



InterPARES 2 Project

International Research on Permanent Authentic Records in Electronic Systems

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Introduction

This is the final report of InterPARES 2 Project *Case Study 01: Arbo Cyber théâtre (?)*, carried out under the direction of Pr. Martine Cardin with the assistance of Philippe Perron, student in Archival Studies in Université Laval.

A. Overview

The subject of the case study is a theatre company named *Arbo Cyber, théâtre (?)* (hereinafter Arbo). Established in 1985 in Quebec City, the troupe produced about twenty creations and several laboratories and school workshops between 1985 and 2001. Arbo uses several elements of theatrical practice and other artistic disciplines and approaches its work with a multidisciplinary perspective. Thus, its production deals with performing arts, visual arts and media arts concurrently, where each Arbo production generates videos, performances, installations, theatre, sound environment, texts, etc. Moreover, each project involves the audience in the use of new technologies, creating a relationship of “immediacy” between the technologies and the audience rather than simply featuring the technologies in their “media” forms.

Arbo has suspended its public activities. However, it still continues to conduct experimental research. Its leaders, Robert Faguy and Lucie Fradet, are pursuing such activities by digitizing the past fifteen years’ worth of Arbo’s creations and developing new artistic works in electronic environments. This project is more than a digitization of records with a memory-making purpose: it is a new activity of artistic and documentary creation (conceived from the time of Arbo’s establishment) that emphasizes the research dimension of Arbo’s works. The project’s aim is to give Arbo the possibility of sharing its documents, knowledge and experience with other creators who wish to go deeper in developing a form of theatre that plays with disciplinary boundaries and uses new languages to create dialogues with audiences.

At the project’s inception, Arbo envisioned creating a CD-ROM to make the components of its respective productions available to other creators, or spectators-users, who could create new works from them. While developing the CD-ROM, Faguy and Fradet decided that a DVD would be a more suitable medium, so they adapted their project. Then, as they were developing the DVD, new technological advances led Faguy and Fradet to again reformulate their project. They decided to create an interactive and dynamic Web site, the *Ludosynthèse*.²

The *Ludosynthèse* is articulated in four (4) modules: basic, chronological, systemic, and ludic (Figures 1-4). Although the models are intrinsically connected, they provide to spectators-users different types of information and various forms of participation.

By way of these modules, the *Ludosynthèse* is a testimony to Arbo’s past performances and artistic spirit (philosophy, artistic method, etc.). It also allows spectator-users to develop or recreate performances in Arbo style using digital media. In addition to being a memory-making achievement, the *Ludosynthèse* can be seen as an interactive game that plays dynamically with spectator-users to make them think about the relationship that exists between art and the use of new media.

² See http://www.lit.ulaval.ca/arbo cyber/index_content.htm.

Basic: this module is an introduction to the three following ones and gives more contextual information about the troupe (mission, mandates, etc.), the funding agencies, the artists (biographic notice, photos, etc.), the performances (short description), etc.



Figure 1. Basic *Ludosynthèse* module

Chronological: this section presents the activities of the troupe in a timeline. It provides a global view of each production and features plans, video extracts, photos, summary, presentation of the theme of the show, etc.

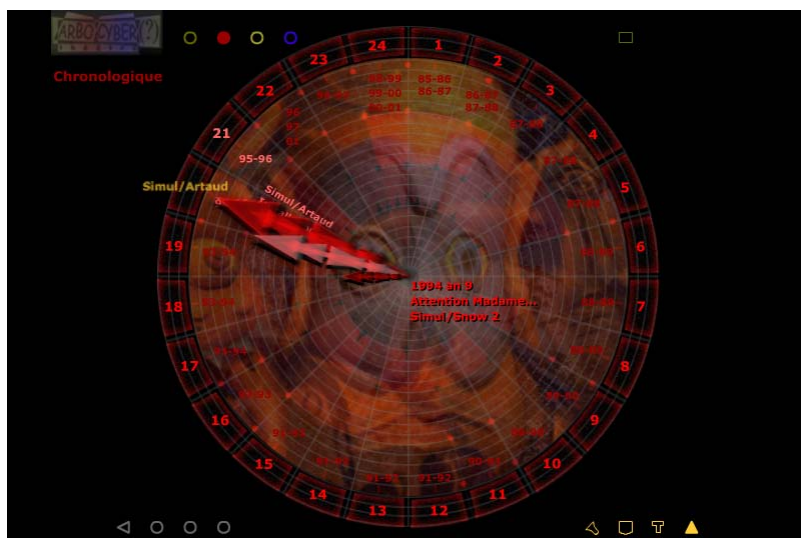


Figure 2. Chronological *Ludosynthèse* module

Systemic: this section presents more specifically the troupe's research activities. It shows the thoughts, the intention and theoretical concepts that fed *Arbo Cyber, theatre (?)*. The spectator-users can get an understanding of how these concepts have been applied in each production.

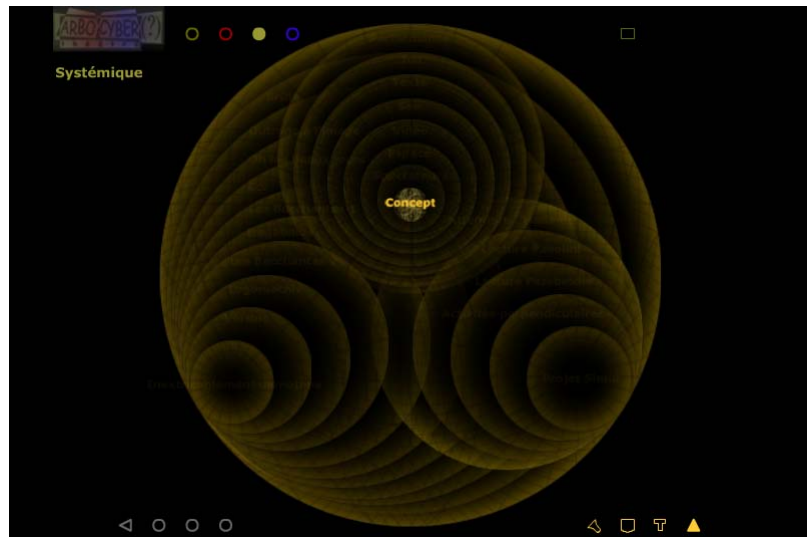


Figure 3. Systemic *Ludosynthèse* module

Ludic: this section aims to lead spectator-users into a performance making processes. After learning in the historical module the result of Arbo's method, the spectator-user receives an explanation of this method in the systemic module. The ludic module invites the spectator-user to play with his or her own experiences and allows *Arbo Cyber theatre (?)* to reintegrate the participation of the spectator into the core of its *Ludosynthèse*. This is a way in which the troupe puts interactivity back into its site of memory.



Figure 4. Ludic *Ludosynthèse* module

The subject of the case study was originally defined by the CD-ROM, and then DVD, project. It was to focus on an Arbo production named SIMUL, which simulates and represents the developments of an ordinary day by using a combination of artistic and technological media. Each SIMUL show is a multidisciplinary event comprising many performances options and is developed according to the circumstances (unusual contexts of representation, such as during parades) and the place (in the street, in commercial places, etc.) where it is performed. The case study would specify and document the activities related to SIMUL projects, as well as the documents produced by SIMUL under all their forms, whether digitized or not.

However, when Arbo's project turned into an interactive Web site, it became difficult to isolate SIMUL from the rest of Arbo's work. Although SIMUL provides good examples of

Arbo's activities and style, it was clear that a widened analysis was needed to get a clearer understanding of the *Ludosynthèse* process. Therefore the case study focused on the *Ludosynthèse* as a whole and looked at SIMUL performances insofar as it was relevant to and representative of the rest of Arbo's project.

The CD-ROM (and later the DVD) was supposed to be finalized by the end of the autumn of 2003. But the project has been delayed because of the change of media, and the *Ludosynthèse* is still not complete. Fortunately the project's parameters were well enough defined to allow the case study researchers to model its process of creation and development and predict its future manner of functioning.

In the minds of Faguy and Fradet, the *Ludosynthèse* is not supposed to reproduce the Arbo productions in an exhaustive way: they would rather provide a representative overview of Arbo's artistic activities. Therefore, this case study offers an opportunity to observe how Arbo's original creative materials have been appraised by the creators themselves, digitized, and integrated into Arbo's Web site of memory. The case study also shows how selected archives can be modified by a process of electronic marking and remain more or less linked to some analogue documents.

According to the creators, the *Ludosynthèse* would never be a site of memory without a proper presentation of the context within which the records created by each show take place. Thus, the creation of the *Ludosynthèse* initiated a memory-making process by which the creators tried to capture the meanings of their past productions and present as clearly as possible Arbo's structure, its modes of functioning and its artistic practices. In short, a synthesis of Arbo's past activities was necessary to feed the present activities of the *Ludosynthèse* and make it function. Steps of this memory-making process have been: (1) the organization of Arbo's archival fonds; (2) the conception of a chart able to integrate the historical overviews (description), the philosophy (artistic conceptualization) and the games practices (application); (3) the development of the *Ludosynthèse* itself.

In the course of the development process, Arbo completed its site of memory by adding pieces or links between the documents kept in its archives. At the same time that they digitized their documents, the creators recreated documents that were incomplete or that did not conform with Arbo's standard form of presentation.³ This operation aimed to assure the aestheticism and the "representativeness" of the testimonies that the creators wanted to communicate. Arbo also produced new documents to protect the understanding of the artistic process of creation by rebuilding missing links between the existing archives and putting the original documentary production in historical perspective. By such means, the *Ludosynthèse* became a body of old and new documents in digital forms that can be considered by Arbo's artists to be the "ultimate evidence" of their work.

This study of the *Ludosynthèse* creation process identifies the information that must be electronically recorded to preserve the authenticity of the records related to theatrical multidisciplinary, multimedia readings, the "design of spaces" and the actors' and spectator-users' performances. In summary, the study shows how a live, multidisciplinary artistic performance can be described and transposed into an electronic environment; how historical perspectives can be expressed in such transposition; and how specific aspects of Arbo's past productions need to be documented and described by the way of the *Ludosynthèse*. The workflow of activities gives the possibility to study the document-keeping (and eventual document-access) system provide by the *Ludosynthèse*. Finally, on a more general level, this

³ For instance, Arbo re-wrote some texts and re-drew the "plantations" when the original paper documents were just paper drafts and mnemonic supports.

case study explores and documents issues related to the digitization of analogue material as a strategy for long-term preservation.

B. Statement of Methodology

Gathering our information via interview ensured that we collected, made accessible, used, treated and preserved this information in a manner respectful to the scientific, legal, ethical and archival needs of our research. Several details were examined prior to conducting the interviews:⁴

Research direction

We furthered our understanding of both the InterPARES 2 research and this specific case study through the examination of documents provided by Arbo, their Web site, the organizational chart of the *Ludosynthèse*, and documents addressing multidisciplinary theatre and the preservation of theatre records to acquire a general understanding of the artistic practices of the group. The emerging issues rest on certain characteristics inherent to theatre, and most notably its ephemeral nature (that is to say, the difficulty of capturing the experience of an event, a multiplicity of systems of representation, and the difficulty of recreating a theatrical work and its experience through electronic mediums while preventing distortion or the loss of significance). These particularities present a complex documentary environment, both traditional and electronic, largely since the end goal of theatre is not the production of documents, but the events to which records may be associated.

Due to this fact, the research was organized around three main areas of inquiry: (1) the creator, (2) his/her activities and (3) his/her documentary production. We explored these aspects in relation to the five contexts outlined in InterPARES 1 (provenance, legal, procedural, documentary and technological) and InterPARES 2's twenty-three research questions.

Type of investigation

We chose a mixed research structure consisting of 'semi-directed' interviews related to the creator and his/her activities, and 'directed' interviews addressing electronic record production. This mixed structure was chosen to compensate for our lack of knowledge, as archivists, of artistic production: although our archival knowledge allowed us to develop questionnaires that effectively gathered the necessary information related to electronic documents, we were not able to do the same to investigate artistic activities or the intellectual, artistic, and philosophical implications that define them. This more flexible inquiry plan thus allowed for a better understanding of the context of record creation in the artistic sphere prior to our creation of a questionnaire that aimed at identifying and modeling the electronic production resulting from the said artistic activities.

⁴ See Roberge, Martine (1995). These elements serve as intellectual and/or practical guides to direct and facilitate the production of documents and reports necessary for the completion of the case study.

Elaboration of methodological tools

A research plan was conceived to support the ‘semi-directed’ interviews (see Appendix B). The plan involved our adaptation of existing methodological tools, specifically the analysis table conceived to systematically approach cultural practices,⁵ and its use in the *Cadre de référence RETRAUVQ*.⁶ In addition, we applied an ethnological method developed by the “Laboratoire d’ethnologie urbaine” at the University Laval.⁷ In all, our approach permitted us to deconstruct our analysis of the creator and his/her activities, and to construct an element of intellectual control through which to organize our research into thematic and sub-thematic categories.

The plan is structured into three sections: (1) the contextualization of the informant, revealing factual information about him/her, (2) the record creator, as based upon the criteria defining the creator of a fonds,⁸ and (3) the activities of record production, developed in conjunction with the main functions of Arbo as understood through the analysis of the juridical, technological, documentary and procedural contexts involved. An English translation is available in Appendix C.

To structure the ‘directed’ interview, we created a questionnaire that addressed Arbo documents in relation to the research questions proposed by InterPARES 2 (see Appendix D). These questions have been developed by various InterPARES 2 researchers during the course of their case studies. For our purposes, we have divided these questions into thirteen thematic categories, and subsequent sub-themes; the following table outlines the relationship between our categories and the twenty-three InterPARES 2 questions.

Themes and Sub-themes	Link to the 23 questions:
1. Creator’s Activities	1: What activities of the creator have you investigated? 2: Which of these activities generate the digital entities that are the objects of your case study?
2. Functions of digital entities	3: For what purpose(s) are the digital entities you have examined created?
3. Nature of digital entities	4: What form do these digital entities take? (e.g. e-mail, CAD, database)
3.1 Form, attributes and behaviour of digital entities	4a: What are the key formal elements, attributes, and behaviour (if any) of the digital entities?
3.2 Digital components and specifications	4b: What are the digital components of which they consist and their specifications?
3.3 Relationship between intellectual and technical components	4c: What is the relationship between the intellectual aspects and the technological components?
3.4 Identification of digital entities	4d: How are the digital entities identified (e.g. is

⁵ Cardin, Martine “Archives in 3D,” *Archivaria* 51 (Spring 2001): 112-136.

⁶ RETRAUVQ (Recherche et Ecoute de Temoignages et de Recits de vie Electroniquement Archives par L’University Laval et la Ville de Quebec) is research directed under Martine Cardin since 1991. It is funded by the City of Quebec for the development of an automated system providing access to 800 hours of sound recording archives touching upon cultural practices of urban life.

⁷ Roberge, Martine.

⁸ These criteria are described in “The Concept of the Archival fonds: theory, description, and provenance in the post-custodial era” by Terry Cook, in *The archival fonds: from theory to practice*, edited by Terry Eastwood, 43-44. See also Michael Duchein in “Le respect des fonds en archivistique. Principes theoriques et problemes pratiques,” *La Gazette des archives* 97 (1997): 71-96.

	there a [persistent] unique identifier)?
3.5 Hierarchy and organization of digital entities	4e: In the organization of digital entities, what kind of aggregation levels exist, if any? 4f: What determined the way in which digital entities are organized?
4. Creation of digital entities	5: How are those digital entities created? 6: From what precise process(es) or procedure(s), or part thereof, do the digital entities result? 7: To what other digital or non-digital entities are they connected in either a conceptual or technological way? Is such a connection documented or captured?
4.1 Technological System	5a: What is the nature of the system(s) with which they are created? (e.g. functionality, software, hardware, peripherals, etc) 5b: Does the system manage the complete range of digital entities created in the identified activity or activities for the organization (or part of it) in which they operate?
4.2 Processes and procedures of creation	6: From what precise process(es) or procedure(s), or parts thereof, do the digital entities result?
4.3 Links with digital and/or non-digital entities	7: To what other digital or non-digital entities are they connected in either a conceptual or a technical way? Is such a connection documented or captured?
5. Retrieval and access	8: What are the documentary and technological processes and procedures that the creator follows to identify, retrieve, and access the digital entities? 9: Are those processes and procedures documented? How? In what form?
6. Use of digital entities and their effects	12: How does the creator use the digital entities under examination? 13: How are the changes to the digital entities made and recorded? 14: Do external users have access to the digital entities in question? If so, how, and what kind of uses do they make of the entities?
7. Competence and responsibility	15: Are there specific job competencies (or responsibilities) with respect to the creation, maintenance, and/or use of the digital entities? If yes, what are they? 16: Are the access rights (to objects and/or systems) connected to the job competence for the responsible person? If yes, what are they?
8. Measures of control: reliability,	10: What measures does the creator take to ensure

authenticity, and quality	the quality, authenticity, and reliability of the digital entities and their documentation?
8.1 Reliability	10: What measures does the creator take to ensure the quality, authenticity, and reliability of the digital entities and their documentation?
8.2 Authenticity	10: What measures does the creator take to ensure the quality, authenticity, and reliability of the digital entities and their documentation? 11: Does the creator think that the authenticity of his digital entities is assured, and if so, why?
8.3 Quality	10: What measures does the creator take to ensure the quality, authenticity, and reliability of the digital entities and their documentation?
9. Archival selection and value	17: Among its digital entities, which ones does the creator consider to be the records and why? 18: Does the creator keep the digital entities that are currently being examined? That is, are these digital entities part of a record keeping system? If so, what are its features?
10. Record keeping system (preservation of digital entities)	18: Does the creator keep the digital entities that are currently being examined? That is, are these digital entities part of a record keeping system? If so, what are its features?
10.1 Specifications of the record keeping system	18a: Do the record keeping system(s) (or processes) routinely capture all digital entities within the scope of the activity it covers?
10.2 History (??) of the record keeping system	18b: From what applications do the record keeping system(s) inherit or capture the digital entities and the related metadata (e.g. e-mail, tracking systems, workflow systems, office systems, databases, etc.)?
10.3 Organization of digital entities within the record keeping system	18c: Are the digital entities in a way that reflects the creation processes? What is the schema, if any, for organizing the digital entities?
10.4 Access to digital entities through the record keeping system	18d: Does the record keeping system document all actions/transactions that take place in the system re: the digital entities? If so, what are the metadata captured?
11. Descriptive standards (metadata)	22: What descriptive or other metadata schema or standards are currently being used in the creation, maintenance, use, and preservation of the record keeping system or environment being studied? 23: What is the source of these descriptive standards or other metadata schema or standards (institutional convention, professional body, international standard, individual practice, etc.)?

