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Introduction

The library sector is facing great challenges. The extensive digitalisation of information and cultural heritage demands a rethink of the role of libraries in society. The ways in which people access information and their cultural habits have changed radically in step with digitalization, new communication platforms and mobile technologies.

To meet tomorrow's challenges, libraries are developing new ways in which to communicate, new forms of cooperation and organization, as well as new business models and are entering into new partnerships. The Danish Digital Library is on the agenda.

DBC is an acronym meaning The Danish Library Centre, and the goal is - via our Open Library Strategy as well as the joint library development community called TING - to support libraries in this development process, and DBC expects to be one of the principal organizers of tomorrow's national library service for citizens.

The new DBC

In 2011 the publisher Gyldendal and the Municipality of Copenhagen left the DBC group of owners - which now consists of KL (LGDK - Local Government Denmark) and the Danish State, who are also the principals in the coming national project, the Danish Digital Library.

The core tasks of DBC are the bibliographical and systemic infrastructures called DanBib (the Danish Union Catalogue for libraries) and library.dk (the Danish Union Catalogue for citizens), which are operated and developed by DBC. Together with national bibliography and cataloguing aimed at library users, they are the cornerstones of the national tasks of DBC.

The New Paradigm for Meta-data

Libraries have an increased focus on dissemination via the internet. This transformation towards digital servicing of users with download and streaming services on the web, may be expected to create some services with content levels which are too large to index via traditional library cataloguing procedures. In order to meet these new challenges to the overall cultural dissemination of physical and digital works by the libraries, DBC has established a data-well, in which many different types of meta-data are collected, structured, homogenized and cross-referenced in order to enrich and supplement traditional cataloguing efforts.

So far, this well has only supported dissemination at a local level. With the migration of bibliotek.dk to well-technology, it will be possible to exploit the possibilities of the well at national level. However, this requires that the task of collecting, processing and maintaining the many types of meta-data must be anchored at the national level.

In 2011, under the title 'The New Paradigm for Meta-data', DBC worked to consider cataloguing aimed at library users as a product in a new way, where the product, in addition to DBC's own indexing, would also include the collection of meta-data from digital sources which
are relevant to libraries, such as music, film, e-books, etc. By extending this kind of cataloguing with the progressive collecting of meta-data, the foundation of the libraries for the dissemination activities of tomorrow will be ensured via joint funding. DBC is striving to keep the development of library cataloguing within the current financial framework for the product.

The New Systems Paradigm

Building on the Open Library Strategy, DBC has within the last few years worked on migrating its large business systems to open source and to a service-oriented architecture. DBC is a member of the joint library development community called the TING Concept Community. The open source development which is the result of DBC Open Library Strategy, manifested in the migration of DanBib and bibliotek.dk, is then made available for reuse of this community. In this way, DBC is adhering to the new systems paradigm in the public sector. These overall conditions allow for system components to be reused and integrated into other systems. The benefits to the public sector are therefore greater possibilities, sharing of resources, less parallel development, greater efficiency and improved profitability.

The activities of DBC in 2012

Development of partnerships

DBC is developing partnerships and providing knowledge-driven products and solutions which have been enriched via these partnerships with libraries, other cultural institutions and other knowledge-based enterprises which demand our services. In 2011, DBC focused on the following partnerships:

TING - Ting.Concept.Community

DBC's involvement in TING is comprehensive. The activities include participation in the professional and general activities of the community, as well as the specific development and sharing of software and development results. It was in 2011 that TING really underscored its viability via the transition from consortium to community, while comprehensive support from libraries and vendors has illustrated the development potential of the model itself. In 2011, DBC has been involved in cell phone development, Drupal open source development, well development, a Q&A platform etc., and has contributed in this area to the development and commitment to teams which constitute the framework of TING. http://ting.dk/

These development results are for the good of the entire library sector. DBC will develop and publish TING software under Open Source in accordance with the values which the community is built on.

From the beginning, DBC has attached crucial importance to the fact that TING represents a completely new form of cooperation. The structure of the community is based on the creation of networks, and the institutions which are financing and providing resources for the
development, also have influence. At the same time, it is also absolutely essential that all activities are linked by a common set of values, which promotes sharing, cooperation and development. Therefore, TING is a modern bid for a more general model for cooperation and innovation within the public sector, which also allows for the participation of the private sector. http://ting.dk/content/code-conduct

The Danish Film Institute

DBC has had a long-standing partnership with the Danish Film Institute. Together with digitizer Norgesfilm we have created the bibliographic and systemic infrastructure of Filmstriben (the libraries' digital film streaming service) for the dissemination of short films & documentaries from the Danish Film Institute, supplemented with quality third party feature films for libraries, schools and other public institutions. In 2011, Filmstriben has been enhanced with more films and consequently has acquired several institutional customers.

