10.2 digital dossier(s)

After a first round of the *multimedia casus*, in which the students produced an application giving an overview of the INCCA information archive, the participants, but only incidental information about the artists and their artworks, we decided to focus on case studies of individual artists, and we introduced the notion of *digital dossier*:

digital dossier

> *Create a VR that realizes a* digital dossier *for a work of a particular artist. A* digital dossier *represents the information that is available for a particular work of art, or a collection of works, of a particular artist. The* digital dossier *should be* multimedia-enhanced*, that is include photographs, audio and other multimedia material in a compelling manner.*

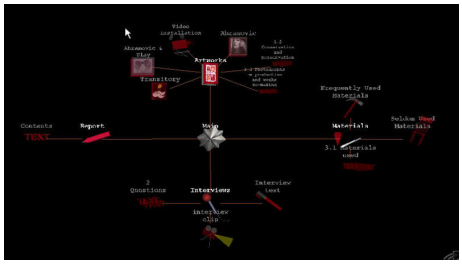
Like a medical dossier, the *digital dossier* was meant to give the information about the artist and the works of art readily at hand, so that it could effectively be used for the task of conservation and the re-installation of the artworks.

Since we were in doubt whether the phrase *dossier* actually existed in the English language, we looked it up in a dictionary:

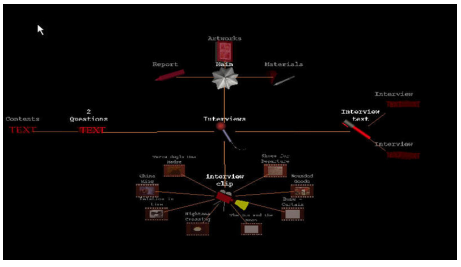
Webster New World Dictionary

- dossier (dos-si-er) [Fr < dos (back); so named because labeled on the back] a collection of documents concerning a particular person or matter
- archive – 1) a place where public records are kept ... 2) the records, material itself ...

We chose for the phrase *digital dossier*, and not for archive or library, to stress that our focus lies on presentational aspects. Although issues of data representation and content management are clearly important, our primary interest was with issues of presentation and navigation.



main node



interviews

the *abramovic dossier*

For the 2004 autumn group, we decided to take the work of Marina Abramovic, a serbian-dutch artist who became wellknown in the seventies with performances

with her partner Ulay, and has since then produced numerous installations, videos and performances with what I would like to call 'high existential impact'. The directive with which the students where set to work was, quoting Ted Nelson:

> *everything must be highly intertwinkled*

Since virtual museums are by now a common phenomenon, and the virtual atelier for Marinus Boezem may be considered to be just a variant of this, the 2004 autumn group decided to explore alternative ways of presentation and navigation.

As material for the *abramovic dossier* there was an interview with Marina Abramovic from ICN, made in cooperation with the Dutch Foundation for the Visual Arts, and a great collection of videos from Montevideo. In addition, a transcription of the contents of the interview made by Michela Negrini, a student of media art at the University of Amsterdam, who also provided an interpretation as well as a categorization of the works of art. Given the material and the categories along which this material was classified, the students decided to explore the use of concept graphs as an instrument for navigating the information space.