12. Technological change	19: How does the creator maintain its digital entities through technological change? 19a: What preservation strategies and/or methods are implemented and how? 19b: Are these strategies or methods determined by the type of digital entities (in a technical sense) or by other criteria? If the latter, what other criteria?
13. Standards, policy, and legal, moral or ethical obligations	20: To what extent do policies, procedures, and standards currently control records creation, maintenance, preservation, and use in the context of the creator's activity? Do these policies, procedures, and standards need to be modified or augmented? 21: What legal, moral (e.g. control over artistic expression) or ethical obligations, concerns, or issues exist regarding the creation, maintenance, preservation and use of the records in the context of the creator's activity?

The themes as outlined above do not necessarily follow the order of the twenty-three InterPARES 2 research questions, but did make the gathering of information smoother while not compromising the structure of the report. We classified the questions emerging from numerous InterPARES 2 research questionnaires into themes and sub-themes. We then eliminated redundancies while ensuring that we maintained the relationships with various questionnaires. These relationships were classified as follows:

- 23Q = 23 research questions
- 22Q = ex-22 questions
- Pos = Possible questions
- IP1 = InterPARES 1 (CSIP1)
- Auth = Authenticity
- Dom1 = Domain 1
- Dom2 = Domain 2
- Cdom = Cross-domain questions
- Mod = Modeling
- Hof = Hofman modeling sub-questions
- Horiz = Horizon
- ArOnt = Ontario Archives

The twenty-three InterPARES 2 questions appear here as they are useful both in addressing issues that do not arise in other areas, and are good synthesis questions. We chose to develop a complete and autonomous questionnaire so as to cover the whole of the research problem to verify the validity of the responses previously obtained.

The questionnaire was presented to Arbo in French, but several of the questions were simply translated from the English.

Selection of informants and confidentiality protocols

Our informants were the two remaining members of Arbo. Having been members of the group from its inception, they were able to provide detailed information relating to artistic activities, as studied from an archival perspective, and through the notion of theatre records (including their production, exploitation, and value).

We submitted a *Demands d'approbation d'un projet de recherche* in accordance with Université Laval ethical standards relating to research involving human subjects.⁹ Receipt of the *Autorisation de proceder a la recherche* allowed Martine Cardin to make use of InterPARES 2 funding. The informants signed consent forms prior to their interviews, and precautions were taken to ensure our rights to use information gathered or borrowed from the informants. This resulted in the creation of the *Formulaire de prêt* and *Formulaire de don*.

Although Arbo informants did not request anonymity, ethnological research methods suggest its use. We thus identified the informants through a numeric system. The level of anonymity was limited by the fact that our informants, as artists, are public figures, that the context of our interviews related to their work and creative processes, and that anonymity was not requested.

Data gathering and analysis

The 'semi-directed' interviews took place in the summer of 2003. To allow for us to quickly address specific subjects within the interview and determine whether there was the quality and quantity of necessary information, the interviews did not necessarily follow our original inquiry plan. The research plan then allowed us to create useful descriptors through which to classify the gathered information.

The "semi-supervised" interviews were accomplished through the use of a form and a listening guide (see Appendix E). Each interview was classified time-wise into segments of significant information, which were timed and indexed by keywords taken from our research plan. Significant extracts or summaries were included for each segment. We explicitly identified segments that referred to the concepts of InterPARES 2. This information was then entered into a Microsoft *Access* database, and analyzed in relation to provenancial, legal, procedural, documentary, and technological contexts.

The "supervised" interviews took place in the fall of 2003, and more closely followed the structure of the questionnaire. Gathered information was treated in the same manner as above, and again a listening guide was developed to time and index the interviews (see Appendix F). As some responses addressed several themes simultaneously, the information was classified with each question to which they referred. Data was entered into the database and ordered in terms of the twenty-three questions set forth by InterPARES 2 (see Appendix G).

Contextual information was placed in an interview file (see Appendix A) for further critique. Included along with the informants' identification, are details of each interview related to anonymity, restrictions on access, restrictions on the reproduction and/or publication of documents, the interview schedules, and information related to the preservation of the interviews.

⁹ <http://www.ulaval.ca/vrr/deontologie/index.html>.

C. Description of Context

Provenancial context

Arbo was formed on December 5, 1985, in conjunction with its first performance. In November 1986, the group was incorporated under the third part of the *Loi des companies*, and some years later, the group changed their status to charity organization to receive grants and issue tax receipts.¹⁰

The group's name is composed by an initial from either the first or last name of each of the founding members, Robert Faguy, Gilles Artaud, Lucie Fradet, and Francois Bibaud. 'Arbo' signifies a return to origins, and 'Cyber' emphasizes a link to the cybernetic (the science studying the communication between man and machine). The link between these concepts and to theatre with a '(?)' corresponds to the artists' interest in exploring the boundaries between tradition and technology, presence and media diffusion.

The juridical mandate and mission of Arbo are stated in the group's 1986 letters patent:

- To gather persons interested in researching all aspects of theatre production through a multi-disciplinary perspective
- To produce and present resulting performances to the public
- To offer workshops towards this aim
- To publish all documents that bear witness to these artistic creations, and any associated critical or theoretical works

The mandate offers a unique perspective, somewhere between research theatre and multi-disciplinary art, and is closely tied to the group's aim to establish an interactive relationship with the audience. The spectator is encouraged to reflect on and interact with the performance through either their choice or refusal to participate. To do so, several different strategies are employed, primarily those involving sounds and text, interactive games, and video to create new performance space. The parallel use of these strategies is what Arbo refers to as the 'maximalist' concept at the heart of its artistic production.

Ultimately, the aim of Arbo has been, and continues to be at a certain extent, the willing transformation of society. The spectator is offered an active role.

Prior to ceasing public performances, Arbo was comprised of two bodies: the administration and the production team. The administration, the decision-making body, consisted of four members until Arbo became a charity organization; it then gained a fifth member to avoid any conflicts of interest. A separate artistic team was formed for each artistic activity, and eventually for each research project, its development, and publication. Each activity thus developed through its individual structure, in varying degrees of collective and individual effort. The number of employees, their qualifications and competencies, and the nature of the artistic activities required Arbo to maintain a flexible structure.

Since suspending public performances, only two members have continued to work with Arbo: Robert Faguy and Lucie Fradet. Their most recent work is the *Ludosynthèse*. All decisions relating to its creation are consensually agreed upon. They do not see themselves as artists rather than administrators.

Arbo has been a member of Obscure, Meduse, and In vitro (Recto-verso, Pluramuses, and Arbo), along with the ACT (*Association des companies de théâtre*), the UDA (*Union des artistes*) and the *Conseil québécois du théâtre*.

¹⁰ The precise year is not known, but is likely in 1996 along with the start of the Action/SIMUL.

The group's five main functions are: administration, research, performance, development, and publication.

The administrative function produces management records. The members of Arbo consider themselves to be an artistic entity and so rarely focus on this function. For this reason, the management of the *Ludosynthèse* has not been greatly emphasized; once created, it is assumed that the *Ludosynthèse* will require minimal supervision, and that the artists can do this themselves. The administrative function is responsible for finances and book-keeping, government reports, personnel management, etc.

The research function is often confused with the following, performance, as they frequently share the same goals or results. This function therefore does not aim to produce 'final documents,' but instead develop drafts and outlines to be further developed physically and intellectually to be integrated into a performance. The research element serves to distinguish Arbo from other experimental theatre groups. Specific hypotheses are identified and investigated through many forms, such as lectures, labs, or public presentations.

Performance specifically refers to the group's artistic productions, which unite artists from many different fields. Each one is developed around a particular strategy or view point, either focused on theatre, the visual arts, sound or sight. Arbo has produced twenty-five public performances, including twelve SIMUL projects.

The development function was outlined in Arbo's original objectives. Due to the unique nature of their research, Arbo recognized the need to develop a public and create an arena in which to debate how art is viewed. This function was aimed primarily at students, who were considered to be more 'open' to this debate. To do so, they presented lectures and discussions, and encouraged students to participate in improvisational videos and previews, in the hopes of developing a dialogue where youth could enter into contact with creative processes.

The publication function is included in the group's mandate to make research results available, produced either on paper, video, or electronically. Two types of publication exist: performance descriptions and critical commentaries. Arbo has published video compilations of SIMUL projects, two art videos, and articles written individually and collectively. The *Ludosynthèse*'s self-reflective character will situate it between these two categories.

Juridical context (administrative-juridical)

The juridical context refers to the legal and organizational systems in which Arbo participates. This context defines the rights and limitations of creation in relation to laws, norm, and regulations.

In November 1986, Arbo decided to become a non-profit organization, and was thus obliged to submit annual reports to the government. The group later registered as a charity organization, in accordance with the federal Income Tax law. The group was then exempt from paying income tax, and could issue tax receipts.¹¹

Subsequent government funding created certain obligations: once received, the performance had to accomplish its originally stated aims, and restrictions were placed on funding requests. For example, Arbo could not request multiple grants to be used for a single project. Instead, Arbo began requesting funding for specific aspects within the larger project.

Granting agencies include:

¹¹ Their status as non-profit may have already exempted the group from paying income tax.

- Ministry of Cultural Affairs, Ministry of Culture and Communication
- Canadian Council of Arts
- City of Quebec
- Federal and provincial employment programs

Arbo has equally received funding from:

- Action/SIMUL donations
- Les P'tits cochons donations
- Ticket sales

Arbo is obligated to produce reports for the government, and must retain their financial records as stipulated by law. Although not producing new performances, the group must still respect these obligations while active.

For several activities, especially administrative, Arbo hired employees through employment programs. These positions were subject to Quebec's *Loi sur les normes du travail* and *Code du Travail*.

Arbo has had to follow UDA regulations when hiring artists. The UDA is a professional union representing French artists in Quebec and Canada, and sets standards for minimum rehearsal time, fees, etc. In addition, for an artist to participate in a performance, the entire group must either be a member of the UDA or receive its approval.

Problems with the UDA arose when it was noted that the SIMUL projects did not conform to regulations concerning the minimal number of rehearsals or fees. Arbo argued that in regards to SIMUL projects, it was a visual arts group, not a theatre group as defined by the UDA. The UDA is also responsible for managing image rights. During the interviews, we gathered that promotional videos cannot exceed a certain length without the artists being paid for their work. It is possible that this regulation does not apply to archives. Arbo was advised by a legal specialist to always ask artists for their permission to use videos in which they are featured. Ideally, these issues would be clarified at the contract phase.

Between our interviews, members of the group contacted the UDA about issues concerning the creation of the *Ludosynthèse* (which will use and diffuse images of artists). In the digital context, it seems that the use of archival images do not fall under any UDA regulations. The UDA can only request that Arbo asks permission from each artist to diffuse their image. As the *Ludosynthèse* is a non-profit project, it is likely that artists will modify their selection criteria to avoid paying for any image rights.

Arbo is subject to copyright and disposition laws. The group is therefore obligated to provide compensation to artists for the use of his/her material. Several notable liberties have already been taken, such as the use of an Antonin Artaud text and Philip Glass musical piece. Arbo is meant to transfer books, brochures, pamphlets, sound and video recordings to Provincial and National Libraries.

Legal questions concerning photographs are vaguely addressed by Arbo. When photographs are taken by a third party, the group assumes that it must ask for permission for use; Arbo should clarify this, since it does not need this permission if the group has hired the photographer.¹² The group's ethical code requires that the photographer's name is identified for each work.

In regards to actual performances, the juridical context does not seem to contain specific obligations apart from specific regulations concerning each performance location. For example, permission had to be received to film SIMUL projects in public spaces (and it was often

¹² See Copyright Law where works are made for valuable consideration, and the consideration is paid.

denied).¹³ Since it is not the artist, but his/her viewpoint, that is being filmed, not everyone in the video has thus given their consent. These individuals may also not want to appear on the Internet. Arbo has agreed to remove any image from the *Ludosynthèse* as a result from complaints received from those who appear in them.

The SIMUL project has developed a creative way to raise money: the Action/SIMUL, wherein individuals can purchase an Action and receive a tax receipt and certificate stating that the Action took place. From an artistic point of view, the donor then owns the project, but legally, the rights belong to Arbo.

The group has also agreed to never force a spectator to participate in a performance. Although participation can be requested, it is never obligatory. In addition, performances are designed to give the audience the choice of participation. Anonymity is an important concept for Arbo. Spectator comments are identified only through the use of initials or a first name. By retaining a form of signature, this method is seen as maintaining a certain level of authenticity. Action/SIMUL donors also have the right to remain anonymous, and the group is committed to protecting this right within the *Ludosynthèse* as well.

RELATED LAWS

- *La Loi des companies* (C38 Quebec)
- *Loi de l'impôt sur le revenu* (L.R.C. (1985), ch.1 (5 suppl.)) [
- *Loi sur les norms du travail* (Quebec) (L.R.Q.N-1.1)
- *Code du travail* (Quebec) (L.R.Q., c.C-27)
- *Loi sur le statut professionnel et les conditions d'engagement des artists de la scene, du disque et du cinema* (L.R.Q., c.S-32.1)
- *Loi concernant le statut de l'artiste et regissant les relations professionnelles entre artists et producteurs au Canada* (1992, ch.33)
- *Loi sur le droit de l'auteur* (L.R. 1985, ch. C-42 Canada)
- *Loi sur le Bibliotheque nationale du Quebec* (L.R.Q. B-2.1)¹⁴
- *Reglement sur le depot des documents publies* (c. B-2.1, r.0.1)
- *Loi sur la Bibliotheque et les Archives du Canada* (2004, ch. 11)
- *Reglement sur l'envoi de documents a la bibliotheque nationale* (1995 DORS/95-199)¹⁵

Procedural context: business rules

We accumulated a great deal of information related to Arbo's procedural context. We questioned the group about its methods, work procedures, etc. Although not all of the responses relate to electronic production of the *Ludosynthèse*, this information allowed for a better understanding of the group's general procedures. The responses related specifically to the *Ludosynthèse* are found in the answer to question #6.

Administration

The informants did not place much emphasis on this context, perhaps because the importance of artistic production is emphasized in the group. Associated activities include the preparation of government reports and financial records, book-keeping and personnel management.

¹³ The group also argues that since the video is sped up 13 times, it is highly unlikely that an individual will be recognized.

¹⁴ See the Bibliothèque nationale du Québec Web site at <http://www.banq.qc.ca/portal/dt/accueil.jsp>.

¹⁵ See the Bibliothèque nationale du Canada Web site at <http://collections.canada.ca/>.

Specifically, the *Ludosynthèse* involves administrative functions through its on-going financial activities and government reporting. Maintenance is also important, both in term of technological support and the continued preservation of performances. It seems unlikely then that the *Ludosynthèse* can be the entirely autonomous system that Arbo hopes for. If nothing else, the Web site will need to be maintained after the group dissolves.

Research

Few regulations were in place to standardize research activities, and members were given a lot of artistic freedom; nevertheless, the group has produced a large number of documents.

Arbo sees research as what sets them apart from other experimental theatre groups. Arbo aims to identify themes running through their performances while proving specific hypotheses and communicating the results of their efforts. These activities are achieved through standard procedures.

The frequent repetition of certain activities, however, has allowed us to propose preliminary processes. Research activities can be summarized in the following three forms:

- Lectures: where information is presented to the public.
- Labs: where incomplete or provisional information is communicated to receive feedback and commentary; this usually results in a complete performance.
- Performances presented at various stages of completion, which change and improve with each subsequent performance.

