

From Database-Production to an On-Line Catalogue

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Danish Library Bureau

The Danish Library Bureau (Bibliotekscentralen) is a non-profit organization that has served Danish libraries since 1939. It all started with a centralized production of printed cards for public libraries.

The development from typesetting to photocomposing took place according to the technical inventions. In the late 60' punched cards were used to produce not only shelf-list cards, but also sets of cards. At the same time discussions about exchanging the printed cards with book-catalogues took place.

A computerprogram constructed for the British National Bibliography was bought and implemented in Denmark after a lot of improvements. So in 1975 the building of a bibliographical database started.

The mainpurpose was to store data which should be used for the Danish National Bibliography, union catalogues, printed cards, and many other purposes.

During these 10 years we have developed a lot of different programs for all sorts of hard-copy-catalogues, and the database is still used for a lot of products that are sold to Danish libraries.

In 1983 the database was opened for on-line-access, and to-day about 20 municipalities are searching this nationwide database.

The database is called BASIS and contains approximately half a million items: books, records, sheetmusic, av-materials. The facilities of the database means that we are offering a far better service to the libraries, but also we have to cope with the problem that the necessity for the bibliographies and catalogues will reduce.

FROM DATABASE-PRODUCTION TO AN ON-LINE CATALOGUE

THE DANISH LIBRARY BUREAU

The Danish Library Bureau has two main departments

- 1) The Bibliographical Department
where we compile the Danish National Bibliography of books and of articles. Besides we have specialised departments for the cataloguing of books, recorded music, sheet music and av-materials. Here the records are supplied with information and annotations of importance to the public libraries.
- 2) The Publishing Department
where we have the editorial department which is responsible for the editing and compilation of catalogues and a great number of public relations materials. The production department is an ordinary printing shop with photocomposing, printing machines and laserprinter.

190 persons are occupied in The Danish Library Bureau, and it has an annual turn-over of about 7.000.000\$.

Most of our customers are public and school libraries, but our service is available to all. We are trying to sell our know-how outside Denmark, and we are running a major computer project at the University of Monterey in Mexico.

PRINTED CARD PRODUCTION

It all started back in 1939 with a centralized production of printed cards for public libraries.

Printed card from about 1940 made by ordinary type setting

<p>Fausing, Karl Vejledning i Kurvemageri. Arbejdsgange og Beskrivelser med Illustrationer. Kbh. Nyt nordisk Forlag, 1937. 715.ill.</p>	
<p>62.97.20 - T. - Kurvemageri</p>	<p>n7. 1.76</p>

Printed card from the 60's made by typewriter and offset-production

<p>81</p>	<p>Bull, Francis Verdenslitteraturens historie. Ny udgave. 3. oplag. Cyl- dendal, 1966. 314 sider. (Cylendals Uglebøger, 34).</p> <p>Overset fra norsk af Karl Hornelund efter: Verdenslitteraturens historie.</p>
<p>81-Litteraturhistorie-t</p>	<p>66 49 43 16,75</p>

Printed card from the 70's made my photocomposing

<p>BEAT/FOLK</p>	<p>GRAMMOFONPLADE</p>
<p>Sebastian Tusind og en nat / Sebastian med Jan Sivertsen, Morten Kærst, Jens Rugsted, Nils Henriksen, Lis Sørensen, Mehmet Ozan ... et al. Medley MdLP 6200. - Stereo ; 30 cm.</p> <p>Indspillet i København 1984. Tekster på inderside. Indhold: Scheherazade ; Manden i båden ; Hodja fra Pjort ; Natens enter ; The greatest story ; Ivan & Sam ; Datasangen ; Aladdin ; Da morgenen kom ; Dans med mig.</p>	
<p>78.794:5</p>	<p>381 354 1 kr 99.00 (84 44)</p>

Printed card made on a laserprinter

<p>01.63319</p>	<p>Arbejderbevægelsens Bibliotek og Arkiv Arbejderbevægelsen i Danmark - historisk og aktuelt. - 2. re- viderede udgave. - Udgivet af DASF i samarbejde med ABA, 1973. - 35 sider.</p> <p>Litteraturlista.</p>
<p>01.63319-01.63226-32.26-33.19-mechudg(- Dansk Arbejdsmands- og Specialarbejder- Forbund)-t + ABA + DASF</p>	<p>137 474 3 (84 43)</p>

