

Håkon Bjørge Vestli

Norwegian Repertoire Databases for Performing Arts

What and Why

Master Thesis

Department of Journalism, Library and Information Science

ABSTRACT

Internationally there are a number of databases for performing arts productions. They cover different areas like the performances of works by a particular playwright, types of productions, productions in one country or just those of an individual theatre. The Norwegian performing arts community also maintains a range of smaller repertoire databases, some online. In the related domains of museums and libraries work has been underway for some years to prepare to consolidate their respective collections. The theatre community has so far not been part of this effort. By means of a qualitative study and theoretical treatment, this thesis examines the cataloguing practices and motivations behind the Norwegian repertoire databases. The goal is to better understand current performing arts documentation and find possible motivations for upgrading that documentation practice in light of current library cataloguing and other documentation trends.

SAMMENDRAG

Internasjonalt finnes det en rekke databaser for scenekunstproduksjoner. De dekker forskjellige områder, for eksempel fremføringer av en enkelt dramatikers verk, forskjellige typer produksjoner, et enkelt lands eller bare ett enkelt teaters produksjoner. Det norske scenekunstmiljøet vedlikeholder også en rekke mindre repertoardatabaser; noen på Internett. I de beslektede museums- og bibliotekdomenene har det vært arbeidet i flere år for å forberede konsolidering av de respektives samlinger. Teatermiljøet har så langt ikke vært del av denne utviklingen. Denne masteroppgaven søker gjennom kvalitative intervjuer og teoretisk behandling å undersøke katalogiseringspraksis og motivasjon bak de norske repertoardatabasene. Målet er å bedre forståelsen av dagens scenekunstdokumentasjon og finne mulig motivasjon for å oppgradere den praksisen i lys av dagens bibliotekkatalogisering og andre dokumentasjonstrender.

Master Thesis at the Department of Journalism, Library and Information Science Oslo 2007

ACKNOWLEDGEMENTS

I would like to thank all the respondents who took the time to be interviewed. This thesis would not have been made without their participation. My teacher, Tor Arne Dahl, deserves a big thank you for guiding me through the agony and frustration of writing this thesis, and setting me straight when I was heading in the wrong direction. Finally, a big thank you to my friends and family, for putting up with my endless chatter about repertoire databases, library cataloguing, and conceptual database models.

Håkon Bjørge Vestli June 2007 "An improvised practice, one that is adventitious and not rationalized with respect to the big picture, is ineffective, inefficient, and, by definition, unsystematic."

Elaine Svenonius (2000, p. 2)

"... the question of how the multimedia texts of performing arts are preserved and made accessible impacts the continued life of those arts."

Joshua Young, GloPAC Research Associate

TABLE OF CONTENTS

| 1 | INTRODUCTION | 7 |
|---|---|-----------------|
| 2 | DOMAIN OVERLAP | 9 |
| 3 | METHOD | 13 |
| | 3.1 Qualitative Study | 13 |
| | 3.2 Theoretical treatment | 15 |
| | 3.3 Problem Areas | 16 |
| 4 | CATALOGUING | 18 |
| | 4.1 Library Catalogues | 18 |
| | 4.1.1 Early Cataloguing | 18 |
| | 4.1.2 The International Standard Bibliographic Descriptions (ISBD) | 19 |
| | 4.1.3 Anglo-American Cataloguing Rules (AACR) | 19 |
| | 4.1.4 Machine-Readable Cataloguing (MARC) | 21 |
| | 4.1.5 Resource Description and Access (RDA) | 22 |
| | 4.2 Performing Arts and the Concept of Time | 24 |
| | 4.3 Conceptual Database Models | 25 |
| | 4.3.1 CIDOC Conceptual Reference Model (CIDOC CRM) | 26 |
| | 4.3.2 Functional Requirements for Bibliographic Records (FRBR) | 28 |
| | 4.3.3 FRBR and CIDOC CRM Harmonisation | 30 |
| | 4.3.4 Functional Requirements for Authority Data (FRAD)4.3.5 FRBRising the Library Catalogue | 31 32 |
| | 4.3.6 The Global Performing Arts Database (GloPAD) | 32 |
| | 4.4 Purpose and Function of the Catalogue/Database | 38 |
| 5 | THEATRES AND INSTITUTIONS | 40 |
| 3 | 5.1 The National Theatre | 40 40 |
| | 5.2 The Norwegian Opera | 40 |
| | 5.3 The Norwegian Theatre | 40 |
| | 5.4 Oslo Nye Teater | 41 |
| | 5.5 The Norwegian National Library | 41 |
| | 5.6 Ibsen.net | 42 |
| | 5.7 Norsk Scenekunstbruk | 42 |
| | 5.8 The University Library of Bergen | 43 |
| 6 | STUDY RESULTS | 44 |
| | 6.1 Human Resources | 44 |
| | 6.2 Goals and Target Groups | 45 |
| | 6.3 Economy | 47 |
| | 6.4 Content | 49 |
| | 6.4.1 Selection of Data | 49 |
| | 6.4.2 Title and Personal Information | 53 |
| | 6.4.3 Physical Documents | 54 |

| | 6.5 Cataloguing Practice | 55 |
|----|---|-----|
| | 6.5.1 Definition of the Production | 55 |
| | 6.5.2 Authority Control and multiple data in one field | 57 |
| | 6.5.3 The Cataloguing Process | 60 |
| | 6.5.4 Indexing Consistency | 62 |
| | 6.6 Database Use | 67 |
| | 6.6.1 Sources of Knowledge about Use | 67 |
| | 6.6.2 Users | 69 |
| | 6.6.3 User Tasks and Actual Use | 69 |
| | 6.7 Cooperation and Future Plans | 72 |
| | 6.8 The Current State of Norwegian Repertoire Databases | 73 |
| 7 | DOCUMENTATION TRENDS | 76 |
| | 7.1 Cultural Heritage | 76 |
| | 7.2 Cultural Economics | 77 |
| | 7.3 From Push to Pull | 79 |
| | 7.4 Findability and the Semantic Web | 80 |
| 8 | THE BIG PICTURE | 83 |
| 9 | APPENDICES | 87 |
| | 9.1 Abbreviations | 87 |
| | 9.2 Data Elements | 88 |
| | 9.3 Translated Quotes | 91 |
| | 9.4 Interview Guide | 95 |
| | 9.5 List of Figures | 101 |
| 1(|) REFERENCES | 102 |

1 INTRODUCTION

A repertoire database for performing arts contains information, or data, about the productions of a particular theatre institution or about productions (by other theatre companies) which are part of that institution's or organisation's domain. Several countries have, or have had, national, or geographically delimited, repertoire databases. Examples include the Irish Playography (Irish Theatre Institute [2007]), the Scottish Theatre Archive ([2007]), the Dutch Theatre Database (Theater Instituut Nederlands [2007]) and the History of Australian Theatre ([2007]). There are also databases for different types of theatre, for example, the Finnish Dance Database ([2007]) and the Flyrope ([2007]) database for musicals. Furthermore, there are certain types of interest groups and organisations with their own repertoire databases for their particular activities; for example, the performance database of the Shakespeare Birthplace Trust ([2007]) and the administrative database of the Norwegian Association of Performing Arts (Scenekunstbruket [2007]a). Many theatres also maintain databases of their own repertoire locally, without making it available online. The only national performing arts database in Norway was the Union catalogue of theatrical performances at the National Library of Norway (Nasjonalbiblioteket [2007]c), but it was abandoned in 2000.

There is little research or intellectualisation done on performing arts documentation. Vestli (2005) treats the matter on a more superficial level in the bachelor thesis *Finn Forestillingen*, discussing cataloguing and classification of theatre performances in selected databases, both in Norway and abroad. The Global Performing Arts Consortium (see chapter 4.3.6) has created a data model and database for digital performing arts records. Finally, work is currently in progress to include performing arts in FRBR₀₀ (see chapter 4.3.2), a data model for the library domain.

Theatre productions are neither artefacts nor books. They are non-physical and strictly temporal entities each connected to different physical objects and to other productions. As such, cataloguing them raises somewhat different problems than with cataloguing library books or museum artefacts. The databases of tomorrow are likely to be interconnected using

standardised semantic markup. In short this will allow Internet users to navigate across databases and subject domains to satisfy their information needs. Any database effort can be part of such a network, but if it does not accommodate the development, the information in it is less likely to find an audience.

The library and museum communities respectively have been developing conceptual database models for their fields since the nineties. Functional Requirements for Bibliographic Records (FRBR), covers the library domain, while the CIDOC Conceptual Reference Model (CIDOC CRM) covers the museum domain. The respective working groups have since joined forces to harmonise their efforts and modify their models to support interoperability. It is not unlikely that the structure of the FRBR and CIDOC CRM models will become the future standard in online databases for museum and library material. This thesis is inspired by the developments in documentation described above and aims to do the following:

- 1. Uncover the state of the Norwegian repertoire databases and the cataloguing practices used to maintain them.
- 2. Identify proper reasons for upgrading those practices.

In other words, find out how theatre archives are documenting productions in their repertoire databases, and consequently, why those practices may need to change.

The Internet has put the established documentation practices to the test. Libraries, archives and museums alike face a future where business as usual is no longer good enough. People demand easy access, or they do not bother using the service. It has reached the point where, if the information is not online, it might as well not exist. The domain of performing arts overlaps with those of archives, libraries and museums. This thesis will argue that the theatre community should learn from the experiences and developments in these related fields and re-evaluate their documentation goals and practices. If the institutions documenting theatre productions do not meet the documentation needs of the future head on, they will fall even farther behind in the battle for the attention of their constituents. The structure of the text is as follows: Chapter 2 shows how the domains of archives, libraries and museums are interrelated and also connected to performing arts. Chapter 3 describes the method for the study and for the analysis of the data, and the reasoning behind the choice of library cataloguing as the theoretical viewpoint. Chapter 4 gives an overview of the field of library cataloguing along with related data models for museums and performing arts. Chapter 5 introduces the eight institutions in the study. Chapter 6 presents the findings from the study. Chapter 7 gives a more general view of relevant documentation trends that have emerged since the introduction of the Internet. Finally, chapter 8 provides a view of performing arts documentation in a larger context, summing up the state of the Norwegian repertoire databases and discussing reasons for upgrading it.

2 DOMAIN OVERLAP

Why should theatres associate their productions with other domains? Can events on a stage really be related to the collections of museums, libraries and others? Yes, of course there is a connection, but what kind? And is it useful enough to be expressed in the documentation? First, we must understand just how interconnected these domains are.

The emerging field of performance studies takes an eclectic approach to the phenomenon of performance, not just in the theatrical sense, but performance in society as a whole. As a field of study it deliberately resists definition. It is a collective description of a series of views on performance, but there are no canonical texts and no dogmas. Because the nature of performance is evolving more rapidly than ever, the scientific study of it must do the same. The changing intellectual and artistic circumstances over the last few decades illustrate this. Technological advancement and greater mobility and accessibility mean that *"people are increasingly finding the world not a book to be read but a performance to participate in"*. (Schechner 2006 p. 26)

"Performance Studies starts from the premise that its objects of study are not to be divided up and parcelled out, medium by medium, to various other disciplines – music, dance, dramatic literature, art history. The prevailing division of the arts by medium is arbitrary, as is the creation of fields and departments devoted to each." (Bial 2004, p. 43)

One more time: The division of the arts by medium is arbitrary! As is the creation of fields and departments devoted to each! Take a macro perspective on how any kind of institution evolves and within a few years becomes about something completely different. The traditions they maintain change, not just in millennia or centuries, but decades or even less. Just look at the explosion throughout the twentieth century of new mediums, new art forms, new everything. Borders between cultural and artistic traditions are blurred as new expressions and ideas emerge. The new does not replace the old but the borders between them fade.

Consider the following artwork by artist Lars Paalgard. Dirt on the floor of an abandoned German warehouse is swept together forming a long straight line in the middle of the room. The dirt is put in boxes, one meter per box, flown to Svalbard in the Arctic and the line of dirt recreated on a glacier. There it will slowly move with the ice towards the ocean, reaching it in a few thousand years, unless the glacier melts. What and where is the work of art? Is it the picture of the dirt or the text documenting it? And is it a performance? Who is the actor? Is it the dirt, the glacier, all humankind through global warming, or the artist telling the story of his work to art students? Suppose he is standing on the stage of the national theatre, what then?

"In the 1980s and 1990s, university theater departments began to rethink their mission. Teachers of theater and dance, and of speech communication saw their traditional European and American curriculum growing gradually disconnected with the increasingly multicultural and media-driven world of the professional performing arts. At the same time, the shift of colleges and universities toward a corporate model (the university delivers a 'product' to student-consumers) placed increased pressure on all disciplines to assert their relevance in the global marketplace." (Bial 2004, p. 5)

Students and researchers are one of the main target groups for today's repertoire databases. "Although performance studies scholars use the 'archive' extensively […] their dedicated focus is on the 'repertory', namely, what people do in the activity of their doing it." (Schechner 2006, p. 1) Furthermore the field of performance studies is "an academic discipline designed to answer the need to deal with the changing circumstances of the 'glocal' – the powerful combination of the local and the global." (Schechner 2006, p. 26) So, how is this related to documentation? As will be described in chapter 4, the museum and library sectors have their own conceptual reference models. These models have been harmonised to aid information exchange between the two domains. Furthermore, performing arts are already being included in the conceptual model for libraries (FRBR₀₀). The motivation for creating crosswalks between these models, and for the inclusion of performing arts, comes from the realisation that the domains are in fact more closely linked than current documentation practices give them credit for.

In performance studies the performance is the organising idea; and in the conceptual reference models being developed for libraries and museums, all the information is organised around *events*. The event is what binds everything together, and what is a theatre production if not an event, or a series of events? Hence performing arts should fit very well into the new organising scheme. In fact, it should be a considerable asset, not only by enriching current library and museum catalogues with new data, but by allowing more access points to the material in all the different collections. Say you are looking for a book about a woman who appeared in a certain play. You don't know the name of the woman or the book, only the name of the play and when it premiered. Imagine that you can search for that particular production, click on her name in the cast list and voila, you find the book, maybe a list of libraries that have it or even book stores, plus lots of other stuff by or about her.

Traditionally, archives, libraries and museums are separate fields. They have their own education programs, and independent systems for core activities which are actually somewhat similar (like cataloguing), but the borders between them are increasingly blurred, much like the borders between different art forms. In recent years several countries, for example, The Netherlands, Great Britain, Denmark and Norway, have created institutions devoted to helping these domains evolve together, not separately. The Norwegian Archive, Library and Museum Authority (ABM-utvikling) is *"an advisory and executive organisation for the Ministry of Culture and Church Affairs on the specialist fields of archives, libraries and museums*. Its concrete task is

to carry out active strategic development work for the - co-ordination

rationalizationand strengthening

of the archive, library and museum sector. [...] ABM-utvikling participates in all of the tasks that involve the archives, libraries and museums, but it also works across the boundaries of the specialist fields and handles cross-ministerial joint initiatives relating to the archive, library and museum sector" (ABM-utvikling [2007]).

These institutions have emerged in response to the growing need for integration of resources.

As we have seen, performing arts have ties to both museums and libraries. Furthermore, as the theatre archives in the study really are *archives* containing theatre related materials, it seems clear that the performing arts are indeed related to all three fields. It stands to reason then that the documentation practice of one or more of these three fields can be used as a backdrop to better understand and evaluate the repertoire databases.

3 METHOD

This chapter describes the chosen method for the collection of data, and the reasoning behind the chosen theoretical viewpoint for the analysis. Data has been collected by means of qualitative study of the people most directly responsible for maintaining those databases. Also, sample entries from each database have been collected. The results of the study have been analysed in light of library cataloguing practice and online documentation trends.

3.1 Qualitative Study

The qualitative interview seemed the best choice to examine attitudes, practices and motivations of individuals and institutions. The main idea was to not limit the respondents to a list of closed-ended responses, but also to give them room to express thoughts and feelings in their own words.

"The open-ended responses permit one to understand the world as seen by the respondents. The purpose of gathering responses to open-ended questions is to enable the researcher to understand and capture the points of view of other people without predetermining those points of view through prior selection of questionnaire categories." (Patton c2002, p 21)

Admittedly a large part of the study aimed to learn concrete facts, but there had to be room for elaboration. Some questions could not be answered satisfactorily in a single sentence, for example those regarding motivations, experience, authority control and the definition of a production. The qualitative interviews were semi-structured, and the interview guide contained only a list of parameters to be covered along with suggestions for questions. The order of the subjects/questions was considered unimportant as long as all subjects were properly covered. The interview guide was divided into the following main themes:

- 1. <u>The interviewee</u>
 - Gender
 - Education
 - Experience with performing arts documentation
- 2. Goals and target groups
 - Goals and target groups for the institution as a whole
 - Goals and target groups for the archive
 - And for the repertoire database itself
- 3. <u>The database</u>

- About the database solution
- Selection of data
- Motivation for the selection of data
- Authority control
- Connections to other databases
- Economic situation
- 4. Practice and database maintenance
 - Data sources
 - Cataloguers
 - Cataloguing rules or guidelines
 - Relation to physical archive
 - Treatment of title information
 - Degree of exhaustivity
- 5. Database use
 - Who uses the database
 - How is it used
 - What it is used for
 - How information about its use is obtained
- 6. <u>Cooperation with others</u>
 - Current or desirable cooperation with other institutions
- 7. The future
 - Plans made for the future
 - Potential value/use of national performing arts database

The whole interview guide (in Norwegian) can be found in appendix 9.4.

The interviews were carried out on the premises of the individual institutions, either in the office of the interviewee, in the library/archive or in a meeting room. All sessions were recorded in MP3 format and subsequently transcribed into plain text. Transcriptions were made as to match the exact wording of the respondents as closely as possible to minimise the chance of inaccurate translations of the Norwegian quotes into English, and to preserve the source material as accurately as possible in text form rather than audio, because text is more accessible than audio.

The selection of respondents began with a list of 29 institutions holding theatre collections in Norway provided by The Scandinavian Centre for Theatre Documentation (Nordisk Senter for Teaterdokumentasjon [2006]). Many of these institutions have only library or museum collections, while about one third have repertoire databases. There are certainly other local collections, but the list covers all the major institutions in the larger cities. Almost half of the institutions on the list are located in Oslo, and so are the majority of the ones with their own repertoire databases. Therefore, it seemed appropriate to limit the study to institutions which maintain repertoire databases and are based in Oslo, but with one exception. The theatre archives at the Universities of Bergen and Trondheim also maintain databases on behalf of the largest theatre in their cities, but for practical reasons only the University of Bergen is part of the study. The respondents were contacted first by e-mail and then by telephone to set up an appointment for the interview. The concrete interviewees were the employees who had the most direct responsibility for the repertoire databases.

Collecting sample entries was an important supplement to the interviews. With the online bases samples could easily be downloaded from the web. From the local databases entries were either printed out and then scanned for inclusion in the text, or copied into a file and transferred to a portable USB-drive directly from the computer with the database. Some additional material was also delivered by e-mail from the archives.

3.2 Theoretical treatment

Archives mainly handle documents for long term storage and local use within an institution, and archive standards and practices reflect this. Museums handle cultural artefacts, and to a certain extent also books. They work to preserve cultural artefacts, but usually the documentation of their collections is maintained by museum curators or archaeologists, not information professionals like librarians. Libraries primarily deal with books and documents, artistic materials as well as subject matter, and the whole purpose is to be an information hub for the general public (public libraries) or for a specific community (academic, research or special libraries). The National Library also acts as an archive aiming to stock at least one copy of all Norwegian publications, but libraries in general do not have this function. The primary activity of theatres is to maintain and promote their specific artistic tradition, and the same is true of their interest groups/organisations. Performing arts documentation needs to cover the functions of archives, museums and libraries alike. Library cataloguing has been chosen as the main theoretical viewpoint (but one could also have chosen to approach performing arts documentation from an archive or museum point of view). The focus will be

on repertoire databases as a means of promoting the field of performing arts, not just on archiving or documenting it.

Libraries have more sophisticated documentation systems than those of archives and museums. Their catalogues are more evolved in terms of exchanging data and aiding information retrieval by the general public, but they still have shortcomings. For theatre archives there are many lessons to learn from the mistakes and problems present in the library catalogues. Furthermore, recent developments in the library (and museum) field show great promise for future cataloguing systems, not only in libraries but across domains.

Comparing repertoire databases to library catalogues may reveal shortcomings, but the databases must also be seen in the context they are used in now and how they may be used in the future. After the presentation of the study results another theoretical chapter describes emerging documentation trends on the Internet and elsewhere which are shaping and changing documentation and the ways people relate to it. Finally, in chapter 8, all the threads will come together in a general discussion of where performing arts documentation is, what its future looks like and why one should not just do things like they have always been done.

3.3 Problem Areas

The process of designing and conducting qualitative interviews has its pitfalls and indeed mistakes were made here which may have had implications for the quality of the data. The following describes possible problem areas.

Having written one paper on repertoire databases already there was a risk of repeating parts of that work. However, experiences from the previous effort were actually rather helpful; in particular when narrowing the scope of the thesis down to a manageable size and selecting the appropriate methodology. Some of the databases featured here were also examined in the previous paper, but the methodological approach is different now. This thesis uses qualitative interviews as the primary source of information and is more concerned with the greater context of performing arts documentation. *Finn Forestillingen* was based primarily on the analysis of written online resources, and also addressed topics such as classification and web

design, which are not covered here.

The respondents were not given the questions in advance, but some remarked that it would have been easier to answer them if they had been given a chance to prepare. However, as the study aimed to uncover attitudes, sending the questions in advance might have diminished the spontaneous nature of responses to questions about attitudes. It might also have created some confusion because the study covers many library specific topics, while only one respondent has a library and information science degree. Everyone had to have at least some of these concepts explained before they were able to properly answer questions about them.

During the analysis it became clear that some of the concepts discussed during the interviews were not properly understood by the respondents, even after those concepts had been explained to them. The terms "user tasks", "definition of a production" and "authority control" were the most problematic. Of course, this was not the fault of the interviewee, but of the interviewer who did not read the situation properly. The consequences were that some of the statements made by the respondents about these topics were somewhat less trustworthy and/or accurate. This problem was avoided in the cases where a first hand look at the local databases would clarify the facts. The concept of user tasks, however, was particularly problematic and as the interview process progressed it became clear that many respondents confused user tasks with user needs (more about user tasks in chapter 4.3.2). Again, this was not the fault of the respondents, but the data still suffered as a result.

The thesis is in written in English but the interviews were conducted in Norwegian. All quotes from the interviews have been translated into English by the author, with reservations about the quality of the translation. The original Norwegian quotes, as transcribed from the MP3 recording, can be found in appendix 9.3. Furthermore, when the time came to analyse the data, the topical structure of the interview guide did not fit satisfactorily. This is why the headings in chapter 7 are not quite the same as in the interview guide.

The next chapter gives an account of the theoretical foundation of the analysis of the databases and practices.

4 CATALOGUING

Libraries have a long cataloguing tradition. They have disambiguated the basic concepts described by the library catalogue and created exchange formats allowing global distribution of metadata (data about data). Still they struggle to keep up with the ever increasing demand for better information systems. Digital catalogues developed some thirty years ago are already becoming outdated. There are many lessons to be learned from the evolution of library cataloguing. Given that the two domains overlap it makes sense to compare performing arts documentation to library cataloguing. This chapter gives an overview of the development of library cataloguing, and also looks at current documentation initiatives in the related fields of museums and performing arts.

4.1 Library Catalogues

4.1.1 Early Cataloguing

The modern history of systematic information organization "is usually regarded as beginning in the middle of the [nineteenth] century with Sir Anthony Panizzi's plan for organizing books in the British Library" (Svenonius 2000, p. 2). His 91 cataloguing rules have served as the basis for library cataloguing as it has evolved through the nineteenth and twentieth century until today. Another milestone came in 1876 when Charles Ammi Cutter "was the first to recognize the importance of stating formal objectives for a catalog" (p. 4).

