

Culture in Context

Contextualization of Cultural Events

Introduction

The collective memory of the Netherlands has been ‘solidified’ as cultural heritage in an enormous quantity of archives and collections of books, paintings, films, archaeological remains, folkloric artefacts, and other art and audiovisual objects. For primarily historical reasons, these objects have ended up in a large number of different buildings and collections. The physical restrictions to heritage material place limitations on visitors and researchers. Related objects are often stored at different locations. The consequence of this is that either the researcher or the object must make a journey, a situation which is not ideal where access to cultural heritage is concerned.

Digitization brings the promise of continuous access to cultural heritage collections because it eliminates physical preconditions for access with respect to time and place. This gives rise to all kinds of new possibilities for cultural recreation, tourism, research and education. Thus, the current ICT developments have also been taken up by government and cultural heritage institutions in order to bring into better view their public tasks pertaining to storage, availability and promotion of cultural heritage. As a result, there are currently various initiatives with respect to digitization and accessibility of collections via the Internet. One example is ‘Memory of the Netherlands’ (‘Geheugen van Nederland’), a project at the Dutch Royal Library, which is unlocking various digitized collections.

While the access problem is receiving a good deal of attention from various national and international (research) programs, the question of how to define ‘related objects’ has received less attention so far. Alongside obvious cases such as ‘all of a particular artist’s paintings’ or ‘all objects found at a Roman excavation site’, we can also place less obvious but equally relevant ‘relations’ between items such as a Dutch film distribution company and the films that were available in the Netherlands, or between membership of a cultural association and attendance of a theatrical performance. These relations are not ‘more of the same’, but rather require a different approach and perspective with respect to unlocking digital information ‘surrounding’ cultural objects. In

this paper, we will provide an initial description of the *Culture in Context* research program which we have in mind.

The Cultural Infrastructure as Context

Relations between film circulation, screening history and distribution companies, or between education, membership of a cultural association and attendance of a particular theatre in Rotterdam are relations which go further than a grouping of cultural objects by artist, style, period and institutional framework. These kinds of relations touch on a much wider ‘infrastructure’ of the cultural and socio-economic context. This perspective on the wider (cultural) infrastructure is well suited for cultural events such as theatrical performances and film screenings.¹ These events are no longer there and can only be ‘recalled’ on the basis of (leftover) contextual information. The text or film stored is just one part of it; the venue of the show, the composition of the audience, staging notes, program sheets and reports in the press are objects which are at least just as important for assessing the totality of a show. Relevant information for the representation of these kinds of cultural events can be found not only in the cultural domain, but equally outside of it. It may include, for instance, tax information, geographical data, genealogical details, etc. Given the necessity of recovering lost cultural events via residual contextual information, we must have an eye for the richness of the cultural infrastructure and its larger socio-economic context, in its full width and depth. The enrichment of cultural objects by means of contextual information is no mere triviality, rather it is the only way to ‘capture’ the cultural ‘object’.

The importance of context is perhaps most evident in a museum for the theatrical arts. This can be clearly seen at the Theatre Institute of the Netherlands (TIN). The unique aspect of its collection is that the central object, the theatrical performance, is entirely absent. A performance is an event, a meeting of players and spectators in a space. You cannot store this kind of event; not the actors or audience at any rate.² There are costumes, scripts and photos which commemorate a performance, but the performance is gone forever once it is over. Thus, there is a large void in the Theatre Institute of the Netherlands

1 Actually, all historical events share the fact that they are no longer available. For instance, the army museum can only show the context of the Battle of Waterloo.

2 An integral video recording of a performance also has its limitations, if only in the choice of camera angles and framing, which involves ‘cutting’ back and forth between different cameras in order to provide the best possible picture of the event (for an example, see: www.fabchannel.com). Furthermore, even today it is only a small number of performances that are recorded in full.

where other museums can display a plethora of works of art to demonstrate their identity. Interestingly, this vacuum is the archive's most valuable possession. In the absence of a central object, the TIN collects as many artefacts and as much information pertaining to the performance as possible: set designs, costume sketches, scripts, soundtracks, portraits, playbills, reviews, etc. This is a specialization in paraphernalia, theatrical remnants which can be used to document and reconstruct a performance. The TIN has become an expert in the collection of context. Even its database is completely geared toward contextual information: it links the most diverse objects with one another around an empty core.