A retrospective process can also result, but no documentation of this exists. It involves exchanges between performers and spectators, whose comments enrich the Arbo experience. This report does not outline the research process as it is often similar and related to the performance process.

Performance

Performances first require a concept; Arbo will then make use of the media that best expresses this concept. This provides an opportunity for each stage of creative development to make use of a different artistic strategy (such as theatre, installation, etc). Theatre, however, remains the common basis of Arbo's performances, and there is thus always a direct human presence. This is true even in performances that rely heavily on technology and machines.

The direct nature of this interaction makes it impossible to document the relation between persons and the larger experience. To document its performances, Arbo must develop methods to record the possible relationships that may have existed.

Theatre is seen as a means to experiment with interactivity, and the audience is always a primary consideration in the development of performances. This interaction, however, is not meant to corrupt either the group's artistic vision or the significance attached to the performance; thus Arbo has developed strategies of representation that allow for participation in which the audience possesses a limited power of modification. In this sense, the audience can add to the performance and influence the actors or the conclusion, but it cannot alter the fundamental sense of the performance. The group maintains their desired vision of the performance through these regulatory systems of interaction. It is important to note that often the audience has only the semblance of influential power, as the group may have previously decided on a particular conclusion.

Interaction is most useful in retroactive audience participation, through discussion of completed performances, lectures and workshops. These comments allow Arbo to develop and analyze their work in light of this information.

PERFORMANCE CREATION: SIMUL EXAMPLE

SIMUL involves a group of performances between 1989 and 1996 that used multiple strategies to convey the same context. The project developed around the definitions of the concepts of ‘simultaneity’ and ‘simulation’:

- Simultaneity: the concept implicates a number of objects in temporal and spatial contemporaneity. This multiplicity of objects speaks to a ‘maximalist’ view, obliging the spectator to make choices amongst these objects to create their own interpretation of the performance.
- Simulation: the concept aims to define the relationship between the real and the fictional, and the interpretation of the real.

The different artistic strategies used in the SIMUL were:

- Short performances
- ‘Marathon’ performances
- Actions/SIMUL
- Installations
- ‘Syntheses videos’

Both types of SIMUL performances relied on ‘journees-videos.’ The ‘journee-video’ was created by continuously filming a person in the host city of the SIMUL between the hours of 8am and 9pm to capture the routine life of a person in its totality and banality. The video was divided into sanitary, eating, working, hobby, etc., categories to study life in an anthropological manner. Only two situations warranted a pause in the filming; the screen goes black when the subject requires a moment of privacy, and the screen turns red to indicate an authoritative intervention disallowing filming in specific locations, such as restaurants.

For the short performances, these videos were sped up thirteen times, so that they played for only an hour. In conjunction with a live hour-long performance, this video presented the audience with an information overload.

For the ‘marathon’ performances, the video was allowed to play in real time. Three performers accompanied the video, independently producing the same movements as each other, representing a specific artist (Snow, Artaud, Bacon, etc.). A camera followed their movements to bring some sort of narrative logic to the performance.

The SIMUL installations were expositions in the host city in order for the audience to better understand the videos in their original contexts.

We will return to the question of the ‘synthese’ videos, which are conglomerates of images filmed of a SIMUL action, in the publication section.

GENERAL PROCEDURES OF PERFORMANCE DEVELOPMENT

The informants did not identify specific processes, due primarily to the multi-disciplinary aspect of performances. In addition, the group emphasizes the value of artistic freedom. The group did however ascribe to specific “rules of art” outlining professional expectations. During the interviews, it was made clear that processes change for the development of each performance.

The following is our understanding of Arbo’s work procedure. This information was collected in two separate interviews.

1. One member conceives of a specific idea that they explore, research, and then to present to the rest of the group. This step does not result in the creation of any

- specific records, but the individual is free to create any number of documents that he/she deems necessary to this stage.
2. This member presents his/her idea to the group, and to the administration. This step can result in meeting minutes.
 3. Once approved by the administration, the individual must produce an official request for funding. This step also allows for an elaboration of the specifics of the concept, as funding requests demand clarity and explanation.
 4. If funding is received, the production process begins. The first step is to re-evaluate the concept in light of the amount of funding received. The budget is thus revised and the performance is rethought in relation to it.
 5. The individual then assembles his/her production team. This involves researching personnel via telephone, word of mouth, etc. No specific record results from this stage, as it consists of informal contracts; sometimes, however, a small text is produced to clarify the requirements.
 6. At some point, we assume that contracts are signed, although this stage was not identified by the informants.
 7. Following this is a meeting with the designers (text, sound, costume, etc.) to ensure that everyone is working towards a common goal. The following five steps are completed by individual departments, but they may meet to consult with one another.
 8. If necessary, a text is written for the performance. This step is not completed if the performance is improvisational, as is the case for the SIMUL (the first SIMUL being an exception).
 9. At the same time, other departments are completing their tasks, such as costume, décor, etc. Often, specialists are brought in at this stage to assist in the set design, lighting or a specific system. Sketches are drawn up for the set design and costumes, and are sent to the creator for approval.
 10. Other designers create videos (especially in the case of “journées-videos” which had to be filmed in advance of the presentation). Rough drafts and brainstorming videos are also often kept to be reused in the future.
 11. Others work on the sound; these are often specialists. Like the videos, some soundtracks had to be created in advance, and some during the performance (such as SIMUL).
 12. At the same time, actors practiced their routines over a period of one or two months. If a text is involved, this stage begins with a lecture, followed by a group improvisations, or individual practice. For SIMUL projects, this stage was performed conceptually.

Informant: “You make your plan, then you throw it out, it doesn’t really matter”

13. After the necessary weeks of rehearsal (the UDA stipulates six weeks in its regulations), it is time for the general rehearsal. Those working with technical systems can now apply their systems, and the actors work with the designers to join the mechanical and human elements.

[At some point before this previous step, the group may participate in an extra “Lab” stage. This consists of a preliminary public presentation. They then gather audience

- comments, and made any necessary modifications. These sessions, however, fall under ‘research,’ as they group may ask for separate funding for this stage].
14. At this point, they assure that the performance is ready through dress rehearsals. During these rehearsals, video, sound, etc. is recorded, modified and diffused.
 15. The next stage is the premier.
 16. During subsequent performances, video and sound is recorded and redistributed. At this point, the audience can influence the performance to a certain extent.
 17. After the performance, the audience is encouraged to share feedback, although Arbo does not necessarily modify their performances based on these comments. This is because the group has a definite goal/vision it wishes to achieve.¹⁶
 18. Throughout the previous steps, Arbo also works to publicize their event, through programmes, posters, radio announcements, via Tele Quebec, etc. The group also holds newspaper interviews, and promotes their activities within schools.

Publication

Currently, Arbo’s published documents consist of videos and the previous Web site. We could also add articles to this list.

Five video have been created so far:

- (1) a contest organized by *Obscure*, an improvisation on the texts of Becket, Genet, and Dostoyevsky
- (2, 3 & 4) syntheses of SIMUL ‘marathon’ performances (a series of extracts, for a total of 13 minutes, for a 13-hour performance). These are called ‘synthese’ videos or SIMUL-compilations

These videos attempt to show an “authentic” 13-hour performance in 13 minutes. The video is given a truly Arbo aesthetic. According to the informants, authenticity is ensured by preserving this aesthetic while avoiding post-production modification. In some circumstances, this was not possible due to the poor quality of the video. The informants believe that authenticity is guaranteed if the same artists who worked on the video and sound recordings during performances are the same who work on the syntheses.

These video compilations seek to find transition points between certain moments of the performance, but acknowledge that the original performance’s atmosphere is lost. Clips are chosen for their ability to represent the performance.

Although Arbo views these compilations as traces of authenticity, they will not be included in the *Ludosynthèse*; this is because they fail to make evident the process of creation (which is an important goal of the *Ludosynthèse*).

It was debated whether or not these compilations were documentary or artistic pieces. The group acknowledges the documentary aspect of them, because they relate to a completed performance, but equally understand that they have been put together creatively.

- (5) an artistic video related to *Bacchantes 2*.

¹⁶ This remark makes it evident that Arbo considers all interactive processes to be subject to some level of control, as all freedom given to the audience has to be controlled in order to achieve the goals of the performance.

LUDOSYNTHÈSE

The *Ludosynthèse* is comprised of four distinct sections that provide the audience with different types of information and different opportunities for participation. They are:

- *Basic section*: this section is of combination of the following three sections, with emphasis on contextual information of an historical nature. It consists of information about Arbo, funding agencies, performance descriptions, etc.
- *Chronological section*: this section features a time-line of the group's activities, allowing users to access performance plans and clips, along with information about the artists
- *Systemic section*: this section focuses on the research aspect of the group, identifying the thinking, reasoning, and theoretical concepts that inspired Arbo. Users can then verify the application of these concepts in subsequent performances.
- *Ludic section*: this section aims to have the user participate in creating performances, and allowing them to put into action the information acquired in the previous sections. This component allows Arbo to integrate interactivity into the *Ludosynthèse*.

In terms of content and form, the *Ludosynthèse* follows no strict model. The concept is contrary to most Web sites, in that it hopes to create interactive site for a 'dead' entity.

Arbo hopes that the *Ludosynthèse* will show the creative processes that amount to each performance. The systemic section is used to show the evolution of projects. In this way, the *Ludosynthèse* is witness to the performances, by showing the procedures and steps taken, and transforming them into interactive electronic elements. Since certain theatrical concepts cannot be captured, such as human presence, the weather, etc., some texts will be necessary to put performances into context. The informants expressed interest in creating a 3D arena in which to duplicate the performance space, but financial constraints have impeded this project.

CREATION OF THE *LUDOSYNTHÈSE*¹⁷

From the start, the *Ludosynthèse* has aimed to facilitate the group's development activities. Once having obtained funding, the group produced a CD-ROM which they distributed to schools, to provide students with information about Arbo prior to visiting the school. At this point, the interactive aspect of the *Ludosynthèse* itself was virtually nil, and interactivity instead came from the artists' presence in classroom performances.

The CD-ROM project changed to encompass three aims: to leave traces of the group's activities, to demonstrate the intellectual creation process, and to allow for audience participation. The *Ludosynthèse* began making use of DVD-ROM for their storage capacity, and then created a Web site for even greater diffusion.

DEVELOPMENT OF THE *LUDOSYNTHÈSE*

The multiplicity of development strategies makes it difficult to identify one unique process. Several strategies exist, including conferences, student presentations, video presentations, etc., and these were often informal. However, the troupe consistently aimed to demonstrate their particular artistic 'spirit' through audience participation and the recreating of 'real' performances.

¹⁷ This process is detailed in question 6 and schematized in the Model.

Because this stage involves the recreation of original productions, it will not be developed in the *Ludosynthèse* beyond listing the completed activities.

Technological context

Technology and Equipment

Arbo has been making use of technology from its outset, and it is a key component to bring together human and machine. On occasion, the group has had to borrow or design equipment and systems to realize the artistic vision.

Technology is regarded as a useful tool in creating the performances; however, Arbo does not think it necessary to re-use the original technology in the recreation of past performances. In fact, the group is comfortable making use of technological advances and changes.

Technology can also seem to occasionally hamper performances. Arbo approaches these obstacles as elements that help define, feed and further performances. They are seen as an artistic component rather than an obstacle to creation.

The informants identified four technologies used in their productions:

1. Video: integrating video and theatre to create new spaces for representation
2. Sound: creation of complex sound environments to create specific spaces
3. Radio: used so that listeners can interact with performances; to show the direct aspect of performances
4. New technologies: computers and digital elements. For example, mechanized lighting was used in *Elagabalus*, and in *Bacchantes 2*, a computer-generated soundtrack was created in correspondence to the actors' movements. In *Logomachie*, the voices of four actors were mixed electronically to create a single dominant voice.

Today, with new technology, Arbo has a better chance to preserve the whole of their electronic archives; in the past, the group's lack of specific technology or equipment resulted in incomplete archives.

Ludosynthèse and Technological Constraints

Electronic media are what makes the *Ludosynthèse*'s interactivity possible and allow the group to 'authentically' translate their original 'intentions' of past performances.

The computer's own regulation processes allow interactivity to only go so far. The spectator-user cannot modify the source program. Therefore, in contrast to live performances, the *Ludosynthèse* does not need to implement further restrictions on audience interactivity.

To maintain the highest level of interactivity possible, the navigation of the *Ludosynthèse* will be very flexible and require the user to make explicit choices about their path through the site. Interactivity will also be encouraged by allowing for traces of user participation remain on the *Ludosynthèse* through the storage of video or photograph. The group will also be able to receive documents that they can then integrate into the program.

The Internet was chosen as the medium for the *Ludosynthèse* after it was noted that both the possibility of interactivity within, and the storage capacities of, CD-ROM and DVD-ROM were too limited. The *Ludosynthèse* technology also presents certain storage constraints; although full texts can be supported in .pdf format, the system can only handle clips of performances. Due to this, the group does not define the authenticity of a performance through its level of completeness on the site.

Arbo hopes that the *Ludosynthèse* will encourage retrospective interactivity through forums to discuss theatre and technology. During the interviews, however, it became apparent that the

group has not fully thought through the implications of supporting the Web site format: although the members hope to dissolve the group once the *Ludosynthèse* is up and running, they seem to forget that actions will still need to be taken to maintain the site, ensure that copyright issues are being dealt with, and that they may be asked to answer questions/requests or participate in forums.

In actuality, Web-based technology does not allow for the multimedia possibilities that Arbo wants to exploit. For example, computers cannot recreate a dynamic environment that includes sound, images, and human presence. Internet diffusion allows for only one viewpoint. The group cannot make use of the simultaneous emission and diffusion exploited in performances.

Documentary context (recordkeeping system)

Arbo Cyber, theatre (?) and Archives

The group's original objectives include the preservation of textual, video, sound, etc. evidence, in relation to Arbo's desire to reuse documents in the creation of new performances. The SIMUL projects reuse records in each subsequent performance, and accumulate them in 'journées-video' projects. The concept of re-use is so important to the group, that the informants felt that even after the dissolution of the group, artists should be able to later use records in future individual or other group projects. In this sense, the informants treat the *Ludosynthèse* not only as a testament to past performances, but also as a source of information for future use. It is creating memory.

The group also keeps records to answer to their funding agencies. Arbo feels that explanations offered in simple text documents do not do justice to the complexity of its performances, and so images are frequently found with these records to further illustrate projects. The group remarks that traditional theatre documentation is primarily textual. Arbo's de-emphasis on text has allowed for other mediums to enter the archives (notably sound and video). The group's texts are insufficient as representations of the group's public activities, and further contextualization is therefore required to offer a coherent understanding. The design of the *Ludosynthèse* will have to take these issues of representation into account.

Although documentation is important to the group, certain constraints have resulted in a lack of the quality and/or quantity of preserved records. Financial and time-related constraints were identified. The aims of the group also pose archival problems; many mediums can only offer a singular viewpoint, in opposition to Arbo's maximalist approach. Although today's technologies present better solutions and strategies for archiving multi-disciplinary media, the recreation of complex 3-dimensional environments is still impossible.

Records Management

With the creation of the *Ludosynthèse*, Arbo's records had to be reorganized to more efficiently access information about each performance. Previously, no coherent records management system was in place, beyond the classification of video and sound recordings in a database.

Arbo does not make use of a preservation schedule, and simply retains the whole of its documentation. Equally, the group has no selection or evaluation processes. The only files dealt with in a particular way are those that relate to different organizations with whom Arbo has collaborated; the informants will likely dispose of these, as they are seen as not particularly belonging to either Arbo or to the performance involved.

Arbo has attempted to centralize its preservation system, and so most records are kept together, at the informants' homes. Although the group has always tried to preserve original records, artists will often themselves keep certain records they were responsible.

According to the informants, all electronically-created textual records are printed for preservation purposes; the group has not really concerned itself with their digital preservation. In the case of many digital records, the group no longer possesses the equipment to read them.

Because the records are now kept in a private residence and taking up a lot of room, the informants think they will deposit the fonds in Aparte, a theatre resource organization specifically committed to preserving the history of Quebec's theatre.

Physically, the some records are being stored in a filing cabinet, and video and sound recordings are stored on several shelves. This filing cabinet's four drawers group the records into four categories:

- Drawer 1: Government reports and all other records relating to the government
- Drawer 2: All records related to start-up
- Drawer 3: Records organized by production
- Drawer 4: Records about related to other organizations, or exchanges with them

We did not complete an inventory of electronic records preceding the *Ludosynthèse*. The answers to questions 4, 5 and 18 complete the previous information.

Arbo Cyber, théâtre (?) Records

Arbo's administration relates primarily to government reports, account books, grant applications, budgets and minutes of the Administrative Council. These have been created via computer, and many are in digital form. All of these have been printed for preservation purposes, making it apparent that the group has not focused on electronic preservation. The electronic versions are maintained for security reasons.

Documentary traces of the research function are more difficult to flush out. The informants point to grant applications as documenting certain aspects of research, but these must be put into context with other records, such as discussion notes and critiques, to be best understood. The relation of records to the research process is unclear.