Lesson one in modern library cataloguing is the Paris Principles defined at the International Conference on Cataloguing Principles in Paris 1961. It is a general statement of what a library catalogue should be. It defines the following functions for the library catalogue:

"The catalogue should be an efficient instrument for ascertaining whether the library contains a particular book specified by

- (a) its author and title, or
- (b) if the author is not named in the book, its title alone, or
- (c) if author and title are inappropriate or insufficient for identification, a suitable substitute for the title; and
 - (a) which works by a particular author and
 - (b) which editions of a particular work are in the library." (International Conference on Cataloguing Principles 1971)

Although this list pertains only to books it is the backdrop for future developments and touches on an important question for the upcoming analysis: What is the function of the repertoire database? The library community, seeing that libraries also contain document types other than books, soon developed more sophisticated catalogue models

4.1.2 The International Standard Bibliographic Descriptions (ISBD)

The International Standard Bibliographic Descriptions (ISBDs) are "standards to regularize the form and content of bibliographic descriptions" They are maintained by the International Federation of Library Associations (IFLA). The following are the primary purposes for ISBDs (Byrum [2000]):

- 1. Make interchange of records from different sources possible.
- 2. Assist the interpretation of records across language barriers.
- 3. Facilitate the conversion of bibliographic records to electronic form.

In the early 1970s ISBDs were created for monographs. In 1975 work was begun on a more general version called ISBD(G). ISBDs for other document types, like for example older monographic publications (antiquarian), cartographic material and computer files, have since followed. The format has since been harmonised with AACR (see next subchapter). ISBD records do however not lend themselves too easily to large scale digital exchange of catalogue entries. This is where the MARC-format comes in (see chapter 4.1.4).

4.1.3 Anglo-American Cataloguing Rules (AACR)

The Anglo-American Cataloguing Rules guide the creation of library records, i.e. for the old card catalogues. It was developed for the English speaking community by the Library of Congress and the National Library of Canada, but is also widely used elsewhere. The current standard is AACR2. The Norwegian translation of AACR2 (Katalogiseringsregler 1998) is the standard for cataloguing in Norway and also the basis for the MARC records found for instance in BIBSYS – the Norwegian online library catalogue for institutions of higher education.

AACR2 lets users choose between three levels of detail. A high level of detail means a more exhaustive description. Below is a description of these tree levels (Joint Steering Committee

for Revision of AACR 2002, part 1, p. 1-5):

- Level one includes only the most basic information like title, statement of responsibility, edition, material specific details, publisher, date of publication, extent of item (number of pages), notes and standard number.
- Level two includes everything from level one, plus the following: parallel title information, statement of responsibility relating to the edition, first place of publication, other physical details, dimensions, title of series/statement of responsibility relating to series, ISSN, numbering within the series, title of subseries, ISSN of subseries, numbering within the subseries.
- Level three includes "all the elements set out in the following rules that are applicable to the item being described".

It is up to each cataloguing institution to decide which level of exhaustivity is appropriate for them. Cataloguing, being manual and time consuming labour, is expensive, so it is a very real concern that the catalogue may prove too costly if the level of detail is high. One has to balance the expressiveness of the catalogue with the expense of cataloguing; this also applies to archive, museum and performing arts databases (or databases/catalogues in general). For this very reason Norwegian public libraries use level two in their catalogues. The Norwegian National Library uses level three. AACR also contains many optional rules:

"Some rules are designated as alternative rules or as optional additions, and some other rules or parts of rules are introduced by optionally. These provisions arise from the recognition that different solutions to a problem and differing levels of detail and specificity are appropriate in different contexts. Decide some alternatives and options as a matter of cataloguing policy for a particular catalogue or bibliographic agency and, therefore, exercise them either always or never. Exercise other alternatives and options case by case. All cataloguing agencies should distinguish between these two types of option and keep a record of their policy decisions and of the circumstances in which a particular option may be applied." (Joint Steering Committee for Revision of AACR 2002, p. 2)

Allowing some rules to remain optional was perhaps not considered by the steering committee to have any serious implications, but significant problems occur if one tries to consolidate data created using differing practices. Information that may seem trivial in the AACR/MARC environment is much more important in the world of FRBR (see chapter 4.3.2).

Kiorgaard and Huthwaite (2005) explain how "AACR2 lacks guidance on the principles of authority control" and outline four key points:

- 1. AACR lacks a definition of authority control.
- 2. It provides no motivation for authority control.
- 3. It says nothing about what entities one can or should create authority records for.
- 4. It says nothing about how authority records can be used to achieve authority control within a catalogue

This is particularly relevant to repertoire databases because, as we shall see, authority records are not common there either.

4.1.4 Machine-Readable Cataloguing (MARC)

Machine-Readable Cataloguing (MARC) is the standard cataloguing and exchange format for libraries. It is the most commonly used format in Norwegian libraries. Developed in the 1970s it is a digital continuation of the AACR based card catalogues. Below is a sample MARC record for a monograph:

```
*001981121446
*008 $ceng
      $ap
     $bv
*020 $a3-598-11382-x
*082xp$a025.32
*082ga$a025.3
*245 $aFunctional requirements for bibliographic records
     $bfinal report
     $cIFLA Study Group on the Functional Requirements for
     Bibliographic Records
*260 $aMünchen
     $bSaur
     $c1998
*300 $aVIII, 136 s.
     $bill.
*491 $aUBCIM publications. New series
     $n930124995
     $vvol. 19
     $q19
*691**$akatalogisering katalogiseringsregler
*710 $aInternational Federation of Library Associations and
     Institutions
     $bStudy Group on the Functional Requirements for Bibliographic
     Records;
```

From this type of record one can generate several different views, for example in ISBD. However, *"the MARC formats are not intended to be content standards, they are […]*

'standards for the representation and communication of bibliographic and related information in machine-readable form'" (Kiorgaard & Huthwaite 2005). There is a difference between an exchange format and a cataloguing format. The former aims to distribute already catalogued data between users while the latter is for registering information in a catalogue/database. MARC does a little of both because common practice is to catalogue directly in MARC, thus creating exchangeable records at the same time. In comparison Dublin Core (DC) is an exchange format in the sense of focussing on the exchange of already catalogued data (often MARC-records). MARC is a digital rendition of the fields and syntax of the ISBD card catalogues, but it does not have predefined fields for absolutely everything, so to some extent it is necessary to manually code the ISBD syntax. Some examples are the use of square brackets to indicate that the information comes from outside the publication itself, and the punctuation marks used to separate entities occurring in the same field. "Openendedness prevents operationalization of the collocation and navigation objectives as well as the choice objective" (Svenonius 2000, p. 23), or put another way, free-text content is ambiguous and, consequently, a hindrance to information retrieval. This is particularly true of textual notes in note-fields; the *500-fields in MARC are commonly used for this.

There are two types of cataloguing records (Library of Congress 2007c):

- 1. "Bibliographic records, which contain information about a book, serial, sound recording, videorecording, etc. [...]
- 2. Authority records, which contain standardized forms for names, titles, and subjects that are used on bibliographic records and provide cross references in catalogs."

These standardised authority records allow many different versions of the same name, title or concept to be found in one and the same record. The occurrence of duplicate entries with slightly different spellings or including/excluding for example a persons middle name, like "Smith, John" and "Smith, John W.", will be eliminated with the proper use of authority records (more about authority records/control in chapter 4.3.4.) MARC covers both bibliographic and authority records.

4.1.5 Resource Description and Access (RDA)

Resource Description and Access (RDA) is the continuation of AACR, formerly named AACR3. It is due for publication in 2008. The strategic goals for RDA are to:

- "Continue to base rules on principles, and cover all types of materials.
- Foster use world-wide, while deriving rules from Anglophone conventions and customs.
- Make rules easy to use and interpret.
- Make applicable to an online, networked environment.
- Provide effective bibliographic control for all types of media.
- Make compatible with other similar standards.
- Encourage use beyond the library community.

"RDA will contain new introductions, content rules and updated examples, will cover authority control, use FRBR terminology and simplify the text to improve consistency. It will also reach out to other communities to achieve greater alignments with other standards." (Chapman 2006)

RDA will better reflect the principles of FRBR so that the information contained in the MARC records created with AACR/RDA can be transformed to FRBR compliant form. It will also cover authority control and "*simplify the text to improve consistency*" (Chapman 2006) (see also chapter 4.3.5). The reason for building upon the existing AACR is that it is too big a change to create a whole new set of rules for cataloguing if the old ones can just be upgraded to accommodate the new concepts. However, critics say that RDA it is not good enough. They argue that RDA starts in the wrong end and tries to upgrade existing cataloguing rules without properly considering what kind of environment these rules will be used in. To them RDA represents "*insufficient change with a large price tag for implementation*" (Coyle & Hillman 2007).

"Prior to elaborating detailed cataloging rules for libraries, we need to decide whether the user will view a general bibliographic tool that connects users and information resources no matter their origin, or continue to view a library inventory, that requires users to look elsewhere for other information they might need. In parallel, we need a concerted effort to work with interested non-library communities to apply principles of systems analysis to define the functional requirements and use cases that can assist in focusing the general principles and general rule development for bibliographic description. [...][Librarians] who have embraced the present information technologies and are looking forward to what the future will bring are particularly dismayed at the creation of another set of cataloging rules based on technologies that are now decades past." (Coyle & Hillman 2007)

Here the performing arts actually have one advantage over libraries. They have no rules whatsoever and have much to gain from just acquiring a more coherent practice.

RDA is "designed for the digital environment, aimed at all who need to find, identify, select, obtain, use, manage and organise information." (Chapman 2006) Notice these seven functions in comparison with the user tasks defined in FRBR (see chapter 4.3.2). Furthermore RDA is *independent of technical communication formats*". In recent years a range of new formats for exchange of bibliographic data have emerged, for example Dublin Core and different versions of MARC.

The development of new library systems has to factor in the existing MARC catalogues (at least in Norway). For libraries to revolutionise their practices by introducing a brand new system, and abandoning the old MARC and AACR rules and values, is considered by many to be too big a change. It could require the re-education of librarians and the replacement of so much hardware and software that it might not be worth while. However, one can use the existing records and extract information from them into a new system. This may only require minor changes to the cataloguing practice. If so, it may be sufficient to just upgrade the current practice and not abandon it completely. This is what RDA aspires to do. In answer to critics who say that RDA is not a big enough change, RDA developers say that one can always create another platform later. Critics are not happy with this answer because they feel that two major changes may be too much.

"Some of the advocates for gradual change insist that RDA will of necessity be transitional, and that "next time" the changes to support the desires of the impatient will be easier to accommodate. It's hard to imagine where the energy and resources for such a "next time" effort will come from, given that it is far more likely that, should the current process fail to look forward rather than backward, others will claim the territory." (Coyle & Hillman 2007)

4.2 Performing Arts and the Concept of Time

Technically, all objects can be seen as processes, or events, in time. Physical matter changes into new forms. It may take moments or millennia, but it is how nature works. However, for documentation purposes, it is useful to us as humans to classify these objects as endurantsca, not as perdurants (see below).

"Endurants are wholly present (i.e., all their proper parts are present) at any time they are present. Perdurants, on the other hand, just extend in time by accumulating different temporal parts, so that, at any time they are present, they are only partially present, in the sense that some of their proper temporal parts (e.g., their previous or future phases) may be not present. "(Crofts, Doerr, Gill, Stead & Stiff c2006, p. vi)

The actors may have aged a little during the performance, but the repertoire catalogue treats them as being in one state for the whole performance. A theatre production is never wholly present at any time; it occurs in time and is only partially present at any one moment. The concept of time is crucial to be able to catalogue events properly. Some may not care about the intricacies of cataloguing individual performances, but this is a key factor for an accurate and exhaustive description of productions. As Miller and LeBoeuf (2005) point out, there are three types of time-spans for theatre productions.

- 1. The time-span of a single performance.
- 2. The time-span of a run of performances.
- 3. The time-span of a series of runs (the life span of a production).

These concepts cannot be expressed unambiguously in current library catalogues, but in the conceptual database models emerging today the level of detail is much greater and there is plenty of room for intangible concepts.

4.3 Conceptual Database Models

Database design (described in Connolly & Begg 2005) is usually divided into three levels/stages, the *conceptual*, *logical* and *physical* level. A conceptual database model is a layout of the idea of the database before any computers are involved. Basically, it is the blueprint for the database before one actually starts building it. In other words, a description of the *data entities* the database is supposed to contain (person, title, etc.) and the *relationships* (is a, is part of, etc.) that exist between those entities. A conceptual *reference* model is pretty much the same thing, only it is not intended to be made into a single database but to serve as a general reference for developers creating databases. The first two models described below are both reference models intended to cover the domains of museums and libraries respectively. The logical level is the process of *"construction a model of the data used in an enterprise based on a specific data model, but independent of a particular DBMS* [(Database Management System)] and other physical considerations" (p. 294). The physical level is a description of the actual database implementation. "[...] it describes the base relations, file organizations, and indexes used to achieve efficient access to the data [...]" (p. 294). In real life, the borders between the different stages are blurred. One may for example create a conceptual model, a logical model, start programming the physical database and then go back to refine the logical model because the implementation process revealed some flaw.

In an ideal world one would first develop all the policies, rules, schemas, models and so on for the administration of the data. Then one would build the actual database, the system would work perfectly and no changes would be needed. Many databases are created before the data administration tools and rules are finalised. These tools and rules are often updated continuously, and sometimes the physical design of the database conflicts with these updates. It is a continuing battle for system developers to create conceptual models which are scalable and require as little maintenance and upgrade as possible. In other words, one must do envision the concepts properly and as unambiguously as possible, because the mistakes made early in the process has repercussions throughout the whole system.

4.3.1 CIDOC Conceptual Reference Model (CIDOC CRM)

The International Council of Museums (ICOM) "has more than 30 International Committees each devoted to the study of a particular type of museum or to a specific museum-related discipline" (ICOM [2007]). One of these, the International Committee for Documentation (CIDOC), is responsible for creating the CIDOC Conceptual Reference Model (CIDOC CRM) (Crofts, Doerr, Gill, Stead & Stiff c2006).

"The primary role of the [CIDOC] CRM is to enable information exchange and integration between heterogeneous sources of cultural heritage information. It aims at providing the semantic definitions and clarifications needed to transform disparate, localised information sources into a coherent global resource." (Crofts et al. c2006, p. i)

CIDOC CRM is a formal ontology, or *"an explicit specification of a conceptualization"* (Gruber 1992), which describes the semantics of the documentation structures for museum collections; that is physical artefacts and archive documents. The CIDOC CRM ties all objects together using time-spans and temporal entities (events). Everything is centred on the

events. A museum artefact cannot be described accurately without a proper description of the context it occurs within. Like in Buddhism, nothing exists except in relation to something else. By itself, without properties (relations to other objects), it is nothing. A physical artefact is considered an endurant; an object that lasts. Or in other words, a physical object that can be described as having certain physical states at certain points in time. Any artefact can potentially be related to any (performance) event.

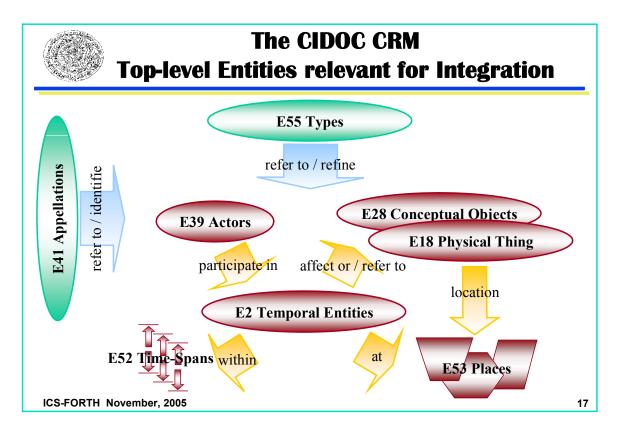


Figure 1 – CIDOC CRM top level entities (Doerr & Stead 2005)

Each event (E2 Temporal Entities) can be described as a time-span (E52) in which certain artefacts and/or persons (E28 Conceptual Objects/E18 Physical Thing/E39 Actors) interacted or were affected in a certain way, at a certain geographical location (E53 Places). Once the event is over, it is lost forever. Only traces of it remain in artefacts (pictures, recordings, wear and tear on objects) and in the minds of the people who were present.

Creating an ontology means defining precisely what data entities mean. Each entity and each

relation has an identifier and a scope note. This scope note is perhaps the most important part of the definition.

"A scope note is a textual description of the intension of a class or property. Scope notes are not formal modelling constructs, but are provided to help explain the intended meaning and application of the CRM's classes and properties. Basically, they refer to a conceptualisation common to domain experts and disambiguate between different possible interpretations. "(Crofts et al. c2006, p. vi-v)

So, it is this scope note that defines the entity, not the name or label. For example, the entity "E52 Time Span" is not defined by a layman's interpretation of what a "time span" is but by the text provided in the scope note. The textual phrase "E52 Time Span" is just a label. This is a key element in database design. Without properly disambiguating the concepts one wants to register, the data in the database will be open for interpretation and, consequently, less credible.

4.3.2 Functional Requirements for Bibliographic Records (FRBR)

The changing environment of library cataloguing in the late twentieth century has spurred the creation of Functional Requirements for Bibliographic Records, a conceptual data model developed by the International Federation of Library Associations (IFLA) and described in the FRBR final report (IFLA Study Group on the Functional Requirements for Bibliographic Records 1998). FRBR is a description of the bibliographic universe through a so-called entity-relationship model. In other words, an overview of all entities and relations one might try to store information about in library catalogue. The main building blocks are entities and relations. An entity is an object, either abstract or concrete. A relation describes what connects entities to each other. FRBR contains three main groups of entities:

- Group 1 Intellectual and artistic entities.
 - Work, Expression, Manifestation and Item.
- Group 2 Those responsible for the content of the entities in group 1.
 - *Person* and *Corporation*.
- Group 3 Subjects of works.
 - Concept, Object, Event and Place.

The most important innovation here is the first group of entities. It identifies four different levels of meaning not visible in regular catalogues. The "Work" is an abstract entity

representing an artistic idea or creation, for example, the idea of Shakespeare's Hamlet. "Expression" is also an abstract entity and refers to how the artistic content is expressed, for example, English language. "Manifestation" points to the characteristics of the physical manifestation of the expression, for example, the details of a given printed Hamlet edition. Finally, the "Item" is an actual book you hold in your hand, or one specific copy of that Hamlet Edition.

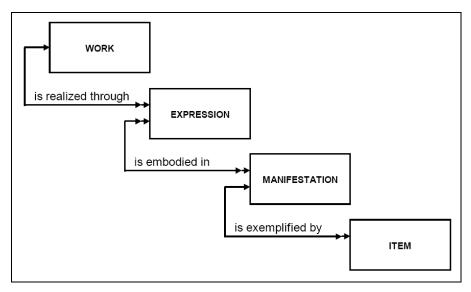


Figure 2 – FRBR Group 1 entities (IFLA Study Group on the Functional Requirements for Bibliographic Records 1998)

Svenonius (2000, p. 20) lists the *"IFLA objectives – modified to provide model independence, continuity with tradition and navigation objective":*

- 1. To *locate* entities through searching.
 - a. *Find* a singular entity
 - b. Locate sets of entities
- 2. *Identify* an entity.
- 3. *Select* the appropriate entity relative to the user's needs.
- 4. Acquire or obtain access to that entity.
- 5. Navigate the bibliographic database.

These objectives constitute the objectives of a so-called full-featured bibliographic system. The original FRBR report includes the first four of these as *user tasks* – i.e. as tasks users perform when searching the catalogue. The relevance of each piece of information in the catalogue is graded (high, medium or low) relative to these tasks to show which catalogue data are most important and for what they are most useful.

Note that the information needs of users – their motivation for searching – are separate from the user tasks they must perform to satisfy that need. Asking the librarian to search for you does not mean that you yourself are using the system –thus performing the user tasks above – the librarian is.

4.3.3 FRBR and CIDOC CRM Harmonisation

Museums can hold both artefacts and bibliographic items in their collections. Similarly libraries can hold both books and museum artefacts (or three-dimensional objects). Furthermore, artefacts and books can be related in many different ways. For example books can be about artefacts, artefacts can be used in the process of making certain books, or they may both be connected to the same event. Hence users searching for either books or artefacts may find both library and museum catalogue data useful. For this reason IFLA and ICOM are working to harmonise CIDOC CRM and FRBR to allow meaningful data exchange between systems based on either model. FRBR has been translated into CIDOC CRM compliant form by defining the principles of FRBR using CIDOC CRM concepts, thus creating FRBR Object Oriented (FRBR_{OO}). The 1998 version is called FRBR Entity Relationship (FRBR_{ER}).

"The harmonisation between the two models is also an opportunity to extend the scope of the CIDOC CRM to bibliographic information, which paves the way for extensions to other domains and formats [...]. Consequently, it also extends the scope of FRBR to cultural materials, since FRBR "inherits" all concepts of the CIDOC CRM, and opens the way for FRBR to benefit from further extensions of the scope of CIDOC CRM, such as the scientific heritage of observations and experiments." (International Working Group on FRBR and CIDOC CRM Harmonisation 2007, p. 9)

Instead of creating a separate model, the harmonisation group is working to include the conceptual description of performing arts in FRBR₀₀. This work is not yet finished but the preliminary version contains the current conceptualisations of the performing arts specific entities. Below are excerpts from the latest (but not official) version of FRBR₀₀, published in May 2007 (International Working Group on FRBR and CIDOC CRM Harmonisation 2007). Remember that it is the scope notes that define the entities, not the entity names/labels. Furthermore, the scope notes are actually much longer than shown here.

F50 Performance Plan

<u>Scope note</u>: This class comprises sets of directions to which individual performances of theatrical, choreographic, or musical works and their combinations should conform.

F51 Performance Work

<u>Scope note</u>: This class comprises the sets of concepts for rendering a particular or a series of like performances.

F52 Performance

<u>Scope note</u>: This class comprises activities that follow the directions of a performance plan, such as a theatrical play, an expression of a choreographic work or a musical work. I.e. they are intended to communicate directly or indirectly to an audience.

The relationships between them are as follows: F50 Performance Plan is a realisation of F51 Performance Work, and F52 Performance is one specific performance of F50 Performance Plan. Notice how performing arts are expressed with the help of the first group of FRBR entities. In other words, the performance *work* is *expressed* in a plan. That plan is in turn *performed* (or *embodied/manifested*?) in a performance.

Another important development undertaken by the harmonisation group is to include the Functional Requirements for Authority Data (FRAD) in the FRBR_{OO}.

4.3.4 Functional Requirements for Authority Data (FRAD)

The need for a national authority registry for persons and corporations is well understood in the library community. A report from the Norwegian Cataloguing Committee (Den norske katalogkomité 2004) underlines that the Norwegian MARC-based library catalogues are not suitable as the basis for creating such a registry. The same goes for the Norwegian National bibliography (Norsk Bokfortegnelse). Both their practices are too heterogeneous and inconsistent; hence, heterogeneity and inconsistency indicate a poor starting point for creating authority records in other databases too.