Providing access to cultural heritage is of course a precondition for enabling people to familiarize themselves with it, but 'access' does not mean much unless it is access to rich information. Cultural objects did not come about in isolation and are used in a communal context. Thus, their reconstruction will also have to break through the isolation of the preserved cultural object as much as possible by weaving it into a web of relations with other cultural objects as well as contextual information. This is what we mean by the term *rich* information. The added value here is that this kind of enrichment makes the visitor's experience more profound, increasing opportunities for recognition and providing more fuel for reflection. For the latter, of course, our thoughts go mostly to the 'professional' visitor of the cultural heritage: the scholar. The researcher is able to attain a more extensive 'data pool' thanks to the richness of the information, the web that is woven around data which lack even a superficial relation. This data pool is the basis for conducting (historical) analyses which have not yet been carried out or which can accentuate or refute current notions based on fragmented, incoherent and isolated information (Gras/van Vliet 2004).

The Digital Infrastructure as Context

Incidentally, the promise of digital evolution does not immediately solve all of the problems related to access, enrichment and presentation of the cultural heritage. Digitization continuously proves to be a complex and slow (i.e. difficult) process which drains a great deal from budgets in the cultural heritage sector. The first problem with respect to access is still that, just as the physical objects are stored in independent collections, the digital equivalents are also stored in many non-interoperable databases. Even if this problem is solved, we will still have the problem of searching through millions of (heterogeneous) objects. Building on this, we have the challenge of arriving at combinations from the search results which provide more insight into, for instance, the

painting being displayed or the historical performance. We then have the question of how to present the (combined) results in such a way that they respond to the needs of the person who asked the original question. And this (automatic) personalization is far from trivial.

Cultural heritage institutions scarcely meet the first challenge of digitization. For the time being, the dynamics of digital cultural heritage lie in the digitization of one's own collections within one's own walls. Thus, the *Geheugen van Nederland* website (www.geheugenvannederland.nl) is no more than a web page of handy links to isolated digital collections rather than an integral access point to Dutch cultural heritage. The dream of an integral search engine which can search straight through the archives and collections of different heritage institutions was high on the government's agenda in the year 2000, but not necessarily so on those of the institutions. Everyone seemed to concur that the user would benefit from unrestricted access to historical information. Furthermore, the development of the necessary toolkit, technically speaking, would not have to be a very formidable task. Therefore, in March of 2000, the ministry placed the *Archives on Display* (*Archieven in de étalage*), as the report of the same name aptly indicated. Many heritage institutions snatched this up in order to display their treasure rooms online. They have made ample investments in the digitization and exhibition of their own collections. Yet, five years later, the wondrous search engine that can look straight through all of their databases is still a distant dream. New technology has hardly done anything to make the exchange and integration of information a reality in the heritage sector. The trends toward more convergence and transparency of information seem to be stagnating. New, opposing forces have arisen, while the old compartmentalization seems to be getting stronger. The institutions are still just making their island empires, but now digitally as well. Nor is there any (commercial) benefit in working together; instead, it is a matter of market shares and promoting one's own unique character. The interchange of feature films and documentaries between the broadcasting archive and the film museum, which has been fostered by the minister, is one of many examples. It also means that the information systems of these collections have little in common. The exchange and integration of data takes the lowest priority under such circumstances.