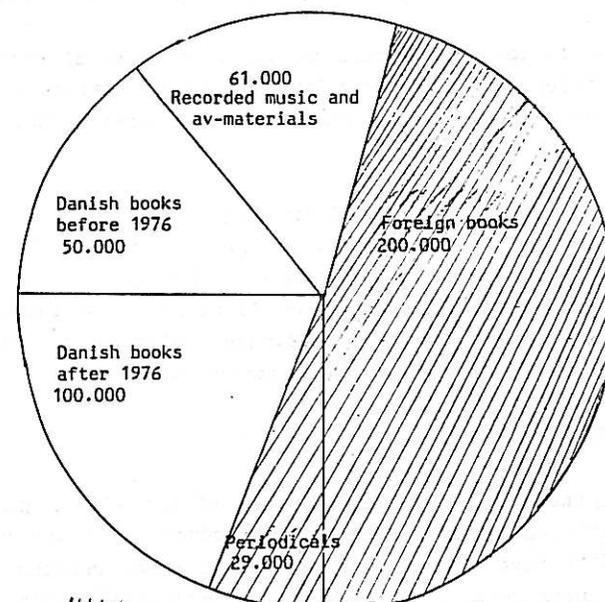
About 200.000 copies are printed each week.

Although there are differences in the way the cards appear, you might say that there has been no real development through all these years. Still behind the cards you can trace the use of the new technology. The first two examples were made the hard way by typing and retyping the full text, but with the development of the new photocomposing systems using punched cards or tapes, it was possible to re-use text already typed once. This meant that we not only were able to offer cards for the shelflist but also fully addressed sets of cards for direct use in the card catalogue. This method was also used for making big union catalogues where we had drawers of punched cards containing the text and where the cards had to be rearranged and converted into punched tape to get the final product.

In the 70's it became clear that databased production would mean great savings, as the Library Bureau was reusing the same bibliographical data again and again for a its many different products. We went to the British Library, that had a computer system for making the British National Bibliography. We learned a lot from their experience and together with the Danish municipal computer agency, Kommunedata, we made up a database system for online cataloguing and catalogue-production.

THE DATABASE

The main purpose was to store data which should be used for the Danish National Bibliography, union-catalogues, printed cards and many other purposes, and in 1974 construction of the database was started. The database now contains about 500.000 records, and it grows with about 50.000 records a year. Besides the Danish National Bibliography of books, it covers foreign books bought by public libraries, sheet music, recorded music and av-materials.



////// = unioncatalogue with locations. 1/2 of the foreign titles only exists in one library.

The format used is an adoption of the Marc-format, danMarc.

```
nr. 1  opret.dato: 820901  ajour.dato: 830412  ejer: 0999  kat.type: 1
001 00/0 *a 0 581 899 0
004 00/0 *b a*c s*f 0
008 00/0 *a f1982*b dk*I dan
021 00/0 *c Hf.*d enkeltexemplarer kr 25.00*d abonnement kr 80.00
245 10/0 *a Vandforsyning i landdistrikterne*e redaktør: Jannik Boesen
260 00/0 *a Kbh.*d Ny Kongensgade 9, 1472 K*b Center for Udviklingsforskning*c
1982
300 00/0 *a 109 sider*b ill.*c 22 cm
440 00/0 *a Den (220)ny verden*v 1982-1*v 16. årgang nr. 1
530 10/0 *a Indhold: Vand til Den tredje Verden ; Vandplanlægning i Sri Lanka
; Vand og sanitet i Tanzanias landdistrikter ;
Drikkevandsprojekters betydning for kvinder i afrikanske
landdistrikter
532 00/0 *a Bibliografi: side 96-104
652 00/0 *a 69.84
700 10/0 *a Boesen*h Jannik
d09 00/0 *e TKD B23B*u KKB 8301
```

The online cataloguing system of the Library Bureau consists of about 40 microcomputers combined in two networks.

During the following 10 years we developed several different programmes for all sorts of hard-copy catalogues and the database is still used for a lot of products that are sold to Danish libraries.