navigation – *concept graphs*

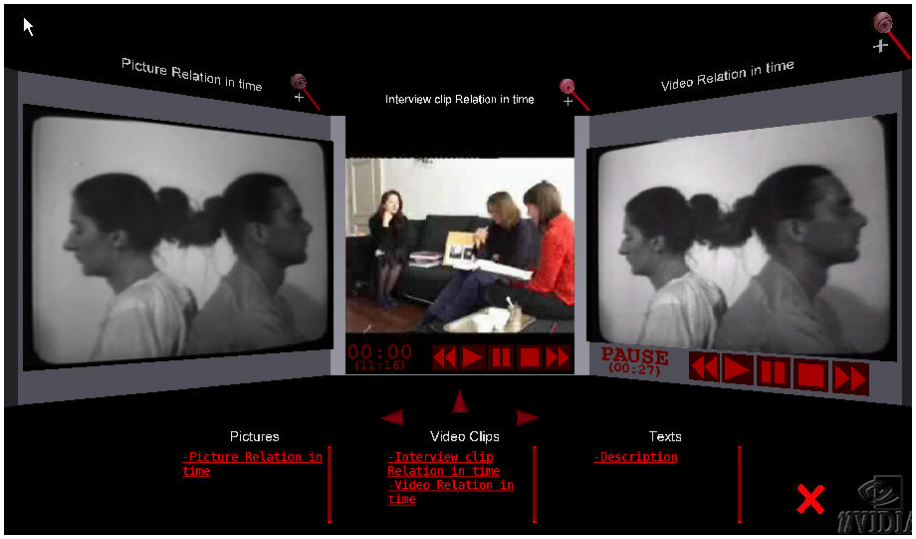
The reader has already encountered concept graphs in chapter 1, when the notions of multimedia, medium, television and communication were explained by indicating their relations to other concepts.

Concept-relation graphs are a familiar tool in linguistics and have also been used for a long time in Artificial Intelligence to describe the semantic relationships in complex domains. As a navigation instrument it is, to my knowledge only used in a kanji learning tool[1] and the Visual Thesaurus[2].[3]

[1] www.rikai.com/perl/KanjiMap.pl?

[2] ualthesaurus.com

[3] The Visual Thesaurus allows also for invoking Google image or document search from any of the elements of the concept graph.



presentation of video clips from Marina Abramovic

[2]

After the initial idea was there, one of the students of the group, Olaf van Zon, an AI student, managed to get a first version of a 3D concept graph working in VRML. This prototype implementation demonstrated the potential of the concept graph as a navigation instrument in the *abramovic dossier*.

presentation – *gadgets*

The original idea of presenting information, that is the actual interview, the videos and images of the works of art, as well as the textual information, was to use *rooms*, where the information could be projected on the walls. The *room* metaphor, which obviously stems from the virtual museum approach, did however not seem appropriate since it conflicted with the concept graph used for navigation. After some discussion, information rooms were abandoned in favor of *information gadgets*, that could be expanded from and collapsed into the concept graph.

In the original *abramovic dossier*, the presentation gadget consists of three panes that can simultaneously show a video of the work, the interview, that is the fragment in which Abramovic speaks about that particular work, and the textual information related to the work and the interview. However, it appeared that in some cases there was not enough information, because the work was not spoken about in the interview, and in other cases there was too much information, for example multiple recordings or text documents. It was then decided to extend the presentation gadget with lists of alternative material that the user could select from and direct to one of the panes for further inspection.

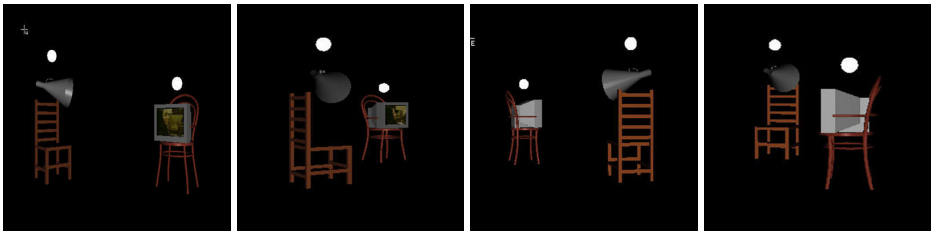
To enable the user to focus on one of the panes, for example to get a better view of the video material a zoom in/out button was provided. All these enhancements,

however, did complicate the interaction, as became clear when the *abramovic dossier* was presented at Montevideo.

In the course of the project, another interesting presentation feature was added, namely the reconstruction of one of the video installations in 3D, incidentally demonstrating the advantages of using 3D.

reconstruction – *recreating the installation*

In discussing the *abramovic dossier* with Bart Rutten from Montevideo, who provided us with all the video material, another project was mentioned which was concerned with 3D-recordings/models of existing installations. Having full confidence in the technical capabilities of my students, I promised to show that such a reconstruction of an installation would naturally fit within our approach.