Yet the integration of the various collections is not an impossible task. In fact, the blueprint of the infrastructure can be sketched out on the back of a cigar box (Figure 1; taken from van Vliet/Velthausz 2002). The structure is dictated by the unification of the suppliers (cultural heritage institutions) and the users (visitors to the collections). The institutions digitize their own inventory, which will vary in size and complexity depending on the 'objects'. Specific services can be devised for each of these objects. Thus, smart algorithms can be used to determine whether there is a view of an image (visual material),

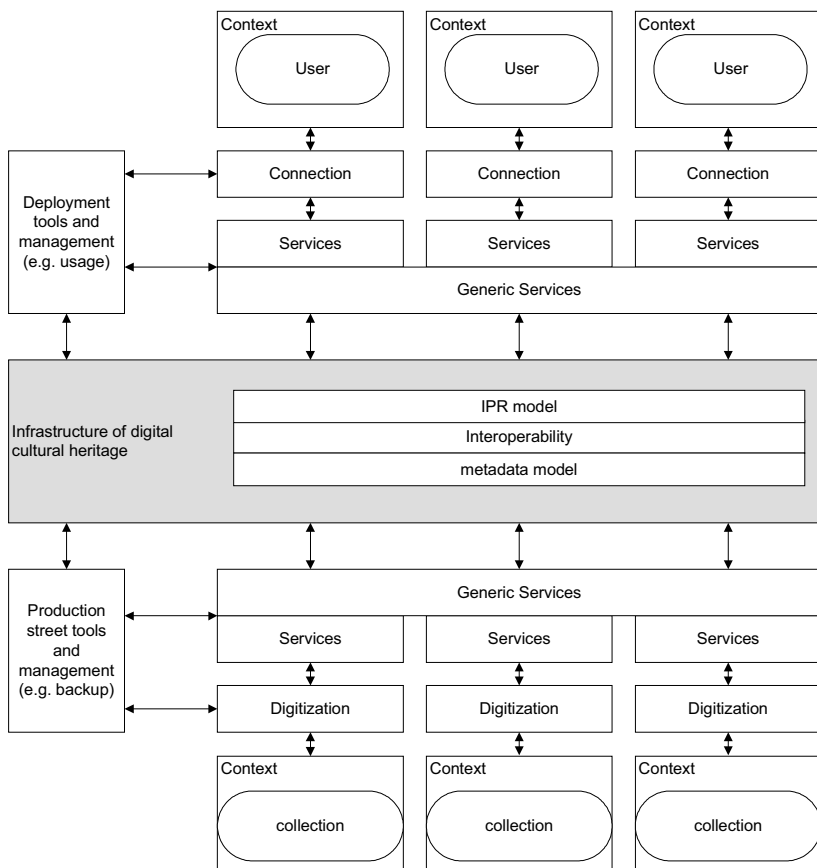


Figure 1. Blueprint of digital cultural heritage infrastructure

whether a question is asked in an audio fragment (audio material) or whether manuscripts can be converted into ‘Times Roman’ (text material). But in addition to these specific ‘services’, we also have generic ‘services’ which will be applicable for all institutions. They should all store the digital objects and provide them with metadata, for which ICT tools will be available for the implementation and/or administration. Agreements on these matters, such as which tools to use and what the minimal metadata will be, will already constitute an ample step towards integration. A good example of this is the DARE program (www.darenet.nl), which aims to integrate digital repositories of scientific collections. Taking steps to bring oneself into conformity with the agreements made there will provide a silent connection to a worldwide interface and access to other collections. We actually see the same pattern on the users’ side: every user (group) will want to unlock the cultural information. Therefore, they will be using practically the same browser technology but will select their own

