

**REPORT ON THE 1989/90 FIAF COMPUTERISATION SURVEY  
for the Cataloguing Commission Symposium at the  
1990 FIAF CONGRESS, HABANA, Cuba**

*[This report was prepared by Roger Smither of the Cataloguing Commission, but will be delivered in his absence by Jon Gartenberg. Would whoever is chairing this particular session of the Symposium please be sure to express my very great appreciation for Jon's helping out in this way - it is never particularly easy to present someone else's work and I (Roger) am very grateful to him (Jon) for this assistance.]*

It will be remembered that the FIAF Cataloguing Commission has carried out two previous *Studies* on the usage of computers for film cataloguing - the first in 1979 and the second in 1985. As soon as the terms of reference for this symposium were established, it was decided that it would be useful background to update the Commission's awareness of the current standing of computer usage in film archives with a further survey. The Commission wishes to encourage, through such outlets as this Symposium generally or this survey and its report specifically, the sharing of knowledge and experiences of computer usage among FIAF archives, so as to spare new entrants into the world of computing as many as possible of the dangers of "re-inventing the wheel" and other costly mistakes and to provide them with case histories of successful computerisation for their reference and guidance.

For the purposes of the survey, a questionnaire was prepared during the summer of 1989 and copies were sent by the FIAF Secretariat to all members and observers of the Federation during the autumn. Recipients were asked to return completed questionnaires by the end of the year; a covering letter stressed that replies would be welcome from all archives, including those with no immediate interest in or plans for the use of computers for cataloguing. A reminder was sent to member archives from whom no reply had yet been received in late January 1990. Replies were analysed for the preparation of a report during February, with every effort being made to incorporate late replies as they came in: the report was only "closed" to late replies at the end of March. The full text of the report has so far been printed only in a limited number of copies circulated to the Commission and the EC - it is hoped that it will be published for circulation to members and observers from the Secretariat in Brussels over the next few months. Meanwhile, this presentation will summarise some of the major findings. ~~[The replies to the questionnaire have also been summarised for use in a visual display around a map of the world to be displayed in the Congress centre.]~~

Replies were received from 57 members and observers of the Federation (out of a total of 83), as well as a reply on behalf of the Secretariat of FIAF itself. This figure - 58 out of 84 - represents a response rate of almost 70%, which is a good achievement for any kind of survey. The Commission is extremely grateful to all colleagues at FIAF archives who found the time to prepare replies.

Compared to its predecessors, this survey most conspicuously reveals the rapid growth in familiarity with and usage of computers during the 1980s among the archives associated with FIAF. ~~[TABLE 1]~~ The first *FIAF Study on the usage of computers for film cataloguing* (1979) contained reports from 7 archives, describing active computer systems for cataloguing or the generation of printed catalogues. The second *Study* (1985) received replies from 8 archives describing systems in use and a further 20 archives which stated they were planning the introduction of computers over the following five years. The present survey almost certainly does not include replies from all archives that are involved in computer projects, but it still shows 45 archives using computers and a further 9 planning to do so. In other words, the trend to computer

usage continues, at an accelerating rate, to the point where an absolute majority of FIAF archives are computer users.

There is a change in methods of access to computers which is as marked as the tendency already noted to greater usage overall. ~~TABLE 2~~ In the previous two studies, archives with access to their own computers were very much in the minority and processing by an outside agency was normal. Now a large majority of respondents use their own computer or have free access to a "parent" organisation's machine; of those at the planning stage most also indicate an intention to run the system in-house. The present study also appears to indicate that no FIAF archive is now wholly dependent on paid-for bureau services for all its computing - a position that was certainly not true five years ago. Not only are the majority of FIAF archives computer users; most of them are computer owners as well.