The products are all delivered directly on magnetic tape to be put directly to the photocomposer, the laserprinter or microfiche equipment. The programmes are even used for special services for some greater libraries. For instance we are delivering a complete catalogue system on microfilm and microfiche to the libraries of Copenhagen.

EXTENDED USE OF DATA

Very early we found out that the use of the microcomputer would enable us to make still more products from the same data. You'll have to consider that we are not running the database ourselves. It is run by the computer agency and so, we naturally have to pay for the output, we receive.

So we gradually have made up an integrated system of different microcomputers that enables us to make very specialized products.

As an example we produce a formula which is sent weekly to the libraries telling them, what new books have been published. The form can be used for ordering printed cards and even the material and is used for acquisition purposes. We are doing such sets for the different kinds of materials.

106 **A IBC 8540 625 446 2** 19.68 **A IBC 8540 625 446 2** 19.68
 Hillman, Howard: Computer-køberens checkliste / oversættelse: Bengt Munk Hansen ; fagkonsulent: Kurt Friis Hansen ; redigeret af Karin Erbstein og Pearl De Francesco. - © Frederiksund : Thorsgaard, 1985. - 140 sider ; 21 cm. - (en brillant bog fra Thorsgaard). - DC 19.68. - ISBN 87-48165-23-0 h. : kr 98.05.
 Originaltitel: Macmillan complete computer buyer's checklist. - PA omfatter: Vejledning for køb. - ISBN 87-48165-23-0 h. : kr 98.05.

BOGBESTILLING		Antal	
Een bestilles hos INDENRINGSCENTRALEN			
Betalingsnr.	IBC-kode/år	IBC-titel	Antal
	PR 12.70	01.11.85	
	- moms	15.11.85	
Bognummer/år			

19.68 **A IBC 8540 625 446 2** 19.68 **A IBC 8540 625 446 2** 19.68
 Hillman, Howard: Computer-køberens checkliste / oversættelse: Bengt Munk Hansen ; fagkonsulent: Kurt Friis Hansen ; redigeret af Karin Erbstein og Pearl De Francesco. - © Frederiksund : Thorsgaard, 1985. - 140 sider ; 21 cm. - (en brillant bog fra Thorsgaard). - DC 19.68. - ISBN 87-48165-23-0 h. : kr 98.05.

KORTBESTILLING		Antal kort	
Een bestilles hos INDENRINGSCENTRALEN			
Betalingsnr.	IBC-kode/år	IBC-titel	Antal kort
	PR 12.70	01.11.85	
	- moms	15.11.85	
Bognummer/år			

* IBC-lygger lægger automatisk 1 hybridkort på pl. hnd. ©



MONOGRAPH ORDERING
BST

CHECKING / VERIFICATION
LEIKA

MONOGRAPH CATALOGING
MON-KAT

AUTOMATED ID-NO
 AUTOMATED SHELF-MARK
RECHNEN

PERIODICAL ACQUISITION
 PERIODICAL CATALOGING
JOURNAL

PERIODICAL BUDGETING
ZAFINKO

SERIES
ERINSER

BINDING
ELBA

NEW ACQUISITION LIST
LAUNE

BUDGET CONTROL

EASY

**ESSEN
 AUTOMATED
 SYSTEM**



BEAT/POLK		GRANNOFORPLADE											
Sebastian Tusind og en nat Madley MdLP 6200													
CS.													
<table border="1"> <tr><td> </td></tr> </table>													
<small>1964 - 1965 U.S.</small>													

Card delivered together with the material made on a normal daisy-wheel printer.

Romaner

Auel, Jean M.
Hæstens Del. Samleren, 1983. 546 s.
Cro-Magnon-pigen Ayla er blevet udstødt af klanen og må sikre overlevelsen på egen hånd, indtil hun møder en af sin egen art.

Arguedas, José María
De dybe floder. Centrum, 1983. 266 s.
Handlingen udspilles i Peru i begyndelsen af 1900-tallet hvor en dreng på 14 år på rejser rundt i landet med sin far oplever diktatorrets brutale undertrykkelse af indianerne.

Beckett, Samuel
Dårligt set dårligt sagt. Brandum, 1983. 48 s. B.
En fæntaal om en ældre kvinde, der oplever tilværelsens totale meningsløshed inden døden.