Index data

Index data, a Danish-American company with core competency in search engines, has been a strategic partner and subcontractor to DBC for many years. In 2011, a strategic cooperation was established for the development of "universal search". This search engine which allows simultaneous search in many external sources.

Inlead

Inlead is a digital communications company, which sells products and services for archives, libraries and museums. Currently, Inlead is the largest supplier of discovery systems in Denmark, and want to expand to Scandinavia.

In 2011, Inlead has entered into a delivery partnership with DBC, where selected DBC services complement the products which are sold by Inlead.

Bibliographical development

The new metadata paradigm means that DBC has strategic focus. Therefore, a number of development projects are in progress, which have as their objective to qualify citizens’ access to information, knowledge and experiences.

Amendment to the National Bibliography Agreement

In 2011, the former Agency for Library and Media and DBC concluded an amendment to the National Bibliography Agreement concerning the regulation of the inclusion of net documents in the National bibliography. With this agreement, additional types of material are included in the National bibliography, where the indexing of electronic and physical magazines is now given equal status, for example. Due to the nature of the internet, in some areas the intention of the amendment is not full integration, but representative recording. Read more about the amendment on the website of the Danish Agency for Culture: http://www.kulturstyrelsen.dk/nyheder/nyhedsarkiv-styrelsen-for-bibliotek-og-medier/singlevisning/artikel/flere_netressourcer_i_nationalbibliografien/
**Bibliographic development projects**

In 2011, DBC has been working on a new model for authority data, e.g. conventional forms of names, where these are removed from bibliographic postings to appear in separate authority postings with cross-references between these and the bibliographic postings. Forms of names have been selected as a pilot area for the deployment of this new model, and the new model is expected to be implemented during the first six months of 2012. The preliminary implementation of the model will be internally at DBC. In case of external demand, we will implement it in DBC products following a dialogue with the stakeholders. In 2011, DBC has initiated preparations to enter into the international VIAF (Virtual International Authority File) - a cooperation for the exchange of authority data.

Linked open data is a hot topic. In 2011, DBC has built up knowledge in this area and worked to make national bibliographical data available in the form of linked open data. The expectation is that linked open data publishing of national bibliographical data will be in operation during the first six months of 2012.

RDA (Resource Description and Access), which is the successor to the widely-used cataloguing rules AACR2, have been published and tested in the United States. In 2011, the former Agency for Library and Media and DBC cooperated to carry out an initial analysis of the demand for clarifications in order to be able to make a decision regarding the introduction of RDA in Denmark. A task force has now been set up under the aegis of the Bibliographic Council, charged with the task of establishing a genuine basis for decision-making regarding RDA.

DBC uses the common Danish DKABM format for data exchange between archives, libraries and museums in the data well, and in 2011 made a proposal for adjustments to the format. This has led to a revision of DKABM and DBC has implemented the new version in the data well.

**New data model in the well**

In 2011, DBC has established a new data model for well. The preparation of the model was the result of the migration of DanBib and bibliotek.dk to well technology. The implementation of the model in the data well was initiated in the 2nd. half of 2011, and will be completed in 2012. The main objectives of the new data model are better support of shared catalogues, also among research libraries, as well as to allow for the sharing of metadata for e-resources and to establish structures for the breakdown and storage of meta-data at work and edition levels. Read more about the new data model here: [http://www.danbib.dk/index.php?doc=datamodel_ny](http://www.danbib.dk/index.php?doc=datamodel_ny).

**The development at system level**

**Migration of national systems**
DBC has started the migration of DANBIB and bibliotek.dk towards a Service Oriented Architecture, called SOA. Simultaneously, systems and platforms in an Open Source environment are being established. These two efforts secure that joint solutions can be used and reused in new ways by libraries and others. This also means that essential elements of DDB, the Danish Digital Library, will be implemented via the migration of DANBIB and bibliotek.dk.

A number of elements of the migration have been developed, and this will continue in 2012 and 2013.

In 2011, the key component, which is the data well, has been consolidated and reinforced, and the road to national migration demonstrated via a large number of libraries using the data well and the associated search engine. The data model for the relationship between local and national levels has been determined, and the implementation of the model has been initiated. The data well is accessed with an integrated search system. In 2011, a platform named Universal Search was established, which also supports search in sources, databases and systems which are outside of the data well. This allows for users to access the sourcing options of libraries in several ways.