A proper conceptualisation of just what authority data entail has not been around until recently. The conceptual model Functional Requirements for Authority Data (FRAD) aims to remedy that just like FRBR has conceptualised bibliographic data. It is actually an extension

of FRBR. The most recent draft of FRAD is currently available for worldwide review at the IFLA website (IFLA Working Group on Functional Requirements and Numbering of Authority Records (FRANAR) 2007). FRAD is designed to:

- *"provide a clearly defined, structured frame of reference for relating the data that are recorded in authority records to the needs of the users of those records;*
- assist in an assessment of the potential for international sharing and use of authority data both within the library sector and beyond." (p. 1)

Authority records have two functions. To distinguish between similar entities, like two authors publishing under the same name, and to collocate pieces of data that naturally belong together, for example alternate spellings of the same name. The term "authority control" refers to "*both management of authorized forms and identification of the entities that are represented by those access points.*" (p. 1) The FRAD effort shows the library community wants to facilitate proper authority control in the next generation library catalogues, and the presence or absence of authority control in the repertoire databases will be a key issue for the upcoming analysis.

4.3.5 FRBRising the Library Catalogue

The Online Computer Library Center (OCLC) maintains the WorldCat union catalogue which contains MARC records from libraries all over the world. They are actively researching ways to implement FRBR in the library catalogue and have several projects, including a prototype FRBRisation of WorldCat named FictionFinder, available online ([OCLC 2007]). FictionFinder "provides a FRBR-inspired view of the data", but so far it is limited to fiction literature only.

Another similar implementation is described in Aalberg, Husby, Haugen & Ore (2005). BIBSYS ([2007]) is the national online library system for Norwegian academic and research libraries. It provides search and retrieval facilities for all Norwegian college and university library collections, via MARC records. Aalberg et al. have created a prototype system for transforming all the MARC records in BIBSYS into an FRBR_{ER} compliant form. They expose several weaknesses of the traditional library cataloguing practice as they try to map the content of MARC fields to the appropriate FRBR entities. The main goals of the project are (Aalberg et al. 2005, p. 1):

- *"To concretise the FRBR model within the framework of a library catalogue."*
- To evaluate, test and recommend methods for automatic extraction of entities, attributes and relations.
- To develop strategies and guidelines for concrete implementations.
- To identify tasks and areas where further work towards concrete solutions is needed"

The system demonstrates that it is possible to automatically generate FRBR entries without fundamentally changing library cataloguing practice, but that some change is necessary to allow all the specificity, structure and semantics defined by the FRBR_{EE} model to be expressed. Ironically, the digitalisation of the printed library records into MARC has made the library catalogues less compatible with FRBR. Not so much because of MARC itself, but rather the set of rules (AACR2) that govern the actual cataloguing process, and because of inconsistent cataloguing in the new medium.

If all library catalogues were based on level three cataloguing, the most exhaustive description in AACR2, some of the problems encountered could have been avoided. However, cataloguing is expensive manual labour and due to budget constraints Norwegian public libraries have had to settle for level two, allowing the cataloguer to make certain choices and priorities, and excluding some information that might otherwise have been helpful. Below is a short summary of the main problems Aalberg et al. (2005) encountered:

- Lack of authority control (authority records)
- Ambiguous data
- Absent information
- Inconsistent cataloguing practice, either due to differing practices, changes in practice over time or poor quality work (typos, non-adherence to rules etc.)
- Multiple pieces of information in the same MARC field
- Manual encoding of data which should be separate attributes or entities
- Problems are inherited throughout the FRBR hierarchy (entities further down the FRBR hierarchy inherit problems from higher up)

"Authority control" is covered by the previous chapter. "Absence of information" may occur for several reasons. Using level two in AACR2 certain rules are optional. Some libraries choose to include the optional information, while others do not. This leads to inconsistent occurrences of certain types of information. "Inconsistent cataloguing practices" may also be due to local modifications to the rules or changes in practices over time. "Ambiguous data" are data that have several possible interpretations. For example, the absence of authority control makes it difficult to distinguish between authors with identical names. Another example is the frequent use of titles like "Symphonies", "Works" or "Collected Works".

"Multiple pieces of information in the same field" make it difficult to extract information. First of all, it is not always clear just which part of the text string constitutes a single piece of information (for example, the name of a person may not appear in such a way that one can automatically ascertain who it is). Names found in the *500-field for notes do not appear in inverted form like names in *100-field for main entries or *700-field for added entries. Furthermore, MARC does not completely replace the encoding of ISBD. Some information must still be manually encoded and sometimes more than one entity in the same field. Especially plain text information in the *500-field for notes is difficult to automatically convert. Another example is the practice of listing titles in the *245-field using ISBD notation to separate between instances.

In MARC there is not always a one-to-one relationship between the information in the document and the use of MARC-fields. The choice of field is sometimes determined by the location of the information within the source document. For example, parallel titles found somewhere other than the title page, may appear in the *500-field for notes, not in the *200-field along with the rest of the title information. In other words, the layout of the primary information source may influence the way information is catalogued. This is unfortunate because, even though the information is present in the MARC entry, it becomes more difficult to convert.

The main lesson here is that the cataloguing defined and practiced by the Norwegian public libraries is not quite detailed or consistent enough to be unambiguously expressed in $FRBR_{ER}$ terms. The choices and reasoning behind their practice may have been sound for its time, but not if they had anticipated that more expressive and detailed systems would appear in the future. Similar problems may face those trying to consolidate databases in other fields like

museums and performing arts.

4.3.6 The Global Performing Arts Database (GloPAD)

There is one data model in existence for the performing arts. It is created by the Global Performing Arts Consortium (GloPAC), "an international group of institutions and individuals committed to using innovative digital technologies to create multilingual, multimedia resources for the study and preservation of performing arts worldwide." USA, Russia, Japan and China are main the participating countries. In 1999, with financial backing from a wide range of international grants, GloPAC created the first prototype of the Global Performing Arts Database (GloPAD) (Young [2006]). The database is designed to facilitate exchange of both digital representations of theatre artefacts and metadata attached to those representations. It contains "images, texts, video clips, sound recordings, and complex media objects of performance materials". GloPAD has two types of metadata records. "Core records" identify and describe a unique object, say a photograph from a performance. "Background records" contain "records about the production and the piece [...]; the biographical records [...], the actor(s) depicted, the director and other creators; and the records of the place where that performance occurred". In other words, it is mainly these background records that contain information equivalent to that of the repertoire databases. The main types of background records are:

- Person "a biographical record of the names, birth and death dates, and main institutional associations of a person."
- Piece "the framework of the performance, whether written by a named person or persons or culturally transmitted."
- Production "A collection of one or more performances."

"... the concept of the piece is rather loosely defined for most performing arts, relying on the assumptions and processes of unification that go with dramatic histories. This means that theatres that have developed within the cultural sphere of the dramatic text, those traditions that have the plays written in advance by single playwrights and have those plays performed as a single piece, have assumed the role of standard bearer for all the performing arts traditions and have had the effect of creating archives in their mold. GloPAD, in trying to open itself to the global sphere of performing arts traditions, has had to work with the concept of piece by leaving opportunities for the supplemental definition of specific historical instances. [...] Simply put the common idea of a performance piece does not fit the actual histories of many performing arts traditions and thus must be modified in order for materials from those other traditions to be described within the GloPAD system." (Young [2006])

The performance moment is the central structural concept of GloPAD, or "the moment of performing that is represented in the digital object".

"[...] we have chosen to center this performance moment instead of the common concept of 'a performance,' which is usually assumed to be the vague entity called the show. We have come to this way of presenting performing arts materials through a process of trial and error, because the usual manner of describing performance history privileges a narrow concept of a piece, a concept that belongs to drama but that is not applicable in many histories of performing arts. For example, the typical program for a Kabuki theatre has been for the last hundred years or more a selection of what we might call scenes from pieces." (Young [2006])

GloPAD is multilingual. It allows such diverse languages as Chinese, Japanese, English and Russian in the same database. Furthermore, the traditional theatre vocabularies, with both shared and unique names for functions etc. collide here. These respective languages and vocabularies need room to be properly expressed or one must choose just one set, and reject all the others. Therefore GloPAD allows "[...] vocabulary lists such as theatrical roles to be added to by [their] contributing editors [...]" (Young [2006]). The different types of vocabularies are (with some examples):

- <u>Functions</u> (Shamisen player, Acrobat, Circus performer, Computer programmer(?), Cartographer, Instrumentalist, Actress, Troupe founder) (GloPAC [2007]a)
- <u>Sections of a performance</u> (Performance: Act I, Applause, Exit, Pre-performance ritual / activity, Antelude, Dress rehearsal, Entire performance, Intermission)
 (GloPAC [2007]b)
- <u>Piece types</u> (Abbreviation, Title for abridgement of piece, Popularized title, Title in original language, Translation, Transliteration, Earlier title) (GloPAC [2007]c)
- <u>Person alternate name types</u> (Alternate spelling, Alternate transliteration, Birth name, Maiden name, Religious name, Authority name, Stage name, Nickname, Retirement name, Earlier stage name) (GloPAC [2007]d)
- <u>Arts of performance</u> (Acting, Aerial stunts, Puppetry, Masks or stylized makeup, video screenings, Playing music, Clowning, Other) (GloPAC [2007]e)

<u>Component types</u> – (Facade, Entrance, Foyer, Lobby, Scene design drawing, Water puppet, Light and sound score, Biomechanics training, Flier, Program, Invitation, Subtitles, Bathing area, Sheet music, Mask, Mask making) (GloPAC [2007]f)

Some of these examples may sound counterintuitive. One could ask questions like "is the applause really a section of the performance, and are both masks and mask making really component types? What about biomechanics training? The GloPAD editor can use his or her own terms for description, any terms at all. There seems to be no controlled vocabulary here, only the loosely understood categories of the independent editors. Take for example the component types "Entrance", "Foyer" and "Lobby". Are they referring to the same thing? These vocabularies should be under some form of control because related terms are not connected in any way. They cannot be used for proper navigation. If you want to find all components that have to do with the "Foyer" will you not also be interested in the term "Lobby"? In any case, GloPAD is the most elaborate attempt to unite different theatrical traditions across language barriers in the same database.

GloPAD, FRBR and CIDOC CRM all emerged independently at roughly the same time (1996-1999) and are quite different. FRBR₀₀ now has the most recent attempt to conceptualise performing arts, and it would be interesting to do a more in depth comparison of it with the data model behind GloPAD. On a more general level, the most significant difference between GloPAD and the others is that the models of museums and libraries emerge from traditions that actually have many international standards for documentation. The performing arts do not. GloPAD tries to fill that gap. It is also mapped to a range of exchange formats like Dublin Core (DC) and Categories of Description for Works of Art (CDWA). However, since the GloPAD conceptual model is not harmonised with the conceptual models for the domains where those exchange formats emerged, much work still remains before information exchange can occur without potential loss of meaning. GloPAD does show that there are people in the international performing arts community who recognise the need for better and broader documentation and accessibility, and that quite a few institutions are willing to spend time and money to make it happen.

4.4 Purpose and Function of the Catalogue/Database

The conceptual models are state of the art in information science. They aim to encompass any conceivable information one might register in a catalogue/database and form the basis for full-featured systems in the future. But, of course, not everyone needs all that functionality and wealth of information. The library catalogues are getting old and their functionality is increasingly limited relative to the information needs and demands out there.

"The bibliographic objectives [...] can be seen as historically determined: they have emerged as the bibliographic universe has expanded and has triggered everincreasing difficulties in the search for information and as users' needs have become more demanding." (Svenonius 2000, p. 29)

Svenonius (2000, p. 27-29) explains the arguments for and against full-feature catalogue systems (for libraries).

For full-featured systems:

- Some users, like scholars, do need the capabilities of such a system. (anecdotal evidence)
- Users need assistance in finding correct search terms and in achieving their desired retrieval goals, even when they are not sure what those goals are.
- The systems are required if knowledge is to advance. Progress depends on cumulative scholarship.

Against full-featured systems:

- Cost the more features and details, the more expensive it is.
- Users are often not capable of exploiting the full capacity of the system anyway.
- No single system needs to meet all the needs of all users. Smaller and more specialised systems can tend to specialised needs.

The volume of information available today means that, first and foremost, users searching for information need to *navigate* the bibliographic universe in order to *find* the information entities they seek. The tasks of *identifying*, *selecting* and *obtaining* those entities come after the navigation process.

"All library catalogs subscribe to the traditional objectives in principle. In practice, however, many have become deranged over time, in large part due to retrospective conversion and the use of shared bibliographic records. As a result, a significant amount of organization has been lost, both in the online display of bibliographic records and in the arrangement of documents on shelves. Proposals to 'fix' such systems – to bring them once again in line with their original objectives – are

generally dismissed as unaffordable." (Svenonius 2000, p. 24)

Designing systems that allow navigation is one thing, but if the information one navigates through is too ambiguous then it matters less how accurate the system itself is. The form of the data is essential. As the FRBRisation of BIBSYS demonstrates, ambiguous or absent data, or lack of authority control, obstruct the transformation or migration of data. Cultural institutions documenting their activities should ask which role their database plays in the world, and which role it could or should play.

As the needs of library constituents (the general public) change libraries must adapt accordingly. Today the bibliographic universe Svenonius talks about has expanded to include information from non-library domains. In short, more people use metadata nowadays and for more tasks; both the bibliographic metadata and that of other information providers. If the libraries are to continue helping their users they must look to the future. It may not be a good idea to stick to the current techniques and systems when the information society is evolving so fast. It may be time to integrate their resources with other relevant ones. Performing arts materials represent one such resource for libraries, and similarly, the performing arts institutions should look to their neighbouring domains to see if they can work together on documentation. But which performing arts institutions in Norway may need to do this? Eight of them are presented in the next chapter.

5 THEATRES AND INSTITUTIONS

Leading up to the presentation of the study results in chapter 6, this chapter introduces all the eight institutions that are part of the study.

5.1 The National Theatre

The National Theatre (Nationaltheatret) opened in 1899. It has "*a stated goal of being recognized as one of Europe's leading theatres; ground breaking and rich in tradition.*" (Nationaltheatret [2007]) Today it has four different stages (Hovedscenen, Amfiscenen, Malersalen and Torshovteatret) and hosts the Contemporary Stage Festival and the Ibsen Stage Festival. It has its own archive (which is part of the information department) and an online repertoire database designed by a software company called Vivendi. The database covers all the productions at the theatre, also including guest performances, and is currently maintained by one full time archive employee.

5.2 The Norwegian Opera

The Norwegian Opera (Den Norske Opera [2007]) was opened in 1955 on the premises of the former "Folketeatret". It is the largest music and performing arts institution in Norway and also includes the National Ballet. The Opera has a vision to be "a leading, European arena for musical drama and dance [...]". Its main goals are to produce "high quality musical drama and dance [...] administer, develop and renew a comprehensive repertoire within opera and ballet, music and dance theatre [and] use the resources in the best possible way and goal orient their work" ([2007]).

The Opera has does not have a searchable repertoire database as such, but repertoire data is stored in several different documents (Word and Excel files) on their intranet, all found in the same folder. One folder contains files related to one given production. They have no archive as such, and, consequently, no archive employees; they do have an information department and its head is the respondent interviewed for this thesis.

5.3 The Norwegian Theatre

The Norwegian Theatre (Det Norske Teater) was started as part of a movement maintaining

the legacy of the work of Ivar Aasen. (There are two official versions of the Norwegian language – "Norwegian Bokmål", which is based on Danish, and "Norwegian Nynorsk", which was created by Aasen based on dialects from all over the country.) The statutes of the Norwegian Theatre written in 1913 say that the theatre shall *"perform plays in Norwegian language, in rural areas and cities"* (Det Norske Teater 2003). That is, drama performed in "Norwegian Nynorsk". Official documents, programs etc. from the theatre are also written in Norwegian Nynorsk.

"The Norwegian Theatre has built upon these traditions; been open to contemporary Norwegian drama and new interpretations of Norwegian classics, while at the same time keeping up with modern European drama. So, from the local, through the national, to the international. (Det Norske Teater [2007])

The theatre has an in-house library/archive and a repertoire database in the Tidemann library system, which is based on the MARC format. The archive has two employees, one full time and one part time.

5.4 Oslo Nye Teater

Oslo Nye Teater was started as a private initiative to support Norwegian drama. It opened in 1929 and today it is run by the city of Oslo. *"The theatre shall reflect the urban life of the capital and promote contemporary Norwegian drama, and otherwise offer a comprehensive repertoire.* [...] productions for all age groups are performed on the theatre's stages" (Oslo Nye Teater [2007]). It has four stages (Hovedscenen, Centralteatret, Caféscenen and Trikkestallen), its own library/archive and a self-made in-house database from the mid 80s covering all productions since the opening. The archive and database are maintained by one full time employee. (This theatre also does not have an official English name.)

5.5 The Norwegian National Library

The Norwegian National Library (Nasjonalbiblioteket) is responsible for collecting, cataloguing and holding Norwegian literature and Norwegian publications in all kinds of media, and making them available to the public. Their primary goals are to be

"among Europe's most exciting and modern national libraries [...] Form the core of the Norwegian Digital Library [...] Offer high quality knowledge and experiences [...] Assist in the [...] understanding of culture and technology [...] Be an organisation willing and able to change [...]"(Nasjonalbiblioteket [2007]c)

The Union catalogue of theatrical performances, "Samteater" for short (Nasjonalbiblioteket [2007]c), originated in the department of theatre history at the Norwegian National Library. It is the first attempt to create a national digital database of Norwegian theatre productions. It consists solely of imported data from other repertoire databases maintained by individual theatres. The project was abandoned in 2000 because IT-personnel resources were limited and user traffic was low.

5.6 Ibsen.net

"The ibsen.net project was established in 2001 with funding from the National Ibsen Committee of Norway (earmarked grant from the Ministry of Cultural Affairs). The project has been located together with the secretariat of Ibsen Year 2006". (Ibsen.net [2007]d)

Ibsen.net is the official website of The Centre for Ibsen Studies in Oslo and aims to be *the* internet resource for Ibsen knowledge and research. Work is currently in progress to populate an online repertoire database (Ibsen.net [2007]c) covering all Ibsen productions worldwide. The database is specially designed by a local system provider (GAN media). Two employees maintain the database and website.

5.7 Norsk Scenekunstbruk

Norsk Scenekunstbruk, established in 1995, is an extension of the Norwegian Association for Performing Arts (or NAPA – also know as Danse- og Teatersentrum), "*a state-subsidised lobbyist organisation and a competence centre for professional, non-institutional, performing arts in Norway*" (Danse og Teatersentrum [2007]). Its primary function is to aid the promotion of productions by the independent theatre groups. With the introduction of the Cultural Rucksack in 2003, Scenekunstbruket was appointed to be one of its national agents by The Norwegian Parliament.

"The Cultural Rucksack is a joint initiative of the Ministry of Culture and Church Affairs and the Ministry of Education and Research. [...] [It] is a national scheme for professional art and culture in schools in Norway. The scheme helps school pupils

aged 6 to 16 to become acquainted with all kinds of professional art and cultural expressions. (The Cultural Rucksack [2007])

Their online repertoire database contains repertoire data about productions currently on offer by their members. Also, it contains administrative information about the activities of their constituents, which allows them to generate comprehensive statistics of the independent field of Norwegian theatre. It is the only database of its kind in Norway and is maintained by one full time NAPA employee.

5.8 The University Library of Bergen

The theatre "Den Nationale Scene" (formerly Det Norske Theater) was established in Bergen in 1850. Today, archive material from this theatre is the responsibility of the Theatre Archive at the University of Bergen (Universitetet i Bergen. [2007]a). The archive was established in 1969 and its goals are to (Universitetet i Bergen [2007]b):

- *a) "facilitate the long-term building-up and utilisation of the institution's scientific collections, archives and registers for research purpose*
- b) link relevant collections more closely to priority areas
- c) increase the digitalisation of source material
- *d)* ensure the further development of user-friendly and up-to-date information services for research purposes
- *e)* secure access to information resources for research purposes in accordance with the University of Bergen's priority activities"

The archive has one employee working half time to maintain the database and archive collection.

6 STUDY RESULTS

This chapter discusses the results of the study. It is divided into topics inspired by the topical headings of the study guide and the list of problems described in chapter 4.3.4 related to the FRBRisation of the Library Catalogue.

6.1 <u>Human Resources</u>

The people interviewed were the ones most directly responsible for maintaining the repertoire databases in the individual institutions. They had diverse backgrounds. Some had university degrees (in culture, drama or language), one was educated as an actor while (only) one had a degree in library and information science. Two had no higher education at all, but in return plenty of experience. The person with the least experience had worked for two years with performing arts documentation. This lack of library or archive education may indicate that the necessary adherence to standards and principles for creating and/or maintaining a quality catalogue/database is not wholly present. Also, it shows that documentation is not a big priority in the performing arts community, or they would have hired information specialists.

A few of the respondents have actually been part of the database development. The interviewees at Scenekunstbruket, The National Library (Samteater) and Ibsen.net initiated their respective database projects themselves. The other interviewees work with systems that were commissioned or built before they began working there. Again, the Opera does not have a database as such, and their documents have been collected and administered by a number of different people.

As mentioned in chapter 3, it proved difficult to get good answers to questions about libraryspecific topics because the respondents had limited knowledge of or interest in these issues. Everyone had to have at least some concepts explained before they could answer questions about them. Apparently topics like authority control and exhaustivity had little relevance to their everyday duties. Especially trying to define exactly what a production was to them or in their database, in other words to define the basic entity in their catalogue, was difficult. Even performing arts scholars might disagree on just what constitutes a theatrical performance, so why should archive employees know? GloPAD and FRBR_{OO} are two independent models which have approached performing arts from different angles.

6.2 Goals and Target Groups

There are two main types of institutions in the study, individual theatres on one hand and libraries and theatre related organisations on the other. As expected, the main find concerning the stated goals is the variation. The theatres have their artistic angles and priorities in relation to their productions. For example, The Norwegian Theatre only makes productions in Norwegian Nynorsk and the Opera is naturally focused on opera and ballet. Their goals are mainly concerned with the art, not the documentation.

"I do not think you will find much of a connection between the goals and attitudes towards the National Theatre's artistic activities, which is what they are most concerned with, in relation to the small documentation department which is me here. It is totally down prioritised". (The National Theatre interview)

The other institutions do not create art; they merely document and/or promote it. The University Library of Bergen and The National Library document on behalf of their constituents whose interests and needs are not solely directed towards performing arts. Their theatre archives are small compared to the size of the institution they are part of. The goals of Scenekunstbruket and Ibsen.net are a different story. Performing arts documentation is a core activity for them and their stated goals reflect this.

"[...] we do not have a superior strategy document. We do have a superior goal. A very clear and concise superior goal: To get a complete database of Ibsen productions from theatre stages all over the world, from 1850 until today. When it comes to the website as such our goal is to be the foremost Ibsen-website [...]." (Ibsen.net interview)

Scenekunstbruket is particularly interesting because its goal statement covers a wide range of activities. The specific goals are (Scenekunstbruket [2007]c):

- "Make high quality performing arts available to as many as possible.
- Promote artistic development and renewal.
- Good availability of 'tourable' high quality performing arts productions for organisers.

- *High independent performance art competency among organisers.*
- Good selection of performance locations locally and regionally.
- Good touring conditions for stage artists.
- Scenekunstbruket shall still have a central role in the Cultural Rucksack.
- Each primary school pupil shall have two high quality performing arts experiences every school year. "

One concrete step to realise these goals is to make a "*data based overview of performances available online*" (Scenekunstbruket [2007]c), and that is only the beginning. Another important activity is to aid tour planning using a tool called KSYS, developed by Orgdot (the same company that made the repertoire database for Scenekunstbruket). KSYS "*binds together the logistics and communication processes on, and between, national, county, municipal and school levels*" (KSYS [2007]) and in doing so facilitates the administration, planning and arrangement of independent stage productions around the country.

"It also means that, since we have the [repertoire] database, all the time when our productions are copied to KSYS, a trace is left so I can see anytime where that production is, where it is on tour. [...] one of the most important goals of this is to have a well functioning administration tool." (Scenekunstbruket interview)

There is obviously a big difference between the larger theatres and the other theatre (related) institutions in terms of what their goals are. These differences are also mirrored in how they define their target groups.