En skræmmende fremtidsroman i dagbogsform om, hvordan en engelsk kvinde sammen med nogle få andre mennesker overlever en atomkrig. Efter 11 måneder i beskyttelsesrummet vender hun tilbage til en verden, der er guld, sølv og mennesketom.

Bundgaard, Ole
Birgers aften. Attika, 1983. 74 s.

Carter, Angela
Den nye Evas lidelser. Gyldendal, 1983. 214 s.
Grotesk, fabulerende fremtidsvision om en ung mandshauvinist, som på sælsom vis forvandles til kvinde og bliver en ny tids Eva.

Chase-Riboud, Barbara
En kvinde fra Virginia. Forum, 1983. 285 s.
Historisk roman om kærlighedsforholdet gennem 38 år mellem negerslaven Sally Hemings og USA's 3. præsident Thomas Jefferson.

En med en sydafrikansk mulat, de sidste 4 år bosat i Afrika. Han rejser til Dakar, Senegal, i politisk særinde, hun følger efter, uden at tale.

Ekstrøm, Margareta
Kvinden som rejste med Montaigne. Vindrose, 1983. 119 s.
Om en godt 30-årig kvindelig journalist og hendes opbrud fra ægteskabet. Ind i romanen er flere små brudstykker af forfatterens dagbog og citater af den franske filosof Montaigne.

Evtusjenko, Evgenij
Mor og neutronbomben. Af Jevgenij Evtusjenko. Sputnik, 1983. 77 s.
I et langt fortællende digt bringer forfatteren, med udgangspunkt i sin egen opvækst, et indblik i fred med bud til folk og vest.

In the same way this is a catalogue of talking books for one of the county libraries.

Hvidt, Kristian

• Danske veje vestpå. Indlæser: Eilse Munch-Petersen. 8 k. i 2 m. 32.61

En skildring af de kår, der lokkede danskerne til USA i det 19. århundrede, og de forhold, de forlod.

Juristjournalen. Redigeret af Chr. Trøning. Nr 1 (1979) —. 34.05
Tidsskrift.

Schierbeck, Ole

• Danske mordgæder. Indlæser: Kaj V. Andersen. 5 k. i 1 m. 34.31
Dokumentariske beretninger om 16 uopklarede mordsager fra perioden 1916-1970.

Read, Piers Paul

Togrævene. Det store kup set indefra. Indtaling: Torben Thune. 8 k. i 2 m. 34.38

Bernardini, Albino

• En lærers dagbog. Indlæser: Ebba Nørgaard. 6 k. i 1 m. 37.1
En ung italiensk lærers dagligdag med en barsk 3. klasse, som på forhånd er opgivet af resten af lærerstaben.

• Vores fælles børn?. Har vi en børnepolitik?. En debatbog. Redigeret af Inge Fischer Møller. Indlæser: Ebba Nørgaard. 3 k. i 1 m. 37.2

Thomsen, Sigrid

• Tre triste aber. Indlæst af Jytte Jordal. 6 k. i 1 m. 37.77
Den læsehæmmedes situation, bl. a. ud fra forfatterens personlige erfaringer som ordblind.

Vanfarebladet. 4/80 —. 38.705

• Beretningen om de vidtberømte mølboer og deres vise gerninger og tapre bedrifter. Dem til ære og andre

List of new books for the Copenhagen municipal libraries, where the data come from the database on the titles being reported from the acquisition department.

Every month we are delivering prints on new books of interest to the University Library of Copenhagen. The information is delivered on forms to fit in their routines. In the same way we are making subject lists of new books for some periodicals.

Date	Accession date	Place/number	
Leverandør	Titel	Ex.	Innb.
<p>Business has many faces / udgivet af Kirsten Bonde, Jytte Olsen. - 2. udgave. - Herning : System, 1985. - 90 sider : ill. (89.3-61).</p> <p>ISSN 87-7351-295-8 hf. Faustnr 621 766 4. Uge 8526</p>			
<p>Universitetsbiblioteket 1. Afd.</p>		<p style="text-align: center;">  Lisbeth Grubb Waentz Fiolstræde 1, Postbox 2201, 1018 Kbh. K </p>	

The next step will be to do experiments with the ordinary catalogue products delivered on floppy disk together with search facilities for microcomputers.

