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ONLINE ORDERING: REPORT OF A TRIAL

BY THE QUEENSLAND INSTITUTE OF TECHNOLOGY LIBRARY

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INTRODUCTION: THE LIBRARY

The article reports the methods and results of a trial by The QIT Library of the IDAPS Acquisitions System, specifically for items ordered from James Bennett Pty. Ltd. Hardware problems at Bennetts precluded test of comparative speed of delivery of electronically placed orders but the library reports a clear reduction in order preparation time and an excellent hit rate for bibliographic data on the LYNX and ABN databases viewed as a composite resource.

The Queensland Institute of Technology (QIT) is the central institute of technology for Queensland. Situated in the heart of Brisbane it has seven faculties enrolling something over 9,000 student bodies in science, technology, business and law courses.

From the late 1970s onwards the Library has had a consistent acquisitions programme supporting the Institute's course requirements. Like other colleges of advanced education, it did not have a well endowed initial collection, indeed it was worse off than most CAEs in this regard, and, as with other collections with heavy emphasis on science and technology, there is very little spending margin to develop 'general' collection strengths.

From 1983 to 1985 the average number of new titles ordered was just over 7,000 per annum. By the end of 1985 the average price of a book ordered by the Institute Library was over $40. A significant proportion of library book supply has come from James Bennett Pty. Ltd. Over the same three year period approximately 30% of orders filled were filled with this supplier.

Accordingly, with the advent of the IDAPS LYNX/LION Acquisitions system in late 1985, it was resolved to trial the placing of a certain number of orders during the 1986 budget year, using the IDAPS software and
planning to utilise a machine readable interface between James Bennett and IDAPS. This trial duly took place from early May to early August 1986. The Orders staff at QIT used a Hazeltine Esprit terminal and 1200 BAUD modem to access the IDAPS computer on AUSTPAC.

Aims of the trial

The primary aims of the trial were:

- to investigate the online ordering functions of the IDAPS LYNX/LION acquisitions system.
- to determine the effects of online ordering on in-library order preparation.
- to evaluate the acquisitions software in terms of Q.I.T.'s inhouse requirements.
- to determine the effects of online ordering with regard to supplier performance and delivery time.
- to identify coincidence of records in the LYNX database and the ABN database.

Description and findings

Online ordering: There were two main issues with regard to using the IDAPS system for online ordering. Firstly, the level of success in finding suitable records on the database for the purpose of ordering; and secondly, whether there were any noticeable time savings in using the online system as opposed to the existing manual system.

In selecting orders for the trial, there were some restrictions caused by using only James Bennett. Nevertheless, U.S., U.K. and European imprints were deliberately included for the purposes of the trial. If the publisher appeared on James Bennett's "pink list" of Overseas Imprints (in particular, their Daily Order Service), then the order was included in the trial.

Purchase requests were also placed from a cross section of Q.I.T. academic departments. The disciplines covered, included applied science, the built environment, business studies, computing studies, engineering, health science and law - in all of which the Institute has Schools.
The **LYNX database** at the time of the trial consisted of Trade Data, Library of Congress files and cataloguing data from other sources. The major contributors of the Trade Data included Baker and Taylor, James Bennett Library Services, and Whitaker. Both Bowker and the Australian Antiquarian Book Services were added quite late in the trial.

As can be seen from the results in the table below, there was a consistently high hit rate throughout the trial for Trade Selections, falling in the range of 67% to 79% (mean = 75%). The Trade coverage therefore provided a relatively high success rate.

<table>
<thead>
<tr>
<th>MONTH</th>
<th>TOTAL RECORDS TRANSFERRED TO QIT ORDER FILE</th>
<th>TRADE SELECTIONS</th>
<th>CAT. SELECTION</th>
<th>NEW BIB. RECORDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>May</td>
<td>242</td>
<td>190 (79%)</td>
<td>49 (20%)</td>
<td>3 (1%)</td>
</tr>
<tr>
<td>June</td>
<td>277</td>
<td>219 (79%)</td>
<td>50 (18%)</td>
<td>8 (3%)</td>
</tr>
<tr>
<td>July</td>
<td>173</td>
<td>116 (67%)</td>
<td>32 (18%)</td>
<td>25 (14%)</td>
</tr>
</tbody>
</table>

Table 1: INCIDENCE OF RECORDS ON DATABASE

One enhancement added during the trial which should perhaps be noted here, was the "Record Date Display". That is, the actual date the record was created or last modified, or in the absence of the supplier's date, the date the record was loaded to LYNX. This is extremely important when costing items and influences the selection of the most appropriate record.