The main target group of the theatres is, of course, their audience – the people who attend the performances. However, the main target group of their archives is the more specialised, or professional, information consumer – primarily in-house users like dramaturges, marketing and information departments, directors and so on. Secondary users are external – journalists, students, school pupils, private individuals. In other words people who have a professional or educational interest in finding specific information about their productions. But this is not the limit of how the information can be used. Ibsen.net has a typical list of target groups:

"The primary target group is theatre researchers and historians, as well as students doing theatre studies. Other target groups: school pupils, students and researchers in other disciplines (comparative literature, Scandinavian studies, history of art, media science), theatre people and journalists." (Ibsen.net [2007]b) Again, Scenekunstbruket is different because of its base of members. That base is the primary target group. Anyone else who might want the information in the database is welcome to use it, but the main reason why it is produced is to aid the practical work of the independent theatre groups and the buyers of their productions.

6.3 Economy

All the institutions in the study are state subsidised but financial resources are not abundant in any of them. Some feel their database suffers as a result, and many would like more money for their core activities. Ibsen.net does have a fairly decent economy, but still they did not reach their goal of cataloguing all Ibsen productions in the world by the Ibsen year 2006. Today, they are about half way there.

"The repertoire database [...] has been incredibly demanding on our resources. We have not come as far as we want. [...] With five employees registering full time we might have been able to do it, but that would have required a lot of resources, also organisationally." (Ibsen.net interview)

Furthermore, as they are moving to the National Library in the summer of 2007 they are concerned about the financial situation of the future. In the years leading up to the Ibsen year 2006 their funding has been *"relatively secure"*, but *"what the future will be like over at the National Library we know little about. [...] we may have to fight for our existence [...]"* (Ibsen.net interview).

The funding of NAPA/Scenekunstbruket comes through several channels. They receive money over the state budget, and the participating counties pay an annual administration fee. In 2007 they have also received 150 000 NOK in project funds from ABM-utvikling to improve the database. Samteater was shut down in 2000. Apparently, one of the reasons was that the IT department of the Norwegian National Library wanted to use their personnel resources on something other than that database. Some also argued that the database was not being used sufficiently to justify its existence.

The Theatre Archive in Bergen also has very little resources available. "[...]other allocated economic funds for the budget year amount to 3000 NOK, so you can imagine what you can

buy for that. I would be so bold as to call the economic situation meagre" (Theatre Archive in Bergen interview). Furthermore, the online version of their database has not been updated for almost two years because the university reorganised all their IT resources. The Theatre Archive uses Mac, and during the reorganisation certain staff members quit and left Mac users without proper technical support. The IT department used to handle the job of actually publishing the updated version online, but today the individual departments are responsible for their own websites and its content. Due to the lack of Mac competency at the institute the online version of the database has not been updated since the reorganisation. Specific projects may receive external funding, but not the database.

The National Theatre does have one full time archive employee, but only until the summer of 2007. After that the archive will be unmanned indefinitely and the task of maintaining the database and physical collection left to the information department. At the other theatres the library/archive is apparently not part of the budget planning. When they need money to buy books etc. for the library some resources may be available, but none specifically earmarked for the library/archive or the database.

"There is no budget for the archive. But if I feel there is a need for something new I ask for it and usually I get it." (Oslo Nye Teater interview)

"[...] all the departments have budgets to relate to, in relation to productions, for example, but we have no such "frame", no economical frames, but we purchase then and there and deliver a receipt and that has worked fine." (The Norwegian Theatre interview)

"No direct resources have been devoted to it [maintenance of repertoire information] in the form of any budget. It is, as far as I know, not in anyone's job description, except the music library." (The Norwegian Opera interview)

In the cases of the Theatre Archive in Bergen and of The National Theatre the lack of funds has direct consequences for the quality of the online database. At The National Theatre the documentation department is down prioritised and has no resources for quality control. In Bergen the online base is not up to date.

So, as far as money is concerned, documentation is not a big priority among the theatres. The

national and university libraries also had/have little funds for their bases. Scenekunstbruket and Ibsen.net, however, both have fairly decent economies, even though they too could wish for more money. Of course, these findings must be viewed in light of the institutional goals. For those who feel that their goals are basically being fulfilled, like The Norwegian Theatre and Oslo Nye Teater do, money for documentation is not considered a significant problem.

6.4 Content

The databases and documentation practices reflect the goals and conditions of the different institutions. This in turn affects how they select which data is important enough to put in the database and how they make other decisions concerning database content.

6.4.1 Selection of Data

Selection criteria differ from that of libraries. Each institution has a policy about which pieces of information it wants to catalogue. In a public library the set of cataloguing rules is the authoritative document defining which information is to be catalogued, and which ISBD/MARC fields they belong in. With the repertoire databases it is the individual archive/institution that decides the specifics of the cataloguing policy. They do not rely on an authoritative body like the libraries rely on the Joint Steering Committee governing the AACR.

Exhaustivity, or level of detail, is the degree to which related information is included in the database. Like with the three levels of library cataloguing the exhaustivity is usually a deliberate choice. Either one chooses to document "everything" or one selects a set of data deemed relevant enough to be catalogued. In the Norwegian public libraries the decision to catalogue using level two is economically motivated. The theatres are motivated by what they need for their own activities.

The theatres put primary focus on the artistic functions such as actors, directors, playwrights and others who add artistic content to the production. The more technical functions like prompter, stage master, extras, and are only included in the catalogue to a limited extent.

<u>Et dukkehjem</u>

| Sted: | Oslo, Norge |
|-----------------------|---|
| Oppsetningstittel: | Et dukkehjem |
| Premiere: | 14. oktober 1999 |
| Siste forestilling: | 16. desember 2000 |
| Spilleperioder: | 14.10.1999 - 15.2.2000 |
| 1 1 | 24 25.11.2000 |
| Rolleinnehavere: | |
| Torvald Helmer: | Henrik Mestad |
| Nora: | Anneke von der Lippe |
| Doktor Rank: | Nils Ole Oftebro |
| Fru Linde: | Ågot Sendstad |
| Sakfører Krogstad: | Ingar Helge Gimle |
| Helmers tre små barn: | Thea Håmo Urdal/Ilene Myrann Sørbøe, Joachim Vigrestad/Rolf Kristian |
| | Andreassen, Olav Tveit/Julian Hallen Eriksen |
| Anne-Marie: | Hennika Skjønberg |
| Stuepiken: | Eirin Hallangen Jansen |
| Et bybud: | Tobias Tjørstad/Adrian Ødeby Helvik |
| Regi: | Kjetil Bang-Hansen |
| Scenografi: | John Kristian Alsaker |
| Kostymer: | Jolanda Jandl |
| Lysdesign: | Ketil Akerø |
| Musikk: | Per Chr. Revholt |
| Dramaturgi: | Carl Morten Amundsen |
| Språk: | Norsk |
| Bearbeidelse: | Kjetil Bang-Hansen |
| Turné: | Turné med Riksteatret (premiere i Skien): 18. mars - 13. mai 2000 |
| | Gjestespill ved Royal Lyceum Theatre, Edinburgh, Skottland: 3 5. |
| | august 2000 Cingtografill and The John F. Kennedy Conten for Derforming Arts (Terroso |
| | Gjestespill ved The John F. Kennedy Center for Performing Arts (Terrace Theater), Washington, DC, USA: 15. og 16. desember 2000 |
| Anmeldelser: | Dagbladet av Hans Rossiné (15. oktober 1999) |
| Anneuelsel. | Dagulauci av mans kossine (15. oktober 1999) |

Figure 3 – Sample entry from Ibsen.net ([2007]a)

Ibsen.net focuses on the artistic functions for their database. Their database has separate registration forms for each of Ibsen's plays. Each character has a separate field also, allowing very accurate registration of actors, as long as the production has not modified the names of characters or added new ones (in which case one could argue whether it was an Ibsen-production at all).

The Theatre Archive in Bergen state that they aim to be as thorough as possible, and their database is one of the most extensive. Figure 4 is an excerpt from one of their production entries; it lists different document types. If a box is checked then the archive has in its

collection at least one such document related to the given production.

| Materiell 🖾 Manus | 🗌 Produksjonsplaner | 🗌 Tegnekonkurranse |
|---------------------------|----------------------------|----------------------------|
| 🗌 Noter og gramofonplater | 🗌 Billett-Innbydelse | 🗌 Div pedagogisk materiell |
| 🖾 Program og Reklame | 🗌 Inspisientjournaler | Scenemodeller |
| 🗌 Lysskjema | 🗌 Avisutklipp og kritikker | 🗌 Bilder fra forestilling |
| 🖾 Rekvisittliste | 🗌 Film, dias | 🖾 Portretter |
| 🗌 Prøverapport | 🗌 Lydbånd med intervju | 🗌 Gruppebilder |
| Scenerapport | 🗌 Møtereferanser | 🗌 Ukeoversikt spilleplan |
| 🗌 Lydkontentum | 🗌 Scene, dekor, bilder | 🗌 Scenografisk materiell |
| Salgstall | 🛛 Plakater | Other |

Figure 4 – Excerpt from the database interface at the Theatre Archive in Bergen

At Scenekunstbruket they catalogue a range of information which none of the others do. As explained earlier, their base is used by those who buy performances and these users have special needs. For example, information about price, rigging details, requirements for the stage area, whether help is needed with the rig and details about electricity needs.

| Medvirkende Klaus Løkholm Skuespiller/Musiker og Bergli: regiassistent Tor-Bjørn Scenografi Gundersen: Kristoffer Jørgensen: Skuespiller Vegard Krane: Skuespiller Kristoffer Jørgensen: Skuespiller Bente Reibo: Regi/Instruksjon, Tekst Anne Mette Sætra: Produksjonsleder Bjørklund Åse-Lill: Målgruppe 6 - 10 år | Pris Grunnpris 1: 13,400 Kr. Grunnpris 2 u/flytt: 16,800 Kr. Grunnpris 3: 18,500 Kr. Grunnpris 4: 15,800 Kr. Reise, diett og opphold er ikke inkludert i prisene. Grunnprisene er pris på forestillinger FØR Scenekunstbrukets refusjon. Les mer om Scenekunstbrukets grunnpriser. | Bredde: Dybde: Høyde: Strøm: 230V/& Blending: Ja Lys: medbrag Opprigg: 2 tin Nedrigg: 1 tim Bærehjelp: Ja Spilletid: 45 n | må spilles på flatt gulv Min. 9 meter Min. 9 meter Min. 5 meter 33A eller 400V/32A t t t er se 30 min 1, 4stk |
|--|--|--|---|
|--|--|--|---|

Figure 5 – Excerpt from a database entry at Scenekunstbruket

Say a county administration wants to book a show for a school, but they have a limited budget and only a small auditorium. Through Scenekunstbruket they can immediately determine whether their facilities meet the requirements of the production, or if they can afford the price.

The National Theatre and Oslo Nye Teater have specially designed systems with more options than the theatres actually use. For example, the database of the National Theatre has a range of fields for persons (Date of birth, date of death, address, postal code, nationality,

employment type, notes, gender, e-mail, telephone number), but these have hardly ever been used because it is not deemed necessary. Only some older entries have data in these fields.

Samteater only has room for a minimum of functions (Theatre name, Premiere date, Play title, Original title, Author, Translator, Adaptor, Composer, 'Stager'(?), Scenographer, and Choreographer) that were common in all (or most) of the databases providing their data. Excluding all the actors from the database was a deliberate choice because of the technical challenge it would entailed; "[...] it would have been a little too difficult to do it" (National Library interview). The Norwegian Theatre has chosen to only catalogue data which is frequently requested. As a result they too have excluded acting crew and most of the minor/technical functions in their database. Of course, they have this information in their physical archive, but it is not deemed necessary to also include it in the digital database.

Only two of the databases contain external links. At Ibsen.net some entries have links to websites containing reviews of those particular productions; notice the hyperlink to the review by the newspaper "Dagbladet" at the bottom of figure 3. At Scenekunstbruket there are some links to the websites of the independent groups and to some newspaper reviews.

"It is not so well developed because there have been so few reviews but we have a button which says 'what does the press say?' and a window comes up there where you can either add a hyperlink or type excerpts from reviews." (Scenekunstbruket interview)

The selection of data is motivated by the specific needs of each institution. They primarily catalogue what they need for their own activities. At Ibsen.net the database content actually overlaps with many of the others because of the choice to catalogue over again all the Ibsen productions that the other theatres have already catalogued. Their collection of Norwegian productions is almost complete; "[...] we have vacuumed all of Norway." (Ibsen.net interview) Some information is catalogued in the database but deliberately left out of the online version. Scenekunstbruket has excluded "some economical information" from the online database, and also "a commentary field for internal communication about the production; when it has been admitted by the reference group; which archive number it has" (Scenekunstbruket interview).

6.4.2 Title and Personal Information

The title information is perhaps the most important access points to repertoire information. Common title types are: Original play title, Production title, Translated title and Parallel title. (GloPAD has many more title options than this to choose from, see chapter 4.3.5.) The most common practice in the Norwegian databases is to catalogue the production title, and also the original title if it differs from the production title. Some also use note-fields for additional title information, for example, to include the title of the translation of the play (not that of the stage production).

Some other special cases are worthy of attention. Ibsen.net sometimes has to rely on others to have repertoire data translated from languages using non-Latin character sets, like Japanese, Chinese and Russian. "We may just get information about this from the embassy in Japan, for example. Then they might have written the production title in English [...]." (Ibsen.net interview) Although it violates their principles to register that title in English in their database, they admit to not having the resources to investigate such instances properly. In the database of Scenekunstbruket a recurring problem is that the independent groups do not always reference the original work they are performing or are inspired by. One example is the production *Terje Vigen* by the group Teater Grimsborken. Originally, *Terje Vigen* is a poem written by Henrik Ibsen, but his name does not appear in the database entry. Users who are unfamiliar with Ibsen's works may be led to believe that every aspect of the production, including the plot, was conceived by Teater Grimsborken and nobody else. In the database of the Theatre Archive in Bergen, they do have quite a few entries containing both production title, original title and the title of the translation of the play.

The databases are full of personal names and which functions people with those names have had, but there is not much other information about individuals than that; names and functions. Other personal information (like address, date of birth or death, gender, contact information, spouse and so on) is not commonly catalogued. Scenekunstbruket does have some data about persons but it is only for internal use and, consequently, not available online. *"What we are trying to get better at is the handling of persons. [...] under "participants", for example, there is [information about] education and experience and that sort of*

thing. "(Scenekunstbruket interview)

The National Theatre has dedicated registration forms for persons and used to include some personal information, but they no longer spend time on it because people change their addresses and contact information so frequently. At Oslo Nye Teater they say "[...] we do not have middle names either. Perhaps we should have had that. It has been omitted all over. Perhaps one did not think that far back then." (Oslo Nye Teater interview)

This does not mean that most theatres have very little information about persons; on the contrary, they just do not catalogue it in their repertoire databases.

6.4.3 Physical Documents

The institutions have much more information stored in physical storage than in the databases. The most pertinent data is in the database while the rest is found in annual reports, bound books of programs or other documents. Theatres hold documents related to their productions and to guest performances, but there are differences. The Opera has its own orchestra, and a substantial number of shelves are filled with sheet music. Furthermore, they have monographs, scripts, bound copies of their programs and administrative documents. The other theatres also have all of the above document types, except for all that sheet music.

The stage manager usually writes a report containing the particulars of each performance of the production. If, for example, some technical device did not function properly, or if a role was taken over by the understudy, it would be recorded there. However, these reports are rarely related to the repertoire databases. The Opera does keep these reports in the same system folder as their programmes, but that is all. There is no other connection between them. The Theatre Archive in Bergen keeps track of whether the archive contains such a report for a given production (see the term "inspisientjournaler" in figure 4) along with any other document type they might have.

Many of the theatres videotape their shows, usually just to have a record of the production. One special case is Oslo Nye Teater where they videotape every show. This has come in handy on at least one occasion when an accident occurred during a performance. The video evidence was very valuable documentation for the insurance company.

6.5 Cataloguing Practice

How aware the institutions are of how the general principles behind their type of database and the choices they make when cataloguing impacts the quality of that database. This subchapter will look at the different cataloguing practices and how consistent the databases internally and in relation to one another. There may be more problems lurking than the archives themselves realise.

6.5.1 Definition of the Production

The respondents agree that the main entity is the theatre production. However, there is a grey area between different versions of the same play or production. What criteria should distinguish one production from another? Just how problematic this is can be illustrated by the ways FRBR₀₀ and GloPAD approach the problem (see chapter 4.3). GloPAD defines the entities "Production" and "Piece", and FRBR₀₀ defines "Performance Plan", "Performance Work" and "Performance". FRBR₀₀ is designed to relate to several domains, not just that of libraries; however, it is still on the drawing board. GloPAD is a real database, but it only covers theatre productions. The fact that they are doing things differently shows that the problem has no ready made answer. In GloPAD the "production" entity is defined in a more general way than in FRBR₀₀.

The main difference between the two is that the $FRBR_{OO}$ is intended to allow interoperability across domains. It has crosswalks to CIDOC CRM, and together they can potentially describe just about any object or event in a database of cultural documentation. GloPAD is mainly concerned with theatre related documents and productions, and its entity definitions are coloured by that (see chapter 4.3.5).

Generally, the theatres consider a single run to constitute an entry and they create new entries for revivals (except at The Norwegian Theatre where the practice was admittedly inconsistent). More importantly, their motivation for doing this is practical. One example is the National Theatre's production of *Stones in his pockets,* which premiered in 2001 with a revival run in 2006. It has two separate entries in the database, one complete entry for the

2001 production and one for the revival that merely refers to the original entry. This does not quite fit LeBoeuf's division into three time-spans which suggest that all the information should be in the same entry. This is really a problem with the database system. The National Theatre states that this practice aids retrieval. The only date that can be specified in their base is the premiere, although productions often span more than one year. Even though information about run duration can be recorded in a note-field it is not searchable there. This is unfortunate because the database design actually causes the cataloguing process and practice to be modified, when it should be the stated information needs and subsequent practice that dictate database design. Another interesting view is that of Scenekunstbruket. Their database being a tool for mediating performing arts they maintain a catalogue (at least online) of productions currently available. In the event of a revival (less common for the free groups they catalogue) they will simply update the original entry with the new information, consequently deleting outdated information. Admittedly, this is unfortunate.

The archivist at the Theatre Archive in Bergen says: "*My subjective opinion is that we need a new entry if there are too many replacements of actors or director.*" (Theatre Archive in Bergen Interview). Similarly, Ibsen.net has the following practice:

"If the revival in its day was defined as a 'new rehearsal' (Norwegian: nyinnstudering) then it is a new production to us. They have then looked at things again and perhaps changed a couple of roles, the same with director, but it was defined then as a 'new rehearsal', and that means something artistic has happened to the production. It is not quite identical because then there would be no point in rerehearsing it. [...] But we do not go in and separate them into two productions until we have evidence that this was considered a 'new rehearsal', a new production [...] It requires research. [...] If there has been a significant change then it is a new production. [...] We use common sense and we relate to many different sources." (Ibsen.net interview)

It is difficult to determine exactly which criteria ought to be used to determine what warrants a new "work" in FRBR terms, or a new entry in a repertoire database. The re-rehearsal of a play it seems would be a significant indicator that the artistic content has changed, and that a new entry is warranted, but that just leads to the question of what criteria constitute a new rehearsal. Is it enough to change the lead actor/actress? What about the lighting or costumes? To settle the matter one could try to get some sort of consensus between cataloguers, but the absence of performing arts cataloguing rules and a governing body for those rules means that such a consensus has no forum to be approved in. Another approach is to not settle for a strict definition but rather catalogue more exhaustively and with more detail, thus removing some of the ambiguities currently present regarding changes in the artistic content or the production line-up. Not an ideal solution, surely, but better than nothing.

6.5.2 Authority Control and multiple data in one field

The databases differ greatly in terms of authority control; a concept which was not easily understood by many of the interviewees. In many cases a first hand look at the database was needed to determine whether any form of authority control was present.

Samteater has no authority control on its own; it merely reflects the (lack of) authority control present in the databases it has obtained its content from. The Ibsen.net database, dealing exclusively with the plays of Henrik Ibsen, is unique because it has separate registration forms for each Ibsen play, complete with names of all the characters. (In GloPAD terms this would mean that the "Piece" is the centre of the catalogue.) This is the most reliable and rigid authority control of all, but only made possible by the narrow domain; authority control, at least concerning one single author and his works, is easy. As for authority control of persons in general they have none. The National Theatre on the other hand has authority records for persons. Each person is registered once in a dedicated registration form. The next time around one could simply choose their name from a drop-down menu. The form contained fields for first and last name(s), date of birth/death, address, postal code, nationality, gender, notes, e-mail, phone number and type of employment. Oslo Nye Teater too has a similar registration form for persons.

It was more surprising though to find that the Theatre Archive in Bergen, with its rather elaborate system and thorough practice, also lacks authority control. Despite separate entry forms for authors, actors and others, several names sometimes occur together in the same field. Figure 6 shows the entry form for actors.

| Forfatter Sherriff, Robert Cedrick Date 15.10 Skuespiller Figur Buøen, Kolbjørn | Reisen slutt | | | K | ort nr 125 |
|--|--|---|-------------------------|------|------------|
| Buøen, Kolbjørn Image: Constraint of the system of the | Forfatter Sherriff, Robert Cedrick | | | Dato | 15.10.19 |
| Næss, Sverre OSBORNE Dahl, Sverre TROTTER Nitter, Johan Barclay HIBBERT Blanc, Henning RALEIGH Zetterholm, Alf OBERSTEN Linge, Martin KOMMANDERSERSJANTEN Christensen, Rolf MASON Fearnley, Frithjof HARDY Dahl, Erlinf ? EN UNG TYSK SOLDAT | Skuespiller | Figur | · | | L |
| $\overline{\mathbf{v}}$ | Næss, Sverre Dahl, Sverre Nitter, Johan Barclay Blanc, Henning Zetterholm, Alf Linge, Martin Christensen, Rolf Fearnley, Frithjof Dahl, Erlinf ? | OSBORNE TROTTER HIBBERT RALEIGH OBERSTEN KOMMANI MASON HARDY EN UNG T | n Dersers YSK sol | DAT | |

Figure 6 - Entry form for actors/actresses and characters, The Theatre Archive in Bergen

Actors/actresses (left) are registered in the same order as their corresponding roles/characters (right). Kolbjørn Buøen played the role of Stanhope and Sverre Næss played Osborne. These and all the other data fields for names are text strings which can contain more than one name; consequently there is no authority control. After the reorganising they have had problems with these lists of names because names were "suddenly" side by side, not one underneath the other. The result was a long "sentence" of names which could read like this: "Næss, Sverre Dahl, Sverre Nitter, Johan Barclay Blanc, Henning" and so on. As long as the personal names are separated by commas identifying first and last names is not that difficult, but it gets worse when the cast list is just a text string because character names have no separators, nor can they be extracted based on the list of actors/actresses. How can a computer distinguish between the character names "EN UNG TYSK SOLDAT" ("a young German soldier") and "TO MENIGE SOLDATER" ("two privates")?

The Norwegian Theatre also has fields (other than commentary fields) containing several data entities. The following line of code is from their MARC database.

*700^^\$aAlsaker, John-Kristian\$escenografi / kostyme

It states that John-Kristian Alsaker is responsible for both the scenography and the costumes of that given production. In other words he has two functions, but they both appear in the same field ($*700^{\$}$).

At Scenekunstbruket they have a problem with information duplicates in the database.