Reconstruction of Terra della Dea Madre *in VRML.*

3

The installation for which the reconstruction was made is *Terra dea degli madre*, and installation with two chairs and a television, which was exhibited in the Stedelijk Museum of Amsterdam, in 1986. As a starting point, we took a video produced at the time of the exhibition, which shows the installation in an exposition room in the Stedelijk Museum, and which contains, apart from comments from Abramovic, also the video shown on the televison in the installation.

At this point, we can only speculate how useful such a reconstruction can be as a tool for the conservator responsible for the re-installation, to play around with the presentation parameters, the positioning in space, the overall size, light and ambient effects.

style issues – *how to improve the dossier*

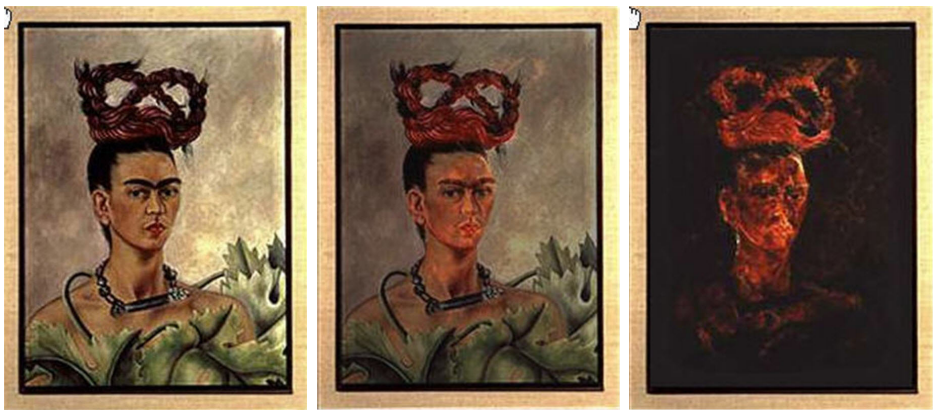
The *abramovic dossier* does also provide a facility for search, as well as online help. However, as already mentioned, when demonstrating the application to the interested parties, that is ICN and Montevideo, a number of issues came along, that I will here summarize as a list of questions:

style issues

- what icons should be used to identify the elements of the concept graph?
- what categories and relationships are most appropriate?
- how should the information be displayed, simultaneously or more focussed?

- how do we allow the user to choose between multiple information items?
- how do we avoid visually disturbing elements?

Obviously, although the *abramovic dossier* was very positively received, these issues must be dealt with to make it a success. Having a first prototype, we need to rethink our application, not only with regard to its style of presentation, but as we will discuss in section 10.3, also in terms of its underlying data representation.



no light half light full light

4

example(s) – *conservator studio*

Ever thought of becoming a conservator? Seattle Artmuseum's Conservator Studio[4] gives you the opportunity to explore this career options:

> Explore four paintings from the Mexican Modernism exhibition through the eyes of a conservator (what's a conservator? you'll find that out too!). You'll have a new perspective on the paintings as well as how they are handled and prepared for display.

The illustrations above show what occurs when manipulating *transmitted light* on the painting *Self-Protrait with Braid*, oil on canvas, from the Mexican painter Frida Kahlo. As explained in the accompanying text: *when a light is shone through this painting one can see that the hair and the flesh areas are painted with thin layers of paint.*

These series of images are part of an interactive *flash* application developed by the Seattle Artmuseum to engage the general audience in the conservation of art, and to arouse an interest in art in general. The application allows the user to experiment with the various techniques used for the analysis and conservation of oil paintings.

[4] www.seattleartmuseum.org/exhibit/interactives/mexicanModernism/enter.asp

research directions– *establishing usability*

In the March 2005 volume of CACM, an assessment is given of the current state of *user-centered design* practice. User-centered design is, quoting UCD, *a multi-disciplinary design approach based on an active involvement of users to improve the understanding of user and task-requirements, iterative design and evaluation.* In the article, which is based on a survey among user-centered design practitioners, user-centered design is claimed to have been beneficial for, among others, customer satisfaction and enhanced ease of use. Other measures mentioned are mostly relevant for e-commerce applications, which, as the authors observe, *have greatly bolstered the the appeal of usability and user-centered design, as users can take their business elsewhere with just one mouse click.*

In our case, the competition is fortunately less threatening. Nevertheless, usability issues such as legibility of text, ease in navigation and adequate task support are equally relevant. As a first step after completing the *abramovic dossier*, we have developed a test-plan and a sample task, and (the students) executed two test-sessions with participants from ICN and Montevideo, who where asked to work with the system thinking aloud. The test-sessions were recorded on video, and the participants were requested to complete a questionnaire.