The reorganization of records undertaken for the *Ludosynthèse* makes evident that it is the performance that is at the heart of the documentary structure of Arbo. The informants have classified records in relation to performances, and have included notes, drafts, photographs,¹⁸ videos, sound recordings, etc. Actions/SIMUL records were created for SIMUL projects. Representative photographs of each performance have been laminated. Only publicity records seem to have been treated differently, and placed in their own file drawer; we did not ask for clarification about this. We also do not have an understanding of how contracts with artists are managed.

It is difficult for these records to effectively represent performances: it is not possible to capture all the complex elements and systems of a performance, and even accumulations of diverse records relating to a performance cannot represent the temporal space, and most importantly the relation between the activity and the audience. This dilemma of representation is heightened when we consider that the group frequently made changes to each subsequent performance.

¹⁸ Photographers have been hired since the start of Arbo's activities, and the resulting photographs are seen as highly representative (the hiring of the photographer seems 'official' to the group).

The group does not abide by a specific set of rules for the creation of development records. Although the model used is similar to that of the performances, it is perhaps even less formal due to the nature of the involved activities. Several promotional materials have been created for schools and libraries, but it was not clear if these are preserved in the archives.

In terms of publication, there is very little information about the documentary process. Although guaranteeing the authenticity and integrity of published material does not generally concern Arbo, these concepts are important to 'journees-video' productions, which aim to demonstrate an 'authentic' representation of past action. Photographs and texts are often willingly modified for ethical or informational reasons, which the group claims does not affect the authenticity of the records. The group does not relate the authenticity of the records to the preservation of their physical integrity, but to the links between the records and the artists and the artists' products.

The 'old' material used in the *Ludosynthèse* consists primarily of video and photographs; most texts have been rewritten or copied the previous Web site. Some drafts or critical comments will also likely be included. 'New' material will include photographs and contextual information that allow the audience to participate in the creation of their own "journée-SIMUL." Arbo hopes to create a system allowing users to preserve a copy of the records they create, to send them to a database, and to participate in discussion forums.

Compilation videos will not be included in the *Ludosynthèse* as they do not demonstrate the creative processes resulting in a performance (which is the aim of the *Ludosynthèse*). Although the 'authenticity' of compilation videos is supported by a lack of modification, this is not a concern within the *Ludosynthèse*, where modifications are made in response to technological constraints or for ethical purposes. Here, 'authenticity' is maintained by the artist's constant presence.

Finally, the records in the *Ludosynthèse* will not be linked to those within the fonds; Arbo has no intention of codifying and identifying records in the *Ludosynthèse* to associate them to a particular archival series.

D. Narrative Answers to the 23 Core Research Questions

1. What activities of the creator have you investigated?

The principle research objective was to study the creation of Arbo's *Ludosynthèse* – a commemorative, experimental, dynamic, and interactive Web site. We also completed a wider study of the group's activities, including analogue and digital records production. Because the *Ludosynthèse* consists of a dialogue between the past and the present, and between traditional and electronic documents, our research aimed to understand the whole of the group's artistic activities to evaluate its creative processes and understand the impact of the five different contexts on these processes.

We thus studied five major functions/activities¹⁹ of Arbo:

1. *Administration*: includes finance, book-keeping, personnel, government reports, etc.
2. *Research*: distinct from performing, the group is involved in an almost scientific process, in which a hypothesis is conceived and tested, and a conclusion reached and subsequently disseminated. This activity results in lectures, conferences, workshops, and performances.
3. *Production/Performance*: the principal activity of the group. This activity relates to the production of a performance and also to related elements such as video, costume, sound, etc.
4. *Development*: activities related to the public, especially through schools/youth
5. *Publication*: the dissemination of research results via articles, video compilations, an Internet site,²⁰ and the *Ludosynthèse*.

Our emphasis was placed on the Research, Production/Performance, and Publication aspects as they relate directly to the creation of the *Ludosynthèse*. As it involves the preservation of memory, we also studied the groups' archives and its procedures relating to record keeping.

2. Which of these activities generate the digital entities that are the objects of your case study?

Although making use of computers and electronic systems, Arbo's research and performance activities are not exclusively digital, as performances (excluding those of the *Ludosynthèse*) necessitate both a human presence and a spatial environment.

Arbo creates digital records through several activities; our focus, was on performance and publication functions, and particularly the production of the *Ludosynthèse* and the documents of which it is comprised.

Several digital records underwent re-digitization both to be included in *Ludosynthèse* and to provide the record with a wider context or informational value (i.e., a performance's soundtrack may be re-recorded with the performance's ambient noise included).

¹⁹ These functions were established by the juridical mandate of the group as indicated in its letters patent.

²⁰ The Internet site is no longer online.

3. For what purpose(s) are the digital entities you have examined created?

The *Ludosynthèse* and its digital entities, were created to produce the group's "pierre tombale ludique," at once a commemorative document and dynamic event. The *Ludosynthèse* allows users to relive and re-conceptualize past performances through new electronic mediums.

The nature of the group's activities require the use of specific preservation strategies in order for (re)diffusion. For Arbo, these strategies result in the creation of new works, such as the recordings of performances, linked to the past, but autonomous and anchored in the present. This comes into direct conflict with the group's concern for audience interaction, as filming reduces the performance to a single viewpoint, diffused on a single screen. For this reason, through multimedia and electronic support, the *Ludosynthèse* seems a preferable alternative to witnessing and communicating the activities and concepts of Arbo.

Within the *Ludosynthèse*, each digital entity serves a specific function, whether to illustrate a particular concept, provide reference information, or assist in the programming of the site.

4. What form do these digital entities take? (i.e., e-mail, CAD, database)

The *Ludosynthèse* is an Internet site that uses FLASH programming. It is divided into four categories: Basic, Chronological, Systemic and Ludic.²¹

Ten types of records were identified in the creation of the *Ludosynthèse*, as it stood during our final interviews. It is possible therefore that further developments in the project will result in additional forms of documents.

The ten basic record types are:

Database

Two databases were created through Apple FileMaker: the "Documentation" file classifying the information preserved for each of the performances, and a "Collaborator" file storing the names of photographers and other collaborators, as well as some contextual information concerning them. The databases will not be integrated into the *Ludosynthèse*.

Text

Arbo produced texts for the development of the *Ludosynthèse* through Microsoft Word. This was to make editing and formatting simpler. Some very large documents will likely be supported in the *Ludosynthèse* as Adobe .pdf files.

Digital Photographs

The *Ludosynthèse* will contain digital photographs that have been treated in Adobe Photoshop.

Sound recordings

The *Ludosynthèse* will contain sound recordings, but the specific computer program to do so had not yet been chosen at the time of the interviews.

²¹ The structure of the *Ludosynthèse* was previously presented.

Video

The *Ludosynthèse* will contain video clips through the use of the Apple Final Cut program.

Plans

Adobe Illustrator is used to redo the plans for each performance. These plans are a reconstruction of the original production location. During this process, Arbo has the opportunity to standardize them and fill in any missing information. Once created, these will be transferred to the Fireworks application.

Games

Games will be created for the Ludic section, using Macromedia's Director. As of the final interview, these had not yet begun.

Program files

Program files and Shockwave objects are created using Flash. Flash is used to create the *Ludosynthèse*, and to integrate the aforementioned records (with the exception of the databases) on-line.

HTML pages

For internet diffusion, the program files and their objects will be integrated to HTML files using Macromedia Dreamweaver.

Tables

Microsoft Excel was used prior to programming to create a record capturing information about the *Ludosynthèse*'s system, its structure, contents, and navigation. These records also help standardize procedures, provide information on how to correctly present information, and how to use the 'nomenclature.' These will not be integrated to the *Ludosynthèse*.

4a. What are the key formal elements, attributes, and behaviour (if any) of the digital entities?

The informants paid no specific attention to the attributes of digital entities. The *Ludosynthèse* records contain several, but these are not standardized.

Arbo views the *Ludosynthèse* as if it were a single record, and so attributes were discussed in this way. For the informants, the final credits page that will result at the end of the creative process will provide information about attributes. This page will also identify those who worked on the *Ludosynthèse*, and the collaborators, photographers, etc., that contributed prior to digitization. The chronological section and the 'Documentation' file²² will also introduce each participant in original performances. In this sense, signature, date and place attributes are only valid for the past, as they aim to establish each member's contribution to an original performance.

²² This will not be included in the *Ludosynthèse*, but is a separate tool that could eventually be used to retrieve information where access is given.

We then analysed each of the aforementioned records individually. It became apparent that the informants do not truly consider themselves the creators of electronic documents, as if records only exist in the analogue environment. The digital records are therefore not signed, except to identify those who participated in the original analogue production. In this case, the signature is usually included to ensure author rights, and is visible to users. Signatures are not, however, necessarily attached to the records, as they can be located on the credits page only.

An electronic record's details of date, time, and place are not always noted. Arbo classifies its records not by their date/time of digitization, but by the date of the performance to which they are linked.

Subjects are not explicitly inscribed on the digital records. Within the *Ludosynthèse*, however, colour and representative images are used to allow the user to identify both the section of the *Ludosynthèse*, and performance, they are looking at.

The records are created exclusively in French, except where software programs require the use of English. The records are presented in a multimedia environment, where several images can be viewed at once. Aesthetics are prioritized, and few formal elements in the records were identified. Although technological constraints certainly influence the form of certain records, these are not seen as affecting the record's function.

Arbo hopes that some records within the *Ludosynthèse* will be dynamic and modifiable, such as the SIMUL in the Ludic section. The *Ludosynthèse* program itself, however, cannot be modified in order for all users to participate in the way intended.

Flash allows records to interact with the program and with each other, through the use of a shared library. For the *Ludosynthèse*, this means that each interface has the ability to only call up the records it needs to populate itself. Certain activities begin as soon as an interface is accessed, such as the display of sound and photographs. In contrast, all videos must be launched by the user. All pages are hyperlinked to other pages, files, or Internet sites.²³

4b. What are the digital components of which they consist and their specifications?

This question remained ambivalent. The *Ludosynthèse* has 'on/off' buttons to control the parameters of each page, as well as an ever-present navigation system (which may change formats in each section). 'Previous' and 'next' buttons, as well as a 'help' button, will always be visible.²⁴

Questions related to e-mails were raised in relation to the possibility of spectator-users sending in their performances. In the *Ludosynthèse*, e-mails will not be preserved. Exchanges between Arbo and the user will be limited to the performances.

Finally, because the *Ludosynthèse* was created using Flash, users will need to have the Plug in Flash Viewer to access the site. It may be necessary that users also have Acrobat reader and a sound program; the heavy dependence on external systems may contribute to a difficulty in the long-term preservation of the site.

²³ It is possible that texts will be deposited in ADEL (Auteur Dramatique en Ligne), and would be diffused via Internet (see question 18). It is also possible that the *Ludosynthèse* be linked to other sites diffusing the work of other artistic groups for comparative purposes. For example, SIMUL Bacon could be featured on a site diffusing reproductions of the art of Francis Bacon.

²⁴ These buttons and the navigation system are programmed within each Interface, and are not independent of the *Ludosynthèse*.

4c. What is the relationship between the intellectual aspects and the technical components?

The responses to this question remained vague, apart from the fact, as previously stated, that the *Ludosynthèse* is an intellectual representation (re-conception) of performances made possible by technology. We learned that an index page is being created for each interface, containing only programming information; the informants consider this a purely technical record.

We can add that the ‘Documentation’ and ‘Collaborators’ files, and perhaps also the Excel table, are purely intellectual records, whose information must then be transferred into the *Ludosynthèse*. The link between these records and the *Ludosynthèse* is essentially intellectual, as the members choose exactly which elements of these records they want to include.

Finally, Flash programming possesses a space left open in which to enter comments. Information regarding programming and content has been added here, and called the ‘pseudo-code.’ It is similar to a system of content description, and includes colour, sound and image position information. We will return to this feature later (in question 22 in particular).

4d. How are the digital entities identified (e.g. is there a [persistent] unique identifier)?

Arbo does not make use of a persistent or unique identifier for electronic records, but they do use a naming convention. This was referred to during the interviews as the ‘nomenclature’: it makes use of a strict set of punctuation and spelling rules, and relies on signifying and representative values.²⁵ This abbreviation code is very important in the *Ludosynthèse*, as it indicates location within the site.

In relation to long-term preservation, this system will prove useful in efficiently locating specific documents within the *Ludosynthèse*.

4e. In the digital organization of the digital entities, what kind of aggregation levels exist, if any?

Within the *Ludosynthèse*, hierarchy is expressed through the ‘nomenclature.’ For practical reasons, the ‘nomenclature’ was established before its adoption in Flash, but it was Flash’s inability to permit hierarchy that brought about this scheme. The different suffixes of each file allow us to identify the role and location of each record.

In terms of preparative records relating to the creation of the *Ludosynthèse*, these have been hierarchically organized into the categories of *Ludosynthèse* Section, Navigation, or Media. The records are named using the same conventions used in the *Ludosynthèse* (they are simply copied from one to the other).

²⁵ The name of each file ends with the 3 letters identifying the section where it is found. The first part of the name refers to the production. Other suffixes are used to identify more specific components, such as text vs. photograph. Ex: (El=Elagabalus, Ch=chronological) would be named El_Ch.

4f. What determines the way in which the digital entities are organized?

The organization of digital records is due to technological constraints. From the start, it was envisioned that they would be classified by Section, Navigation, and Media, but Flash does not allow for hierarchy, and so all records are on the same level.

5. How are those digital entities created?

Digital entities are created both through digitization and through original digital production. Although the 'Documentation' and 'Collaborator' dossiers, the plans, games and tables were created electronically, photographs, video and sound recordings from previous performances were digitized prior to their integration into the *Ludosynthèse*. Further explanation is offered in questions 5a, 5b and 6.

5a. What is the nature of the system(s) with which they were created? (e.g., functionality, software, hardware, peripherals, etc.)

Arbo uses two computers to create the *Ludosynthèse*. One is used exclusively for digitization, while the other (main) computer is used for all other tasks. Once digital records are transferred to the main computer for programming, creating digital records, treating them, and integration of records to the interfaces. This computer has storage capabilities and creates copies of records and the *Ludosynthèse* for security purposes. During the final interview, the informant was hoping to purchase new programs in order for all tasks to be completed on the one computer.²⁶ Mac OS 9.1 is the operating software used. If Arbo does purchase new software, the operating system will likely change.

The function of the system is not complex. Its only focus is the creation of the *Ludosynthèse*. The functions are limited to the programs used, such as Filemaker (Apple), Word (Microsoft), Acrobat (Adobe), Photoshop (Adobe), Final Cut (Apple), Illustrator (Adobe), Fireworks (Macromedia), Director (Macromedia), Flash (Macromedia), Dreamweaver (Macromedia), and Excel (Microsoft).

Peripheral equipment used includes Beta and VHS video machines, tape recorders, a modem, and an external hard disk to capture and store data. The hard disk has a 115GB capacity, whereas the computer itself only has 4GB. Arbo uses a telephone Internet connection, but this has no role in the creation of the *Ludosynthèse*. Data exchange is completed via ZIP disk.

It is important to note that Arbo does not have its own server. Once completed, the project will be uploaded to the Université Laval server (of which the informants did not know the specifications).

The system cannot generate a schema of its functioning, because the elements are not all linked electronically. Instead, the system is a series of 'manual' performed with the help of the computer. The informants created a schema of the *Ludosynthèse* outlining the organization of the site, but not its creation process (see Appendix H).

²⁶ We did not gather more specific information about the technical aspects of the machines. The main computer is a Macintosh laptop.

5b. Does the system manage the complete range of digital entities created in the identified activity or activities for the organization (or part of it) in which they operate?

Yes, the system (the two computers) manages the whole of the digital entities used to create the *Ludosynthèse*.

Equally, if we instead consider the *Ludosynthèse* as the system in question, the system again maintains the records. If the artists decide, however, to link the *Ludosynthèse* to other sites, the *Ludosynthèse* would no longer produce all the records, and there would be a level of dependence on the actions taken on other sites (such as an address change, closing of the site, etc.).

6. From what precise process(es) or procedure(s), or part thereof, do the digital entities result?

This remains a complex question, as the processes and procedures have not been documented, and the artists themselves do not consider that they necessarily follow any. It is also important to note that the *Ludosynthèse* is being created by a single person working on it at an individual pace. Although we were able to identify certain elements of process by linking several interview responses, we were not able to establish procedures for each type of record.

The informant claimed to try to work on similar tasks at the same time, or work sequentially, to increase productivity and reduce errors in work. Occasionally, procedures are noted for specific tasks, but these are simple memory guides and are thrown out after the completion of the particular task.

In terms of procedure, the informants identified few stages considered necessary for the creation of the *Ludosynthèse*. The order in which steps are taken do not play a significant role in determining authenticity or accuracy of the records. Only the programming and the use of the 'nomenclature' are considered essential for the *Ludosynthèse* to work without error.