channel or 'portal'. This is the case, for instance, with the scholarly researcher (essentialvermeer.20m.com), with the interested layperson (www.geheugenvan nederland.nl) or for the teacher and student (www.kennisnet.nl). It will not be long before these portals have been personalized in such a way that everyone has their own 'portal'. Here as well, specific services can be created for specific users: whether it is a matter of being able to analyze the data found via time series analyses (the scholar), of integrating the 'hits' returned into a genealogical summary (the interested layperson), or of making a PowerPoint presentation out of the figures found (the student). Again, certain services are generic for all visitors: for instance, everyone will want to be able to do searches, and anyone should be able to create a user profile to store search results and present information from them. More generic ICT tools can also be used here as well. Finally, there are a few issues that are critical with respect to integration: you must make some kind of agreement regarding the rights that come into play (known as *Intellectual Property Rights*); you will also have to make some kind of arrangement to enable the exchange of information, known as *interoperability*, which is definitely more than just a technical data issue, having ramifications for the exchangeability of the 'meaning' of information; and you should place attention on a *metadata model* so that information is described structurally and is easier to look up. Solutions (or partial solutions at least) are available for all three issues.

What you really have to bear in mind with this infrastructural blueprint is that 'the world' has its own will, is heterogeneous and complex and stays that way, and the same applies to the creation of digital collections from heritage institutions. A mandate as to how to carry out digital collection in a uniform way seems not to be viable in practice; more importantly, however, it would not do justice to the heterogeneity of the various objects. Of course standards can be agreed upon regarding how to store or describe things, but these will quickly prove to develop into 'dialects' used to capture the uniqueness of the objects: an archaeological find is something different again from a text, a film scene or a costume. The real crux of the matter lies in the standardization of the *exchange* of the data, i.e. the bridges that can be built between digital collections. This exchange touches on a technical bridge that must be built (exchange of data), a semantic bridge that must be built (exchange of meaning) and an organizational bridge that must be built (exchange of interests and rights). The latter two are by far the most onerous, the organizational bridge seemingly only passable if columns have been put in place which demonstrate the value of even talking about it all. The value is certainly there, we only need to bring it to light.

The Context of the Performance

A complex totality of solutions will have to provide an answer to the aforementioned pending issues in order to arrive at the integration of digital cultural heritage collections. Within the *Culture in Context* research program (CiC), we would like to focus on three sub issues which will be expressly investigated in connection with one another. These are the semantic interoperability, the enrichment process, and specific presentation tools for different users.

Semantic Interoperability

One characteristic of the digital heritage infrastructure is that the various collections are distributed and heterogeneous. This will not change in the future. One essential question here is how the meanings of information in the different databases can be linked up with one another. The indication 'tax' for an amount may mean something different from one database to another. Thus, the collective display (and perhaps even totaling) of the amounts as being tax amounts may result in a misrepresentation of the state of affairs. This is the problem of semantic interoperability: the meaningful interfacing of metadata. This is in fact the question of the meaning relations between different objects (and ultimately between these objects and 'the world') in different data collections and/or databases.

The solution to this that the *Culture in Context* program will develop is that of an ontology.³ While this is not a definitive answer to the issue of interoperability, a well-directed effort can eliminate a great deal of ambiguity. This effort primarily consists in the definition of concepts and their interrelations, instances of those concepts, and attribute values.⁴ The main concept for the *Culture in Context* program is the performance: the place where and the moment when a film or play is presented. The performance is related to some other concepts: places (countries, cities, cinemas, theatres), products (titles of films, plays), persons (involved in performances and other activities, such as producers, distributors and sponsors), and legal entities (companies, theatre troupes). These four terms can be used to describe and inventory the infrastructure of the film and theatre culture up to a certain extent. They are in fact the DNA of the film and theatre culture (Dibbets 2005). They enable the researcher to ana-

3 This may turn out to be rather a selection from existing ontologies and thesauri.

4 Ontology also essentially handles the multilingual problem because the ontology abstracts from it and the linguistic expression can be viewed as a specific phenotypical instance.

lyze networks and patterns in the film and theatre culture and to investigate the dynamics of the cultural infrastructure.

Enrichment

Fortunately, the historical event consists of the placement of meaningful combinations. These meaningful combinations are attained by making the meaning relation of the combination explicit on the one hand and by organizing the spectrum of the interrelations on the other hand. The former is resolved (in part) by the ontology, and the latter by making a lot of connections (possible) between different data sources. Enrichment is seen as both a deepening (more meaningful description of the collection) and a broadening (more meaningful 'links' with other collections and/or data) of information.