The platform for the handling of lending between libraries, ILL or Inter Library Lending, was expanded in 2011 to a level where the interaction between local library systems and national shared solutions are carried out in compliance with general standards in this area. Simultaneously, the development of SOA-based functionality was initiated, and this is expected to be completed in 2012, so that libraries can create user interfaces which take full advantage of national functions.

In addition to these major platforms, a number of other components were established in 2011 which are required for the complete migration.

**Development method**

*DBC Agile and development in Scrum*

In 2011, DBC introduced a SCRUM-based development model, under the heading "Better - faster - more fun". SCRUM is an Agile method that allows for development to be continually adapted to change and to demand changes while having a strong focus on deliveries to customers. We have such good experience with this method of working, that we are now going a step further and establishing so-called Cross-functional teams.

In all projects, a Business Case will be created as the basis for team work, which establishes the financial and resource framework for the project. Release plans will be prepared in which functionality and timetables are taken into account.

The actual development will take place in a test driven environment, where the individual system modules are fully tested and ready for operation when they are delivered for release. With a clear separation between development, testing and operation, a better basis for delivering operational and robust solutions will be created.
National products

DanBib in general

User survey
In 2011, a user survey was carried out of DanBib, Netpunkt and Zpunkt, showing that there was a demand for a number of informations and functions which already existed. We have therefore introduced a so-called "Tip of the Week", where we write a blog posting on an existing function or data type, which may have been forgotten. We have received positive responses to this, and will continue in 2012. However, the study did not reveal important or previously unknown user needs.

WorldCat
In continuation of the Deff (academic libraries’ service) project named "Danish Libraries in WorldCat" a coordinating group was established to handle overall and future cooperation with OCLC (Online Computer Library Centre). The coordinating group includes The Danish Agency for Culture, The State and University Library of Aarhus, The Royal Library and DBC. General cooperation with OCLC concerning WorldCat is handled within the framework of DanBib. The cooperation includes the reuse by Danish libraries of bibliographical data from WorldCat and the ability of public libraries to search in WorldCat for the purpose of ordering via The State and University Library. In addition, the cooperation encompasses the upload of the majority of national bibliographical data to WorldCat, so that both Danish and foreign users via the end-user interface of worldcat.org, will hit the correct title in bibliotek.dk in so far as this is possible - and are guided in the further process. Simultaneously, all Danish public libraries which are localised in bibliotek.dk, will automatically become members of OCLC. DBC will send extracts from the VIP database to OCLC in order to make libraries visible in the WorldCat Registry.

Outside the DanBib cooperation, a network of Danish internationally lending libraries, the so-called RS-network (resource sharing) for libraries has been established, which will display directly as lending libraries in WorldCat in the user interface aimed at libraries. DBC participates in this network, partly as an agent for OCLC, which includes the management of financing for the lending cooperation of RS-libraries, and partly as a provider of special solutions for RS-libraries.

DanBib development 2011

Open Resource Sharing - lending section
OpenResource Sharing are the services and components which are a part of the DBC ordering system. The first version of the new ordering system was commissioned on June 1, 2010, where it replaced the previous BOB-system. Since then the system has been extended with several new ILL services (ILL: inter-library loan): automatic exchange of bar codes (shipping), cancellation, renewal and recall performed in ILL, just as further development is performed on
web services which are a part of the ordering complex in other projects (e.g. Document delivery via the Serial Solutions project together with The State and University Library (see below) and the bibliotek.dk migration project).

Document delivery as auto-ILL from SB-licenses via bibliotek.dk

The purpose of the project is to give end users access to research papers via bibliotek.dk, even though their own library does not have access to the licensing-packages which research libraries subscribe to. It is The State and University Library, which delivers articles automatically via Serial solutions. For library employees, this will provide an easily accessible discovery platform for scientific articles in periodicals. This project is a bibliotek.dk-project, but a large part of the features which are used are OLS (Open Library Solutions) -developments. The project was launched in the 4th quarter 2011 and will continue in 2012. The project is co-financed with DanBib.

OpenOrder

During 2011/12, OpenOrder will be developed to be able to handle all types of material as well as being able to handle the lending cooperation between libraries, in addition to end user orders. Open Order automates the ordering process, and makes work easier for libraries. It will be possible for other service-users to utilize the OpenOrder web-service and thereby the OpenRS-order infrastructure.