In specific relation to electronic records, there are now essential procedures identified, and the informants claim that it is not possible to judge their work through a record's procedures. The informant claimed that there are no features setting Arbo's documents apart from other theatre groups. Apparently, activities are not submitted to formal controls, system design, or national, international, or professional standards.

Creation Process of the *Ludosynthèse*

During the interviews, we specifically focused on the creation process of the *Ludosynthèse*. The following information results from the organization of the many responses gathered at different times. (see Section H: Preliminary Model)

1. Arbo envisions a CD-ROM to distribute in schools in order for students to familiarize themselves with the group's activities.
2. Funding is requested for the CD-ROM project. The group's idea is further explored.
3. The funding comes through. Meanwhile, Arbo has suspended its public activities, and decides to create the CD-ROM to compile the group's activities over the last 15 years to keep the grant. The project is envisioned as perpetuating the group's spirit through interactive activities between users and electronic systems. During the project, the CD-ROM format was replaced first by a DVD-ROM, and then by an Internet site. Once the

Ludosynthèse is uploaded, the group anticipates several new possibilities presenting themselves, but at the time of the interviews these had not yet been explored.

4. The first (technical) step was taking an inventory and organizing the records. The artists filled in any missing information and created “Documentation” and “Collaborator” files for each performance.²⁷ These were created in a FileMaker program, and will not be integrated into the *Ludosynthèse*. They serve as reference for the artists.
5. The organization of the site was then addressed, which was constantly revised during the following stages.
6. The navigation system was also developed, and the first concept of page and section content was determined.
7. The programming was accomplished in a separate process. Excel was used to document the nomenclature’ system. The informant first created an Interface for each section, and once the programming worked smoothly, the content could then be modified. This allowed for a routine working system that reduced the possibility for errors.
8. The graphics and Interface design were also prepared. The specific images to be used were incorporated once they were made digital. Each performance was associated with a particular image and colour scheme. A logo was also inserted. Photoshop was used to produce a draft design of the Interfaces.
9. With the draft approved, the informant returned to each original image to rework it and save it in the appropriate file type (JPEG, PNG, etc.). The images were not compressed so as to ensure quality. The Interfaces are then built in Flash. Modifications could be completed within Flash as well.
10. Flash ‘layered’ each Interface in correspondence to its specific record type. The informant used the comments section in each Interface to add content and presentation information. This step was added after a technical problem resulted in a loss of information. Flash simplifies programming, as each object needs only to be created once, even if used several times in different ways throughout the *Ludosynthèse*.
11. While designing the Interfaces, the group chose images²⁸ and digitized them for use in the *Ludosynthèse*. Images were taken from both photographs and videos. Earlier performances had a higher reliance on photographs, whereas the predominant use of video is more recent. Often, videos provided better selections, as particulars moment could be captured. It was difficult to identify a particular selection process. In the case of legal issues arising from a particular image, a second image was simply chosen instead. Subjectivity plays a large role in the choice of images, and the aesthetics and ability of an image to represent a performance were prioritized. Images from other contexts were added if a performance did not have any images of its own.
12. Once the photographs were chosen, they were digitized.
13. The images are then put on the main computer to be modified in Photoshop. Aesthetic modifications are performed, and the audience is blurred so that individuals cannot be identified. Modification was kept to a minimum.
14. Once modified, the images were transferred to disc to open up storage space.

²⁷ It is important to note that the texts entered into the databases were re-transcribed; therefore, those used in the *Ludosynthèse* are not ‘original’ digital records.

²⁸ Selection is important in this project, as the records chosen must provide a link to the past while respecting legal and ethical obligations. We return to this point in questions 10 and 21.

15. We can assume that video clips and sound were treated in a similar manner to the photographic images above. Some sound clips, created digitally, had to be re-digitized or converted for use. Artists were frequently asked to provide original sound recordings of work they had produced.
16. Texts to be integrated into the *Ludosynthèse* were re-written.²⁹ Many of these were taken from the previous Internet site, which were themselves re-written publicity materials. The texts were transferred to Word in order for editing and correction, and then copied into the 'layer' of the *Ludosynthèse* where they would be accessible.
17. Plans are very important in the *Ludosynthèse* as visual reference points. The artists decided to redo many of the plans using a single design code to make the records more aesthetic and complete, and to maintain their 'authenticity.' These were created in the Illustrator program.
18. These files are then transferred into Fireworks to create transparent images for use in the Interfaces.³⁰
19. The artists had to redo the audio-visual content to be used in the Ludic section, often redoing records to emphasize specific elements (for example, the "journees-videos" do not always conform to the group's theoretical ideas). Therefore, the *Ludosynthèse* acts not only as the group's archives, but is equally a space for the creation of new material capturing memory. By the last interview, these records had not yet been begun, and so their creation process could not be identified.
20. Although the Ludic section integrates interactivity, this interactivity is limited as responses are necessarily pre-programmed. This is in opposition to performances, where audience participation was not completely regularized. Although theatre is considered an open medium, the computer is considered closed, only able to respond to specific scenarios. For the artists this is not 'true' interaction. Games are used to encourage interactivity, but when the Interface reloads, it does so in its initial form and the game can start again. No information was acquired in regards to the creation of these games except that they were likely produced in Director.
21. Trial and error processes ensure that the site functions properly.
22. Once complete, a series of tests will be conducted, especially in the Ludic section. People uninvolved in the project will be invited participate in this stage, and complete a questionnaire to comment on specific elements, such as the content and function of the *Ludosynthèse*. This step mirrors the Labs used by Arbo in the past.
23. An HTML page will then be produced in order for the *Ludosynthèse* to be uploaded to the Internet.
24. The artists preserve records from each stage of the *Ludosynthèse's* creation, in chronological order. This is done exclusively for security reasons, and once on-line, these records will likely be destroyed (we will return to this in question 18).
25. In terms of the digitization of records for their inclusion in the *Ludosynthèse*, the digital version does not replace the original, but since the *Ludosynthèse* is regarded an 'authentic' production, some may be destroyed. The artists would prefer to deposit their records in an archives.
26. After the completion of research and interactive work, the artists hope to add a forum to the *Ludosynthèse* in which to discuss theatre, the use of video in theatre, and

²⁹ Administrative texts will not be integrated to the *Ludosynthèse*.

³⁰ During the course of development, a subsequent grant was received to allow for this work.

multidisciplinary theatre. As the project was originally based on the capacities of a CD-ROM, this aspect has not yet been given serious consideration.

Use of the *Ludosynthèse*

The following information relates to the future of the *Ludosynthèse*, and so complete procedural information was unavailable.

At the time of the interviews, the informants were not yet sure of what level of navigational flexibility to give spectator-users: one envisioned the user having complete liberty to pick up and let off at any point of the *Ludosynthèse*, while the other wanted to maintain a certain level of control over the navigation path between pages.

The navigation process is meant to mirror the choices open to the original performance spectators. There will be no one way to create a performance, but instead some logical access points.³¹

The spectator-users will also be able to create digital entities. The Ludic section will allow for the creation of a performance or participation in other activities whose results could then be entered into a database. This database could then be consulted and used by other users. For example, a spectator-user can create a “P’tit cochon” as they wish, and send it to the database for others to see.

7. To what other digital or non-digital entities are they connected in either a conceptual or a technical way? Is such connection documented or captured?

Questions 4a and 5b have already shown how the *Ludosynthèse* and other Internet sites can be linked; in addition, the *Ludosynthèse* promotes Arbo videos.

This question also allows us to study the link between the *Ludosynthèse* and the group’s fonds. No link is established beyond the fact that the information in the *Ludosynthèse* has essentially come from the fonds; the artists have arranged and ordered their records for use in the *Ludosynthèse*. The “Documentation” file allows us to work backwards if we choose. These links, however, do not appear for the spectator-user, and there is no way for the user to access the unprocessed analogue fonds. Even the link between digital drafts and the *Ludosynthèse* are not maintained; only the file name connects the original record and that used in the final product. The absence of a standard selection process for digital drafts makes a conceptual association between records showing the creative process, and records of the final product, difficult, if not impossible.

8. What are the documentary and technological processes or procedures that the creator follows to identify, retrieve, and access the digital entities?

A ‘nomenclature’ system is used to name files. The signifying elements allow the informants to easily identify the contents of each. Within the *Ludosynthèse*, access and retrieval is only made possible through this system. This is therefore necessary not only for the *Ludosynthèse*’s functioning, but also for the retrieval of records.

³¹ Two possible paths exist: the spectator-user can navigate through the site through the chronological section, or can follow information related to a single performance. The spectator user can choose his/her own path, but information will be organized through a precise perspective.

The *Ludosynthèse* can only be accessed by the spectator-user through the use of the Flash program; for the user, this retrieval process is managed through hyperlinks uniting various documents and Interfaces. As of now, there is no search function within the *Ludosynthèse*, but at the final stage, an indexing of the *Ludosynthèse* will allow Internet users to retrieve it on the Web.

It is also important to note that the system has no security features. Physical control is the only guarantee of the security of the records, and the computer used for the project is only accessible from the artists' homes. For now, these measures suffice since the *Ludosynthèse* is not on-line; once uploaded to the Université Laval server, certain further security measures will be required. At the time of the interview, these specifications were not known.

9. Are those processes and procedures documented? How? In what form?

The identification, retrieval, and access procedures are not documented; however, in posing the question, the informant was made aware of the importance of documenting procedures. It was realized that in light of the complexity of the *Ludosynthèse*, it may be necessary to document the 'nomenclature' system for those who will take over the control and preservation of the project.

10. What measures does the creator take to ensure the accuracy, reliability and authenticity of the digital entities and their documentation?

Before discussing the measures taken to ensure accuracy, authenticity and reliability of digital entities, it is necessary to note that these concepts are very vaguely understood by the informants.³² Arbo is involved in a memory process, and to them, the concepts of accuracy, reliability and authenticity are all linked to a relationship to the past. The InterPARES 2 concepts were understood as the capacity for original records to express the reality of the past through the use of electronic technology.

Firstly, we asked how reliability was defined. Even though we shared the InterPARES 2 definition, the informant continued to return to the concept of 'representation,' or how the *Ludosynthèse* captures the group's past concepts and performances.

Reliability

The interview showed that Arbo does not make use of any particular means to measure the reliability of digital entities; the InterPARES definition was not meaningful for the group. Reliability, for example as related to the creation process, is not a preoccupation for them. They felt that the digital entities created for the *Ludosynthèse* would not necessarily evidence their creation process.

Although reliability was not of great concern, the informant claimed that the records electronic records can be considered reliable, even through the digitization process, as they cannot be anything other than what they were when analogue. The group was unconcerned with measures of control for the creation of records since they could claim it was impossible to make fakes and saw no reason this would be attempted. That the artists were making the link between past records and their new use was very important. The logo is the only element that identifies

³² We tried to separate the three concepts during the interviews, but as we kept returning to the concept of "representativity," these answers here can overlap.

each page as part of the *Ludosynthèse*, but it is not a demonstration of ownership of the records because not all records are marked. The reliability a record was considered an intrinsic characteristic, and the date of a record was seen as tying it to the original performance or event. As mentioned previously, the date of digitization has no significance for the informants.

Arbo has always placed great emphasis on the creative process, but only in the context of its performances. For example, the group always strove to alter the relationship between the performers and the audience to promote integration and interaction. With the *Ludosynthèse*, Arbo is not interested in creating an object where the creation process is used to identify reliability; instead, the group wants to faithfully represent the creation processes of original performances. To do so, they have remained loyal to the original concepts, while recreating them in an interactive environment that places the spectator-user at the heart of the performance.

Authenticity

The concept of authenticity was again aligned with the concept of ‘representation’ rather than the measures taken to guarantee control of records. No voluntary measures to protect the *Ludosynthèse* records from alteration were identified. What is more, the informants did not consider that the records could ever be affected by their projection through time and space. They felt that this issue did not relate to the reality of Arbo or to the *Ludosynthèse*.

Instead, authenticity was related again to a sense of ‘representation,’ and it was felt that the records “couldn’t be altered by anyone else.” In other words, the perceived impossibility of alteration shifted the notion of authenticity towards that of representation.

During the interview, it became apparent that the use of Flash could be seen as a security measure because it does not allow for the copying or printing of text or images; however, the program was not chosen for these reasons.

Arbo does not have a system to ensure that records are not being altered, and the informants doubt that anyone would be interested in altering the *Ludosynthèse* site.³³ The nature of the *Ludosynthèse* is seen as a security measure in itself, or a guarantee of authenticity. According to the informants, the site is protected because they could not see how or why someone would retrieve, modify, and replace an image on the site. Even if this were to occur, a copy of the *Ludosynthèse* exists that would allow for the site to be easily corrected. In this way, the off-line copy of the *Ludosynthèse* is seen as a security measure protecting the authenticity of the project.

Finally, three elements were identified as permanently linking the *Ludosynthèse* with Arbo: the logo, the possibility to recognize an artist in the images, and the credits page. In addition is the contextual information that the images or other electronic tools use to demonstrate the association.

Accuracy

The informants were very concerned with the concept of accuracy, which they saw as a significant part of representation. They want to ensure that “true information” is being diffused, since they are creating an historical site. It was felt that photographs, videos, sound, plans, and texts³⁴ should be very accurate to faithfully represent the past.

Accuracy is guaranteed by having the same people create the *Ludosynthèse* who created the original performances and documents. This also explains why there are no existent standards of selection. During the first interview, we asked if records would be considered authentic if they

³³ This was the only form of modification understood by the informants.

³⁴ The texts mentioned here are those linked to contextual data rather than data linked to the systemic section.

were made by other people, to which the answer was no. The artists, as masters of their art, are the only ones to make decisions regarding content, aesthetics, etc, and so they see no need in establishing specific procedures of creation. It is the choice of records that represent the past that guarantees the accuracy, reliability and authenticity of the *Ludosynthèse*.

Finally, Arbo does not believe that anyone would criticize their records as inaccurate. Firstly, the group has no reason to provide inaccurate information. If any modifications are made, this is a necessary response to certain constraints (primarily technological). As the choice of a record is never definitive, and as several records can serve to represent a certain performance or activity, a record could be replaced in the *Ludosynthèse* to satisfy a complaint from the public.

11. Does the creator think that the authenticity of his digital entities is assured, and if so, why?

Yes, Arbo believes that authenticity is assured. It is important to note that the concept of authenticity related by the artists is more an intellectual concept than a physical one. In other words, the concept of authenticity does not relate to the preservation of an entity's physical integrity, but to a relationship between the entities, the artists, and what they represent.

In fact, if we apply the concepts of InterPARES 2, we can say that the group considers their documents to be reliable because they represent the process of creation and related artistic concepts; that their authenticity is assured but the impossibility of creating fake documents representing a performance; and that their quality is assured by the presence of the same artists throughout the entire creation process. This constant presence is at the heart of Arbo's concept of the relationship between authenticity and their records. Our questions made Arbo more aware of these concepts, and of digital preservation, of which they had not yet thought about.

12. How does the creator use the digital entities under examination?

The artists will actually not make use of the *Ludosynthèse*, as it is created in the spirit of a "pierre tombale" in which the artists should not intervene. In one sense, the *Ludosynthèse* can be compared to a book, that, once published, can serve the author as a point of reference but which is no longer part of a modification or recreation process. It may also be that the group produces a copy of the *Ludosynthèse* on DVD-ROM, so as to deposit it in national libraries and ensure some level of longevity. The artists emphasize that the *Ludosynthèse* is meant to demonstrate the past activities of the group, and not to promote current productions. Arbo has no further use for the *Ludosynthèse*, and once the *Ludosynthèse* is finished, the group is legally dissolving.

The spectator-user can be considered a creator as they will leave traces of their actions in the *Ludosynthèse*.

13. How are changes to the digital entities made and recorded?

For Arbo no modifications are part of a formal process. In fact, the group imagines a point where in the *Ludosynthèse* is complete, and further modifications will be impossible. This again reflects the use of the *Ludosynthèse* as an electronic "pierre tombale" of the group's past activities, and Arbo does not plan to return to finished work.

During the interview, the informants admitted that if a user requested that a photograph be removed, because they do not want to appear on the Internet for example, the group would do so.

This shows that Arbo does in fact envision certain modifications to the *Ludosynthèse* even after its completion. It may be that the group has not yet reflected on the consequences of these remarks, and their solutions will likely be dealt with if and when the situation presents itself.

We also raised the question of the spectator-users participation within the *Ludosynthèse*, as the creation of a performance in the Ludic section can be seen to be a modification. This would be a modification by way of adding content to the database: Arbo had not yet considered these implications. When asked if the group was planning to keep traces of the user performances, they admitted that they had not actually thought of this, but that they would have to consider that situation.

The informants did not seem particularly concerned about modifications being made during the creation process of the *Ludosynthèse*. Backups and multiple copies are created to avoid having to redo any lost work. Normally, the informant replaces previous versions with new information, but at critical stages will make several copies as a security measure. For further security, the group plans on making a copy of the *Ludosynthèse* on DVD-ROM in addition to uploading it to the Université Laval site.