The *Culture in Context* program opts for the interlinking of a wide array of different data sources around the concept of performance and the detailed description of the data. A metadata model will be developed for this, which is related to the ontology so that (semi-)automatic metadating is possible on the basis of this ontology. Furthermore, individual records can be linked to sources and publications which contain more detailed information on that theatre, performance, person, title or project. If these sources are available online, then it is possible to make a link between the two. The solution consists solely of metadata and does not contain any digitized sources, images, etc. itself. There are sufficient instances which specialize in digital sources. The solution collects contextual information from these sources by making links to these sources and permitting these sources to make a link back. The difference between the suppliers of metadata and the providers of digitized objects is therefore relevant to further implementation. The creation and administration of these links and the addition of metadata according to a specific structure will be supported by the development of tools for allocating metadata in a coherent and transparent manner.

Users

'Meaningful' relations ultimately lie *in the eye of the beholder*. It will not suffice to merely 'ontologize' and enrich collections; instead, we must ensure that this enrichment also adds definite value for the actual use of the digital information. Various users can be anticipated who can derive added value from the enriched information surrounding 'the performance'. Historically interested parties working on, for instance, genealogical research would be able to unlock

more encyclopedic knowledge regarding persons; educators would be able to use the material for illustration and further reflection on particular cultural events and/or opinions regarding them, etc. Specific analysis and presentation tools must be developed and attuned to the various needs of these distinct user groups.

One major user group is certainly the academic community which conducts research into the infrastructure of cultural life, especially the cultural offerings, the cultural participation and the cultural policy. Yet we can also distinguish a large multiformity of subgroups within this group. Contextual information on the infrastructure of cultural life is of interest to historians, e.g. due to the possibility of researching local activities with respect to film and theatrical events in light of marketing methodology, economic concentration and innovations in the context of a national industry. Social historians will gain access to detailed information on film showings and theatre performances, visitors and censorship, which offers a unique opportunity to analyze the shift in popular culture and the modernization of public entertainment. Urban historians will find information on buildings, their usage and the development of neighborhoods and cities. For social scientists, the related data on theatres and cinemas, management and presentations is a challenge to produce an analysis of social networks and development in their time. Ethnologists will enjoy a rich context of information on the treatment and reception of foreign films and theatrical repertoires in a local setting, which enables cultural exchange in a comparative perspective. Finally, theatrical and cinematic scholars will be able to fulfill their hearts' desires by interlinking the relationship between programming, attendance rates, reviews and performance analyses and arriving at a unique historical study on reception, as well as a 'cross-medium comparison' study by investigating the interdependencies of theatres and cinemas.

Geographic analyses, comparison in time and comparisons between film screenings and theatre performances are some of the possibilities that come to mind. It must be clear here that the data are certainly of such a nature that complex data analyses, like time series analyses, are possible.⁵ Yet not every analysis has to go in depth immediately. Researchers must have the option to pose questions at different levels and derive relevant information from them. We penetrate, as it were, deeper into the context and its relationships, for more and more detailed information. Below are a few sample questions (in ascending order of complexity):

5 See: Gras/Franses.

- Which films were shown and where?
- Where was *Who's Afraid of Virginia Wolf* put on with actress Ank van Moer?
- Which actors have played *George* and *Martha*?
- How many films were censored?
- Did Royaaards' *As You Like It* receive more spectators in the first tier than in the gallery?
- Did it receive more spectators in The Hague than in Haarlem?
- What programming did cinemas use, and how did they differ in different cities and in what ways (genre, country, censorship)?
- How did the social make-up of the French Opera season ticket holders in The Hague size up in relation to the those of the *Haags-Franse Opera* in Rotterdam in the 1830's, and how did these compare with the German Opera 1860-1882 and the *Opera Italiana* in The Hague and Rotterdam (1933)?
- What film programming and distribution circuits can be identified and how have they changed over the course of time?