In UCD, a list of approaches is given, which were reported to have been used by the respondents of the survey:

user-centered design methods

> field studies, user requirement analysis, iterative design, usability evaluation, task analysis, focus groups, formal/heuristic analysis, user interviews, prototype (without user testing), surveys, informal expert review, card sorting, participatory design

The three most frequently used methods in this list are, respectively, iterative design, usability evaluation and task analysis. These three methods were also considered to be important by the respondents. Frequently used, but not considered to be as important, were informal expert reviews. And less frequently used, but considered important, were field studies. This distinction can, according to UCD, attributed to cost-benefit trade-offs, since clearly field studies are much more costly.

Usability evaluation looks, according to Preece to issues such as:

usability evaluation

- *learnability* – time and effort to reach level of performance
- *throughput* – the amount of work done
- *flexibility* – accomodating changes in the task
- *attitude* – of users to the system

To conclude this section, let's take a closer look at task analysis.

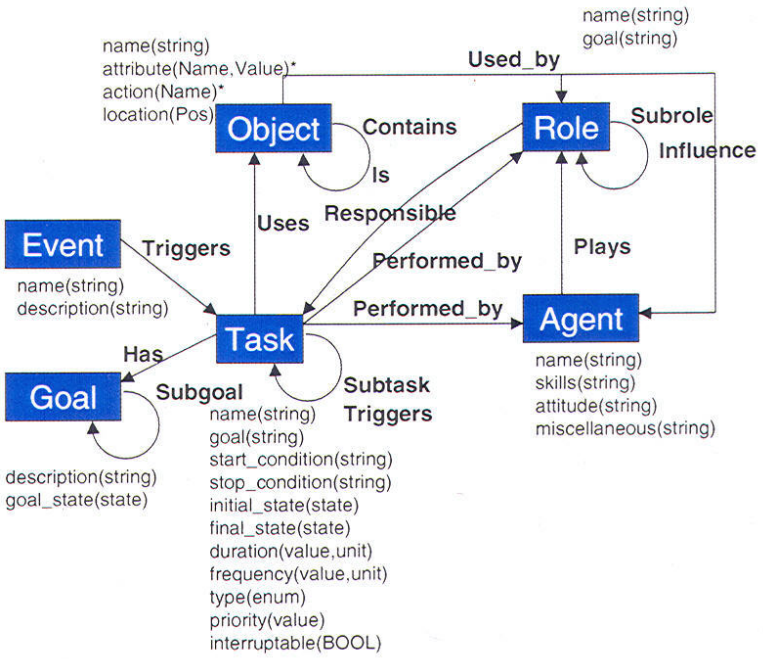
task analysis Task analysis may be characterized as the decomposition of a task into subtasks or steps, to arrive at a sufficiently detailed description of the task and its relation to the environment.

In Euterpe, a description is given of what might be understood as the task world ontology, the concepts and relations that play a role in performing a task analysis. The main concepts figuring in the task world ontology are, following Euterpe:

task world ontology

- *task* – activity performed by an agent to reach a certain goal
- *goal* – a desired state in the task world or system
- *role* – a meaningful collection of tasks
- *object* – refers to a physical or non-physical entity
- *agent* – an entity that is considered active
- *event* – a change in the state of the task world

As indicated in the diagram above, these concepts are related in various ways. Example relations include *uses*, *triggers*, *plays*, *performed_by*, *has*, etcetera.



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Creating a task model based on this, or a similar, ontology may help us understand what a user needs to accomplish and how this may be supported by an information system. As such, creating a task model should be considered to be an essential ingredient of the software engineering life cycle, OO.