The concept of annotations as a form of modification was unfamiliar to the informant, and they were not seen as anything more than marks on records (rather than evidence of administrative, work or documentary procedures). She did remark that the registration date was used to distinguish between different files (she did not mark the records, but she made use of the dates added automatically by the electronic system).

Because the group is disbanding, no measures have been taken to inform artists of modifications made in the *Ludosynthèse* without their consent. In fact, the informant had not even asked whether the system has any measures of control to ensure a certain level of security.

14. Do external users have access to the digital entities in question? If so, how, and what kinds of uses do they make of the entities?

The spectator-users have access to the *Ludosynthèse* and the capacity to interact and produce performances, but no real power of modification. In this way, the users are participating spectators wherein access to the performance is provided by the Internet. They can directly add information related to their creations to the *Ludosynthèse*'s database without the need of the artists, but this addition will not change the fundamental structure of the *Ludosynthèse*. The spectator-user is limited to creating new records through those already proposed by Arbo. A programmer is assisting the informants in the programming of the *Ludosynthèse*, but the informant has the final approval over all aspects.

At the end of the project, certain people will test the *Ludosynthèse*, but will not have the ability to modify the final product. Their comments might lead to modifications executed by the artists.

15. Are there specific job competencies (or responsibilities) with respect to the creation, maintenance, and/or use of the digital entities? If yes, what are they?

No particular competencies were associated with the creation, maintenance or use of digital entities, but we can see the artists' presence as one form of creative competence.

Arbo has hired a programmer to complete the technical work related to the programming of the *Ludosynthèse*.

The official responsibility for the project is shared between two artists. They are jointly responsible for all aspects of the *Ludosynthèse*, and make decisions regarding it together. Although the archiving, technical work and programming tasks are undertaken by these artists, it is the artist who created the original performance who is charged with the recreation of the performance's concepts for the *Ludosynthèse*.

Since the two artists are the only ones responsible for the *Ludosynthèse*, questions related to the authorization of creation, use, circulation, and access are pointless as all decisions are made together. The records make no mention of responsibility, or need to answer to external expectations, as they will not be controlled by any other authority.

As no task related to the creation of the *Ludosynthèse* derives from a specific competence, the electronic system has no measure to limit access based on job competencies.

16. Are the access rights (to object and/or systems) connected to the job competence of the responsible person? If yes, what are they?

The access rights to objects and systems are not related to job competencies. The group's members and the programmer are the only people that have access: remember that the *Ludosynthèse* is kept at the members' homes, and is not yet online. The only diffusion of the *Ludosynthèse* that we are aware of is our study (we received a proto-type it). Our access rights have not derived from our competencies, but rather our participation in a research project in our capacity of analysis. Once online, access will be granted to spectator-users through Flash, which is also not related to competencies.

17. Among its digital entities, which ones does the creator consider to be records and why?

The informant considers all digital entities created for the *Ludosynthèse* to be archives, as they represent a part of past reality. The informant considered an archive to be something to be preserved for future reference.

During the first interview, it seemed that the members of Arbo had an ambivalent relationship with the electronic documents, as if they were not autonomous records, but only copies of records.

18. Does the creator keep the digital entities that are currently being examined? That is, are these digital entities part of a record keeping system? If so, what are its features?

The members of Arbo want to keep digital entities because they consider them as part of their archives. We were told that there was no selection process to preserve only those of the most permanent value. However, during the interview, the informant listed those records that he felt should be kept, and those that should be destroyed. It is therefore obvious that Arbo has yet to establish standards for selection and preservation of their records. Currently, the choice is made very subjectively, despite the recognition that they play an important role in the group's documentary system. The informant wavers between the preservation of only the final copy of the *Ludosynthèse*, and the preservation of records evidencing of the stages of creation as well. All drafts and Photoshop images have so far been kept, as have rejected digital entities.

We recognized the group's interest in preserving records,³⁵ and Arbo wants to deposit their archives in a proper institution. This would remove the weight of preservation from its shoulders, while ensuring that the records remain accessible. Although long-term preservation was discussed, the group also viewed technological changes as an insurmountable obstacle limiting this, but the informants claimed that these limitations have had no effect on the records chosen to be preserved, as this choice is based not on technology but on the records' intellectual components.

The informants view the *Ludosynthèse* as an autonomous documentary collection, rather than a copy of other records. In this sense, the *Ludosynthèse* has no need for the old analogue or digital records in order to function.

Arbo has no specific electronic record keeping system for the preservation of its digital entities. The migration of records relates only to a change in support, from hard-disk to CD-ROM or DVD-ROM. Once transferred to a CD-ROM or DVD-ROM, the use of entities is accomplished through the same system that created them.³⁶ In fact, they could be read using any computer. The physical control of the documents is ensured because the records rest with the artists and are only accessible to them.

It became apparent during the interview that although this is a closed system, certain external links are necessary for the *Ludosynthèse*. Due to technological (such as storage capacity) and legal reasons, some texts and videos will not be integrated into the *Ludosynthèse*.³⁷ Arbo hopes to place these texts on ADEL (Auteurs Dramatiques En Ligne), which is a virtual library that diffuses and manages the rights of dramatic texts.

The *Ludosynthèse* refers to ADEL. An organization that used to provide a similar service for the diffusion of videos is no longer in operation, and so the *Ludosynthèse* will for now maintain a link with analogue sources. The group also hopes to use the *Ludosynthèse* to promote their videos.

Although the informant did not feel that technology had an impact on the selection of documents for preservation, the *Ludosynthèse* is nonetheless affected by this, as it can only support the diffusion of certain types of documents. Although the preservation selection may rest on intellectual components, it remains that the digitization, diffusion, and inclusion of records in the *Ludosynthèse* rests on criteria linked to technology.

18a. Do the recordkeeping system(s) (or processes) routinely capture all digital entities within the scope of the activity it covers?

That the system was defined from the start as 'manual,' we conclude that there is no routine and automatic capture of entities. The informant must make copies judged necessary for security or preservation requirements. There are no associated procedures or processes with making these copies. At the end of each session, the work is saved on a hard-disk. Copies are also made on CD-ROM.

Due to the nature of the *Ludosynthèse* as a product created with Flash, its interactivity is assured both online and on a DVD format.

³⁵ This interest is shown as we recall that the group tries to keep all records it produces through performances in order to integrate them into future projects, which will in turn produce new records to be subsequently integrated again.

³⁶ Although not verified, we assume that these storage devices are organized by date.

³⁷ This question was previously discussed in questions 4a, 5b and 7.

In regards to the dynamic aspects of the *Ludosynthèse*, remember that the only dynamism possible is the creation of performances by the spectator-users, which will be placed in the database to be consulted and reused by other users. The artists have not yet considered all the changes implicated in transferring the project from CD-ROM to the Internet. They hope to create and launch the site and then not deal with it anymore. During the interview, the artists became aware that the Internet offers many new possibilities of interactivity for the site.

18b. From what applications do the record keeping system(s) inherit or capture the digital entities and the related metadata (e.g. e-mail, tracking systems, workflow systems, office systems, databases, etc.)?

This question does not really apply to Arbo, but it can be said that the documents are influenced by the programs used by the artists, such as Photoshop, Illustrator, or Flash.³⁸ However, the properties gained through these programs have no real significance and therefore cannot be seen to have any real value for the record keeping system.

18c. Are the digital entities organized in a way that reflects the creation processes? What is the schema, if any, for organizing the digital entities?

For the preservation of the *Ludosynthèse* and its interactivity, the entities must be preserved in respect to their organization. For Flash to function properly, the different files must be preserved at the same levels, and make consistent use of the 'nomenclature.' Through the use of the 'nomenclature,' the organization can be seen to reflect the process of creation. However, there is no additional classification schema to facilitate the organization or retrieval of information.

18d. Does the recordkeeping system provide ready access to all relevant digital entities and related metadata?

This question does not really relate to Arbo, as there is no real record keeping system. Access is not direct, because the preservation strategy involves transferring records and placing them on external storage devices. The artists retain complete access to the documents they require as they have absolute control over their documentation. Arbo controls their own entities without any need for particular measures of control. These measures may need to be developed if the records are deposited in an archives. It must be remembered also that the entities can only be read using the specific programs through which they were created.

18e. Does the recordkeeping system document all actions/transactions that take place in the system re: the digital entities? If so, what are the metadata captured?

Again, the lack of a true recordkeeping system makes it difficult to apply this question to Arbo. As the entities are saved on external storage devices, it is impossible to modify them or for the system to document these modifications. The entities must be reloaded onto a computer to be modified, and are then stored again in their new form. This process necessitates the artist's involvement.

³⁸ The complete list of programs used is found in question 4.

For the group, the monitoring of modifications carries the negative concept of control. Control does not seem to be a major concern, and the group cannot see anyone's interest in modifying their work. They see the nature of their activities as a protection from harmful modification done by others (the only situation examined here), and so no specific controls are in place.

19. How does the creator maintain its digital entities through technological change?

For now, there is no strategy for this situation. In fact, several records are already unreadable. The group is ambivalent towards the creation of new digital entities and the safeguarding of the analogue record. Although the *Ludosynthèse* can be seen as a mechanism allowing the group to catch up on technological advances, it is not a solution to the management of records through technological change.

19a. What preservation strategies and/or methods are implemented and how?

Arbo's digital preservation strategy is to keep up with technological evolution, but this plan has not been officially documented and no formal procedures exist. Currently, the focus is on the creation of the *Ludosynthèse* and the elements needed to integrate documents and their content. Analogue records are at the heart of the concern for preservation and their transfer to electronic media has a sense of urgency. The *Ludosynthèse* does not appear to have been thought of in terms of technological evolution. The group is more concerned with digitization as a means of diffusion.

The informant sees digitization as a better means of preservation than the traditional recordkeeping system, but acknowledges that the group feels "at the mercy of technology." The use of commercial applications is seen as an additional safeguard, as they will be compatible with new versions that emerge.

We asked if the group had already experienced difficulties in retrieving digital entities due to technological change. The informant quickly interpreted "retrieval" to mean the ability to read the records. So far, there were no significant reported problems with either analogue or digital entities. Many digital entities are further safeguarded through the creation of an analogue copy, where the informant considered the content to be preserved. It seems therefore that a return from digital to analogue may become a preservation strategy for the group.

19b. Are these strategies or methods determined by the type of digital entities (in a technical sense) or by other criteria? If the latter, what criteria?

As mentioned above, Arbo has no official recordkeeping system, but the nature of the group's preservation rests on the record's form (video, sound, etc). Once all records are made digital, this question will have to be re-visited.

20. To what extent do policies, procedures, and standards currently control records creation, maintenance, preservation, and use in the context of the creator's activity? Do these policies, procedures, and standards need to be modified or augmented?

There are no professional standards, models, or policies that Arbo must comply with in terms of the creation, maintenance, preservation and use of digital entities. The capabilities of computer programs do impact how records are created, but these cannot be regarded as standards.

The informant's response shows that the group is more preoccupied by the control over the use of the *Ludosynthèse* from the user's point of view rather than controlling the artists' use. Again, Arbo does not feel that questions of policy really affect them, as the freedom and autonomy of the artists should override any established constraints.

21. What legal, moral (e.g. control over artistic expression) or ethical obligations, concerns or issues exist regarding the creation, maintenance, preservation and use of the records in the context of the creator's activities?

During the interviews, we touched upon several laws that apply to the activities of Arbo, but few of these had profound impacts on the creation and preservation of the *Ludosynthèse*.

Copyright issues are important consideration. From the start, Arbo knew that they might have problems using videos of past performances. The Union des Artistes (UDA) have strict regulations concerning artists remunerations for images, and the group originally thought they may need to either limit the length of the video clips, or renew contracts with each artists for inclusion on the *Ludosynthèse*; however, the UDA has no specific requirements concerning the use of video on the Internet beyond asking the artist for permission. The informant felt less concerned with preserving the rights of privacy and access, and more concerned with copyright. He claims not to collect personal information or publish the names of speakers in either their publicity material or on the Internet. In fact, Arbo tends to provide anonymity in their documentation. For example, donors are only named with their permission. In contrast, the use of clips of "journées-videos" may prove contentious, as it is not the artist, but their 'view' that is filmed, likely including people who may not want to be on the Internet.

Nevertheless, Arbo has established a formula, based primarily on common sense, to avoid legal problems and work ethically. For example, prior to using nude footage of an artist, this artist must grant permission for the image to go on the Internet. Other images are modified so that the audience cannot be identified. Some images are simply not used due to their potential for permission difficulties. The lack of standards, however, allows the group to use less contentious images with the condition that if any complaints are received, the image in question will be removed.

Copyright equally affects the *Ludosynthèse*. Arbo has not, however, developed specific guidelines related for this situation. The artists do not seem interested in any measures beyond those recommended by the group's lawyer, which include a Copyright warning on the main page. The informant seemed more interested in these issues after considering our questions.

22. What descriptive or other metadata schema or standards are currently being used in the creation, maintenance, use, and preservation of the record keeping system or environment being studied?

From the start, the concept of standards signified nothing to the informant. We then provided examples of the metadata that can be captured through computer programs; the informant did not know of the existence of these possibilities.

The informant did, however, immediately remark on the similarities between these properties and the notes she associates with the FLA files in Flash. Flash allows for notes in a “grey-zone” that are inaccessible to users. They are used as memory aids, and no specific data is required. Furthermore, the notes deal with content, as opposed to date, time, author, etc., and are in the programming function to record finished work. In this sense, this information does not relate to the description or management of digital entities.

These “grey-zones” also fail to capture information concerning the records themselves. The informant also did not see the use in identifying metadata.

Once we tied metadata to the concept of authenticity, the informant had a better idea of the use of metadata. The informant had no knowledge of the information that can be captured in digital images. The only data attached to these images was that created automatically by the computer at the moment of creation and saving files. The informant became aware of the potential use of this information as it is currently the artists’ memories that fill out these gaps, and the loss of this knowledge would have a profound effect on the digital records. There is no mention of Arbo in relation to these records. The introduction of these concepts made the informant aware of the importance and use of metadata, and when examining the list of metadata possible in Photoshop, she immediately saw the benefit of Arbo’s use of several fields, such as Copyright information.

We can conclude that the information contained in the “grey-zone” is data being used in the creation process of the *Ludosynthèse*.

23. What is the source of these descriptive or other metadata schema or standards (institutional convention, professional body, international standard, individual practice, etc.)?

The question does not apply to Arbo, as they do not use any descriptive or metadata standards. The “grey-zones” list information, but are not standardized. We can thus say that the group makes use of individual practices that relate to the functional and technological needs of the *Ludosynthèse*. If Arbo decides to enter digital information, these properties will be limited to the programs’ capabilities.

Conclusion: What potential problems do you foresee in the long-term preservation of your electronic documents?

At the end of our final interview, we wanted to explicitly ask how the informant envisions the future of the preservation of the *Ludosynthèse*. The principal concern was “storage,” in the sense of perennial preservation. The informant thought that a good solution would be to send the *Ludosynthèse* to an organization specializing in preservation. The group does not want to maintain a (physical) link to the site, but rather leave preservation up to an external organization or institution.

E. Narrative Answers to Applicable Domain and Cross-domain Research Questions

Remarks

Before answering these questions, it is important to mention that the *Inquiry Plan* and *Questionnaire*, along with the listening guides for the interviews, are available for retracing the subjects and questions addressed in the interviews. By referring to these, it is possible to access all the information considered pertinent for further research. The *Inquiry Plan* allows one to target specific subjects in the *Interview listening guides 1a, 1b, and 1c*. Answers are summarized in the Content section, and can be listened to on the audio tape.

Through the *Questionnaire agrege*, it is possible to locate the InterPARES questions addressed in the Interview 2a. The questionnaire also identifies the Domain and Cross-domain questions that were considered applicable to our study. After locating a question in the questionnaire, you must reference the *Guide d'ecoute de l'entrevue 2a* to read a summary answer. Timing allows for easy reference on the audio tape.

In the following answers, we have added in brackets numbers corresponding to the 23 questions, and those of our questionnaire, i.e., [23Q13/6.4]

Domain 1

1.1 (a) What types of documents are traditionally made or received and set aside (that is, created) in the course of artistic, scientific, and governmental activities that are expected to be carried out on-line? (b) For what purposes? (c) What types of documents are currently being created to accomplish those same activities? (d) Have the purposes for which these documents are created changed?

This question supposed a parallel between traditional and electronic activities, which is not the case for Arbo. The *Ludosynthèse* is a new activity that is not making use of the creation processes used in traditional documents.

- (a) In their original performances, Arbo created different records such as photographs, sound recordings, and video. Some of these will be digitized and included in the *Ludosynthèse*. [23Q4 / 3.1.1]
- (b) These will be integrated to enrich the *Ludosynthèse*, either as witnesses to the past, or as performance material to be used by spectator-users. They will form a new digital memory for the group.
- (c) and (d) These questions do not apply, as the *Ludosynthèse* is comprised of different activities. The *Ludosynthèse* instead represents the original performances. New documents will be made through the completion of gaps in original documents, and to support the system.

1.2 (a) What are the nature and the characteristics of the traditional process of document creation in each activity? (b) Have they been altered by the use of digital technology and, if yes, how?