But it is not only the scholar who will find useful information. Digital context data from the cultural infrastructure of film and theatre presentations is well-suited for research projects pertaining to local history, cultural heritage and film and theatre culture. These attest to the representation of local identity and personal experience and can be used to draw links with super-regional contexts and developments. The information can be easily included in exhibitions, websites and research projects by museums, archives, schools and universities. Finally, there are also immediate practical advantages with respect to cultural heritage. In the coming years, the historical value of hundreds of thousands of objects must be appraised in order to make a decision with respect to preservation and digitization. This selection gains a great deal of validity if contextual information is available regarding the potential relevance of the object. The copyright problem can be handled in the same vein. Copyright information only refers to an individual object up to a certain extent. In many cases, this information must be derived from the relationship with other work, other authors, and the historical context. Digital context data can also provide support here by offering a rich environment in which the object was created and used.

If we refer back to figure 1, the three issues on which *Culture in Context* is focusing connect up with three basic components of the infrastructure we have outlined here.

- 1 On the production side, the emphasis is on the development and implementation of generic services, namely tools for enrichment of presentations via (contextual) metadata.
- 2 For the central infrastructure, the emphasis is on creation and administration of an ontology for 'the presentation' as a (partial) solution to semantic interoperability and the development of an associated metadata model.
- 3 On the side of the unlocking, specific services and/or tools for the analyses of the data files for e.g. scientific research are being developed.

We would like to stress that the *Culture in Context* program is focusing first and foremost on the enrichment, which includes the 'broadening' of scope via the stimulation and facilitation of the interfaces between various digital collections. The other two components (set-up of the central infrastructure and specific tools for unlocking) are viewed as being necessarily bound up with it in order to make the enrichment as efficient and effective as possible and to provide the necessary proof for the added value of the approach.

Two Examples

The first steps toward setting up context datahubs have already been taken for both film screenings and theatrical performances. These are the *Cinema Context Collection* of the University of Amsterdam and the *Netwerk Theaterbestanden* (*Theatre File Network*) of the University of Utrecht.

Cinema Context

Cinema Context is a website for research into the history of film culture.⁶ The main question here is how to explain the fact that the integration of film and cinema in Dutch society deviates so strikingly from that of neighbouring countries. Cinema attendance has always been much lower compared with the normal European levels; the country also had far fewer cinemas per capita. To

6 In the *Cinema Context* project, researchers are cooperating with archives: the Universiteit van Amsterdam and the Universiteit Utrecht have joined forces with the Filmmuseum and The Netherlands Institute of Sound and Vision. The project was funded with an investment subsidy by the Netherlands Organisation of Scientific Research (NWO), while the technical infrastructure was developed at the Digital Production Centre of the University Library of Amsterdam. The project was completed in 2006. All data are freely accessible for researchers and the general public at www.cinemacontext.nl.

gain insight into the structure and development of Dutch film culture, it was important to find out more on the screening history of films. Almost nothing is known on this topic. As much as we know about the films that have been made, we know very little about their screening or interest in them or about cinemas, proprietors, distributors, musicians, etc.

Cinema Context is both an encyclopedic reference work and an analytical tool. Not only can you look up information in it, but you can also analyze this information. The data collected are suitable for qualitative and quantitative research. You can use *Cinema Context* to look up elementary data on a particular film, screening, censorship decision, cinema, cinema manager, lecturer, theatre company, etc. For instance, you can find out which films were first shown where and when. At the same time, all of the data are available as a complex totality. You can use them for statistical analysis, for an investigation into the growth and expansion of the local and national film culture or for a study of social networks in cinema chains and screening circuits.