Bibliotek.dk development 2011

In 2011, a migration of bibliotek.dk to well technology was initiated, which DBC has worked on as part of the Open Library Strategy. This means that the infrastructure behind bibliotek.dk will continue to be a service-oriented architecture in the future, and that a large part of development will be based on open source with the benefits that this provides for the entire Danish library sector. Well technology also provides the ability to integrate full-text objects (both as text and in other formats) into the database. The migration is co-financed with DanBib.

In 2011, the following developments in bibliotek.dk were initiated which will be completed in 2012:

- Implementation of the new data model in bibliotek.dk.
- Additional search options have been specified for the further development of OpenSearch.
- Viewing via a web-service in the migrated bibliotek.dk. This means that this service can also be used by others than bibliotek.dk.
- Part of the processes surrounding ordering options on the interface of bibliotek.dk, has been moved to various existing or new services.
The specification work for rewriting the interface for bibliotek.dk has been initiated. The rewrite will be performed in Drupal, an OpenSource CMS, which is also used by the TING Community, and which many libraries are based on worldwide.

Services

In 2011, the migration of DanBib and bibliotek.dk to the open source and service-oriented architecture has prompted the following services which have been made available under GPL (General Public License): Open Price Check v.1.0, Open Order v.1.1, Open Agency v.1.3, VoxB v.1.1 as well as Open Search and Open Scan v.2.0.

Palles gift shop

In mid-2011, a consortium consisting of the 6 central libraries, plus those of Copenhagen, Aarhus and DBC - took over the children's site called Palles Gavebod (Palle's Gift Shop) which is primarily directed towards 8-12 year-olds. The former Agency for Library and Media had strategically chosen to focus on this group, as it is notoriously a very difficult group to retain. The project was developed with funding from the Agency and was transferred to the consortium as a product. All public libraries have taken out a subscription and a great many libraries and children's librarians are involved in producing and sharing content.

Standardization

DBC's core products are based on standards. The Open Library Strategy builds on these and embraces new relevant standards. DBC is therefore actively involved in the development and implementation of standards in both Danish and international contexts, see below. DBC serves as vice-chairman of the Bibliographic council in The Danish Agency for Culture, which recommends fundamental matters concerning library catalogues and national bibliographical issues to the Danish Agency for Culture. DBC participates in the DanZIG-committee of the Danish Agency for Culture, which prepares guidelines for the technical interaction between library and information systems, which are based on standards.

In the Danish Standards committee for Information and documentation (S24), DBC serves as chairman on the subcommittee for Technical interoperability and participates on the subcommittee for Identification and description. Members of the subcommittees are involved with technical expertise in connection with the development and revision of international standards within ISO TC 46, and have taken the initiative to participate in more of the same, including ISO 25577 (MarcXchange), which was published in February 2009, and ISO 28560 (RFID in libraries), which was published in 2011. At Nordic level, DBC participates in SVUC (Scandinavian Virtual Union Catalogue), a collaboration between shared Nordic catalogues, based on standards.
Other products

Artesis

Artesis is the name of the DBC product family geared towards public libraries and university colleges. The product family consists of the data well and the discovery platform as well as content services, dissemination services and additional services. The products are examples of local usage of services which have been developed in compliance with the DBC Open Library Strategy and also via the migration of DanBib and bibliotek.dk to open source and a service-oriented architecture.

During 2011, we have been developing a first version of Artesis Web, which is a Discovery and dissemination interface based on the Open Source platform called Drupal. Artesis Web integrates to the DBC search engines Open Search and Universal Search, as well as to the Artesis Data well, Artesis Content services (sources which supplement the shared sources in the well) and Artesis Additional services (Cover pages, ADHL etc.).

The core of Artesis Web is provided as an open source to the TING community under the name Ding2. Ding2 is a shared core for discovery interfaces in the TING-community which currently has 34 libraries as members, and it will also be the core of the new version of bibliotek.dk. In 2011, the search interface for public libraries was in beta testing at several libraries. Our business model is that the system source code is open source and thus freely available under a GPL license. Payment from libraries covers only service and support, upgrades, operation/hosting, and consulting services. 37 public libraries were connected to the Artesis data well in 2011, which measured by population corresponds to a population of just over 3 million people.

In 2011, the Artesis Web was sold to 7 university colleges as a common modern dissemination and discovery solution with deep integration to the Primo Central index for additional digital content. Implementation of the solution to customers was launched in the autumn of 2011 and will continue gradually until the summer of 2012. In 2011, the solution was in operation at Metropolis and the UCC university colleges.