**Acquisitions software**

Some of the major functions available in the IDAPS Acquisitions system include - Creating an order (NORD), Enquiry (ENQU), Recording receipt (RECT), Completing an order (COMP), Cancelling an order (CANC), Recording supplier response (RESP), Reinstating an order (REIN), Changing an order (CHNG), Chaser adjustment (CHAS), Supplier file creation and maintenance (SUPP).

Certainly all the functions listed above appeared to meet the needs of Q.I.T., with minor problems occurring from time to time. For example, a longer fixed field would be required on the Order Screen for Q.I.T. order numbers. Also, keying in of Supplier Codes was considered quite
labour intensive - a problem which would no doubt be resolved once responses are able to be downloaded.

Q.I.T. was particularly interested in the Fund management and reporting functions. Fund Management appeared to perform the functions which Q.I.T. had identified before the trial as essential. These functions were:

1. ability of system to record spending against Schools' allocations, with separate funds for each department (i.e. 25 funds - 4 categories of spending within each) and 8 categories of Library spending;

2. the ability to maintain records of commitments, expenditures and balances for all funds;

3. the ability to provide totals for commitments, expenditures and balances for the total acquisitions vote;

4. the automatic adjustment of the appropriate fund commitment following creation of an order;

5. the automatic decommitment of the order, and adjustment of expenditure after entry of invoice price on receipt;

6. automatic decommitment against the appropriate fund, when an order is cancelled;

7. provision for an alert when a fund reaches a predetermined limit. It must be possible to override this limit so as to make overcommitment possible;

8. adjustments to total acquisitions vote 'allocations' and fund 'allocations' should be possible.

A foreshadowed enhancement is to be able to enquire on FUND online using truncation, which would provide greater flexibility in fund information.

REPORTING mechanisms are still in the design stage. Currently available are:

- Expenditure Analysis - by Library/Fund.
  Includes fund name; amount; expenditure: this month/year to date; outstanding commitment: this month/year to date; items received; average cost per item: this month/year to date.
- Expenditure Analysis - Orders by Fund.
  Includes fund name; order numbers listed; corresponding commitments and expenditure for the month; number of items; and fund totals.

- Expenditure Analysis - by Library/Supplier.
  As for (i) - by supplier.

- Expenditure Analysis - Orders by Suppliers.
  Similar to (ii) only listed by supplier.

Preparation of orders for despatch: online vs manual

Having identified the incidence of records appearing on the database, a further measure was to determine any time savings in preparing orders for despatch using the online facilities as opposed to existing manual procedures.

Two separate procedures were measured. The first involved verifying the bibliographic details of a purchase request.

Five samples of 20 requests were checked using both manual procedures and the LYNX/LION System. Online checking involved enquiring via LYNX; if matches were found then selecting the 'best record'; and transferring this record to our file. Transferring may have included the necessity to update the record first if errors were highlighted. Also, selecting the most appropriate record often involved scrolling through screens of data.

Manual checking procedures usually require two stages. If the purchase request is received with accompanying publisher's information which is current and lists a price, then there is no need to check further and the order is placed. If there is no accompanying information attached, then the usual bibliographic checking tools are consulted (eg. Books in Print, British Books in Print, etc.).

From the sampling, it was found that: (1) there was greater variability in the manual results, with the time taken to check 20 requests bibliographically falling in the range of 35-55 minutes (Mean = 45 minutes; and (2) using the LYNX/LION system, the checking time for 20 requests was consistently 45 minutes (with adjustments for AUSTPAC congestion), and a mean of 2.25 minutes per request.
From this there appears to be little separating the two approaches. However the following qualifications should also be taken into account in any comparison:

- the nature of "difficulty" of the request in terms of verifying bibliographic data. For instance, if the request is accompanied by a New Title Announcement from a publisher, then the manual checking time required is minimal. However, the usual sequence of steps has to be followed on the online system.