"I sat for a weekend two weeks ago 'tidying up' in 330 duplicates [...] 'Svein Gundersen', two persons have the same name and are in the same community; one in music and the other in theatre. How do we solve that? They [their name-entries] are retrieved and attached to productions. Which 'Svein Gundersen' are we retrieving?" (Scenekunstbruket interview)

Part of their grant from ABM-utvikling has been spent on this type of "damage control". The resources might have been better spent developing the database itself and not manually parsing through and updating its content. The problem of duplicates is perhaps bigger in this particular case because the external users, or clients, are doing the cataloguing. Wikipedia is an example of a database where the users are in charge of updating the content and administrators only monitor the work. In Wikipedia entries contain information that is more or less general knowledge and the entire world can proofread them. Typos, factual errors as well as hoaxes in Wikipedia are (for the most part) soon found and corrected by someone. In the case of Scenekunstbruket only a select few persons really know the facts about the content; or who did what where and at what time for a given production. So there is no real quality control except by the one archive employee and he cannot possibly know everything the member groups do.

In all the databases except Samteater there is at least one field for notes or commentaries. To have such a note-field for information that does not fit into the predefined categories is also common in library catalogues. However, the problem with note fields is that they can contain practically any information in any form. Automatic identification of potentially important data in such fields is difficult, if not impossible. Minimal use of such fields is recommendable.

Authority control is a necessity to be able to distinguish between similar or seemingly identical data entities. For the same reasons that the library community is working to develop the model Functional Requirements for Authority Data (FRAD) in concordance with FRBR₀₀, so theatres should give some thought to how their databases or practices can be improved to support authority control. Unfortunately, several of the databases contain duplicates or have ambiguous entity definitions, which make it difficult to identify data entities. Both cataloguing rules with clear instructions for the creation and maintenance of authority records, and also a database system that supports authority control, are needed to avoid these problems. Data that is not authoritative is by definition less trustworthy. If people cannot trust the accuracy of the content, they may find less reason to use the database at all, which in turn means less incentive to bother cataloguing the data in the first place.

6.5.3 The Cataloguing Process

Ibsen.net is the only institution that has any form of written rules to adhere to (Ibsen.net [2007]b). On their website there is a description of which data they catalogue and definitions of the different fields, and the guidelines they use for the cataloguing process. Some examples from this document are: they state that Sound or lighting Designers are to be registered, but not technicians (when in doubt the field is not to be populated); for the field "Make-up artist" typical theatre programme designations like hair designer, make-up designer and masks are to be considered synonymous; and that "*Places in countries that are divided into states* [...] are to be specified with the names of the town, state/region/province and nation. [e.g.] Los Angeles, California, USA." (Ibsen.net [2007]b) In most of the other archives it seems to be understood that training in order to catalogue in the databases is unnecessary. "I think it [the database] is very self-evident [...] for the typical philologist IT-knowledge it is easy to use." (Theatre Archive in Bergen Interview)

The other archives rely on the autodidact practice of one or two person(s), or experience passed down from predecessors. This absence of cataloguing rules is unfortunate because there is nothing to compare the different practices to. It would have been fruitful to see to what extent the theatres adhered to their own rules. The cataloguing process can be described in general terms: Every cataloguer simply enters (a selection of) information found in the

main source document(s) (see below) into the database in "appropriate" fields. The content of the source documents is usually the basis of the cataloguing, but what signifies these documents and where do they come from?

For the theatres, the main source of repertoire information is usually the internal document called the "role-list" (the theatre's own list of people working on a production, not just actors). This document is prepared in-house and "delivered" to the archive sometime before the premiere. Preferably, the actual cataloguing is done around the time of the premiere of that particular show, because prior to that the production is more susceptible to changes in the line-up. Also, theatres update their entries with new information as this becomes available. For the Norwegian Theatre cataloguing is done in two steps; just before the show opens (when the role-list is available) and after the final performance (when the numbers of spectators and performances are known).

The Opera simply stores role-lists on its intranet along with the performance reports and templates for programs. They do not catalogue it apart from selecting the proper folder. Updating the content of the documents is not properly defined in anyone's job description.

"It varies greatly. It is an all-out effort when people accidentally come across it and see it. Then they say 'wow, nothing has happened here since 2003. We should do something here.' The Opera has not been very good at defining that responsibility and where it should belong. Of course, when you are sitting there with over 50 years that have not been sorted very few departments and department heads say 'Yes, we want that, we would love to take that job'. It becomes a 'shuttlecock' in the system." (The Opera interview)

Ibsen.net and the Theatre Archive in Bergen mainly use the programs from the productions (as published by the theatres). If no program is available, they use other sources like posters, reviews and the like. For older productions there may be no program at all, because it has not always been common practice to make programs for productions. Because they aim to cover all productions of Ibsen in the world Ibsen.net is especially active in seeking out information to make their databases as detailed as possible (relative to their chosen level of detail). They use whichever authoritative sources they can if no program or poster is available. At the other

end of the spectrum is Samteater where no cataloguing is done at all, only the importing of data from the participating theatres.

At Scenekunstbruket the cataloguing is done in two steps. First, their members are given user names and passwords to the website, and then members themselves log on and catalogue their own production in the system. Second, Scenekunstbruket proofreads the information, corrects obvious mistakes and adds any additional information before the data is published online.

6.5.4 Indexing Consistency

Usually one divides indexing consistency into two types:

- *Inter-indexer consistency* how consistently different indexers treat the same document. High consistency means there is little difference between individual practices.
- *Intra-indexer consistency* how consistently one and the same indexer treats identical or similar documents. High consistency is desirable.

Appendix 9.2 contains an overview of the information types found in each database (i.e. the names or labels describing individual data fields) and gives an idea of how different the practices are.

First of all, in the databases, different names have been assigned by different designers to the same or similar functions. This is not a big problem as long as the databases are totally independent of each other. However, for someone looking for people performing a certain function, such inconsistent use of labels can be misleading. One might think that theatres describing functions in relation to a production would use the same, or at least similar, labels. If it says "director" then it means "director" and nothing else, right? However, use of single terms or job titles alone to define data is problematic. Firstly, the terms are not explained anywhere, and users must interpret what they mean. Secondly, the selections of terms in the databases appear to be somewhat arbitrary. It seems that little attention has been given to the potential ambiguity of the chosen terms.

When the job of cataloguing is taken over by a new employee the practice sometimes

changes a little; especially if there are no written instructions left by the predecessor. An example of this is the practice of including personal data in the database of the National Theatre. Some older records contain addresses, telephone numbers and so on for individuals, but none of the recent entries.

The Norwegian Theatre uses a MARC-based library system to catalogue entities that should be impossible to describe accurately within the MARC format. To do this they use some of the MARC fields in their own way, disregarding the original definitions.

```
*0013614
*008050219
                                     0 nor
                  no
*096
     $a0503
*100
     $aIbsen, Henrik
     $aPEER GYNT
*245
     $bHovudscenen$c19.02.05
*260
*300
     $a23.04.05$b 37 g+49 turne$c 21231 publ+21148"turne"
*500
     $aSpeltid: 4 t.10 min.m. pause Samarbeidsprosjekt m.DNS
     $aHeddapris Årets framsyning 2005
*500
     $aFestspela,Bergen 25.mai 2005 + hausten 44 gonger
*500
     $aGjestespel New York 11.april 2006. 5 gonger
*500
     $aFosse, Jon$eomsetjar
*700
*700
     $aWilson, Robert$eregi, scenografi, lys
     $aGalasso, Michael$emusikk
*700
     $aReynaud, Jacques$ekostyme, maske
*700
     $aLeslie-Spinks, Lesley$efoto
*700
     $aDNT. Biblioteket
*850
```

Figure 7 – MARC record from the database of The Norwegian Theatre

A librarian will immediately see the differences between this production-record and that of a book in a library catalogue. The *260- and *300-fields are particularly interesting. In library catalogues these would contain the following data (Library of Congress 2007a and b):

| *260^^\$b - | _ | Name of publisher |
|-------------|---|---|
| *260^^\$c - | - | Date of publication |
| *300^^\$a - | - | Extent (e.g. number of pages or total playing time) |
| *300^^\$c - | - | Dimensions (centimetres, millimetres or inches) |

First, according to the entry, the name of the publisher is "Hovudscenen" (or "the main stage"). Surely, nobody really thinks that the actual stage can publish anything. *260^^\$a might have been better, but still there is no correspondence with the original definition of the

field. Next, the date of publication in the entry refers to the premiere date of the production. This field normally contains the year a book was released, not the full date. In the field *300^^\$a, contains the date of the last performance (in this case before any touring). However, the MARC definition of this field includes "total playing time", which suggests that the playing time of an individual performance ("speletid") might fit just as well or even better here than in the *500-note field. In the field 300^^\$c the "dimensions" contains the total number of spectators for the production. Again, nobody really thinks that people can be measured in centimetres or inches, but it is the field that The Norwegian Theatre uses for spectator data.

The following examples are excerpts from different entries in the database of the Norwegian Theatre and show inconsistencies within one and the same database.

*500 \$aSpeltid: 2t.15.min. utan pause
*500 \$aSpeltid: 50 min.
*500 \$aSpeletid: 90 min. utan pause
*500 \$aSpeltid: 2 t.10 min.m. pause
*500 \$aSpilletid:1 t 15 min u.pause
*500 \$aSpeltid:?
[*500-field not always present]

Notice the inconsistent spelling of the word "speletid". Also, the way the number of hours and minutes are recorded differs from one entry to another. The terms "Spilletid" (Norwegian Bokmål) and "Speletid" (Norwegian Nynorsk) mean "running time" in English. The database is supposed to be in Norwegian Nynorsk, so the presence of "Spilletid" is inappropriate. The term "utan pause" (meaning "without intermission") is also written in many different ways. Imagine a computer parsing these entries trying to understand the difference between "u.pause", "utan pause" and "m. pause" (short for "with intermission"). Spelling, punctuation and phrasing are all inconsistent. The examples all come from records created in 2007, so there could be other alternate spellings in the database. These inconsistencies have little or no practical consequences for local use at The Norwegian Theatre. The problems only manifest themselves when trying to move the data to another system or join them with data from another database. Similar inconsistencies are found in many of the other databases as well. For example, the practice of inverting names at the Theatre Archive in Bergen is inconsistent; some records have inverted names, while others do not.

At ibsen.net, they have experienced some problems with the term "producer" because it has had different meanings in different time periods. Apparently in Britain about a hundred years ago, the terms "director" and "producer" were used interchangeably, and at Ibsen.net they had found it difficult to ascertain just which meaning the term had in individual cases. The structure and terminology of their primary sources did not fit their specialised registration forms. Historically determining the exact functions people had based on for example posters (which is the main source of information in times when paper and printing was not commonplace) is sometimes characterised by guesswork. Today, as in most any given era, the meaning of the terms being used is/was mostly taken for granted by the people using them, but who knows what meaning future generations might attribute to a word? Suppose for example that the term "producer" will someday be used more generally and refer to anyone producing something in relation to a performance production, or that the term once again is used interchangeably with "director", because the new trend is to acknowledge the individual artistic contribution and their own direction of themselves. It may seem far fetched now, but the fact remains that the meanings of terms are not constant, they change over time and predicting future connotations to words is practically impossible.

The absence of general guidelines or a database model has left it up to the database designer to choose the types of terms describing data fields. This has its problems. In the databases, one can discern three types of objects that the labels/terms refer to.

- 1. A type of person (e.g. producer, director or stage master)
- 2. A type of function or process (e.g. production or sound design)
- 3. The result of an activity or process (e.g. costumes, masks or lights).

Furthermore some terms can technically describe both a process and the result of one (e.g. direction, production).

For example the following terms taken from the database of The National Theatre (translated from Norwegian): "Producer" and "Sound Production" appear in the same entry. The first term points to a person with a certain function, while the latter describes an area of

responsibility or expertise. Although both are nouns, they refer to different types of objects. The terms appear in conjunction with names of persons, but does the meaning of the label accurately describe the actual function that has been performed? Is John Smith responsible for the "Costume Design", the making of the "Costumes", or just the acquisition of the "Costumes"?

It all boils down to properly defining the data in the database. All the repertoire databases (except perhaps Ibsen.net) rely on the label of the field/entity to define that field. That means the label is the definition in its entirety. Usually it is one word (or sometimes two, three or even four). This is problematic because it is hard to properly define something in just one word. It then becomes a matter of interpretation both on the part of the cataloguer and of the user. Words have multiple meanings which change over time. In contrast, FRBR_{OO} and CIDOC CRM contain data entities (with labels, sure enough) which are defined by scope notes, not the labels. The scope note is a textual description, sometimes spanning several paragraphs, and also contains examples, recommendations and relations to other entities. This exactness in database design is missing from the repertoire databases.

Since there is no apparent consensus on which terms are preferable and why, some of the terms the database designers have chosen are used only by them (or maybe one or two others). Consider the following sample terms found in entries from the National Theatre:

| Lysdesign | _ | "Lighting Design" |
|--------------|---|-----------------------------|
| Lysmester | _ | "Lighting Master" |
| Lysansvarlig | _ | "Chief Lighting Technician" |

Sometimes an entry contains only one of the terms, for example "Chief Lighting Technician", and sometimes more than one, for example "Lighting Design" and "Lighting Master", or "Lighting Design" and "Chief Lighting Technician". Understanding just what they mean is a matter of interpretation. Say that only a lighting master is mentioned in an entry, who then designed the lighting? What lights are there for a lighting master to be master of? Or is the lighting master really a lighting designer, and the catalogue ambiguous?

| Lyddesign | "Sound Design" |
|---------------|---|
| Lydproduksjon | "Sound Production" |
| Lydeffekter | "Sound Effects" |
| Lydansvarlig | "Chief Sound Engineer" (?) (Difficult to translate. More like |
| - | "Responsible for the Sound") |

Here we have the same problem, only with more options. For example, what does the term "Sound" really entail? What about "Sound Effects"? If "Sound Effects" is the only term in the entry, does it mean that there was no other sound than mere effects to be managed?

This individual naming of labels means that talking about inter-*indexer* consistency as such is almost pointless. Each database is a unique tool with a unique set of labels and options, so no real test of inter-indexer consistency is possible. Only the database design and the more general opinions and priorities of the cataloguers can tell us something about it. Instead of asking how consistently cataloguers catalogue performing arts, it is more fruitful to look at the tools they use. What options and possibilities do they provide and how/why do they (not) use them? Appendix 9.2 is an informal overview of terms used in the different databases, but it gives an impression of just how much variation there is.

6.6 Database Use

6.6.1 Sources of Knowledge about Use

Surprisingly few of the archives have other sources of knowledge about use than the personal experience of the employees. The respondents explain who their users are by listing the types of people who contact them either by telephone, e-mail or in person, or who have physical access to the base. There are no guest books or search logs or similar functions for any the online databases, except at Scenekunstbruket. It differs from the rest in that the whole purpose of the database is to promote independent theatre by actively bringing together the data providers and the intended users, namely the independent groups and their customers. Their website has statistics covering the activities of their members, see below.

| ≥m F | Forestillinger | Om Scenel | kunstbruket | Nyheter Turnée | r Fylker | Showbox Statist | ikk | | | |
|--------|---|--|----------------------|--|-----------------------|--------------------------------|----------------------------------|---|----|----|
| n fore | estillinger: | Uttrykk: | • | Målgruppe: | • | | | | Si | øk |
| | Statisti | kk | | | | | | | | |
| | Statistikk for N | Norsk scene | ekunstbruk: | 2006 | • | | | | | |
| | Vis antall prod | duksjoner, v | visninger og | publikum: | | | | | | |
| | Landsoversikt | For fylke: | lordaland | Fordelt på målg | , | 4. Illin | Eor gruppe | | _ | |
| | Antall produk | kk for | Norsk | scenekun ublikum for Hordal | stbru | , | | , i veig gruppe j | × | |
| | | kk for sjoner, vis | Norsk | scenekun | stbru | , | | , j veig gruppe j | • | |
| | Antall produk Produksjoner: Visninger: Publikum: | kk for sjoner, vis 5 92 | Norsk ninger og p | scenekun ublikum for Hordal | stbru | ık - 2006 | | | _ | |
| | Antall produk Produksjoner: Visninger: Publikum: Gruppe Dans & Toner | kk for sjoner, vis 5 92 8400 | Norsk ninger og p | SCENEKUN ublikum for Hordal Produksjon Dans for deg | stbru land: | Visninger | Publikum 2885 | Gjennomsnitt 103 | _ | |
| | Antall produk Produksjoner: Visninger: Publikum: Gruppe Dans & Toner Dukkenikkerene | kk for sigoner, vis 92 8400 | Norsk ninger og p | SCenekun ublikum for Hordal Produksjon | stbru land: | .ik - 2006 Visninger | Publikum | Gjennomsnitt | _ | |
| | Antall produk Produksjoner: Visninger: Publikum: Gruppe Dans & Toner Dukkenikkerene Sagliocco Ense | kk for sjoner, vis 5 92 8400 | Norsk ninger og p | Scenekun ublikum for Hordal Produksjon Dans for deg Baron von Himmelvlog luftige reise Den Lytkelige Prinser | stbru and: gens | Visninger 28 28 19 | Publikum 2885 2078 1929 | Gjennomsnitt 103 74 101 | _ | |
| | Antall produk Produksjoner: Visninger: Publikum: Gruppe Dans & Toner Dukkenikkerene | kk for sjoner, vis 92 8400 | Norsk ninger og p | Scenekun ublikum for Hordal Produksjon Dans for deg Baron von Himmelvlog Huftige reise | stbru and: gens | Visninger 28 28 | Publikum 2885 2078 | Gjennomsnitt 103 74 | _ | |

Figure 8 – Statistics from Scenekunstbruket ([2007]b)

This overview can be sorted by county, target group and by individual theatre group (the drop-down lists). The column headings translate as follows:

| Gruppe | _ | Group |
|--------------|---|----------------------|
| Produksjon | _ | Production |
| Visninger | _ | Performances |
| Publikum | _ | Audience |
| Gjennomsnitt | _ | Average [spectators] |

Furthermore, they have statistics over which members actually log on and what they do; remember their main cataloguing force is their body of members. As for the other respondents, some know (or can find out if they want to) the number of times the website hosting the database has been accessed, but such statistics do not reflect actual database use. The independent groups are doing much of the cataloguing work for them, and so it seems that they have succeeded where Samteater did not.

"We very much wanted to have, not just the institutional theatres but also, for example, independent groups to automatically, as far as they had the technical capability for it, enter their own data. [...] That was perhaps also a contributing factor in why it was difficult to keep running it, because we hoped that when this base was up and running people would realise its value" (The Norwegian National Library interview).

6.6.2 Users

There is a difference between the people who actually sit in front of a computer and interact with the database interface, and those who merely request information from the archive employee who then searches the database. People in latter group do not actually use the database; they just express their need for the information in it. All of the online bases can potentially be used from anywhere in the world, while the actual users of the Opera, the Norwegian Theatre and Oslo Nye Teater databases can be counted on one, maybe two, hands. (That was what they said: a handful of in-house users.)

The known users correspond well to the different target groups listed in chapter 6.2. For theatres with local databases the primary (and only) users are select employees with direct access to the base. For the other theatres, the primary users are also found in-house, for example dramaturges, information departments and theatre directors. Their secondary users are all external; that is, students/school pupils, researchers, and the press.

Ibsen.net and Scenekunstbruket have user groups corresponding to their unique missions. Ibsen.net (the whole website, including the database) is primarily a research tool for Ibsen researchers. Their secondary users match those of the theatres (see above). The primary users of Scenekunstbruket are the constituents of NAPA and the customers of those constituents (mainly county and municipal administrations). In principle, the university libraries of Bergen and the National Library in Oslo have the whole country as potential users. Anyone interested in theatre may need the theatre archives. However, there are no statistics of who actually uses the online databases, but people contacting the archives are most often researchers or students.

6.6.3 User Tasks and Actual Use

As described in chapter 4.3.2, IFLA defines basic user tasks for library catalogues (find, identify, select, obtain and navigate). These also apply to repertoire databases, but there is a

difference between the kinds of "objects" users can and/or wish to search for in a library catalogue and the main kind of objects found in a repertoire database. Both catalogue types contain names of real persons and institutions and their functions in relation to objects (artistic works or physical releases, like books). So far their content is similar. In addition, the library catalogue contains descriptions of the physical characteristics of manifestations/items, while the repertoire database contains data specific to performance events (e.g. the number of spectators or acts). Here they differ from one another.

The library catalogue is intended to cover physical material that can be *obtained*, while the repertoire database is mainly a list of people and their roles in events. These events cannot be *obtained* as such. One can still use both catalogue types to find, identify, select and navigate between objects, but one cannot obtain the objects in a repertoire database to the same extent as from a library catalogue. Therefore, to a greater extent than for library records, the actual data in the database are the main objects to be retrieved not the physical artefact or book the data is referring to. People with questions like: "who played the role of Laertes in the 2004 Hamlet production at Nationaltheatret?", or "has film director David Lean ever done theatre?" can easily find answers in the database itself. There is no need for a book. People are not necessarily looking for the real life object that the database entry is pointing to, just information about that object.

The FRBR Final Report from 1998 attempts to determine the value of each piece of information in the library catalogue relative to the user tasks.

"The assessment of importance of each attribute or relationship to a given user task that is reflected in the tables was based in large part on the knowledge and experience of the study group members and consultants, supplemented by evidence in the library science literature gathered from empirical research, as well as by assessments made by several experts outside the study group." (IFLA Study Group on the Functional Requirements for Bibliographic Records 1998)

Doing this for the repertoire databases is an intellectual exercise too extensive to be undertaken in this thesis, especially because the databases are so heterogeneous. But because of the domain overlap one would think that at least some of the basic assessments made in the FRBR report would also apply to repertoire data; for example, that title information is important to properly identify works and manifestations. While this may or may not be true, the 1998 report is getting old. The new and improved FRBR₀₀ which includes performing arts is much more complex than the original. It as been expanded to include a whole new set of entities tailored to performing arts productions. Perhaps it would be fruitful, once FRBR₀₀ is formalised, to do a similar study of repertoire data, especially in relation to the "navigation" task, which is not covered by the FRBR report.

The actual information needs users have are another story and are not directly related to user tasks. Why users need repertoire information says something about why these databases are important. For example, Nationaltheatret, Oslo Nye Teater and the Theatre Archive in Bergen use their databases to locate scripts on their own shelves. The database at The National Theatre contains "Archive numbers" which act as identifiers for the production entries and simultaneously correspond to the physical organisation of the scripts on the archive shelves. In Bergen the types of documents related to a production is catalogued (see chapter 6.4.). Dramaturges, theatre students and other users, who need the scripts, search and find them online without help from the archivist. Other areas of use are for journalists or authors to do research for articles or books, or for scholarly research. They need to know who performed which function when and where. One type of work task is to generate reports from the repertoire information. For example, at the Theatre Archive in Bergen and The Norwegian Theatre, the systems have templates for frequently used reports; say, "Director – Production Title - Playwright - Scenography", or "Production Title - Author - Premiere Date". These reports are sometimes printed and bound. A more specialised example is the project Henrik Ibsen's Writings ([2007]) which "uses the repertoire database, for example, to verify information or [...] to determine the dates of letters" (Ibsen.net interview). If the letter has no date but mentions a production it can be accurately dated by finding the date(s) of that production.

The database of The Norwegian Theatre can only be accessed by the archivist, requiring users to either use the telephone or show up in person. At Oslo Nye Teater the database is only accessible to a select group on the intranet.

The information in the databases cannot be used much more than it is because selective cataloguing and lack of online access and data sharing facilities limits the range of possible uses. It is too much to ask anyone but professionals or students to pick up the telephone or query a range of different local databases (which can be difficult to find) whenever they have an information need. The only ones eager to use the telephone are perhaps journalists.