Filmstriben.dk

'Watch films at home with your library pin code'

... is now an incorporated and diligently used part of the dissemination performed by libraries. 1,200 films are available for users in all the libraries in the country. About 800 of these are feature films. The rest are short films, documentaries and animation. Use is growing constantly, and from March 2011 films were also made available for Mac users. Further agreements have been concluded with Danish producers, and American films will soon be a part of the repertoire.

'Watch films during education' and 'Watch films at the library'

... contains approximately 1,200 short and documentary films in both portals, many of which are displayed on a daily basis at virtually all of the country's schools, colleges and mid-level
educational institutions. On 'Watch films during education', 408,000 viewings occurred in schools in 2011. Almost a doubling compared to 2010. Quite a few libraries have established a "Club Filmstriben" for children. There are great opportunities to make a visit to the library exciting for both children and adults. All films are of a very high quality, where production has been supported by the Danish Film Institute (DFI), which is also a partner of DBC on Filmstriben. The marketing of short and documentary films to schools and libraries is carried out in close cooperation with DFI, which in turn also markets Filmstriben intensively.

**Spilogmedier.dk (Games and Media)**

... now has more than 120 different games and programs which are offered as down-loans for 7 days in 60 of the country's municipalities so far. It has proved more difficult than expected to enter into agreements with commercial games developers, but in late 2011, an agreement was reached with a major developer to introduce 50 titles in 2012. A substantial part of the titles are "real" computer games which appeal to some of the user groups, which libraries are making an extra effort to retain.

**Faktalink.dk (Factlink) & Forfatterweb.dk (Author-web)**

... are both very used and very established online tools in schools and libraries, e.g. for writing term papers and as an inspiration for reading the writings of authors. The articles on Faktalink highlight, "open" and provide perspective on current issues, including links to other sources on the web. Forfatterweb is used in particular by reading-clubs - also in cooperation with DR, Danish State Radio and Television. 30 new Fact links and 60 new author profiles were added in 2011.

During 2011, both products received a new and modern graphic design.

**Materialesamling.dk (Text material)**

... offers a wide range of compendiums as digital e-books for students at the law school of the University of Copenhagen. In the future, the University of Copenhagen has a desire to apply its own learning platform called Absalon for distributing compendiums, and consequently Materialesamling.dk will shut down by the end of the 3rd. quarter of 2012.

**Training and consulting services**

During the course of 2011, there has been a focus on conducting courses within the DBC core areas. Consequently, bibliotek.dk courses have been held at a decentralized level at a number of libraries, while 2 courses in formatting have also been conducted. The latter is aimed at research libraries and music librarians.

The project "National Læringsmateriale" (National Learning Material) has been completed with support from the former Agency for Libraries and Media. This has resulted in teaching materials for bibliotek.dk which can be used by the individual library, and in addition a presentation for big-screen display has been produced.

During 2011, we have been developing the first Artesis Web course based on Drupal. The interface includes dissemination and search. A ½ day course in the editor part for use when
editing homepages has been developed, and 3 training courses of this type were completed by the end of 2011. In 2012, work continues with the development of this and additional Drupal training courses.

The agreement with Danish pharmaceutical giant Novo Nordisk regarding a weekly day consisting of consulting regarding cataloguing, etc., was extended throughout 2011. Two permanent employees of DBC are alternately posted one day per week at the library of Novo Nordisk.

In 2011, DBC has also provided consultancy support to Novo subsidiary Novozymes concerning the analysis of a possible systems change and the subsequent implementation of the selected solution.

For an extended period, a librarian been posted with The Danish Agency for Science, Technology and Innovation as quality manager of the Bibliometric Research Indicator, as a continuation of similar tasks performed in 2009 and 2010.

A librarian has performed cataloguing services for the main library of the municipality of Frederiksberg, in the form of technical feedback, proof-reading and follow-up meetings with librarians who were relatively new to cataloguing.

A librarian has provided consulting services to a company named Convergens concerning the analysis of information architecture on public sector web sites.