This growth in computer use and ownership obviously parallels the development of the micro-computer, which offers an affordable entry into computing. Of the 45 archives reporting computer usage, most had Personal Computers or networks of PCs (~~TABLE 3~~). ~~(The figures in the table add up to more than 45 because of the number of respondents reporting on more than one system, but the overall trend is reasonably clear.)~~ The questionnaire asked for details about hardware configurations, and archives' replies are included in the main report ~~(and in the summaries of individual replies included in the "World Map" display)~~. Technical details are not included in this verbal presentation, however, as they do not make for exciting listening. ~~One exception to this statement, perhaps, is the question of how many computers, workstations or terminals an archive is likely to have access to. This is summarised in the next figure [TABLE 4].~~

The fact that computerisation in many archives - as revealed in the size and numbers of computers installed - is still on a relatively modest scale may be cause for some concern. The Cataloguing Commission believes that cataloguing an archival film collection to a proper standard is a major commitment and will require major resources; an "entry level" PC makes possible a start on this task, but is not likely to be sufficient to see it through. This is a problem likely to become still more acute if the computer is used for tasks other than cataloguing. Although the primary interest of the Commission was in the usage of computers for cataloguing, the questionnaire did ask what other uses archives were making of their computers. ~~The replies are summarised in the next figure [TABLE 5] - although cataloguing is the greatest single use, it may be inferred that in some archives cataloguing could be competing for computer resources with other activities. Archives should not assume that the first computer they acquire will be~~ ~~questionnaire was a number of archives outlining their proposed future expansion.~~

To look on the bright side of this particular issue, it should also be observed that the prevalence of the IBM-compatible PC does offer an "entry level" capacity for data sharing. Although it is not a very sophisticated method, a simple "floppy disc" holding simple "ASCII text" files generated on one IBM-compatible personal computer can be read on virtually any other PC in the world using the same standard. Roger Smither and Michael Friend have demonstrated the physical possibility of this form of primitive data exchange (dubbed by someone "Frisbee-net") in the exchange of information on HELL'S ANGELS between the NAMID database at the American Film Institute and the Imperial War Museum. It is a small start on the road to international data sharing, but have we not all been expressing the hopes that computerisation would facilitate information exchange? Here at last is something like evidence!

headvitalis  
wish to perform

adequate for  
the activities  
they wish to  
perform

Turning specifically to the issue of computer cataloguing systems, the survey again showed some interesting developments since the two previous *Studies*. It was characteristic of the usage of computers reported in 1979 and 1985 that there were few if any common patterns to be traced in the decisions archives had taken. This is not a fact that should cause any great feelings of surprise; FIAF archives operate in such a wide range of environments, have such different levels of resources available to them, and have such a variety of detailed goals and targets within the overall brief of the preservation of film culture that it may be expected that they will use different methods, procedures and systems. Indeed it will be remembered that the principal reason why the Cataloguing Commission has in the past rejected suggestions that it endorse a single computer product was the feeling that the problem was too complicated for a single solution to be appropriate. *\*for all archives* The Commission's policy has been that the standards applied in cataloguing are of far greater importance than the specific procedures used to implement those standards, and the Commission has therefore concentrated on the elaboration of the *Rules* which Harlet Harrison has just presented to you.

Overall, the position has not changed greatly in the latest survey. With 42 archives reporting their usage of computers for cataloguing ~~(TABLE 6)~~ there are 27 different software packages named by respondents. The difference between these figures does, however, mean there are some slight signs of common trends emerging. Three packages are each named by two archives and two packages are named by over five. One of these is Ashton-Tate's range of "dBASE" programs, which is something of an "industry standard" for the development of database applications on personal computers; the other is UNESCO's CDS-ISIS or MICRO-ISIS, which was named 8 times by users and once by a "planning" archive. *developin* [This package will be the subject of the next presentation at this symposium.] The popularity of CDS-ISIS is of course linked to its promotion by UNESCO, which has offered it gratis to archives in ~~less developed~~ countries. Nonetheless, CDS-ISIS has obviously established itself as an important force in FIAF archives, and although the Cataloguing Commission still feels the endorsement of a single product is not an appropriate step for it to take, there would now seem to be value in users of the package considering the establishment of a specific FIAF Users Group to exchange experiences, share information on problems and lobby jointly for agreed enhancements to the package. ~~This may be an issue which users of this software could pursue later.~~ Other details about software in use for cataloguing is included in the full report ~~(and in the "world map" display already referred to).~~