- the response time of the system will influence the results.

- familiarity with the system, particularly in a trial, will also exert an influence.

- when transferring records, the need to update or correct any errors highlighted before the transfer is accepted, will lengthen procedures. For example, incorrect tags on subfields are highlighted by the system and require editing before the record will pass validation. Further, if using an existing record as close copy, it may be necessary to input edition statements and expand or edit publication details.

The second procedure measured was typing, allocating order numbers and committing orders.

The average time required to process batches of 20 orders manually was 65 minutes.

Using the LYNX/lion system, the average time required was 46 minutes a saving of approximately 20 minutes per batch of 20 orders.

An additional benefit was that the orders were being sent electronically and not by Australia Post. One reservation here is that institutions should try to obtain a commitment from suppliers to clear their mail box expeditiously. Otherwise, the advantage of sending orders electronically is lost.

Delivery time from point of ordering to accessioning

The intention during the trial was to ascertain any benefits (time-saving) in sending orders electronically to suppliers. Unfortunately, Q.I.T. Library did not receive any orders initiated on the LYNX/LION system for the duration of the trial (i.e. 3 months). This was apparently due to the various hardware problems James Bennett were experiencing with their new system.
It therefore proved wise to place 100 "Dummy Orders" (orders already placed with James Bennett prior to the trial) - a decision made at the outset of the trial. This made it possible to test the Receipting, Supplier Response and Funding functions. Due to the small volume of orders received, no measures were taken with regard to time savings for these procedures.

Incidence of records appearing LYNX vs ABN: A comparison

The 544 items for which orders were placed were checked in the ABN as well as the LYNX database. The result - a tie - is detailed in Table 2 below.

<table>
<thead>
<tr>
<th>NO. OF RECORDS</th>
<th>ABN</th>
<th>LYNX</th>
<th>BOTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOUND</td>
<td>482</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOUND ABN NOT LYNX</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOUND LYNX NOT ABN</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOT FOUND</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL ORDERS PLACED: 544
HIT RATE ON BOTH SYSTEMS: 98.16%
HIT RATE ON EITHER SYSTEM: 93.38%

Table 2: Incidence of records in LYNX and ABN.

Note that the 26 records "not found" on LYNX are not the same 26 records "not found" on ABN. It is coincidental that the result happens to be 26 in both cases.

It is envisaged that once ABN offers a gateway to the IDAPS online ordering system, there may be the possibility of transferring records from one system to another if both hosts agree. As can be seen, the hit rate would be extremely good.
CONCLUSION

In terms of the original aims of the trial the following conclusions were drawn!

- the online ordering functions of the IDAPS LYNX/LION system were in general terms appropriate to QIT's needs. Some reporting functions were untested.

- Online ordering, because of the structure of the software, and the kind of material ordered by QIT, did not have a significant impact on bibliographic checking time. However, it virtually halved order preparation time.

- The acquisition software, given the proviso above concerning reporting functions, was generally suitable for QIT's requirements.

- The effects of online ordering on supply performance and delivery time were not tested as hoped, for the reasons given in this report.

- The coincidence of records in the LYNX database and the ABN database was not tested in terms of identical records hit rate, but the extremely high hit rate for all records on both systems was an important finding of this trial. The hit rate on both systems was 98.16%.

Perhaps inevitably after such a short trial we have laid another curate's egg. The most interesting findings are, firstly, a clear reduction in order preparation time, and secondly, an extremely encouraging hit rate for bibliographic data on LYNX and ABN viewed as a composite resource. However, the sample was small, and the time savings must be set against the cost for using the system.

QIT remains uncommitted at this point, although at the time of writing, James Bennett has taken steps to integrate orders with its database using the BISAC standard. (For the QIT trial, it was re-keying orders.)

It is worth recording that the trial concluded well before the major staff changes at IDAPS. Liaison between QIT and IDAPS was via Mary Bays, and between QIT and Bennetts' Andy Dakers.