"They [journalists] call often, yes, instead of searching. They need help. They are terribly impatient. They do not bother; they have a very low threshold for calling. Researchers probably have a higher threshold for it. Theatre people just take what they can find." (Ibsen.net interview)

Given that the main source of knowledge about use is the experience of the archive employees, it is impossible to say anything general about the satisfaction of external users because it would require a whole other study. However, most of the respondents say they receive only, or predominantly, positive feedback from users of the archive, whether those users have direct online access or have contacted the archive directly. Some negative remarks from external users are complaints about technical problems (The National Theatre) or that their production has been removed from the online base (Scenekunstbruket). Some also comment that recent productions are not to be found in the online version of the database in Bergen.

6.7 <u>Cooperation and Future Plans</u>

The theatres seem relatively happy with their current database systems and so do most of the other institutions. There are precious few plans for cooperation about repertoire documentation, at least between theatres. They have to some extent discussed the acquisition of the Photo Station software for scanning and indexing photographs, but there is not even consensus about how to scan or index those. Many do however express a desire to cooperate. There is some talk among the theatres of joining the photo collections in Photo Station software for scance. In fact, theatres (except the opera) are much more preoccupied with the photos than with the repertoire databases. It is the most important thing on their agenda.

Ibsen.net and Scenekunstbruket, not possessing such a collection, both express a desire to work for a national database for performing arts. Ibsen.net will move in with the National library come summer 2007 and they say the idea of a national database will definitely be a topic of discussion there. Also, they hope that some of the technical problems of their database will be solved by using the supposedly better facilities at the National library. Through Scenekunstbruket independent theatre groups already cooperate, but NAPA, perhaps most eagerly of all, want to see the national database become a reality. They would like to start a project for it, but it would have to be financed by some form of project funds as because they do not have the extra resources themselves. Everyone agrees that a national repertoire database would be a good thing. *"In a small country like Norway it should be possible. There are not that many theatres."* (Theatre Archive in Bergen Interview)

6.8 The Current State of Norwegian Repertoire Databases

Norwegian repertoire databases and the institutions maintaining them are heterogeneous. The archive employees have rather different backgrounds, and hardly any of them have library or archive related educations. Their database competency is based on experience. The goals and target groups of the institutions are, of course, different because the institutions are of different types, but the goals and target groups for the archives and repertoire databases are more different and more specialised. The archives all perform the task of digitally documenting the repertoire of Norwegian performing arts institutions, but they do it for different purposes, for somewhat different users and with different database systems. Each database has its own selection of data (or fields); even though they cover the exact same type of material. The most basic functions are covered by everyone, but not by far all the actual functions for productions. Some archives strive for exhaustivity while others focus on the artistic contributors, not the technical functions.

The archives have somewhat different understandings of just what constitutes a production and separates one from another. The databases have little or no authority control and all except Ibsen.net lack written cataloguing rules. This is a significant problem because it degrades the value and reliability of the cataloguing. The biggest problem is perhaps that the databases use different vocabularies for describing their data entities, and these are sometimes ambiguous even within one database. It's a problem of language, or semantics. If people use different words or interpret the same words differently, they have less chance of understanding each other.

It shows that most of the archives think primarily of their own activities, and either do not feel the need or desire to cooperate with others on database documentation, or do not have the resources to spend on it. The general satisfaction they have with their own systems also indicates that they lack a proper understanding of the forces at play in today's information society. It is not enough to create a website and publish information. It is not enough to create a catalogue and hope that people stop by (or call the archive to ask if they have one at all). It is too much to ask users to download the annual report to find information about productions. The archives are generally satisfied with their databases, and yet they have no user statistics. Knowledge about their external users is limited to the employees' personal knowledge about users who contact them directly. In other words, the databases work well for the needs of its institution, but the archives know little about how satisfied external users are with them. The limited range of users that they have (mainly professionals needing information for their work) cannot possibly include too many theatre goers, which it should since they are the ones buying the tickets.

The institutions that maintain repertoire databases generally document what they need to do fulfil their missions, but not much more than that. The shortage of funds for documentation is a clear indication of Baumol's cost disease. Proper preservation is half way out the window in favour of creating art here and now. Theatres need to produce their shows or there would be nothing to document at all. It is only natural to tend to one's own needs first, but if the documentation of the field is going to keep (or catch) up with the times, change or upgrade is imperative.

The market failure of public goods is at play here, but also that of imperfect information for both suppliers and customers. Theatres are falling behind and are failing to create that information market which usually emerges to satisfy the information needs. The fact that so much of the repertoire information is only available locally shows that the field is not properly exposed. The information theatres put out today would have been more than sufficient two decades ago, but times have changed; information about anything and everything has practically drowned the public sphere.

If the current databases were to be joined as they are it would no doubt lead to a range of problems. Just look at the creation of Samteater and the FRBRisation of BIBSYS. Both efforts suffer because of the lack of authority control, different and inconsistent cataloguing practices, data selections, and system designs on the part of the data providers. These factors seriously hamper the usefulness of such merging of data. Change is needed.

7 DOCUMENTATION TRENDS

Chapter 8 will look at performing arts documentation in a bigger perspective, but before that chapter 7 introduces some documentation trends which have emerged in recent years. The Internet has changed the way people use and create information, or data. Preserving the cultural heritage is not just a matter of long term storage and preservation of artefacts and documents. Information about them must be brought to the people, and people are online. Digitalisation of library and museums collections is not cheap, but it is happening; all in the name of findability.

7.1 Cultural Heritage

As late as in 2005 Ringstad (p. 79) claims that there is "*no quite undisputable definition of what cultural heritage and cultural monuments are*". He points to how UNESCO defines cultural heritage as something physical, i.e. objects. Performing arts are not included in this definition, however UNESCO does evolve and so does their understanding of cultural heritage:

"The term 'cultural heritage' has not always meant the same thing. Recent decades have seen the concept of heritage—much like that of culture— undergoing a profound change.

Having at one time referred exclusively to the monumental remains of cultures, heritage as a concept has gradually come to include new categories such as the intangible, ethnographic or industrial heritage. A noteworthy effort was subsequently made to extend the conceptualization and description of the intangible heritage. This is due to the fact that closer attention is now being paid to humankind, <u>the dramatic arts</u>, languages and traditional music, as well as to the informational, spiritual and philosophical systems upon which creations are based." (UNESCO [2007])

Even in Wikipedia ([2007]), where anyone and everyone can write and edit the content, the definition of cultural heritage includes the intangible:

"Cultural heritage [...] is the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations. [...] A broader definition includes intangible aspects of a particular culture, often maintained by social customs during a specific period in history. The ways and means of behaviour in a society, and the often formal rules for operating in a particular cultural climate. These include social values and traditions, customs and practices, aesthetic and spiritual beliefs, artistic expression, language and other aspects of human activity."

There can be little doubt then that the performing arts today are considered part of the cultural heritage and worthy of preservation, even though its main "objects", the actual performance events, cannot be preserved as such. But it is not just storage of information and objects; it is about preservation of past and present culture in the minds of people. To achieve this people need proper access and that requires substantial resources.

In a way, the Norwegian National Library is in charge of the Norwegian collective memory, at least in terms of literature. They aim to stock copies of all books (and other cultural releases) published in the entire country. Currently they are in the process of digitalising their collections of Norwegian literature which is stored deep in the mountain halls of the library's branch in the city of Mo i Rana. Some of it has already been made available on the National library's website, but Samteater is still the only repertoire database they have had. So, connecting the theatre productions to the related library materials is still very much a job for a detective (or librarian).

7.2 Cultural Economics

Cultural economics is "the application of economics to the production, distribution and consumption of all cultural goods and services" (Towse 2003). Financially, the performing arts are known to suffer from the so called "Baumol's cost disease", which refers to the problem of "financing the performing arts in the face of ineluctably rising unit costs" (Towse 2003, p 91). For example, the theatre cannot stage a concert with only half an orchestra, while other industries can create technical solutions to replace the manual labour and old fashioned techniques, thus lowering costs. (Today Baumol's cost disease refers to cultural activities in general, not just the performing arts.)

"[...] increases in productivity are most readily achieved in industries that use of a lot of machinery and equipment. In such industries output per worker can be increased either by using more machinery or by investing in new equipment that embodies improved technology. As a result, in the typical manufacturing industry the amount of labour time needed to produce a physical unit of output declines dramatically decade after decade. The live performing arts are at the other end of the spectrum." (Towse 2003, p 91)

Theatres are forced to do things the old fashioned way and so the cost of producing a play increases over time relative to other industries. As the decades go by and labour wages go up they must devote more and more of their financial resources to their core activities, the productions, leaving less and less to other activities. Documentation does not directly influence the art-making practice of the theatres. Consequently, it will not be their first priority.

"People collectively attribute significant value to cultural monuments, despite the fact that many do not attribute value to them at all. [...]For most cultural monuments, the value of use is too small to create the financial foundation for preservation. This is especially true for cultural monuments which are one of a kind and/or are of special importance to the population in several countries." (Ringstad 2005, p 91)

People value it highly, even though there is not much money to be made by preserving it. The quote applies to physical objects but if performing arts can be considered cultural heritage then it is likely that people's attitudes towards the two are similar.

Not only can this money situation limit the resources devoted to the actual documentation, but it can affect how that documentation is made available to users. A similar situation (only for museum artefacts) is described by the term "Prado disease". It stems from the situation at the Prado museum in 1992 where it was found that only around ten percent of items were on display. The rest were in storage. It *"raises questions about the purpose of collecting artefacts if they are not used for display"* (Towse 2003). If theatres do not make their collections (artefacts and metadata alike) available to users then similar questions can be raised about the purpose of their collections. Many theatres will of course say that they do make their collections available; one can just call their archive and ask for it. The problem is that there are more potential users than can ever be served by the one, maybe two, archive employees. And also, people do not just use the telephone anymore, they use the Internet. To preserve culture is to preserve it in the collective memory, and that requires easy access, not just putting it in a climate controlled storage facility.

7.3 From Push to Pull

Theatre productions are public goods and many theatres, especially the Norwegian institutional theatres, rely on some form state subsidies. At the same time, the performing arts are part of a market where culture is the commodity; as such they are subject to the mechanisms at work in that market. One is the common market failure concerning public goods. Most people agree that theatre is an important part of our culture, but oftentimes theatre productions cannot be self-financed by ticket sales alone because the asking price (or market price) would be too high. Ergo, the market has failed and subsidies are needed to maintain the art. This effect is amplified by Baumol's cost disease. Another market failure is the result of "consumers or producers not having perfect information about the quality of goods or services." (Kingma 2001, p. 55) What consumers do not know about, they cannot demand, and what they cannot (afford to) access, they cannot use. A variation of this is when the cost of obtaining the information is greater than its value to the user. If so users may not even bother searching for it. They may use some other information instead or just move on without it. However, "Each market failure creates the opportunity for another information market to form to correct the problems that exist in the original market." (p. 55) Furthermore, "Information markets exist to reduce uncertainty and risk in purchasing." (p. 54) Recent years have seen a general growth in information markets and a shift from push to pull. The information suppliers do not have to push so much because consumers are increasingly pulling the information (or the product) to them.

Another frequently cited example of market failure is when a product pollutes. The failure occurs when "the market supply and demand for [the product] does not incorporate the external costs of the pollution [...] Conversely, when all the benefits of a market are not realized by consumers or producers [...] the equilibrium level of output may be less." (p. 54) A possible parallel to performing arts is the loss or diminished quality of the cultural heritage documentation or limited access to it. Looking at the markets for music, movies and books, they have more distribution channels and a much better reach for capturing the audience of the performing arts. Their products can be sold worldwide because the "work of art" fits a portable or downloadable medium, while theatre performances usually require the physical presence of a paying audience. It seems reasonable then that the performing arts should try to

tap into the already established channels and forums for related arts, not only to promote their productions, but to create general awareness about their activities.

7.4 Findability and the Semantic Web

Today's everyday life is much more advanced than just twenty-thirty years ago, when many of the documentation practices used today were defined. Technological evolution today is explosive. Many individuals and institutions find themselves on the wrong side of the digital divide, and many do not even know it. Much that was state of the art a few years ago is obsolete today. The biggest differences are perhaps the volume of information available to everyone and the multitude of new ways to use that information. Metadata (data describing other data) is at the core of this information explosion. People and businesses use metadata for more things today than ever. Metadata helps facilitate shopping, e-mail, chatting, file exchange, online photo tagging, websites with aggregated content, databases, business software and the list goes on. Metadata permeates almost every aspect of the Internet. *"It is metadata's ability to help people find what they need that has driven a resurgence of interest* [...]" (Morville 2005, p. 126) The problem with the metadata created by the performing arts institutions is that it is poorly suited for the above areas of use, because much of the data are only available locally and do not have a standardised form.

As explained in the previous chapter, we have seen a shift in how the marketplace treats information. Data providers no longer hold on to and charge for the data. Instead they have realised that, unless their metadata is the end product, it is only a vehicle for users or consumers to find their products. So to promote their product range they must spread that information. Amazon.com is a perfect example. It deals in consumer products like books, music, movies and so on, but the key to its success is the distribution of metadata. Anyone can freely use Amazon data on their site and also create their own service based on it. It is not even that hard. Amazon sells used and antiquarian books alongside new books. Furthermore, they actively seek out and buy existing services that can act as agents for their sales activities. In fact, between 25 and 40 percent of Amazon's book sales come from outside its top 130 000 titles (Morville 2005, p. 12).

Ok, so local theatres may not need global marketing of their productions, but there are important lessons to learn here. First of all, business as usual is not good enough, unless it includes constant change and upgrade. Secondly, theatres are part of something greater than themselves. There is no contradiction between being an artistic force and being part of a community of similar forces. The distribution of information can help them bring that artistic expression to a greater audience. Understanding the business value of metadata is crucial in the battle for people's attention.

Amazon's successful use of metadata is evident in the so-called "Amazon-effect". It refers to the status Amazon has acquired among consumers as an authoritative place to do research prior to a purchase. Consumers have accounts there with credit card information stored and everything, but while they are well aware that there are other retailers out there with potentially better offers, they still want to go to Amazon *first* (Porter 2006), if only to find the right item. The Amazon product catalogue does contain a wealth of information:

"Each record is saturated with a rich blend of semantic and social metadata designed to help you find the book you need. Formal bibliographic notations and subject classifications coexist with popularity, reputation, co-citation analysis, collaborative filtering, and customer reviews." (Morville 2005, p 148-9)

Anyone can use Amazon's web services to download metadata for their own websites. It is free and Amazon even encourages it. They know that people will use the data for things they were never intended for in the first place, thus giving it a much better reach. For example, a personal website with someone's favourite books, movies and CDs, can be automatically supplemented with reviews and other metadata directly from Amazon. But people cannot use or buy what they cannot find.

"While the Web's architecture rests on a solid foundation of code, its usefulness depends on the slippery slope of semantics. It's all about words. Words as labels. Words as links. Keywords [...] And words are messy little critters. Imprecise and undependable, their meaning shifts with context." (Morville 2005)

The projected road ahead for functionality and services on the Internet is popularly known as "The Semantic Web". Future information systems are likely to utilise a range of different databases and resources at the same time, and with greater diversity and accuracy than ever.

"[The Semantic Web] is about common formats for integration and combination of data drawn from diverse sources, where on the original Web mainly concentrated on the interchange of documents. It is also about language for recording how the data relates to real world objects. That allows a person, or a machine, to start off in one database, and then move through an unending set of databases which are connected not by wires but by being about the same thing." (W3C [2007])

The main innovation is that computer programmes will be able to "understand" the semantic content (or meaning) of documents and act accordingly. "Semantic technologies provide an abstraction layer above existing IT technologies, one that enables the bridging and interconnection of data, content, and processes across business and IT silos" (Balani 2005). Database administrators (or content providers) today should strive to accommodate this development because it will open up their databases to a huge range of users outside the original domain. People not directly interested in certain data may find themselves using it anyway it as a stepping stone to finding what they really need not even knowing what source it came from, or they can use it to supplement their own database. Why is the Semantic Web coming? Because there is a greater need for data integration. Independent communities now seek to join together their collections in order to gain new understanding across domains.

"For example, life sciences research demands the integration of diverse and heterogeneous data sets that originate from distinct communities of scientists in separate subfields. [...] all need a way to integrate these components. This is being achieved in large part through the adoption of common conceptualizations referred to as ontologies." (Shadbolt, Berners-Lee & Hall 2006)

The term "boundary object" describes "artefacts or ideas that are shared but understood differently by multiple communities". The semantic web will allow the collocation of material from a whole range of disciplines. As such it will act as "a boundary object to build shared understanding" (Morville 2005, p. 124) across domains and across cultural boundaries. Just how does one accommodate this development? A start would be to disambiguate the semantics of the data in one's own database so it can later be mapped to an appropriate ontology. The cataloguing practices should be based on standardised rules which properly define individual data types. This will ease the transition, or migration of data, to new and more intelligent (ontology based) systems.

8 THE BIG PICTURE

The gap between the current Norwegian repertoire databases and the recent developments in documentation is huge. One extreme is the Norwegian Opera with its intranet document folders, and the opposite are the conceptual models forming the framework for describing and interconnecting everything down to the smallest detail. One is based on (im)practical realities while the other is still somewhat utopian. The actual databases in the study can be placed somewhere in between these two "opposites".

The big thing in theatre documentation right now, at least in the theatres, is the scanning and cataloguing of photographs. As far as the repertoire databases are concerned, there is not much else going on. It is business as usual. If any real development of the repertoire documentation is to be made, the fundamental functions of both the data and database need to be re-evaluated. Is it wise to continue the current familiar practice, knowing that it is full of bugs, or is it better to start afresh with a new system and adapt the old one to the new instead of insisting that the new should adapt to the old? What possible uses could repertoire data have and why? Who are the (potential) users? Just like library catalogues, repertoire databases are not beloved relatives, they are tools – old fashioned tools. The big question is what task(s) those tools should perform. To sum up, they should help preserve the performing arts heritage, provide better access to that heritage, promote current productions, support the practical work related to those productions, and supplement related metadata from other fields. They should do so, because people value their cultural heritage as well as their contemporary culture; not just the performing arts but music, movies, dance, visual art and more.

How can the theatre community go about this? The Internet is the main communication channel today. The move towards the semantic web is the response to the growing need for data integration, so theatres, like everyone else, should strive to accommodate this development. The library community is already well on its way through the development of FRBR and RDA. However, the critics of RDA say it does not represent a big enough change and that it will be very expensive to implement. Also, the complexity of FRBR may be too great for practical use. Here the performing arts community actually has an advantage over the libraries. They are not spending that much money on documentation to begin with, nor do they have catalogues as extensive or coherent. Most of the world does not rely on the same cataloguing rules. Repertoire databases are scattered, small and unique, so the field has more to gain by joining individual efforts and preparing themselves for a more semantic future.

Repertoire information is the commodity in the information market that the performing arts community must establish to counter the effects of the market failures at play. Baumol's cost disease makes it harder to finance any such effort from within the community, so the fresh resources will probably come from somewhere outside that community. Another problem with the information market is that of insufficient information. Either people do not know that the product is there so they do not ask for it, or it is too much trouble to search for it, so they do not bother. Therefore, one must build systems that help people find the information so the cost of acquiring it does not outweigh its usefulness.

The challenge is twofold. First, someone has to pay for it. This is primarily a political challenge, because theatres, suffering the effects of Baumol's cost disease, have limited resources to spend on it. Second, someone has to get all the content providers to play ball and reach some form of consensus on how to organise the data. Perhaps a new institution or governing body is needed; one that takes charge of the situation and works from the top down for the consolidation of performing arts documentation.

Their information needs to be made more accessible, otherwise one can question the reasons for documenting performances in the first place. Exhaustivity and coherency also need to be improved. Looking at repertoire data in a historical context makes it is easier to justify imposing a greater level of detail in the databases. The greater the granularity the better the long term value will be. Important culture is not always valued highly by the people of its day, but may be priceless a century later. For example, pottery shards found in archaeological digs, or accounts of historical events from people who were actually there, are much more valuable now than they were when the pot was smashed or the battle was fought. Also, the history of cataloguing suggests that information needs and demands may continue to evolve,

and if so, information systems must evolve too. It is not enough to just look at current systems. One needs to see the big picture in order to better predict the future. CIDOC CRM, FRBR₀₀ and GloPAD represent possible platforms for future documentation systems that Norwegian performing arts documentation may need to relate to.

Another question is who will do the cataloguing in the future? If the people currently working in the archives are to do it, they may need to learn the ways of FRBR (if that is indeed the future). If a new breed of cross-domain databases should emerge the archives should consider employing librarians to maintain them; librarians know cataloguing and have the necessary knowledge and awareness of both the perils and opportunities of such information systems.

Information has business value. Current demand for repertoire data may be low, but that does not mean that the future demand has to be like that. Like the founder of DIALOG, Roger Summit says: "Information is used in direct proportion to how easy it is to obtain" (Morville 2005, p. 44). It is important to remember that information about performing arts touches upon many other disciplines. Actors work in theatre productions and in films, the same is true of choreographers, directors, lighting designers, costume designers, make-up artists, musicians and many more. But right now, the cost of obtaining the information may be too high compared to its usefulness. To counter this development the performing arts community should try to take advantage of the already established global distribution of art and other media to promote their own activities. Publishing all the metadata in a proper form is likely to encourage more use. Merging databases across domains will encourage it even more. Data cannot be valued by its demand when it is hard to find and access and completely separate from related data. It is crucial then that the data are in a format that can easily be exchanged and harnessed by others. Just look at how Scenekunstbruket, despite its shortcomings, has come a long way in consolidating the individual efforts of many different data providers and act as a mediator between customers and suppliers of independent performing arts. This demonstrates how repertoire data has real value to a professional target audience.

If you look up a movie actress in IMDb you will probably not find a proper overview of her

stage performances, even if she has starred on Broadway (Stage productions are categorised by IMDb as "other works" and some information may be found here, in plain text). This may be where the most significant benefit of better performing arts documentation can be found or created. The consolidation of data from performing arts with that of related domains would create a rich web of information about persons and artefacts online; information from each domain adding value and access points to the other. No more searching and browsing through umpteen databases and websites, no telephone calls to archives to ask for a dusty book in a basement somewhere. Both preservation and accessibility of cultural heritage can be facilitated through the Internet.

By reinventing their practices theatres may or may not sell more tickets, they may or may not be able to buy a new rotating stage, they may or may not receive more money in subsidies, but their efforts are less likely to be forgotten by the collective memory, which is what the Internet is about to become. In the end, do not the arts aspire to be remembered? Are not the greatest artists those who stand the test of time? Shakespeare, Cervantes, Renoir, Ibsen, Rembrandt, Whitman, and all the other greats of old; people still talk about them, appreciate them, and use their art to create new works. They do it because they can. They have access. Copies of the plays, paintings and novels are available at the push of a few buttons. What about the stage performers of old, or the directors, were they not artists? Where are they now? They may or may not be buried in the physical theatre archives because, until recently, the performance artists were stuck in the world of analogue media with little hope of ever reaching past the passionate gaze of a lone archivist.