**A changed systems market**

It is happening internationally, it is happening in Denmark. Open source and service-oriented architecture are the new general environments for the development of systems in the public sector. With its Open Library Strategy, DBC initiated a change of direction 3 years ago, as well as a very large migration project for all its business systems. The result of this migration is that national systems will be built up of service components which can be reused and integrated into local systems. As a result of the creation of this new systems platform, DBC initiated its exit from the classic systems market in 2011, and a number of agreements with libraries about Integra were terminated. However, a number of public library clients, including some with shared solutions with school libraries, are awaiting the result of the overall national tender led by the municipal IT project organisation Kombit and a number of municipalities, before their agreements will be terminated during the course of 2012.

**The Museum Market**

As mentioned above, the DBC Open Library Strategy has provided DBC with new overall conditions for systems services which will be developed in open source and in a service-oriented architecture in the future. The Museum System (TMS) which DBC has been selling to museums for a number of years, is a traditional, proprietary system which does not match the DBC Open Library Strategy. Effective from mid-2012, DBC has therefore terminated its agreement with the American company Gallery Systems. DBC has notified its customers that from that time TMS will no longer be supported from Denmark. DBC has secured that the transition to foreign support for customers will be as flexible as possible. However, DBC continues to focus on the museum market - both in relation to a Museum data well and on other areas which match the existing services of DBC.
**IT deliveries**

As expected, 2011 was marked by a great demand for the Artesis data well, which has given rise to deliveries to public libraries and university colleges throughout the year. In this way we had 43 well clients by the end of 2011 - some in operation and some at various levels of testing. A development that will continue well into 2012. At the end of 2011, the data well was launched in a new 2.0 version based on the DKABM format. A lot of effort has gone into getting all clients transferred to the new well - a task which will be completed by the beginning of 2012.

Palles Gavebod and E-reolen, the libraries' digital bookshelf, are also based on data well technology, and a series of deliveries has been made in the course of the year for both of these sites.

Not least, 2011 has been the year in which DBC began delivery of the Artesis Web - The Discovery and dissemination platform of DBC. The first deliveries of the Artesis Web version 0.9 - 1.1 took place in the last quarter of 2011, and were directed towards university colleges. In 2011, DBC initiated deliveries to the 7 university colleges of a library solution which included the Artesis data well, Artesis Web, as well as Universal Search, the SFX link-resolver and access to the large international article database of Primo Central from Ex Libris. All of these elements have been provided in version 1.1 to the university colleges in Copenhagen (Metropolis and UCC) in 2011. Delivery to the 5 other university colleges will be carried out during the first half of 2012.

**Hosting and operation**

The majority of the deliveries which DBC has implemented in 2011, have been bundled with a hosting agreement. A well-agreement for example, will always involve a hosting service, while a delivery of the Artesis Web can be done both as a hosted solution or as a solution, which is executed elsewhere. The hosting services of DBC follow the products, and we offer low-cost, highly reliable and flexible solutions to our customers.

In addition to hosting services, DBC also handles the operation of a wide range of national products, such as Danbib, Netpunkt and bibliotek.dk. Further, new and extensive operational tasks were added in 2011: first and foremost of these was the Artesis data well. The migration of bibliotek.dk and Danbib are in progress, and until this is completed, DBC will have to to ensure the operation of 'old' environments while increasing resources must be devoted to operating the new systems. In 2011 DBC had some technical problems with bibliotek.dk, which triggered increased downtime in November of 2011. We found the solution to the problem during the month of November.
Dialogue with libraries

On-going annual activities

For all the major product areas: DanBib, bibliotek.dk, Filmstriben, Spil og Medier, the Artesis data well and the discovery platform, forums have been created to ensure that clients have influence on how any desired development are prioritized. With this involvement and openness in the prioritizing of developments, we will cater to the requirements and expectations of libraries and their users. This influence is built up in an annual cycle so that influence is coordinated with the other planning processes of DBC. We also use social media to maintain a dialogue with users.

Dialogue with associations, libraries, etc.

DBC conducts one to two meetings a year with all associations and interest groups in the library sector. In 2011, meetings have been held with the Danish Library Association, The Danish Research Library Association, The Danish Union of Librarians and the Library Managers' Association. The meetings are helpful discussion meetings, where DBC is focused on listening to the library sector.

Active customer contact

In connection with the introduction of the new DBC open source services, which have been grouped under the name Artesis, there has been a need for more systematic information aimed at libraries. The concepts of Open Source and Service Oriented Architecture are fundamental to the objectives of the state and local authorities for future IT solutions. However, it is our experience that there is a need at libraries for a deeper understanding of these concepts, and for the paradigm shift which they represent in relation to the classic silo systems, which libraries have been using until now. Consequently, since the spring of 2011, a large number of visits to libraries have been carried out, where we have presented this in meetings with larger or smaller groups of staff, and have unveiled the solutions which DBC has developed as an extension of our commitment to the TING Community. We have also been active in organising meetings on the subject at the central libraries.

