extra information from the depositors before they can be used more easily by the Archive's users. Hopefully this can assist us to improve the acquisition process for data in the future.

■ The Archive can also identify which of its users repeatedly report queries! Perhaps some users need more support than we can reasonably provide and we might involve local organisational representatives to assist them.

Using the information provided by the database
As mentioned above, a vast amount of information can be gleaned from the queries database. But how can the Archive use the information obtained effectively?

Creating additional notes to be added to existing documentation has already been mentioned, however perhaps this information should be made more widely available. Perhaps we could utilise the Archive's Web pages more effectively to distribute information. These would be accessible by everyone and could be promoted as a place to look to first before contacting the Archive. This may also be particularly useful for datasets used by a large number of users in several countries; the IMF databank, supplied by ICPSR for example. These pages would have to be organised in such a way as to enable users to find the information which was relevant to them quickly and easily, but would be effective in providing information to a large

Number of queries logged in database

Month
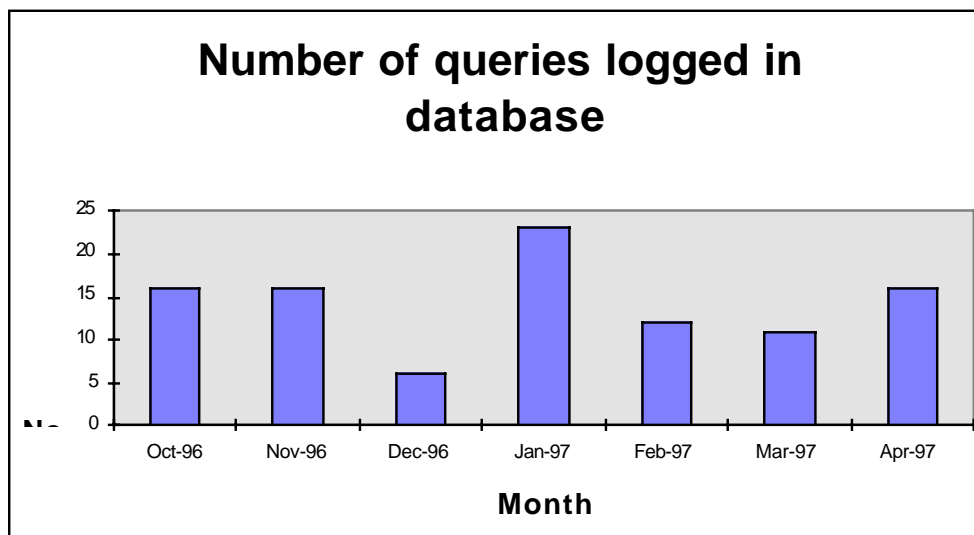
number of people.

The Data Archive could link additional useful information to the BIRON (our on-line catalogue) entry for a dataset. Users who are using a particular dataset could then look at the relevant part of BIRON and see if there is any new information relating to that study. However it is important that any information relating to a dataset is also included with the main documentation supplied with the data. Users should not have to have to check different web pages for vital information necessary for analysing the data which have been supplied to them. It should also not be forgotten that some users do not have access to the World Wide Web, but are entitled to the same support as those that do!

The future?
What type of service will data suppliers be offering in the future? Will all data formats and media be available for users or will availability be limited? Just how much support should be given once the data has been delivered? What is a reasonable amount of time to spend on one query? Should this time be limited and should a charge be made for the help given? These are questions which I think will become important in the future.

Should this support be monitored? It has been argued that it takes longer to log a query than to answer it! In some cases this is true **but** I believe the information which can be gained by monitoring queries received far outweighs the time taken to record the details. So much can be discovered about users and the problems they have which can be used to make sure that we, the data supplier, provide them with a good support service and so ensure that as a data supplier we do indeed have a future!

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