It does not appear to be difficult to link the collected contextual information and/or metadata to information from entirely distinct areas of knowledge. For instance, *Cinema Context* can provide the addresses of all cinemas in the Netherlands with a geographic location, the latitude/longitude coordinates. These coordinates comprise the key to geographic information systems (GIS). They open the door to enormous data files for socio-geographic and demographic research. *Cinema Context* can link its data and analyses to private data on local film culture. For instance, it is possible to draw a relationship between the history of a cinema and the changing make-up of the population in the surrounding area. You can also visualize the geographic distribution of the cinema business in the Netherlands over the course of time. You can chart the route that a traveling cinema followed prior to the First World War. Or you display the location of a cinema via a link to a digital street plan, which was unlocked with the same coordinates. Audiovisual archives no longer enter into the matter, while the historian's radius of action is becoming much larger.

Theatre File Network

The *Netwerk Theaterbestanden* was originally set up to test the traditional exposition of theatre history. This exposition assumed that in the 18th century the elite opted for classical drama and the common populace opted for the burlesque. The first half of the 19th century witnessed the strong rise of melodrama and the elite left drama and flocked to the opera. After 1870 the bourgeois elite reconquered the theatre for themselves. By means of a series of databases in which ticket sales by circle and by theatre have been referenced to

the performance (and the artists), time series analyses were applied to test whether the differentiation in taste (for instance: elite = first tier = classical and other 'high culture' whereas 'the rabble' = gallery = melodrama) was in fact as strong as purported by the traditional exposition. This proved to be incorrect when taken over the entire research period (1699-1974). From 1700 up to around 1850, the main finding was that theatre attendance was dictated almost entirely by season and audience loyalty. People hardly ever selected 'a performance', and even when they did it was not until around 1974, the end of the data series. The social characteristics of theatre-goers according to the traditional exposition were then tested by making a prosopographic database of the shareholders, season tickets, and ticket vendors. These data refute the hypotheses of the traditional exposition, albeit more so in Rotterdam than in The Hague, where the rift between opera-goers and drama-goers was much wider, due in part to the Royal Court and the centers of government.

These databases also provide encyclopedic knowledge, on the repertoire (of each theatre), the artists and the interest, as well as on persons who ran the theatre, the supporters, season ticket holders and ordinary ticket holders. Here as well, the rather detailed databases can be further linked up with existing databases with data on theatrical performances and their contexts, as well as to geographical information and thus also to the social make-up of the neighborhoods from which the audience came. Moreover, the Rotterdam prosopography has a genealogical component because they also looked up data on the parents and grandparents (provided they were born in Rotterdam, Kralingen, or Delfshaven) of participants in the theatre culture who were born in Rotterdam. This information proved to be quite meaningful for Rotterdam: the elite neighborhoods produced the most spectators known by name and this increases after 1887, when a new Groote Schouwburg (Great Theatre) was built in a new neighborhood for the business elite.

To answer the question whether the 19th century café-theatres otherwise functioned as the 'great' theatres, a database has been built for performances outside of theatres, also with rich contextual information (currently covering 1770 to 1856). This database, if further expanded, may become an important link between the 'high-culture' play and opera files and cinema culture.

What these two examples demonstrate is the added value of collecting contextual information and integrating it for new and improved analyses. Here, this concerns source material such as ledgers from film showings and theatre performances, advertising, entertainment sections, reviews and essays from newspapers, theatrical archives on theatre programs, archives with prosopographic data, director's notebooks, scripts and prompter's scripts, posters and playbills, tax data (entertainment tax in particular), shareholders' stocks and stocks from sponsors and subsidizers. The recent publications based on this

material are still merely an initial taste of the many perspectives that are possible with respect to the rich material assembled, and, as far as the *Culture in Context* program is concerned, we are only yet witnessing the beginning.

The Context as Enrichment

The *Culture in Context* program must result in the integration of digital sources and contextual information into a digital knowledge infrastructure in the field of film and theatre culture. The result is a network of databases on the infrastructure of cultural life and especially cultural offerings, cultural participation, and cultural policy. The infrastructure is held together semantically by an ontology on 'the performance' and consists of metadata that have been implemented on the basis of a metadata model. Supported by enrichment tools and specific analysis tools, meaningful historical information can be provided in a user-friendly manner for different target groups such as scientists.