Speeches at conferences, etc.

As a member of the TING Council, and director of IT development at DBC, Bo Weyman has acted as speaker at two events in 2011:

'Well11' - a conference on virtual data wells

The conference was arranged by DEFF in February of 2011. The presentation focused on the fact that in relation to libraries, there is a need for both "integrated search" aimed at a consolidated "data well" as well as "universal search" aimed at external systems, and that
some of these external systems need to be searched as if they were "proprietary sources’, and integrated into the search results with regards to ranking, facets, sorting, matches, etc.

"Sharing is caring' - digitized cultural heritage for all

The seminar was held by the Danish Museum Organisation in November of 2011. The presentation focused on the possibility that the cultural sector in general can utilize the developments which are created in the TING community, since users of museums, libraries, galleries, and other public service offerings to a large extent are the same. From the beginning, the development of TING has had a citizen/user focus.

In June 2011, Mats Hernvall, consultant for Market and Products at DBC, held a workshop at the international library conference called "Next Library" in the town of Århus, titled "Open Source as a Sustainable model for Collaborative Library Innovation".

In addition, DBC employees have spoken at a number of technical conferences including the Inter Lending and Document Supply (ILDS) conference.

International efforts

In 2011, DBC has chaired two sections of the IFLA (International Federation of Library Associations), namely the Cataloguing Section chaired by Hanne Hørnl Hansen and the Bibliography Section chaired by Carsten H. Andersen. Read more about the sections here: Cataloguing Section: http://www.ifla.org/en/cataloguing Bibliography Section: http://www.ifla.org/en/bibliography

The social responsibility of DBC

CSR stands for Corporate Social Responsibility, which concerns the social responsibilities towards employees and to society of a company. DBC has an active CSR policy, which is about ethics, diversity, environmental awareness, etc. It is our objective to operate the business in an ethically acceptable manner which is in harmony with its surroundings and customers, suppliers, employees or other stakeholders.

We are actively working to accommodate our mutual diversity. Throughout 2011, we have employed people with reduced working capacity due to physical, mental and/or social reasons on flexible terms, and they have used the psychological counselling service which we provide via our health care system. During the past 4 years, DBC has achieved an average number of annual sick days per employee of 2.7 % excluding long term illness.

We seek to promote the well-being of employees via professional challenges and a good health care system. We offer choir singing, visits to the Louisiana museum of modern art, jogging and pilates via our staff association. In 2011, by far most of the staff were members of the staff
association, and there is always a good turnout at events. In 2011, DBC conducted 16 cultural events and 8 sporting events via the staff association.

Environmental considerations

DBC conducts an active environmental policy both internally and externally. An active environmental policy is becoming more and more of a distinctive marker for DBC, both in the awareness of the staff, and for partners, contacts, and people in the local area where our environmental work has been referred to in various contexts.

Internally, we are continuously reinforcing our green profile, not least via the improvements that we are making to our building at this time. It has to do with the fact that our climate envelope, that is to say, all facades which face the outside environment, are being gradually renovated by replacing older windows, which was done in 2011. It is also about the improvements which are made in-doors on an on-going basis. In this area we have saved a substantial amount of kilowatt hours by changing to more energy-efficient light sources throughout 2011.

These are all tasks which will continue throughout 2012 and beyond. It is an active environmental concern, which is also evident in the measurements of our energy consumption, which show a decline in our consumption of both electricity and district heating from 2010 to 2011, and hence a reduction in CO2 emissions.
At the beginning of 2010, DBC switched to Norwegian electricity based on hydropower, which is a renewable source of energy. Electricity consumption in 2010 and on is marked with a green bar due to the change to environmentally friendly power. kWh is read from the vertical axis to the left and CO2 emissions can be read from the vertical axis to the right.

Speaking of CO2, DBC became a participant in the CARBON 20 project in 2011. This is an EU project, where participating businesses and municipalities over a 3-year period from 2011 and through 2013, must try to reduce their CO2 emissions, and where the ideal target is a 20% reduction in relation to 2010. DBC will participate in a group of 15 companies via the municipality of Ballerup. At the end 2011, DBC had a so-called energy screening performed in conjunction with this, where the building was studied for potential energy savings. The screening showed various new possibilities which will be included in our future targets for reducing CO2 in connection with the project and our environmental work in general.