The issue of Users Groups - or of support for computer systems generally - was the subject of a further question in the survey. The answers revealed that as many as one seventh of archives - 6 out of 42 - had no form of support available to their usage of computers at all. ~~Since the business of film archives should be film archiving rather than software development and maintenance, this seems to be a rather alarming statistic.~~

The Cataloguing Commission took the opportunity offered by the questionnaire to update ~~its~~ knowledge about a few other aspects of cataloguing at FIAF archives. One question asked archives which outside standards they observed in cataloguing. ~~(TABLE 7)~~ of the 44 archives that answered this question almost two-thirds said that they were using the FIAF Cataloguing Rules (although about one quarter of this category were doing so with some qualification). Other widely-used outside reference points include MARC, the *Anglo-American Cataloguing Rules*, and the ISBD. Fewer than one fifth of respondents said they observed no outside standards. ~~The Cataloguing Commission may feel gratified that its message has got across so successfully.~~ A very similar proportion - 28 out of 41 - reported ~~(TABLE 8)~~ that they had or were developing in-house cataloguing rules.

The survey also asked how many staff at archives were involved in cataloguing. Replies were characterised by anxiety that they should not be interpreted in too favourable a light - respondents stressed that staff involvement was part-time, and so on. The average number reported (~~TABLE 8~~) was around 5, but 10 archives reported that they had only one staff member involved in cataloguing - a response which the Commission finds considerably less gratifying.

Another question asked archives to indicate from a list of options the way(s) in which researchers use the information in archive catalogues. It was of interest to note (~~TABLE 4~~) the continuing reliance on "hard copy" versions of the catalogue data (paper, cards or microfiches) and the caution with which respondents are approaching the possibility of allowing researchers direct access to data files. Note also that 14 respondents either gave as their total reply, or included as a qualification to their other replies, the statement that the system was still "under development - not enough entries for real use".

The final sections of the survey provided in many ways the most interesting replies. Archives were invited to list, in their own words, some of the benefits which they felt computerisation had brought or might bring to their operations, and some of the problems inherent in computerisation or obstacles making computerisation difficult. 46 archives listed at least one perceived or anticipated benefit and almost the same number mentioned one or more problem or obstacle. These comments are reprinted in the full report, but an attempt will be made to convey the ~~flavour~~ <sup>essence</sup> of them here.

(summarise) Chief among the obstacles or difficulties perceived by archives were policy, organisational or financial constraints imposed from the archive management or from outside; typical comments read "inadequate upper management support for implementation of system" and "need full support of administrators to implement, maintain and upgrade system". A linked area of concern was that of adjusting to higher costs overall: this was well-stated by the respondent in Buenos Aires who wrote "for a small archive the introduction of computers means entering into a new category of fixed costs (even not using the computer is costly); also every software house incurs cost overruns in the development phase".

Another frequently-mentioned problem area was that of staff - remarks about the need for staff training, about staff unwillingness to work with computers, and about simple shortage of staff were all common. Typical comments include (from the Steven Spielberg Archive in Jerusalem) "extensive work time required for learning hardware and software"; (from Harare) "in the initial stages automation occupied staff time fully - [you] must be prepared to drop other duties for a period"; (from Lausanne) "resistance to specialisation; fear of radiation and other effects"; and, to summarise (from Roma) "the introduction of computers makes the whole work, methods and procedures become quite different; it is very important to foresee and to plan the changes, otherwise one could be overcome by them".