9 APPENDICES

9.1 <u>Abbreviations</u>

| AACR2 | Anglo-American Cataloguing Rules 2 |
|--------------------|---|
| ABM-utvikling | The Norwegian Archive, Library and Museum Authority (ABM- |
| | utvikling) |
| CDWA | Categories of Description for Works of Art |
| CIDOC | International Committee for Documentation |
| CIDOC CRM | CIDOC Conceptual Reference Model |
| CRM | Short for CIDOC CRM, see above |
| DC | Dublin Core |
| GloPAC | Global Performing Arts Consortium |
| GloPAD | Global Performing Arts Database |
| FRAD | Functional Requirements for Authority Data |
| FRBR | Functional Requirements for Bibliographic Records |
| FRBR _{ER} | Functional Requirements for Bibliographic Records "Entity |
| | Relationship" |
| FRBR ₀₀ | Functional Requirements for Bibliographic Records "Object Oriented" |
| IMDb | Internet Movie Database |
| ISBD | International Standard Bibliographic Description |
| MARC | MAchine-Readable Cataloguing |
| NAPA | Norwegian Association for Performing Arts |
| RDF | Resource Description Framework |

9.2 Data Elements

The spreadsheet below shows which data elements the different databases contain. It is based on a small selection of entries from each base and, consequently, it is not exhaustive. However, it does illustrate the basic differences between the databases. The Opera is not included because it does not have a database as such. The fields in the Opera's Word documents are similar to the reports and programs of the other theatres (documents which often contain more data than the databases).

| | Α | В | С | D | Е | F | G |
|--|---|---|---|---|---|---|---|
| TITLE INFORMATION: | | | | | | | |
| Spilletittel | X | X | | Χ | X | Χ | |
| Originaltittel | Х | | | Χ | Χ | Χ | Χ |
| Tittel (original- eller spilletittel?) | | | Χ | | Χ | | Χ |
| BEHIND THE STAGE: | | | | | | | |
| Writing credits | | | | | | | |
| Forfatter / tekst / dramatiker / av | X | Χ | Χ | Χ | Χ | Χ | Χ |
| Bearbeider / Omarbeidet av / Bearbeiding | X | Χ | | Χ | Χ | | Χ |
| Oversetter / oversettelse / Omsetjing | | Χ | Χ | Χ | Χ | Χ | Χ |
| Dramatisering ??? | | | Χ | | Χ | Χ | |
| Skuespill skrevet | | | | | | | Χ |
| Skuespill utgitt | | | | | | | Χ |
| Urpremiere (dato/sted/teater) | | | | | | | Χ |
| Forfatters kjønn | | | | | | | |
| Forfatters kjønn | | | | | | | Χ |
| Music | | | | | | | |
| Komponist | | | Χ | Χ | Χ | Χ | Χ |
| Komposisjon (navn på musikken) | | | | | | | Χ |
| Musikk | Χ | Χ | Χ | | X | | |
| Originalmusikk | | | | | | | Χ |
| Dirigent | | | | | | Χ | |
| Musikkarrangør | | | | | Χ | Χ | |
| Levende musikk | | | | | | Χ | Χ |
| Bånd/Mekanisk musikk | | | | | | Χ | Χ |
| Mellomakts | | | | | | | Χ |
| Handling (plot) | | | | | | | Χ |
| Direction and craftsmanship | | | | | | | |
| Instruktør / Regi | X | Χ | Χ | X | X | Χ | Χ |
| Regiassistent | | | Χ | | X | | Χ |
| Produsent | | | Χ | | X | | |
| Produksjonsmedarbeider | | | X | | | | |
| Kostyme / Kostymer | X | Х | X | | X | Х | Χ |
| Produksjonsansvarlig kostymer | | | | | X | | |

| Maskør / Masker | X | X | | | Χ | | X |
|---|---|---|---|---|---|---|---|
| Lys | | X | | | | | X |
| Lysdesign | X | X | X | | X | | |
| Lysmester/Lysmeistrar/Lysansvarlig | | X | | | X | | |
| Scenekoordinator | | X | | | | | |
| Scenemester/sceneansvarlig | | | | | X | | |
| Scenografi/Dekor | X | X | X | | | X | X |
| Grafisk formgivning | | | X | | | | |
| Rekvisitør | | | | | X | X | X |
| Rekvisittmaker | | | | | X | | X |
| Lyd / Lydproduksjon | | X | | | X | | X |
| Lyddesign | X | | X | | X | | |
| Lydeffekter | | | | | X | | |
| Dramaturg / Dramaturgi | X | | X | | X | | X |
| Inspisient | | X | | | X | X | X |
| Sufflør | | X | | | X | | X |
| Tolk | | | | | X | | |
| Språkkonsulent | | | v | | Λ | | |
| * | | | X | | V | | |
| Video / videodesign | | v | X | | X | v | V |
| Koreografi/Koreograf | | X | X | | X | X | X |
| Dukkemaker | | | X | | Χ | | |
| Dukkefører | | | X | | | | |
| Sceneteknikk | | | | | | | X |
| Tekniker | | | X | | | | |
| Foto/Fotograf | | | Χ | | | | |
| Plakat | | | Χ | | | | |
| Animatør | | | Χ | | | | |
| Other information | | | | | | | |
| Prosjektleder | | | X | | | | |
| Turnéleder (v/samarbeidsproduksjon på turné) | | | | | Χ | | |
| Merknader/Tilleggsinformasjon/Diverse | X | | | | Х | Χ | Χ |
| Sted (navn på scene) | | X | | | Χ | Χ | Χ |
| Sted (geografisk) | X | | | | | | |
| Spillested (for baser med forest. fra flere teatre) | X | | | | | | |
| Spillesteder for turné | X | | | | | | |
| Navn på teater | X | | | | | | Χ |
| Navn på teatergruppe (gjestespill og turnéer) | | | X | | | | X |
| Anmeldelser (lenker) | X | Ì | 1 | | | | |
| Anmeldelser (utklipp eller kopi av tekst) | | | X | | | | |
| Bilder | X | Ì | X | | | | |
| Priser | | 1 | X | | | 1 | 1 |
| Antall publikummere | | | | | | X | |
| Antall forestillinger | X | | | | | X | |
| Forlag | | | | | | | X |
| CATALOGUING AND CLASSIFICATION: | | | | | | | |
| Premieredato | X | X | X | X | X | X | X |

| Siste spilledato | X | | | | X | X |
|---|---|---|---|---|---|---|
| Oppsetningstype/Forestillingsart/Genre | | | | X | X | Χ |
| Kulturkrets | | | | X | X | |
| Målgruppe/publikumstype/publikums-målgruppe | | | X | X | X | |
| Arkivnr. (id for mappe/dokument i arkiv?) | | | | X | Χ | Χ |
| Antall akter | | | | X | | X |
| Antall pauser | | Χ | | | | Χ |
| Spilletid | | | Χ | | | Χ |
| Språk | X | | | | | |
| PARTICIPANTS | | | | | | |
| Medvirkende, enkeltroller | X | | | X | | Χ |
| Endringer i rollelisten (i felt for merknad) | | | | X | | |
| Endringer i rollelisten (egen innførsel for rollen) | | | | X | | |
| Musikere (navn uten instrument) | | | X | X | | |
| Musikere (navn og instrument) / i orkesteret | | | Χ | | | Χ |
| Sanger | | | Χ | | X | |
| Danser | | | X | | X | Χ |
| Statistar | | | | | X | Χ |
| Antall kvinnelige og mannlige roller | | | | X | X | |
| Antall roller | | | | | X | Χ |
| Antall damer | | | | | | X |
| Antall herrer | | | | | | X |
| Antall barn | | | | | | Χ |
| STAGE INFORMATION | | | | | | |
| Beskrivelse / betingelser | | | Χ | | | |
| Høyde | | | Χ | | | |
| Bredde | | | Χ | | | |
| Dybde | | | Χ | | | |
| Strømbehov | | | Χ | | | |
| Blending??? | | | Χ | | | |
| Lys | | | Χ | | | |
| Lyd | | | Χ | | | |
| Bærehjelp | | | Χ | | | |
| Opprigg (tid som trengs) | | | Χ | | | |
| Nedrigg (tid som trengs) | | | Χ | | | |
| Maks antall publikum | | | Χ | | | |

9.3 Translated Quotes

This appendix contains all the quotes which have been translated from Norwegian to English. Most are from the interviews but some are from printed or online sources. These sources can also be found in the list of references.

Page: Original Quote:

33

- "å konkretisere FRBR-modellen innenfor rammen av en bibliotekkatalog
- *å vurdere, teste og anbefale metoder for automatisk ekstrahering av entiteter, attributter og relasjoner*
- å utvikle strategier og retningslinjer for konkrete implementasjoner
- *å identifisere oppgaver og områder hvor det er behov for videre arbeid mot konkrete løsninger*" (Aalberg et al. 2005, p. 1)
- 40 "[...] et uttalt mål om å bli anerkjent som et av Europas ledende teatre; tradisjonsrikt og grensesprengende." (Nationaltheatret [2007])
- 40 "[...] *en ledende, europeisk arena for musikkdramatikk og dansekunst [...].* "(Den Norske Opera [2007])
- 40 [...] musikkdramatikk og dansekunst av høy kvalitet.[...] forvalte, utvikle og fornye et allsidig repertoar innenfor opera og ballett, musikk- og danseteater.[...] utnytte ressursene på best mulig måte og målrette virksomheten.
- 41 "[...] syna fram skodespel på norsk mål i bygd og by." (Det Norske Teater 2003)
- 41 "Det Norske Teatret har bygd vidare på desse tradisjonane; vore ope for ny norsk dramatikk og nytolkingar av norske klassikarar samstundes som ein har følgt med i den moderne europeiske dramatikken. Altså, frå det lokale, gjennom det nasjonale til det internasjonale. "(Det Norske Teater [2007])
- 41 "Teatret skal reflektere hovedstadens urbane liv og fremme ny, norsk dramatikk, og for øvrig gi et allsidig teatertilbud [...] Det spilles forestillinger for alle aldersgrupper på teatrets scener." (Oslo Nye Teater [2007])
- 41 "[...] være et av Europas mest moderne og spennende nasjonalbibliotek være kjernen i norsk digitalt bibliotek [...] tilby kunnskap og opplevelse [...] Nasjonalbiblioteket skal tilby teknologikunnskap og kulturforståelse [...] være en omstillingsdyktig organisasjon"(Nasjonalbiblioteket [2007]c)
- 45 "Jeg tror ikke du vil finne så veldig sammenheng mellom hva som er mål og holdninger til Nationaltheatrets kunstneriske virksomhet, som er det de er mest

opptatt av, i forhold til den lille dokumentasjonsavdelingen som er meg her. Den er jo totalt nedprioritert." (Nationaltheatret interview)

45 "[...] overordnet strategidokument, det har vi ikke. Vi har jo overordnet mål. Et veldig klart og konsist overordnet mål: Å få en fullstendig database over Ibsenoppsetninger fra teaterscener over hele verden, fra 1850 til i dag. Når det gjelder nettstedet som sådan har vi som mål å være det ypperste Ibsen-nettstedet" (Ibsen.net interview)

45

- "Gjøre scenekunst av høy kunstnerisk kvalitet tilgjengelig for flest mulig.
- Fremme kunstnerisk utvikling og fornyelse.
- God tilgjengelighet av turnébare scenekunstproduksjoner av høy kvalitet for arrangører.
- *Høy kompetanse på fri scenekunst blant arrangører.*
- Godt utvalg av spillesteder lokalt og regionalt.
- Gode turnevilkår for scenekunstnere.
- Scenekunstbruket skal fortsatt ha en sentral rolle i Den kulturelle skolesekken.
- *Hver grunnskoleelev skal ha to scenekunstopplevelser av høy kvalitet hvert skoleår.*" (Scenekunstbruket [2007]c)
- 46 "[...] databasert oversikt over forestillinger tilgjengelig på Internett". (Scenekunstbruket [2007]c)
- 46 "[...] binder sammen logistikk- og kommunikasjonsprosessene på, og mellom, nasjonal- fylkes-, kommune- og skolenivå." (KSYS [2007])
- 46 "Det betyr også at i og med at vi har den databasen så blir hele tiden når forestillingene våre blir kopiert til KSYS så legges det igjen et spor, så jeg kan se hele tiden hvor den forestillingen er hen, hvor den er på turne. [...] et av de viktigste målene med dette her er å ha et velfungerende administrasjonsverktøy." (Scenekunstbruket interview)
- 47 "repertoardatabasen [...] har vært utrolig ressurskrevende. Vi har ikke kommet så langt som vi ønsker. [...] Hadde vi vært 5 ansatte som hadde registrert på spreng kunne vi kanskje klart det, men det hadde krevd veldig mye midler og organisatorisk." (Ibsen.net interview)
- 47 "[...] relativt sikker [...] Hvordan fremtiden blir borte i Nasjonalbiblioteket vet vi ikke så mye om [...] Så må vi nok kjempe for vår eksistens i Nasjonalbiblioteket [...]" (Ibsen.net interview)
- 47 "Ellers av tildelte økonomiske midler for budsjettåret så er de på 3000 kroner. Så da kan man tenke seg hva man kan kjøpe for dem. Jeg vil være så fri å betegne økonomisituasjonen som mager." (Theatre Archive in Bergen interview)

- 48 *"Det finnes ikke noe budsjett for arkivet, men hvis jeg føler at det er behov for nye ting spør jeg om det og som regel får jeg det."* (Oslo Nye Teater interview)
- 48 "[...] alle avdelingene har jo budsjett å forholde seg til, i forhold til produksjoner, for eksempel, men vi har ikke noen sånn ramme, ingen økonomisk ramme, men vi handler inn der og da, og leverer regning og det har fungert greit." (The Norwegian Theatre interview)
- 48 "Det er ikke satt av noen direkte ressurser i form av noe budsjett. Det ligger ikke, så vidt jeg vet, i stillingsinstruksen til noen, bortsett fra musikkbiblioteket." (The Opera interview)
- 52 *"[...] det ville være litt for vanskelig å få det til."* (The National Theatre interview)
- 52 Den er litt dårlig utviklet fordi det har vært så få kritikker, men vi har en knapp som sier "hva sier pressen?" Og der kommer det opp et vindu hvor du kan enten legge inn en lenke eller skrive inn utdrag fra anmeldelser. (Scenekunstbruket interview)
- 52 "[...]for nå har vi støvsugd hele Norge." (Ibsen.net interview)
- 52 "[...] noen økonomiske opplysninger [...] et kommentarfelt for intern kommunikasjon om forestillingen, når den er tatt opp i referansegruppa, hvilket arkivnummer den har. " (Scenekunstbruket interview)
- 53 "Vi får kanskje bare informasjon om dette fra ambassaden i Japan, for eksempel. Da kan de gjerne ha skrevet oppsetningstittel på engelsk, for eksempel." (Ibsen.net interview)
- 53 "Det vi prøver å bli bedre på nå det er personhåndteringen. [...] under
 'medvirkende' for eksempel ligger det jo utdanning, erfaring og disse tingene her."
 (Scenekunstbruket interview)
- 54 "[...] vi har heller ikke mellomnavn, det burde vi kanskje hatt. Det er utelatt over hele. Man tenkte kanskje ikke så langt den gangen." (Oslo Nye Teater interview)
- 55 *"Min subjektive mening er at vi er nødt til å ha inn et nytt kort hvis det er veldig stor utskiftning av skuespillere eller instruktør."* (Theatre Archive in Bergen interview).
- ⁵⁶ "Hvis gjenopptagelsen i sin samtid ble definert som en nyinnstudering så er det for oss en ny oppsetning. Da har de gått inn og sett på ting på nytt og kanskje skiftet et par roller, det samme med regissør, men det ble definert da som en nyinnstudering, og da har det skjedd noe kunstnerisk med oppsetningen. Den er ikke helt identisk for da hadde det ikke vært noe poeng å nyinnstudere den. [...] Men vi går ikke inn og skiller det til to oppsetninger før vi har evidens for at dette ble oppfattet som en nyinnstudering, en ny oppsetning. [...] Det krever rett og slett forskning. [...] Hvis det

har skjedd en vesentlig forandring så er det en ny oppsetning. [...] Vi bruker skjønn og vi forholder oss til veldig mange ulike kilder." (intervju - ibsen.net)

- 59 "Jeg satt en helg for to uker siden og ryddet opp i 330 duplikater. [...] Svein Gundersen, to personer heter det samme og er i samme miljø; den ene på musikk og den andre i teater. Hvordan løser vi det? De hentes opp og knyttes til produksjoner. Hvilken Svein Gundersen er det vi henter opp?" (Scenekunstbruket interview)
- 60 "Jeg synes den er veldig selvinnlysende. [...] for en typisk filologisk IT-kunnskap så er den lettbrukt [...]" (Theatre Archive in Bergen interview)
- 61 "Det varierer veldig. Det er skippertak når folk tilfeldigvis kommer over det og ser det. Så sier de 'Jøss, her har det ikke skjedd noe siden 2003. Her bør vi gjøre noe'. Operaen har vært veldig lite flinke til å definere det ansvaret og hvor det skal høre hjemme. Det er klart når man sitter der med snart 50 år som ikke er sortert så er det veldig få avdelinger og avdelingssjefer som sier at 'Yesss, det vil vi ha, den jobben tar vi gjerne'. Det blir en kasteball i systemet." (The Opera interview)
- 68 "vi ville jo veldig gjerne ha med, ikke bare institusjonsteatrene, men også for eksempel frie grupper, til automatisk, i den grad de hadde teknisk mulighet til det, å legge inn selv. [...] Det var jo kanskje også en medvirkende årsak til at det ikke var lett å drive det videre, fordi vi håpet jo når denne basen først var oppe å stå, så ville folk innse nytten av det" (The Norwegian National Library interview).
- 71 *"[...]bruker repertoardatabasen for eksempel til å verifisere informasjon eller [...] datering av brev.* " (Ibsen.net interview)
- 72 De ringer ofte ja, istedenfor å søke. De trenger hjelp. De er forferdelig utålmodige. De gidder ikke; de har veldig lav terskel for å ringe. Forskere har nok en høyere terskel for det. Teaterfolk tar bare det de finner. "(Ibsen.net interview)
- 73 *"I et lite land som Norge så skulle det gå an. Det er ikke så mange teatre."* (Theatre Archive in Bergen interview)
- 76 *"Det foreligger ingen helt udiskutabel definisjon på hva kulturarv og kultur-minner er for noe"* (Ringstad 2005, p. 79).
- 78 Folk til sammen tillegger kulturminner betydelig verdi, på tross av at mange ikke tillegger dem verdi i det hele tatt. [...] Brukerverdien er for de fleste kulturminner for liten til at det kan danne det finansielle grunnlaget for bevaring. Det gjelder spesielt kulturminner som er enestående og/eller har en spesiell posisjon for store deler av befolkningen i flere land" (Ringstad 2005, p 91)

9.4 Interview Guide

INTERVJUPERSONEN

Parametere

- 1. Kjønn
- 2. Utdannelse type/lengde
- 3. Fartstid med teaterdokumentasjon
- 4. Fartstid med digitale repertoardatabase(r)

Spørsmål

- Hvilken utdannelse/kvalifikasjoner har du? (Bibliotekar/Arkivar/Filologisk/annet)

 Type/lengde
- 2. Hvor lenge har du jobbet med teaterdokumentasjon?
- 3. Hvor lenge har du jobbet med digitale repertoardatabase(r)?

INSTITUSJONELT - MÅLSETNINGER OG MÅLGRUPPER

Parametere

- 1. Om strategi-/måldokument finnes
- 2. Institusjonens overordnede formål
 - a. Av hvem institusjonens mål ble formulert
 - b. Når institusjonens mål ble formulert
- 3. Dokumentasjonsavdelingens mål
 - a. Av hvem avdelingens mål ble formulert
 - b. Når institusjonens mål ble formulert
- 4. Repertoardatabasens konkrete formål
- 5. Institusjonens målgruppe(r)
- 6. Dokumentasjonsavdelingens/arkivets målgrupper(r)
 - a. Av hvem avdelingens målgrupper ble definert
 - b. Når målgruppene ble definert
 - c. Forandringer i målgruppene over tid
- 7. Repertoarbasens målgruppe(r)
 - a. Hvis avvik mellom institusjonens/avdelingens/repertoardatabasens målgrupper, Motivasjon for avviket
- 8. Økonomiske rammer
 - a. Konsekvenser for repertoardatabasen og dens innhold

- 1. Har dere et overordnet strategi-/måldokument for institusjonen?
 - a. <u>Hvis ja</u>: Kan jeg få kopi av dette og tillatelse til å bruke det i oppgaven?
- 2. <u>Hvis nei</u>: Kan du fortelle om denne institusjonen og dens mål/formål?
 - i. Vet du hvem som formulerte disse målene?
 - ii. Vet du når disse målene ble formulert?
- 3. Hvilke konkrete mål/delmål jobber dere mot i denne avdelingen / dette arkivet?
 - a. Hvem formulerte dem? (Dere selv eller andre?)

- b. Når ble disse målene ble formulert?
- 4. Hva er det konkrete målet/formålet med repertoardatabasen?
- 5. Hvilke målgrupper har institusjonen som helhet?
- 6. Hvilke målgrupper jobber dere mot i deres arkiv/avdeling?
 - a. Hvem definerte målgruppene?
 - b. Når ble disse målgruppene definert?
 - c. Har avd./arkivet jobbet mot de samme målgruppene så lenge den har eksistert eller har disse skiftet over tid? Når skiftet de, fra hva til hva og hvorfor?
- 7. Hvilke målgrupper er selve repertoarbasen rettet mot, i motsetning til inst./avd.?
 - a. Avviker disse fra institusjonens eller avdelingens målgrupper?
 - i. Hvorfor/hvordan? Snevrere eller bredere?
- 8. Hva kjennetegner de økonomiske rammene for avdelingen?
 - a. Hvilke konsekvenser får dette for repertoarbasen?
 - i. Treg/rask oppdatering, eller mindre informasjon som registreres?

BRUK AV DATABASEN

Parametere

- 1. Brukere av basen (interne/eksterne)
 - a. Faktiske brukere
 - b. Antatte brukere
- 2. Brukeroppgaver for databasen
 - a. Faktiske/kjente brukeroppgaver
 - b. Type informasjon brukerne søker
- 3. Grad av tilfredshet med repertoarbasen hos kjente/eksterne brukere
- 4. Grad av tilfredshet med sin egen repertoarbase
 - a. Hvilke mangler og/eller kvaliteter kjenner dere?
- 5. Kilder til informasjon om bruk

- 1. Kan du/dere fortelle om hvordan repertoardatabasen brukes?
 - a. Hva vet dere om faktiske/kjente brukerne av databasen?
 - i. Interne/eksterne brukere?
 - ii. Hva bruker dere den til?
 - b. Hvem antar/tror dere bruker den?
- 2. Hva brukes databasen til av brukerne?
 - a. Kjenner dere hvilke brukeroppgaver brukerne utfører i basen?
 - b. Hvilken informasjon etterspørres/søkes etter?
- 3. Hvilke tilbakemeldinger får dere fra brukere om databasen?
 - a. Er de generelt positive eller negative?
- 4. Er du/dere fornøyd med repertoarbasen slik den er i dag?
 - a. Hva er bra/dårlig?
- 5. Hvilke andre kilder har/bruker dere for å vite hvordan repertoardatabasen brukes?
 - a. For eksempel personlig erfaring, besøkende på huset, online gjestebok eller kommentartjeneste, statistikk, søkelogger?

DATABASEN

Parametere

- 1. Når basen ble opprettet
- 2. Produsent/systemleverandør
 - a. Originalitet er databasen laget fra grunnen eller basert på eksisterende base
- 3. Data i basen
 - a. Liste over alle "felt" i bruk
 - b. Vurdering til grunn for utvalg av data/informasjon
- 4. Typer data bevisst utelatt fra basen
 - a. Vurdering til grunn for utelatelse av data
- 5. Hvorvidt databasen har autoritetsposter
 - a. Hvis ja, deres form og innhold
- 6. Koblinger til andre databaser
- 7. Innhold ikke relatert til repertoaret
 - a. Hvilken informasjon
 - b. Motivasjon

Spørsmål

- 1. Når ble basen laget?
- 2. Hvem har designet databasen?
 - a. Er databasen en original eller basert på annen database?
- 3. Hvilke data / hvilken informasjon inneholder basen?
 - a. *liste over alle felt i bruk* (Få demonstrasjon av systemet og kommentar)
 - b. Hvilke vurderinger ligger til grunn for utvalget av informasjon i databasen?
- 4. Hvilke data / hvilken informasjon er bevisst utelatt fra databasen?
 - a. Hvilke vurderinger ligger til grunn for dette?
- 5. Har databasen deres autoritetsposter for personer/titler/verk eller lignende med flere navneformer?

a. Hvis ja, Hva er disse postenes form/innhold?