The enrichment of the *Culture in Context* program itself is the priority for the reinforcement of the cohesion of archives and museums by taking contextual information as the starting point and by creating a platform for information management in this field. Not only is new information added to the artefacts regarding how they were used, sold and evaluated, but new links are also made with data from other collections, which produces a more complete and sometimes surprising new picture of the artefact. Thus, contextual information is a medium that brings diverse and diffuse museum objects into relation with one another and thus serves as fuel to propel the development toward integral access.

Secondly, enrichment will enable us to break through the fragmentation and isolation of information which makes research impossible. This research is in a better and more balanced position to conduct descriptive and enlightening studies by drawing new relationships. The tools for enrichment and analysis make this quicker and easier. This also opens the door to the perspective of international research. International comparative research in the field of performance history will also finally be within reach. There are many kinds of local research in this field in various countries, but there are no methodologies or technology to consolidate and analyze the diffuse data. An initial category of questions pertains to a comparison of film and theatre culture in different European cities, regions and countries. A second group of questions focuses on border areas, where the cultural and economic boundaries are often fuzzy. Sometimes these areas are under more influence from cultural centers on the other side of the border, such that the distinction between center and periphery of the nation comes to be seen in a new light. Thirdly, research into inter-

national distribution patterns will experience a boost; thus, the question of whether American films have been distributed in the same manner throughout Europe is relevant.

Thirdly, attention for the meaning of information in different collections means that advancements can be made in the development of a common language and the transparency of the basic material. A simple but telling example here is translations of titles. Title translations are an international problem in the identification of performances in the past. We do know that many foreign plays have been performed in translation and that many films were imported from other countries, but there exists no comparative overview of these translated titles. This impedes local research, while international comparative studies are rendered nearly impossible. It also frustrates the interfacing of the national data collections with international systems. The *Culture in Context* program fulfils this need by referencing the original title with various translations. There is common interest in a data hub with a reliable concordance list of film and play titles. This interest can also be passed on to other 'attributes' and concepts and their interrelations. This motivates our attention to a presentation ontology.

Fourthly, the future of the historian also comes into play. The digitization and re-orientation toward the public role of museums and archives tap into another audience: they are currently focusing more on education, entertainment and tourism than on historical research. This is something which historical scholarship still needs to get accustomed to and find a niche in (Dibbets 2005). Historians themselves must also be reintegrated with the new digital infrastructure. The allure of a rich pool of historical information may be precisely such that the historian will again play a relevant and unique role in the relationship with archives and museums.

More concretely, the *Culture in Context* program will work to link up digital collections by creating a platform of information management in this field, a portal where the linked data take center stage instead of the individual collections. This information management will consist of the creation and administration of a presentation ontology and an associated metadata model, and the development and implementation of support tools for the allocation of metadata, (automatic) metadating of cultural context information, the ability to make (statistical) inquiries into the data pool and the (graphic) representation of these results. The organization will seek to make contact with (inter)national collections pertaining to theatre and film in order to link them up.

Information on the context of film showings and theatre performances, such as the showing, circulation, reception, etc., has not as of yet been systematically collected and recorded. Film and theatre culture do indeed have the attention of science, but historians generally focus on individual performances without examination of the context. Our knowledge of this context is particu-

larly fragmented, incoherent and full of holes. Therefore, it is this knowledge of the context which must be prioritized in the digitization process of cultural archives and collections. Without supplemental information, a historical source has no meaning and is worthless to our understanding of the past. The examples from the *Cinema Context* website and the Rotterdam database indicate the magnitude of the (scientific) gains if this context is mapped out and linked up with pre-existing information/collections. The Culture in Context program will contribute to systematically filling in this gaping hole in contextual information. It will therefore be indispensable for current and future research on film and theatre history. It will also place the Netherlands in a unique position vis à vis the international research given that these contextual data are not systematically available in other countries either.

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