Throughout 2011 we have also taken an active part in the environmental networks of the municipality of Ballerup, both with respect to the above project, and also when it comes to providing feedback and inspiration relating to environmental work in general. DBC will continue to reinforce its active environmental work throughout 2012.

Key figures

National bibliographical production

<table>
<thead>
<tr>
<th>National bibliography</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danish Book register (1+2)</td>
<td>18,066</td>
<td>17,097</td>
<td>19,364</td>
<td>18,223</td>
<td>16,203</td>
</tr>
<tr>
<td>Danish Visual recordings (4)</td>
<td>3,578</td>
<td>3,787</td>
<td>4,885</td>
<td>4,821</td>
<td>10,092</td>
</tr>
<tr>
<td>Danish Sound recordings (5)</td>
<td>830</td>
<td>1,070</td>
<td>1,159</td>
<td>1,339</td>
<td>1,085</td>
</tr>
<tr>
<td>Danish Music recordings</td>
<td>1,933</td>
<td>1,575</td>
<td>1,702</td>
<td>1,827</td>
<td>2,718</td>
</tr>
<tr>
<td>Internet publications (2)</td>
<td>2,719</td>
<td>2,322</td>
<td>3,377</td>
<td>4,447</td>
<td>3,761</td>
</tr>
<tr>
<td>Danish Article index (6)</td>
<td>15,400</td>
<td>15,299</td>
<td>15,065</td>
<td>13,797</td>
<td>14,197</td>
</tr>
<tr>
<td>Danish Review index (3)</td>
<td>2,086</td>
<td>2,039</td>
<td>1,875</td>
<td>1,707</td>
<td>1,886</td>
</tr>
<tr>
<td>Music reviews</td>
<td>681</td>
<td>551</td>
<td>508</td>
<td>439</td>
<td>388</td>
</tr>
<tr>
<td>Total weighted registrations</td>
<td>45,972</td>
<td>43,740</td>
<td>47,935</td>
<td>46,600</td>
<td>50,330</td>
</tr>
</tbody>
</table>

(1) The Greenland Book register is included
(2) Physical and electronic books, and from 2011 also on-line multimedia, are included in the Danish Book register. This includes: New media, registration of the physical version and the net-version in the same entry.

(3) This includes online films.

(4) This includes online sound recordings.

(5) This includes the registration of the physical version and the net-version in the same entry.

**Use of DanBib and bibliotek.dk**

<table>
<thead>
<tr>
<th>Number of entries for DanBib</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>(million)</td>
<td>28.5</td>
<td>29.5</td>
<td>31</td>
<td>32.6</td>
<td>33.4</td>
</tr>
<tr>
<td>Change in %</td>
<td>+7.5%</td>
<td>+3.5%</td>
<td>+5%</td>
<td>+5.2%</td>
<td>+2.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Use of bibliotek.dk</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of visits (million)</td>
<td>3.7 *</td>
<td>3.3</td>
<td>3.6</td>
<td>3.6</td>
<td>3.3</td>
</tr>
<tr>
<td>Change in %</td>
<td>-2.6%</td>
<td>-10.8%</td>
<td>+9.1%</td>
<td>0%</td>
<td>-8.3%</td>
</tr>
</tbody>
</table>

Gemius took over the measurement of traffic from Gallup in the 2nd. quarter of 2007.

<table>
<thead>
<tr>
<th>DanBib orders</th>
<th>2007 *</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>(t)</td>
<td>1,880</td>
<td>1,968</td>
<td>2,019</td>
<td>1,965</td>
<td>1,979</td>
</tr>
<tr>
<td>Change in %</td>
<td>-6.5%</td>
<td>+4.7%</td>
<td>+2.6%</td>
<td>-2.7%</td>
<td>+0.7%</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>bibliotek.dk orders</th>
<th>2007 *</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>(t)</td>
<td>1,276</td>
<td>1,384</td>
<td>1,472</td>
<td>1,521</td>
<td>1,771</td>
</tr>
<tr>
<td>Change in %</td>
<td>-9.5%</td>
<td>+8.5%</td>
<td>+6.4%</td>
<td>+3.3%</td>
<td>+16.4%</td>
</tr>
</tbody>
</table>

* The drop in the number of orders from 2006 to 2007 is due to the fact that 'order at work level' was commissioned in 2007, which has led to several orders being routed to a local system thereby reducing inter-library lending.

**DBC accounts**
The annual DBC accounts for 2011 will be published on www.dbc.dk in May 2012.