- 6. Inneholder databasen koblinger til andre databaser? For eksempel lenker til eksterne nettsider (anmeldelser, diskusjonsforum etc.)?
- 7. Inneholder databasen informasjon som ikke er direkte koblet til repertoaret?
 - a. Hvilken informasjon er dette?
 - b. Hvorfor er den med her?

PRAKSIS – VEDLIKEHOLD AV DATABASEN

Parametere

- 1. Metoder for innhenting av data til basen
 - a. Kilder til informasjon i databasen
 - b. Hvordan data skaffes internt
 - c. Hvordan data skaffes eksternt
 - d. Hvordan arbeider dere for å manuelt finne info som ikke finnes i deres primærkilder?

- 2. Hvem som oppdaterer/katalogiserer
 - a. Kvalifikasjoner/opplæring hos denne/disse, evt. hva opplæringen består i
- 3. Hvorvidt skriftlige retningslinjer for katalogisering i eller oppdatering av repertoarbasen finnes (<u>Hvis ja</u>, få kopi)
 - a. Hvem som har utformet/definert denne praksisen
 - b. Når og hvordan praksisen/retningslinjene har blitt til
 - i. Hvorvidt det er variasjoner/endringer i praksis/retningslinjer over tid
 - c. <u>Hvis nei</u>, hva kjennetegner det praktiske arbeidet med vedlikehold av basen?
 - i. Hvorvidt det er variasjoner/endringer i praksis/retningslinjer over tid
- 4. Hvilke data som registreres bare i fysisk arkiv, og ikke i repertoarbasen
- 5. Oppdatering av poster med ny info
- 6. Behandling av tittelinformasjon
- 7. Detaljgrad for personinformasjon
- 8. Forekomst av flere informasjonsbiter i ett og samme felt (for eksempel kommentarfelt, tekstbeskrivelse etc.)
 - a. Hvilken informasjon som kan finnes i disse
- 9. Skriveform. Brukes konsekvent samme form på (invertering, store/små bokstaver)
- 10. Hvordan de definerer en oppsetning (forutsatt at det er hovedentiteten de katalogiserer).
- 11. Hensiktsmessig detaljgrad for dem (produksjon/forestillingsrekke/enkeltforestilling)a. Hvorfor (ikke)?

- 1. Hvordan skaffer dere informasjonen som legges inn i databasen?
 - a. Fra hvilke kilder kommer informasjonen i databasen?
 - b. Hvordan skaffes data internt/eksternt?
 - c. Hva gjør dere hvis det åpenbart mangler informasjon i primærkildene?
- 2. Hvem utfører katalogisering i og vedlikehold av innholdet i databasen?
 - a. (Hvis flere enn respondent)Hvilke kvalifikasjoner / hvilken opplæring har de?
- 3. Har dere skriftlige retningslinjer for vedlikehold/drift/oppdatering av databasen?
 - a. <u>Hvis ja</u>, kan jeg få kopi og tillatelse til å bruke dem i oppgaven?
 - b. Hvem har utformet/bestemt (retningslinjer for) praksisen?
 - c. Når og hvordan ble praksisen/retningslinjene utformet/definert?
 i. Har denne praksisen utviklet eller forandret seg over tid?
 - d. <u>Hvis nei</u>, kan du beskrive hvordan dere jobber/jobbet med å oppdatere basen?
 i. Har praksisen utviklet eller forandret seg over tid?
- 4. Hvilke data registrerer dere i annet fysisk arkiv, og ikke i repertoarbasen? (Kun generell beskrivelse nødvendig.)
- 5. Hvordan og hvor mye arbeider dere med å oppdatere gamle poster med ny info?
- 6. Hvordan behandler dere varierende tittelinformasjon så som originaltittel, oversatt tittel, parallelltittel og spilletittel?
- 7. Hva tar dere med av informasjon om enkeltpersoner i repertoarbasen? (Eksempelvis personers høyde, utseende, utdannelse/kvalifikasjoner, meritter, kontaktinfo etc.)
- 8. Er det noen felt som inneholder flere enn en bit informasjons? (Eksempelvis kommentarfelt eller andre tekstlige beskrivelser. Eksempelvis to forfattere i samme forfatter-felt...)
 - a. <u>Hvis ja</u>, hvilke typer informasjon finnes i disse feltene?

- 9. Brukes konsekvent samme skriveform på navn, titler, roller og andre informasjonsbiter? (Invertering, store/små bokstaver etc.)
- 10. Er det riktig å si at dere katalogiserer OPPSETNINGER/PRODUKSJONER i databasen deres?
 - a. Hva legger dere i begrepet oppsetning? Hva definerer en oppsetning?
 - i. Hva mener du/dere skiller en oppsetning fra en annen (kanskje lignende) oppsetning? Bruke The Mousetrap som eksempel.
- 11. Ville det vært interessant å ha informasjon om enkeltforestillinger, ikke bare oppsetninger?
 - a. Hvorfor (ikke)?
 - b. (Hvis det er flere enn én, hva med forestillingsrekker?)

SAMARBEID MED ANDRE

Parametere

- 1. Bruk av andre repertoarbaser i eget arbeid
- 2. Nåværende samarbeid
 - a. Hvilke institusjoner
 - b. Type samarbeid
- 3. Planer for samarbeid
 - a. Hvilke institusjoner
 - b. Type samarbeid

Spørsmål

- 1. Bruker dere andre repertoardatabaser i arbeidet med deres egen?
 - a. <u>Hvis ja</u>, hvilke og hvordan bruker dere dem? (Hvilken informasjon?)
- 2. Samarbeider dere på noen måte med andre teaterinstitusjoner om dokumentasjon?
 - a. Hvis ja, hvilke institusjoner samarbeider dere med?
 - b. <u>Hvis ja</u>, hva består samarbeidet i?
 - i. Samarbeid om repertoardatabaser?
- 3. Har dere planer eller ønske om å samarbeide med noen andre teaterinstitusjoner om dokumentasjon på noe vis?
 - a. <u>Hvis ja</u>, hvilke institusjoner gjelder dette?
 - b. <u>Hvis ja</u>, hva slags type samarbeid skulle dette være?
 - i. Samarbeid om repertoardatabaser?

FREMTIDSPLANER/ØNSKER/MULIGHETER ... ANNET

Parametere

- 1. Planer for fremtiden
 - a. Planer for videreutvikling av repertoarbasen
- 2. Hva de ville gjort annerledes hvis de fikk lage repertoarbase om igjen
- 3. Nytteverdi av nasjonal repertoardatabase

- 1. Hvilke planer har dere for fremtiden?
 - a. Vil dere videreføre repertoarbasen i nåværende form?

- 2. Hvis dere skulle designe en ny repertoardatabase for å erstatte den gamle, hva ville dere gjort annerledes?
 - a. Ville dere inkludert mer, mindre eller annerledes informasjon enn i dag?
- 3. Ville det være nyttig for dere i deres arbeid om det fantes en nasjonal database, kanskje i samme ånd som Samteater, som inneholdt informasjon om teaterforestillinger i hele Norge?
 - a. Hvorfor (ikke)?
 - b. <u>Hvis nei/tvilende</u>, Hva hvis denne var langt mer omfattende og detaljert i beskrivelsen, for eksempel med informasjon på enkeltforestillingsnivå, og dekket langt flere teatre og sjangere enn Samteater gjør i dag?

KOMMENTARER

Parametere

- 1. Avklare senere kontakt
- 2. Tilbakemelding på intervjuet
- 3. Spørsmål til meg

- 1. Kan jeg kontakte dere senere med oppfølgingsspørsmål, hvis det skulle bli nødvendig?
- 2. Hvordan opplevde dere dette intervjuet?
- 3. Er det noe du/dere ønsker å spørre meg om?

9.5 List of Figures

| Page 26 | Figure 1 – CIDOC CRM top level entities |
|---------|---|
| Page 28 | Figure 2 – FRBR Group 1 entities |
| Page 49 | Figure 3 – Sample entry from Ibsen.net ([2007]a) |
| Page 50 | Figure 4 – Excerpt from the database interface at the Theatre Archive in |
| | Bergen |
| Page 50 | Figure 5 – Excerpt from a database entry at Scenekunstbruket |
| Page 57 | Figure 6 – Entry form for actors/actresses and characters, The Theatre Ar |
| | |

- heatre Archive in Bergen
- Page 62 Figure 7 – MARC record from the database of The Norwegian Theatre
- Page 67 Figure 8 – Statistics from Scenekunstbruket ([2007]b)

10 <u>REFERENCES</u>

Aalberg, T. Husby, O., Haugen, F. B., Ore, C. (2005). *FRBR i bibliotekkataloger*. Oslo: BIBSYS Retrieved September 20, 2006, from http://november.idi.ntnu.no/frbrized/documentation/BIBSYS.FRBR-prosjekt.pdf

ABM-utvikling ([2007]). *ABM-utvikling*. Retrieved April, 2007, from <u>http://www.abm-utvikling.no/?set_language=en</u>

Balani, N. (2005). *The Future of the Web is Semantic*. Retrieved March 14, 2007, from <u>http://www-128.ibm.com/developerworks/web/library/wa-semweb/</u>

Bial, H. (2004). The Performance Studies Reader. London: Routledge

BIBSYS ([2007]). *Om BIBSYS Nettsted*. Retrieved January 3, 2007, from <u>http://www.bibsys.no/wps/wcm/connect/BIBSYS+Nettsted/Om+nettstedet/Om+BIBSYS+Nettsted/</u>

Byrum, J.D. ([2000]). *IFLA's ISBD Progamme: Purpose, Process, and Prospects*. Retrieved March 14, 2007, from <u>http://www.loc.gov/loc/ifla/imeicc/source/papers-byrum.pdf</u>

Chapman, A. (2006). RDA: A New International Standard. *Ariadne, 49* (October Issue). Retrieved April 14, 2007, from <u>http://www.ariadne.ac.uk/issue49/chapman/</u>

Connolly, T. & Begg, C. (2005). *Database Systems: A Practical Approach to Design,* Implementation, and Management (4th ed.). Harlow: Pearson Education

Coyle, K. & Hillman, D. (2007). Resource Description and Access – Cataloguing Rules for the 20th Century. *D-Lib Magazine* 13 (1/2). Retrieved April 27. 2007, from <u>http://www.dlib.org/dlib/january07/coyle/01coyle.html</u>

Crofts, N., Doerr, M., Gill, T., Stead, S. & Stiff, M. (c2006). *Definition of the CIDOC Conceptual Reference Model*. ICOM/CIDOC CRM Special Interest Group. Retrieved March 14, 2007, from <u>http://cidoc.ics.forth.gr/docs/cidoc_crm_version_3.4.9.pdf</u>

Danse og Teateresentrum ([2007]). *The Norwegian Association for Performing Arts* Retrieved April 14, 2007, from http://www.danseogteatersentrum.no/pub/dts/AboutNAPA/?&aid=208&mid=209#dts

Den norske katalogkomité (2004). Nasjonalt autoritetsregister for person- og korporasjonsnavn: Utredning. [Oslo: Nasjonalbiblioteket]. Retrieved May 29, 2007, from http://www.nb.no/katkom/96autregister-sluttrapport-okt2004.pdf

Den Norske Opera ([2007]) *Den Norske Opera - Norges nasjonalscene for opera og ballet.* Retrieved April 2, 2007, from <u>http://www.operaen.no/sw384.asp</u> Det Norske Teater (2003). *VEDTEKTER for L/L DET NORSKE TEATRET*. Retrieved April 14, 2007, from <u>http://www.detnorsketeater.no/netuser/staticpages/vedtekter.asp</u>

Det Norske Teater ([2007]). *Historia bak Det Norske Teatret*. Retrieved April 14, 2007, from <u>http://www.detnorsketeater.no/netuser/staticpages/historia.asp</u>

Doerr, M. & Stead, S. (2005). *The CIDOC CRM, a Standard for the Integration of Cultural Information*. ICOM. Retrieved December 3, 2006, from http://cidoc.ics.forth.gr/docs/crm_for_nurnmberg.ppt

Finnish Dance Database ([2007]). Tanka. Retrieved February 1, 2007, from <u>http://www.danceinfo.fi/tanka/english</u>

Flyrope ([2007]). *Flyrope*. Retrieved February 1, 2007, from <u>http://www.flyrope.com/index2.php</u>

[GloPAC] ([2007]a). [no title]. Retrieved June 1, 2007 from http://www.glopac.org/about/glopad_functions_ml_jun2006_nputf8.txt

[GloPAC] ([2007]b). [no title]. Retrieved June 1, 2007 from http://www.glopac.org/about/glopad_perfsections_ml_jun2006_nputf8.txt

[GloPAC] ([2007]c). [no title]. Retrieved June 1, 2007 from <u>http://www.glopac.org/about/glopad_piecenametypes_ml_jun2006_nputf8.txt</u>

[GloPAC] ([2007]d). [no title]. Retrieved June 1, 2007 from <u>http://www.glopac.org/about/glopad_personaltnametypes_ml_jun2006_nputf8.txt</u>

[GloPAC] ([2007]e). [no title]. Retrieved June 1, 2007 from http://www.glopac.org/about/glopad_artsofperformance_ml_jun2006_nputf8.txt

[GloPAC] ([2007]f). [no title]. Retrieved June 1, 2007 from http://www.glopac.org/about/glopad_componenttypes_ml_nputf8.txt

Gruber, T.R. (1992). *A Translation Approach to Portable Ontology Specifications*. Retrieved April 20, 2007, from <u>http://tomgruber.org/writing/ontolingua-kaj-1993.pdf</u>

Henrik Ibsens's Writings ([2007]). Henrik Ibsens Writings. Retrieved May, 27, 2007, from <u>http://www.ibsen.uio.no/English/index.html</u>

History of Australian Theatre ([2007]). *The History of Australian Theatre*. Retrieved March 1, 2007, from <u>http://www.hat-archive.com/programmes_and_other_resources.htm</u>

Ibsen.net ([2007]a) *Nationaltheatret*. Located on April 29, 2007, in the Ibsen.net repertoire database. Retrieved April 29, 2007, from <u>http://ibsen.net/index.gan?id=1490</u>

Ibsen.net ([2007]b). *On the Repertoire Database*. Oslo: Ibsen.net. Retrieved October 30, 2006, from <u>http://www.ibsen.net/index.gan?id=39995&subid=0</u>

Ibsen.net ([2007]c). *Repertoire database*. Retrieved April 18, 2007, from: <u>http://ibsen.net/index.gan?id=2953&subid=0</u>

Ibsen.net ([2007]d). About ibsen.net. [Oslo]: Ibsen.net. Retrieved January 4, 2007, from <u>http://ibsen.net/index.gan?id=1414&subid=0</u>

ICOM ([2007]). *Become a member*. Retrieved April 14, 2007, from <u>http://icom.museum/membership.html</u>

IFLA Study Group on the Functional Requirements for Bibliographic Records (1998). Functional Requirements for Bibliographic Records. Munich: K.G. Saur. Retrieved February 1, 2007, from <u>http://www.ifla.org/VII/s13/frbr/frbr.pdf</u>

IFLA Working Group on Functional Requirements and Numbering of Authority Records (FRANAR) (2007). Functional Requirements for Authority Data: A Conceptual Model. IFLA. Retrieved May 18, 2007, from: <u>http://www.ifla.org/VII/d4/FRANAR-ConceptualModel-2ndReview.pdf</u>

IFLA Study Group on the Functional Requirements for Bibliographic Records (1998) Functional Requirements *for Bibliographic Records*. München: K.G. Saur

International Conference on Cataloguing Principles (1971). *Statement of principles, adopted at the International Conference on Cataloguing Principles, Paris, October 1961: Annotated edition with commentary and examples (Definitive ed)*. London: IFLA Committee on Cataloguing.

International Working Group on FRBR and CIDOC CRM Harmonisation (2007) *FRBR object-oriented definition and mapping to the FRBR_{ER} (version 0.8.1)*. Retrieved from <u>http://cidoc.ics.forth.gr/docs/frbr_oo/frbr_docs/FRBR_oo_V0.8.1c.pdf</u>

Irish Theatre Institute ([2007]). *Irish Playography*. Retrieved October 30, 2006, from <u>http://www.irishplayography.com/search/simplesearch.html</u>

Joint Steering Committee for Revision of AACR (2002). *Anglo-American Cataloguing Rules* (3rd ed.) 2002 Revision. Ottawa : Canadian Library Association

Katalogiseringsregler (1998). Oslo: Norsk bibliotekforening.

Kingma, B. (2001). *The economics of information : a guide to economic and cost-benefit analysis for information professionals (2nd ed.)*. Englewood, Colo.: Libraries Unlimited

Kiorgaard, D. & Huthwaite, A. (2005). Authority Control in AACR3. Retrieved March 29, 2006, from <u>http://www.nla.gov.au/lis/stndrds/grps/acoc/kiorgaard2005.doc</u>

KSYS ([2007]). *Generelt om KSYS*. Oslo: Orgdot. Retrieved June 2, 2007, from <u>http://www.ksys.no/pub/ksys/2003_2_3_16.14.22.shtml?cat=omksys</u>

Library of Congress (2007a). *MARC 21 Concise Bibliographic: Edition, Imprint, etc. Fields 250-270.* [Washington DC: Library of Congress – Network Development and MARC Standards Office]. Retrieved May 29, 2007, from: http://www.loc.gov/marc/bibliographic/ecbdimpr.html

Library of Congress (2007b). *MARC 21 Concise Bibliographic: Physical Description, etc. Fields (3XX).* [Washington DC: Library of Congress – Network Development and MARC Standards Office]. Retrieved May 29, 2007, from: <u>http://www.loc.gov/marc/bibliographic/ecbdphys.html</u>

Library of Congress (2007c). *What is a MARC record and why is it important?* [Washington DC: Library of Congress – Network Development and MARC Standards Office]. Retrieved June 10, 2007 from <u>http://www.loc.gov/marc/uma/pt1-7.html</u>

Miller, D. & LeBoeuf, P. (2005). "Such Stuff as Dreams Are Made On": How Does FRBR Fit Performing Arts?. *Cataloging & Classification Quarterly*, 39 (3/4), 151-178.

Morville, P. (2005). Ambient Findability. Sebastopol, Calif. : O'Reilly

Nasjonalbiblioteket ([2007]b). Norsk bokfortegnelse (NORBOK) Enkelt søk. [Oslo]: Nasjonalbiblioteket. Retrieved April 13, 2007, from:

Nasjonalbiblioteket ([2007]c). *Union Catalogue of Theatrical Performances*. Retrieved October 3, 2006, from <u>http://nabo.nb.no/trip?_b=baser&navn=samteater&_s=E</u>

Nasjonalbiblioteket ([2007]d). *Strategi*. [Oslo]: Nasjonalbiblioteket. 1Retrieved March 15, 2007, from: <u>http://www.nb.no/om_nb/presserom/strategi</u>

Nationaltheatret ([2007]) *Om oss.* Oslo: Nationaltheatret Retrieved April 15, 2007, from: <u>http://nationaltheatret.no/Nationaltheatret/Om_oss/</u>

Nordisk Senter for Teaterdokumentasjon ([2006]). *Norge*. Retrieved September 1, 2006, from <u>http://www.nb.no/nctd/norge.html</u>

[OCLC]([2007]). *FictionFinder: A FRBR-based prototype for fiction in WorldCat*. Retrieved April 14, 2007, from: <u>http://www.oclc.org/research/projects/frbr/fictionfinder.htm</u>

Oslo Nye Teater ([2007]). Årsrapport 2005. Oslo: Oslo Nye Teater. Retrieved March 10, 2007, from <u>http://www.oslonye.no/filarkiv/arsrapporter/arsrapport2005.pdf</u>

Patton, M.Q. (c2002). *Qualitative Evaluation & Research Methods (3rd ed.)*. Thousand Oaks, Calif. : Sage Publications

Porter, J. (2006). *The Amazon Effect*. Retrieved April 2, 2007, from: <u>http://www.uie.com/brainsparks/2006/04/21/the-amazon-effect/</u>

Ringstad, V. (2005). Kulturøkonomi. Oslo: Cappelen

Scenekunstbruket ([2007]a). *Scenekunstbruket*. [Oslo]: Danse- og Teatersentrum. Retrieved April 29, 2007, from <u>http://www.scenekunstbruket.no/</u>

Scenekunstbruket ([2007]b). *Scenekunstbruket*. [Oslo]: Danse- og Teatersentrum. Retrieved May 29, 2007, from <u>http://scenekunstbruket.no/sck/?act=skbstat</u>

Scenekunstbruket ([2007]c). *Handlingsplan 2006-2009: Danse- og Teatersentrum*. [Oslo]: Danse- og Teatersentrum. Retrieved May 8, 2007, from http://scenekunstbruket.no/resources/15/files/100/handlingsplanDTS_06_09.pdf

Schechner, R. (2006) Performance Studies (2nd ed.). London: Routledge

Scottish Theatre Archive ([2007]). STA Catalogue. Retrieved April 29, 2007 http://special.lib.gla.ac.uk/sta/search/

Shadbolt, N., Berners-Lee, T. & Hall, W. (2006) IEEE Intelligent Systems 21(3) pp. 96-101, May/June. Retrieved March 1, 2007, from http://eprints.ecs.soton.ac.uk/12614/01/Semantic Web Revisted.pdf

Shakespeare Birthplace Trust ([2007]). *Archive Catalogue*. Stratford-upon-Avon: Shakespeare Birthplace Trust. Retrieved March 5, 2007, from <u>http://www.dswebhosting.info/Shakespeare/dserve.exe?dsqApp=Site11&dsqDb=Catalog&ds</u> <u>gCmd=SearchRSC.tcl</u>

Svenonius, E. (2000) *The Intellectual Foundation of Information Organization*. Cambridge, Mass.: MIT Press

Teater Instituut Nederlands ([2007]). *Database Dutch Drama*. Retrieved October 30, 2006, from <u>http://www.dutchdrama.nl/index.php?lan=en</u>

The Cultural Rucksack ([2007]). Retrieved March 16, 2007, from <u>http://www.denkulturelleskolesekken.no/oversettelser/english.htm</u>

Towse, R. (ed), (2003), *A handbook of cultural economics*. Edward Elgar: Cheltenham, UK / Northampton, MA, USA.

UNESCO ([2007]). *Cultural Heritage*. Retrieved May 9, 2007, from <u>http://portal.unesco.org/culture/en/ev.php-</u> URL_ID=2185&URL_DO=DO_TOPIC&URL_SECTION=201.html Universitetet i Bergen ([2007]a). *Teaterarkivet i Bergen*. Retrieved February 1, 2006, from <u>http://www.hf.uib.no/i/ikk/teaterarkivet/</u>

Universitetet i Bergen ([2007]b). *Strategisk Plan: 2005-2010*. Retrieved May 9, 2007, from <u>http://strategi.uib.no/#Sect3_i_1136556493</u>

Vestli, H.B. (2005). *Finn Forestillingen: Katalogisering og klassifikasjon av teaterforestillinger for publisering av metadata på Internett*. Oslo : H.B. Vestli

Wikipedia ([2007]). *Cultural Heritage*. Retrieved May 9, 2007, from <u>http://en.wikipedia.org/wiki/Cultural_heritage</u>

W3C ([2007]). *Semantic Web*. W3C. Retrieved June 2, 2007, from <u>http://www.w3.org/2001/sw/</u>

Young, J. ([2006]). *On Metadata*. GloPAC. Retrieved January 5, 2007, from <u>http://www.glopac.org/about/aboutMeta_OnMetada_article.php</u>