A further group of statements covered the difficulty of finding computer software - or computer consultants - able to help with film archive problems; the colleague in Warszawa describes this problem well when he writes of the "lack of experience of the archivists in computer problems - lack of experience of computer specialists in archival and film problems". This sort of problem continues into statements about support and maintenance - voiced in almost identical words by colleagues from Istanbul, Pune, Quito, Sao Paulo, Sofia and Tehran. Several archives also reported specific technical problems, whether with the software - including the inability of much software to sustain the range of languages important to an international film culture - or with the hardware,

or with the general environment: unreliable power supply (noted by four respondents) can cause havoc in a database application.

Finally on the "problem" side, mention may be made of data-related problems, which are concentrated in two categories. First is the area of terminology control, the realisation that computers may impose more rigorous standards of consistency on cataloguers and indexers than was the case with manual procedures. Thus our colleague in Stockholm wrote "the computer doesn't give you any free time - the input must be more carefully done than with an old fashioned card system; variations in spelling are a problem if you don't use authorized name forms" or in the words of the respondent in Beograd "every inconsistency in our old cataloguing system presents itself as a huge problem in the process of software development". The other data-related problem is of course the sheer volume of data to be entered - as Reykjavik said "entering all the data is very time consuming".

I have considered this range of reported problems and obstacles because I feel it is important to approach the topic of computerisation in a mood of realism, not of simple optimism. I shall, however, attempt to leave you on a more positive note by looking finally at the benefits of computerisation which archive reported or hoped for in the survey.

(summary)

The largest single group of perceived benefits related to improvements in efficiency in the catalogue service generally - typical remarks included that from Helsinki "up-to-date on-line information about the items in our collections - now we can know what we have" or from Mexico - UNAM "it speeds up the access to information contained in catalogues of the archives for researchers and general users". More specifically, respondents pointed out that the use of computers improved access to catalogue information both by providing access to several copies of the data (or to several screens on-line to the database) and by providing more access points or index-type routes into the information held. Sample comments include (from Berlin - SFA) "entering the information only once and using it in different ways" or (from Los Angeles - UCLA) "the most up-to-date version of the file is instantly available to users in our three widely-separated locations, as well as to dial-up users".

Several archives noted greater efficiency at the cataloguing as well as at the research stage - for example Montreal "to rationalise operations by means of mechanisation of clerical duties; to reduce and even eliminate delays in cataloguing films and other parts of the collections" or Canberra "more efficient and faster recording of data". Another area of improved archival functioning was in the handling of technical records or data on the movement of film; this was expressed, among others by Sofia - "to assist in the physical control of the collection" - by Jerusalem - "better control of film movement" - and by Ottawa - "improved control of holdings".

Broader horizons were mentioned by some archives, in the context of integrating film with other collections, of sharing data with outside organisations, or publishing data through computer-generated catalogues; thus "co-operative cataloguing with other departments" (London - NFA); "parity and standardisation with other collections in France" (Bois d'Arcy) or "to establish a regional information network" (Montevideo); and "makes holdings more known to users through computer-generated publication" (New York). It must be admitted, however, that there were few of these comments compared to those relating more to in-house benefits.

What lessons do the combined replies summarised in this report offer to those who are just embarking on projects of computerisation? On the whole, the impression is

optimistic; such archives will be in good company, with more than half the other archives in FIAF sharing their experience, and with a generally positive attitude towards it. There are notes of caution to be struck: computerisation projects require levels of investment, of hardware resources, of staffing and of organisational commitment rather greater than what seem to be at the disposal of many archives; the more experienced users would also warn new entrants against the assumption that computers initially make the archivist's life easier. Neither the task of data entry and the question of adjustment to the new work patterns associated with computerisation should be under-estimated. Above all there remains the problem that film archivists will not find it easy to obtain the help and most suppliers of computer systems - archives will not find it easy to obtain the help and support they need to achieve a successful implementation. Computerisation projects should therefore be embarked on slowly, with as much pre-planning as circumstances will permit. In the proper circumstances, however, the target is clear and attainable: in the words of the reply to the survey from FIAF's own secretariat "fantastic gain: of time and facility of research".