- (a) and (b) This question does not apply as the activities are not being repeated, and the analogue activity is not being transformed into a digital activity. Arbo is interested in demonstrating work processes by allowing spectator-users to create their own performances. However, this does not allow for the re-creation of original processes; it offers the users instead a re-interpretation in which they can understand the actions of the past.

Further information can be found in the Model, and in studying certain answers in the report. [23Q6 / 4.2.1 to 4.2.6]

1.3 (a) What are the formal elements and attributes of the documents generated by these processes in both a traditional and a digital environment? (b) What is the function of each element and the significance of each attribute? (c) Specifically, what is the manifestation of authorship in the records of each activity and its implications for the exercise of intellectual property rights and the attribution of responsibilities?

- (a) The question of attributes was not conclusive, as the informants did not provide contextual information about their digital documents. What was essential for them was linking these documents to the past. For Arbo, a digital photograph has no digital value; its only value is in the representation of the past, such as the date and place of the original performance. Our questions, however, allowed the informants to see the importance of treating digital documents as records in their own right, requiring a minimum of context and attention. [see also 23Q4a / 3.1.2 to 3.1.4]

(b) [see 23Q4a / 3.1.2 to 3.1.4]

- (c) Arbo is placing its logo on each page of the *Ludosynthèse*, and has created a credits page where all the participants are mentioned. The documents within the *Ludosynthèse*, however, do not have signatures or marks to identify the group. Only the relationship of individual records to the whole identifies records as belonging to Arbo.

1.4 Does the definition of a record adopted by InterPARES 1 apply to all or part of the documents generated by these processes? (b) If yes, given the different manifestations of the record's nature in such documents, how do we recognize and demonstrate the necessary components that the definition identifies? (c) If not, is it possible to change the definition maintaining theoretical consistency in the identification of documents as records across the spectrum of human activities? (d) In other words, should we be looking at other factors that make of a document a record than those that diplomatics and archival science have considered so far?

To answer this question, please refer to 23Q3 (a to f) / 3.1 to 3.5; 23Q13, 6.5 and 23Q10 and 11 / 8.1.1 to 8.3.6

1.7 (a) *How do record creators traditionally determine the retention of their records and implement this determination in the context of each activity?* (b) *How do record retention decisions and practices differ for individual and institutional creators?* (c) *How has the use of digital technology affected their decisions and practices?*

- (a) Members of Arbo have no defined selection criteria, and instead keep everything. Some activities require the preservation of documents to reintegrate them in subsequent performances. It was apparent, however, that a “natural selection” made the process subjective. The absence of criteria results in no real established standard in place for preservation.
- (b) The question is harder to consider in relation to the *Ludosynthèse* where selection is made for documents that will be digitized and integrated. Once a document is digitized, drafts can be thrown out. Subjectivity is again what guides the choice for documents.
- (c) It was not apparent that the use of technology modified Arbo’s selection of documents. Subjectivity remained the most important factor in guiding the selection of records for the creation of the *Ludosynthèse*. [23Q18 / 9.4]

Domain 2

2.1 (a) *What does record reliability mean in the context of artistic, scientific and government activities?* (b) *To what extent can the electronic records created in the course of each type of activity be considered reliable and why?* (c) *What requirements on their form and controls on their creation would make us presume that they are reliable?*

2.2 (a) *What does the record accuracy mean in the context of each activity?* (b) *To what extent can the electronic records created in the course of each activity be considered accurate and why?* (c) *What controls on their creation would make us presume that these records are accurate?*

2.3 (a) *What does authenticity mean in the context of each activity?* (b) *To what extent is the definition of record authenticity adopted by InterPARES 1 relevant to the records resulting from each type of activity and from the use of increasingly complex digital technology?*

2.4 (a) *On what basis can the records created in the course of each activity be presumed authentic?* (b) *How, in the absence of such a presumption, can their authenticity be verified?*

For the Domain 2 questions 2.1 to 2.4, we returned directly to the answers we received in the course of the interviews: see [23Q4 / 3.1.2 and 3.1.3 and 23Q10 and 11 / 8.0 to 8.3.6].

Here are brief summaries of these answers:

- 2.1(a) In the case of the *Ludosynthèse*, the concepts of reliability, authenticity and accuracy are considered by Arbo as concepts of ‘representativity.’ It is important that the electronic records represent the past; they have no value simply as electronic records.

- 2.1(b) The members feel that their records are reliable, authentic and accurate because the artist is involved in all stages of their production; the artists therefore ‘certify’ or ‘assure’ that the records correctly represent the past activity.
- 2.1(c) There are no requirements on form or control on creation that would allow us to presume a record’s reliability. The actions and choices made by the artists are the only guarantee.
- 2.2 (a) and (b) Accuracy is the most closely related to the group’s concept of ‘representativity.’ As they want the *Ludosynthèse* to represent the past, the records and information chosen for inclusion must be accurate. See also 2.1a and b.
- 2.2 (c) There are no controls on creation that can be used to infer a record’s accuracy.
- 2.3 (a) See 2.1a
- 2.3 (b) This is a difficult question, as the original records are seen as belonging to the original performance, even if new records are made from these for inclusion in the *Ludosynthèse*. Although Arbo recognizes that they are re-presenting past performances, it is difficult to see the *Ludosynthèse* as a public performance. At the time of the interviews, the concepts of authenticity, original, etc. related exclusively to the past.
- 2.4 (a) The artist’s presence guarantees authenticity. They do not see how the corruption of records is possible, or what anyone’s motivations would be to do so. See 2.1b.
- 2.4 (b) No other structure is in place from which to presume the authenticity of the records beyond the presence of the artists.

2.8 What would be the consequence of issuing guidelines for record creation on the nature of the records of each activity?

In the artistic context, the use of guidelines for the creation of documents could limit creative activities. Guidelines must not limit artistic freedom; if they do, they will likely not be followed.

2.10 What technological and intellectual tools would assist creators to generate records that can be authentically preserved over time?

For now, the artists must take into account the characteristics of digital records, and consider, treat and manage them as they would traditional records. The completion of metadata fields could be one way to ensure the collection of a minimum level of information. This metadata should remain simple in order for its routine collection.

2.11 What legal or moral obligations exist regarding the creation, use and preservation of the records under investigation?

See 23Q21 / 13.3 and 13.4.

Domain 2 – February 2003 (slightly edited by J. Roeder)

1. After you publish your [work], let's say drafts, notes, letters or other things are left over. Do you want them to survive intact as long as your [work] lasts?

Arbo hopes that its draft documents will be preserved along with the troupe's work. [23Q17 and 18 / 9.1 to 9.5]

2. Let's call these drafts, etc. that you want to survive 'records' for short. Do you label or mark them in any way to show that they are yours?

Some records are marked with the Arbo logo. The *Ludosynthèse* will be labelled in several ways. There will be no signature, but a credits page is envisioned to make reference to the records in the *Ludosynthèse* and their links to the past. Drafts as such are not marked in anyway. [23Q10 / 8.1.4]

3. If someone damages your 'records' in saving them, or if you left mistakes in them, would you want those damages or errors noted?

According to the informants, this question does not apply. Their records cannot be damaged or contain errors; this is guaranteed by copies made expressly for security purposes. [See 23Q10 / 8.2.7]

4. Are reliable, authentic, and accurate the same thing?

Yes, these notions are the same for the informants, and relate to the group's concept of 'representativity.' [23Q10 / 8.0 to 8.3]

5. Does anyone need to give you permission or authority to create records? Do you have some official capacity that gives your work/records a credibility that would be lacking in the work of someone without such capacity?

There is no permission or authority required to create records. The artists create their work, and their qualification comes from experience. In this sense, since the artists create the original performances, they are in the best position to create the *Ludosynthèse*. [23Q15 / 7.4 and 7.8]

6. Does your work follow rules that are laid down by someone else? Do you need authorization to carry out your activity? What is the status of a document that was made in breach of these rules?

No, the artist's documents do not follow fixed rules established by someone else. [23Q15 / 7.7]

7. Is it important for you to follow a specific procedure in creating a work/records? Is there something distinctive about how you create a work/records that distinguishes it from other people's works of a similar nature? Are there steps that you go through that influence the final product in such a way that skipping a step would be noticeable?

There is no fixed procedure to follow in creating records or the *Ludosynthèse*. Certain steps must be taken in a logical order, but this does not relate to a record's authenticity. For example, drafts are created before final products.

Flash imposes programming procedures related to its use of 'layers.' Pre-programming steps must be taken, and the use of the 'nomenclature' is necessary for the proper functioning of the *Ludosynthèse*.

We can say that procedures are followed when repetitive tasks are accumulated to reduce the risk of error and work time. These procedures, however, have no effect on the record's value, and no link with authenticity, reliability and accuracy.

These procedures do not distinguish the work of Arbo's from other groups. They are created through the use of computer programs. What that belongs to the group is the aesthetic material. [23Q6 / 4.2.2, 4.2.4 and 4.2.5]

8. Does the document/work/record reflect your activity? How do you evaluate this? How does this influence the status of the document/work/record?

The records do not reflect the electronic creation process. In the context of the creation of the *Ludosynthèse*, it is the analogue record representing the original performance that is evaluated. The traces of electronic production are erased in favour of a constant relation to the past. [23Q10 / 8.1.6]

9. Are there professional standards or best practices that you rely on to ensure that your work/records is acceptable by your colleagues?

There are no professional standards or models that Arbo makes use of. In contrast, the members are constantly seeking to push the limits of their discipline. [23Q20 / 13.2]

10. How do you know when your work/records is finished? That is has enough information to meet the goals for which the work was created? [or] What do you consider the definitive version of your work? Why?

A record is finished when it answers what was it aimed to answer in the conception of the *Ludosynthèse*, and especially when it corresponds to the artists' ideas (for example, from an aesthetic point of view). [23Q10 / 8.1.2]

11. Does anyone ever critique or audit your work/records? What standards do they use to evaluate your work/records?

No one critiques or audits the electronic work of the group through standards or norms. An artistic criticism may one day be made of the *Ludosynthèse*, but this would be a critique of the artistic value, and not of record production. [23Q15 / 7.10]

12. Which aspects of your work/records are influenced by accuracy? What does it mean to describe your work/records as accurate?

The informant was very concerned with accuracy, as it relates to ‘representativity.’ Since the *Ludosynthèse* is an historical site documenting Arbo’s past activity, information must be accurate to reflect this. [23Q10 / 8.3.1]

13. What is the relationship of your work /records to “reality”? To what extent is it important that any facts in your work/records be accurate? How would one assess the truthfulness of your work/records?

See the previous answer.

There is no particular method to analyze the ‘reality’ of information (except for researching certain elements in the newspaper, such as dates, etc). Again, the artists are seen at the heart of the process, thus negating the need for a method to assess truthfulness. Equally, the informants did not see an interest in modifying facts related to original performances. [23Q10 / 8.3.1 to 8.3.3]

14. Would it be possible for someone to criticize your work/records as inaccurate? How might someone correct your work/records?

According to the informant, this is impossible. “Accuracy is not about showing who was there at a particular moment or performance, but showing the general attitude of the audience during the performance.” The work itself cannot be criticized; the artists create a work in writing their history. Only artistic and aesthetic criticisms are possible. [23Q10 / 8.3.5]

15. Does it matter to you if your work/records might contain an error?

To the informants, it is impossible that their work contains errors. [23Q10]

16. How would someone verify your work/records? How would they be able to tell that it is by you? That is was created (at least roughly) at the time that it is dated?

All the Interfaces on the site will be marked with a logo (made through an added transparency). The records integrated into the Interface will not be ‘signed.’ If dates are visible, they will be those associated to the past. The *Ludosynthèse*’s date of creation will be found somewhere on the site. [23Q10 / 8.1.3 and 8.1.5]

17. In 100 years, how would someone know that a work/record is yours? Does this matter, and in what sense?

The logo will link the *Ludosynthèse* to Arbo, and actors will be recognizable in photographs and video clips. There will also be a credits page and a list of participants for each performance. Contextual information will thus be provided, but not in relation to specific records.

The artists have not yet thought about what will happen in 100 years. The *Ludosynthèse* is considered a means to give new life to records that would otherwise be forgotten. [23Q10 / 8.2.8]

18. How would someone know that one of your works/records has not yet been altered over time? That is remains true to the form and content in which you created it? What is the status of a document/work/record that has been altered?

There is no method in place to guarantee that a record has not been altered over time. The nature of artistic work (the artists cannot imagine anyone having an interest in modifying their records) and the use of Flash (where making copies is not possible) are seen by the informants as guarantees that the record will not be altered. Furthermore, off-line copies could be used to put a non-altered *Ludosynthèse* back on line. [23Q10 / 8.2.6]

19. Do you take measures to ensure that your work/records are not altered over time, or that you can detect any changes (intentional or environmental)?

The informants claim to make use of no such measures. [23Q10 / 8.2.3 (Pos 41)]

Domain 3

3.1 How do the appraisal concepts, methods and models developed by InterPARES 1 for the administrative and legal records created in databases and document management systems apply to the appraisal of the records of artistic, scientific and government activities resulting from the use of the technology examined by InterPARES 2?

3.2 How do the preservation concepts, methods and models developed by InterPARES 1 for the administrative and legal records created in databases and document management systems apply to the preservation of the records of artistic, scientific, and government activities resulting from the use of the technologies examined by InterPARES 2?

3.3 (a) What preservation paradigms can be applied across activities and technologies? (b) What preservation paradigms are required for specific types of records resulting from each activity?

For general answers to these questions, please refer to 23Q17 and 18 (a to e) / 9.1 to 9.7 and 10.1.1 to 10.5.3 and 23Q19 (a and b) / 12.1 to 12.4.

The *Ludosynthèse* is itself a documentary conservation strategy effectuated through electronic media. This case study allowed us to observe how the creator selects and preserves material. These archival functions are influenced by the nature of Arbo and its activities. The characteristics inherent in artistic work seem to contrast with those of bureaucratic systems, as selection and preservation rely mainly on the artist's subjective choices.

The artists have not yet thought of the future of the *Ludosynthèse*. They are creating their 'memory' through the use of records related to past performances. The *Ludosynthèse* can thus be seen as a support for the migration of records. The activities resulting from this, however, are not a pre-occupation for the group, even though they feel at the mercy of technology.

Policy Cross-domain

4.1 (a) To what extent do policies, procedures, and standards currently control records creation, maintenance, preservation and use in each focus area? (b) Do the policies, procedures, and standards need to be modified or augmented?

There are no policies, procedures or standards that control the creation, maintenance, preservation or use of Arbo records.

4.4 What legal or moral obligations exist regarding the creation, maintenance, preservation, and use of the records of artistic and scientific activities?

Legal obligations involved in the electronic creation of the *Ludosynthèse* are minimal. The only obligation is to protect copyright. An informal ethical code of conduct has been developed by the members of the troupe, which relies primarily on the artists' common sense to avoid legal problems. [23Q21 / 13.3 and 13.4]

4.5 (a) What principles should guide the formulation of policies, strategies and standards related to the creation of reliable, accurate and authentic records in the digital environments under investigation? (b) What principles should guide the formation of policies, strategies and standards related to the appraisal of these records?

(a) The *Ludosynthèse* is primarily an object of commemoration. The artists must be aware that electronic work, although not making use of traditional methods or media, involves the collection of contextual information for the future understanding of records. It is important for the group to have a concept of the future of the *Ludosynthèse* before they begin its construction, and must be conscious of how they will take care of the *Ludosynthèse* through time. Without this, the salvage process will be a perpetual one.

(b) The selection process is subjective and instinctive. Specific principles are difficult to identify.

4.6 What principles should guide the formulation of policies, strategies and standards related to the long-term preservation of those records?

The informants have no established preservation methods, and are constantly in a state of urgency. It is important for them to follow technological evolution to avoid the loss of information or records.

Description Cross-domain

General answers to this question can be found in 21Q22 and 23 /11.1 – 11.3.

6.1 What is the role of descriptive schemes and instruments in records creation, control, maintenance, appraisal, preservation, and use in traditional recordkeeping systems in the three focus areas?

6.2 (a) What is the role of descriptive schemas and instruments in records creation, control, maintenance, appraisal, preservation, and use in emerging recordkeeping systems in digital and web-based environments in the three focus areas? (b) Do new tools need to be developed, and if so, what should they be? (c) If not, should present instruments be broadened, enriched, adapted?

6.3 What is the role of descriptive schemas and instruments in addressing reliability, accuracy and authenticity requirements (including InterPARES 1 Benchmark and Baseline Authenticity Requirements) concerning the records investigated by InterPARES 2?

The interviews made clear that description plays a secondary role in comparison to the creation or exploitation of records.

A first type of description appears with the ordering of records that took place before the realization of the *Ludosynthèse*. The description here is done within a database that assembles information about each original performance by the group. In other words, it consists of an inventory that permits for the retrieval of information or records relating to certain performances.

A second type of description occurs in the programming phase. Within Flash, “grey-zones” exist for recording information that is not visible to the spectator-user. Arbo uses these spaces to include information about the layout, colour, contents, etc. of the various Interfaces of the *Ludosynthèse*. This practice has resulted from technical problems in which work had to be re-done.