This extension of the use of the database can be seen as the result of our wishes to save internal costs, but also to offer individual solutions to new customers enabling us to sell more data, which helps to cover the expenditures for maintaining the database.

BIBLIOTEKSDATA

In 1977 Biblioteksdata was founded, a cooperation between The Library Bureau and Kommunedata among others. The purpose was to secure the implementation of library computer systems in Denmark. The goal is to offer the Danish libraries a complete automation system using the information of the big database for the systems for acquisition, cataloguing and lending. The modular concept has been built up in order to give the libraries a free choice of the extension of the computerisation.

BASIS ONLINE

In 1983 the database, now called BASIS, was opened for online search. Whereas the production database is an IBM mainframe the online system is run on a different Danish computer, the programmes also being developed in Denmark.

Today about 50 municipalities have online access to the database. The search facilities in the database means, that we are now offering a far better service to the libraries but also, that we have to cope with the problem that the necessity of the printed bibliographies and catalogues will decrease.

It is obvious to all that online access to a database gives

the user much better possibilities of getting the information he wants far quicker.

After a lot of opposition to the computer in the library, it now seems as if all have been convinced of the benefits we can have from the online search.

I will not bore you with details about the system as in many ways it looks like many other systems: You can search for authority names, titles, materials. You can reduce search in the database selecting publisher, publishing year even the standardised catalogues normally used in Danish libraries.

You also can make your own database within the big database by telling the system what the definitions of your own database should be. In this way you will be able to get rid of a lot of noise, you don't want.

Of course, you can use the Boolean operators and the whole system is a wordsearch system, in which you can combine, truncate all the information, which is not only the simple bibliographical data, but also the annotations made especially at The Library Bureau for library purposes, including subject search, not only by means of the decimal classification number, but also by means of subject entries.

HOW TO MAKE ENDS MEET

As mentioned before the libraries using the online access no longer need to buy the national bibliography or the union catalogues, which formerly was among the products securing the income of the Library Bureau. We must foresee, that within some years the libraries will no longer have the needs for printed cards, and so we shall have to find a new way to cover the costs.

Fortunately Denmark is a fairly small country and the Library Bureau, practically having a monopoly, has been able to make a completely new financial model. Up till now the libraries have been buying printed cards and catalogues paying per copy the production costs as well as the cataloguing labour. So products sold only in a small number of copies could be rather expensive.

Therefore we wanted to change to a system, in which the price per copy should be lower, only covering the production costs. The expenditures for the library cataloguing which is about half a million dollars, has been divided by the total number of inhabitants in the country. So if a library wants to get the benefits and possibilities of the computerised system, they will have to change to this new way of paying.

At the same time we reduce the price of the hard copies they buy.

One third of the municipalities had a standard (measured by the number of bought bibliographies and other services) up till now which meant that they would be able to save money joining the new system. One third was very close to the average, and one third will have to pay more in the future for the services. For the latter we have offered a gradually raise in payment through 6 years to get to the same level as the rest. It might be added, that upon the whole, the system has been accepted from as well politicians as

librarians.

Customers of the online search system, that are not municipal libraries, will be charged an amount equivalent to the payment of the hard copy version of the Danish national bibliography.

HOW TO CUT PRODUCTION COSTS

The technical development is used in order to cut the starting costs of the traditional offset printing method. That is the reason why we have bought the Rank Xerox laserprinter. A laserprinter can print one or 300 copies at the same price per copy, as the costs are only the paper and the printing time. In order not to make the changes too big, we have considered that the quality should be the same as the libraries get today, and we therefore have used a lot of money to get the same types on the laserprinter as we have on our photocomposer. So our customers will hardly be aware, when we change from the traditional production to the laserprinting. In this way we hope, that we will be able to maintain most necessary products to a fair price for those libraries, that will not get an online system in the near future.

At last I should mention, that within the next six months we should give online access to our database of indexed articles and during the next years we intend to store many other bibliographies in an online database for public use as we already have these data on magnetic tape or floppy disks.

OCLC Europe:
bibliographic database services for catalogue conversion

David Buckle
OCLC Europe
Birmingham, United Kingdom