It is important to note that the properties of the records (video, sound, images, etc.) are not consciously recorded. No information is thus registered in a voluntary manner, and the informants have no knowledge of the existence of these properties. They quickly, however, understood their importance, especially in relation to Copyright. In this sense, description may eventually permit the members of Arbo to manage their copyright issues.

6.4 What is the role of descriptive schemas and instruments in archival processes concerned with the long-term preservation of the records in question?

Arbo is interested in creating a memorial object that gives new life to almost forgotten records. The group has yet to deal with long term preservation. The group thus does not see the use for description within this domain; the interviews, however, allowed the informants to begin to see the problem with this approach.

At the end of the interviews, description was still seen by the informants as an 'extra' that could be filled in, but was not essential. The artists fill in information they find particularly important, such as Copyright information, without compiling an exhaustive list of information for each record.

6.7 (a) To what extent do existing descriptive schemas and instruments used in the sectors concerned with the focus areas addressed by this project (for example, the geo-spatial data community) support and inform requirements such as those developed by InterPARES 1? (b) Will they need to be modified to enable these sectors to meet these requirements, or will new ones need to be developed? (c) If so, what should they be?

- (a) There are no descriptive schemas or other instruments in the artistic area that can be used by the artists in the creation of their original or electronic works.
- (b) It seems that a set of descriptive tools related to artistic needs can be envisioned. The interviews, however, did not allow us to identify the needs of the artists in relation to this, and the artists themselves do not seem to know their own particular needs.

6.9 What is the role of descriptive schemas and instruments in rights management and in identifying and tracking records components, versions, expressions, performances, and other manifestations, and derivative works?

As mentioned above, there are no descriptive schemas or instruments used by Arbo, but our questions incited interest about these in the informants. It seems that these schemas could be useful for the group for rights management, but the nature of the electronic work did not allow us to further explore this question.

6.10 (a) Is it important to be able to relate the record of artistic and scientific activity to the associated expression, performance, product, work, or other manifestation of it, (b) and, if so, in what ways can descriptive activities facilitate it?

- (a) For Arbo it is essential to link the past and the present through chosen records, which become traces of original performances integrated into an electronic object. The records must relate to their performance in order not to lose their meaning.
- (b) It could be conceived that two series of data be used to describe the records. A first could link the record to the activities of the past, while a second could relate to the present, primarily digital work. This division can seem obvious to archivists, but contributes to the artists' confused understanding of the notions of authenticity, reliability, and accuracy.

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G. Glossary of Terms

As the case study was researched in French, certain InterPARES 2 concepts and archival terms were difficult to translate.

LUDOSYNTHÈSE: Internet site having the goal of: (1) working as a witness to Arbo's past performances (?) and philosophy, and (2) permitting a spectator-user to participate and recreate performances through the use of digital media.

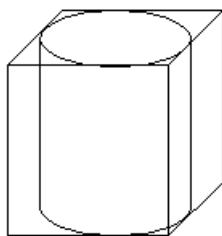
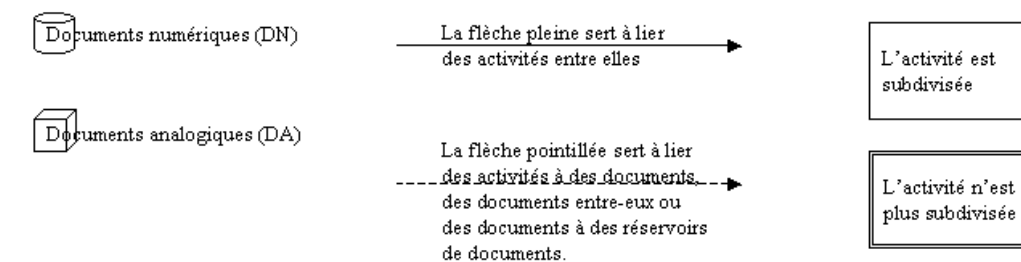
NOMENCLATURE: Codification system created by Arbo to name their digital records. A unique title (code) allows for identifying the position of the record within the *Ludosynthèse* (section), the original performance to which they are related, and their content.

REPRESENTATIVITY: This term was used to illuminate the concepts of authenticity, reliability and accuracy, as they did not relate to concepts understood by Arbo. *Representativity* is the capacity of records to illustrate the original artistic performances they relate to. This concept is closely linked to the selection of records for inclusion within the *Ludosynthèse*.

SPECTATOR-USER: This term was created to distinguish between a spectator of an original performance, and a spectator/visitor/user of the *Ludosynthèse*. It attempts to define the artistic concept developed in the *Ludosynthèse* tying electronic participation to artistic events.

H. Preliminary Model

Symboles et commentaires



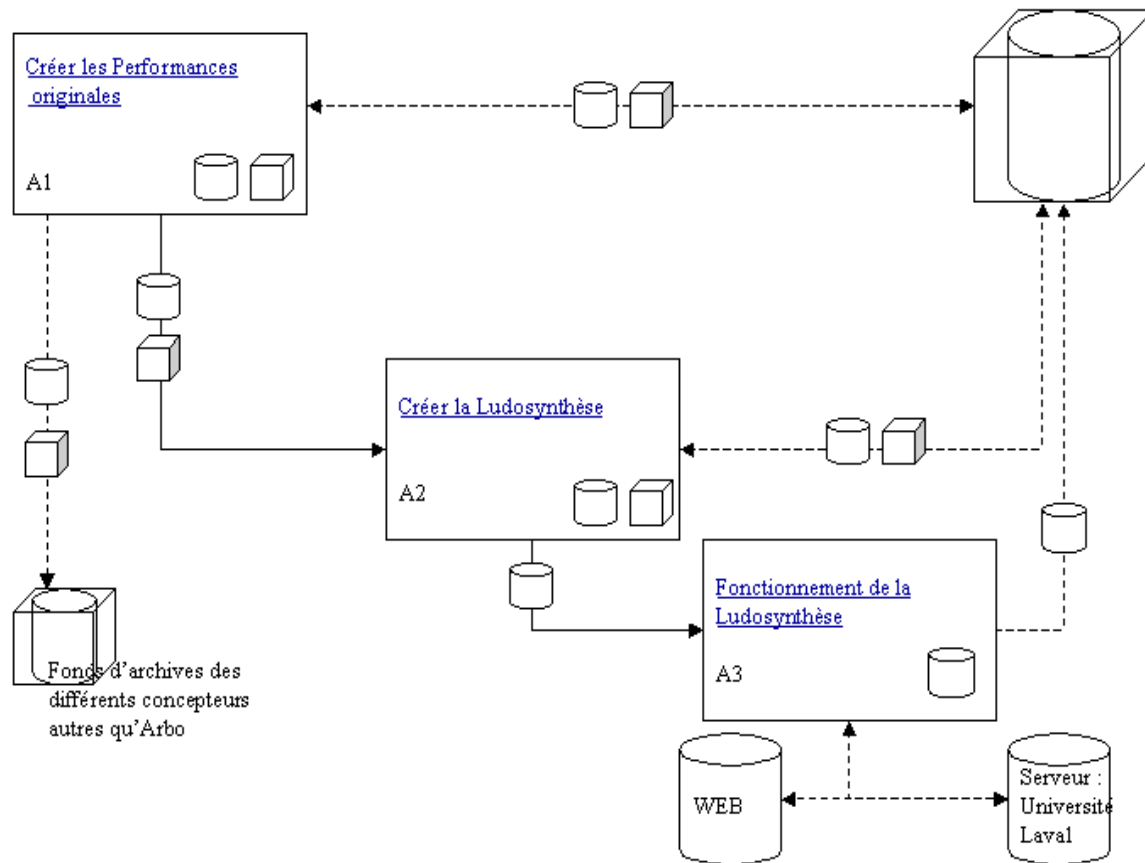
Ce symbole (un cube enfermant un cylindre) désigne le réservoir des documents d'Arbo, la masse documentaire créée dans le déroulement normal des activités de la troupe. Ce réservoir (ou «fonds d'archives») contient des documents analogiques et numériques, actifs ou destinés à une conservation à long terme.

La troupe n'effectue pas vraiment de gestion documentaire. Les membres d'Arbo disent tout conserver indistinctement. Enfin, dans sa production documentaire, Arbo imprime généralement tout ses documents numériques (textuels), afin d'en conserver une copie papier à laquelle il sera toujours possible de référer.

Lorsque ce symbole désigne le «fonds d'archives» d'une entité autre qu'Arbo, nous l'avons indiqué.

A0

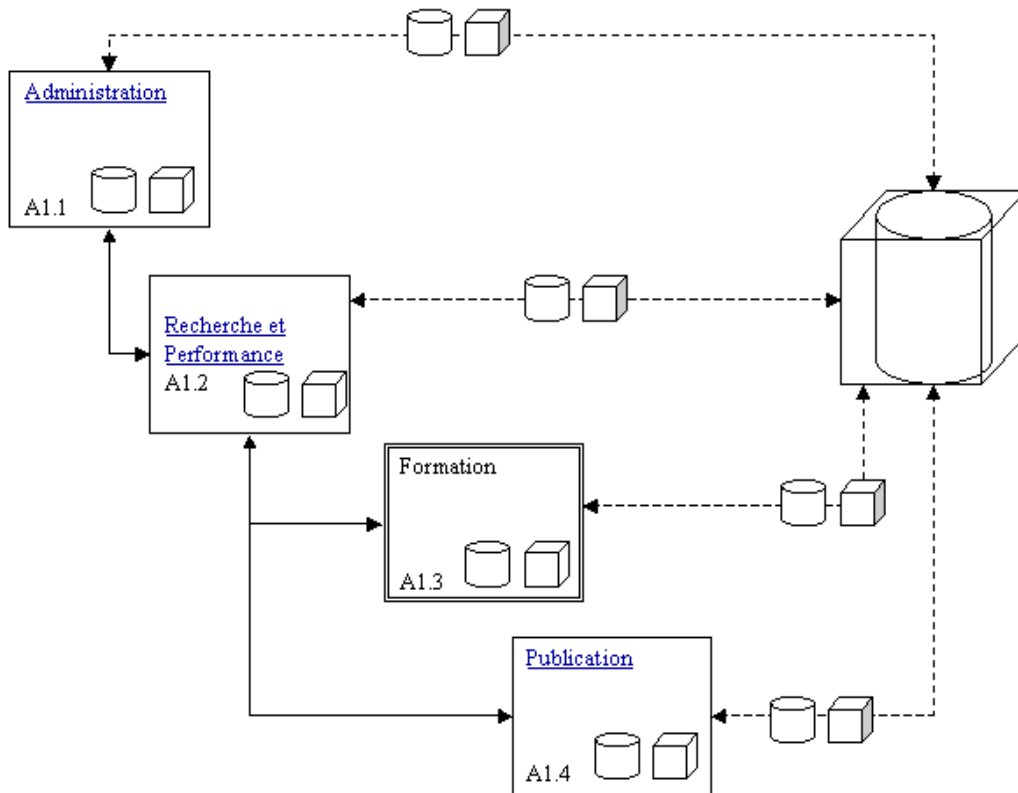
Activités d'Arbo Cyber, théâtre (?)



A1	Créer les performances originales	Activités réalisées par Arbo pour la création de spectacles devant public. Arbo a mis fin à ces activités.
A2	Créer la Ludosynthèse	Activités de création de la <i>Ludosynthèse</i> . Arbo réalise actuellement ce projet.
A3	Fonctionnement de la Ludosynthèse	Utilisation de la <i>Ludosynthèse</i> par des spectateurs-usagers. Arbo veut poursuivre son action uniquement par le biais de ces activités.

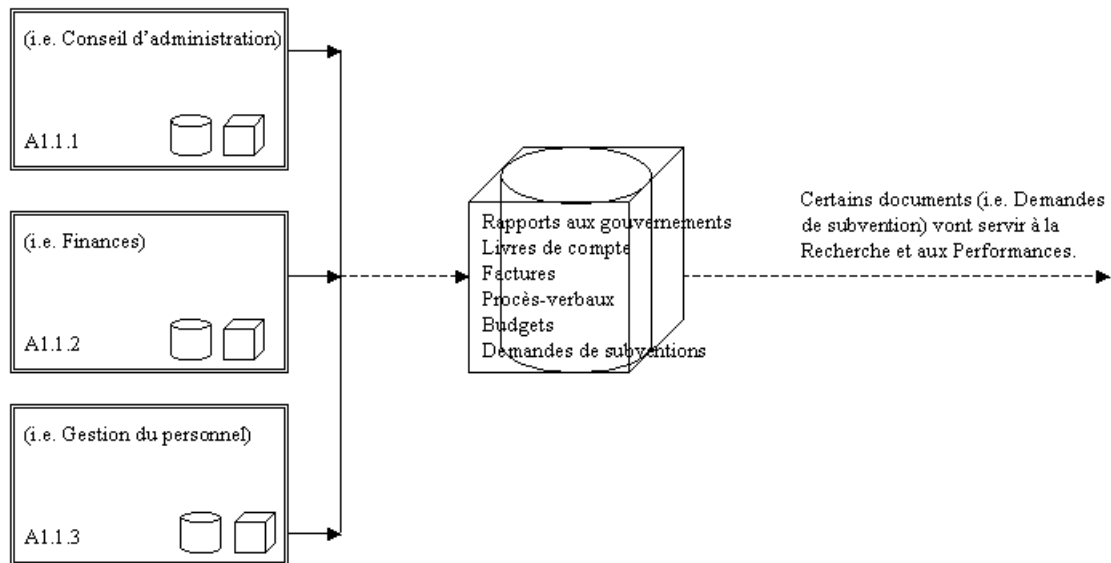
A1

Créer les Performances originales

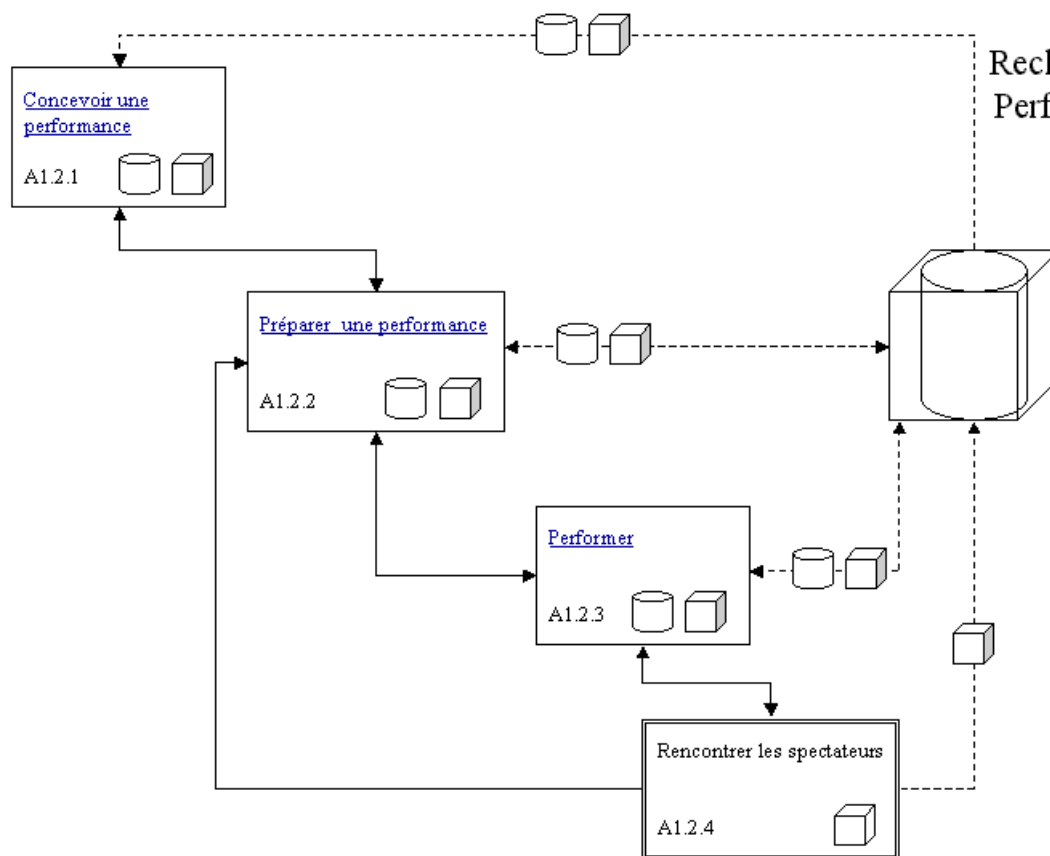


A1.1	Administration	Activités administratives générées par la création des spectacles.
A1.2	Recherche et Performances	Activités «artistiques» sous-tendant la production des spectacles.
A1.3	<u>Formation</u>	Activités pédagogiques: conférences, rencontres dans les écoles, activité à la bibliothèque à Halloween, etc. Comme tenu de sa diversité, il est difficile ne schématiser plus en détail le processus de cette fonction.
A1.4	Publication	Publication produites par les activités d'Arbo

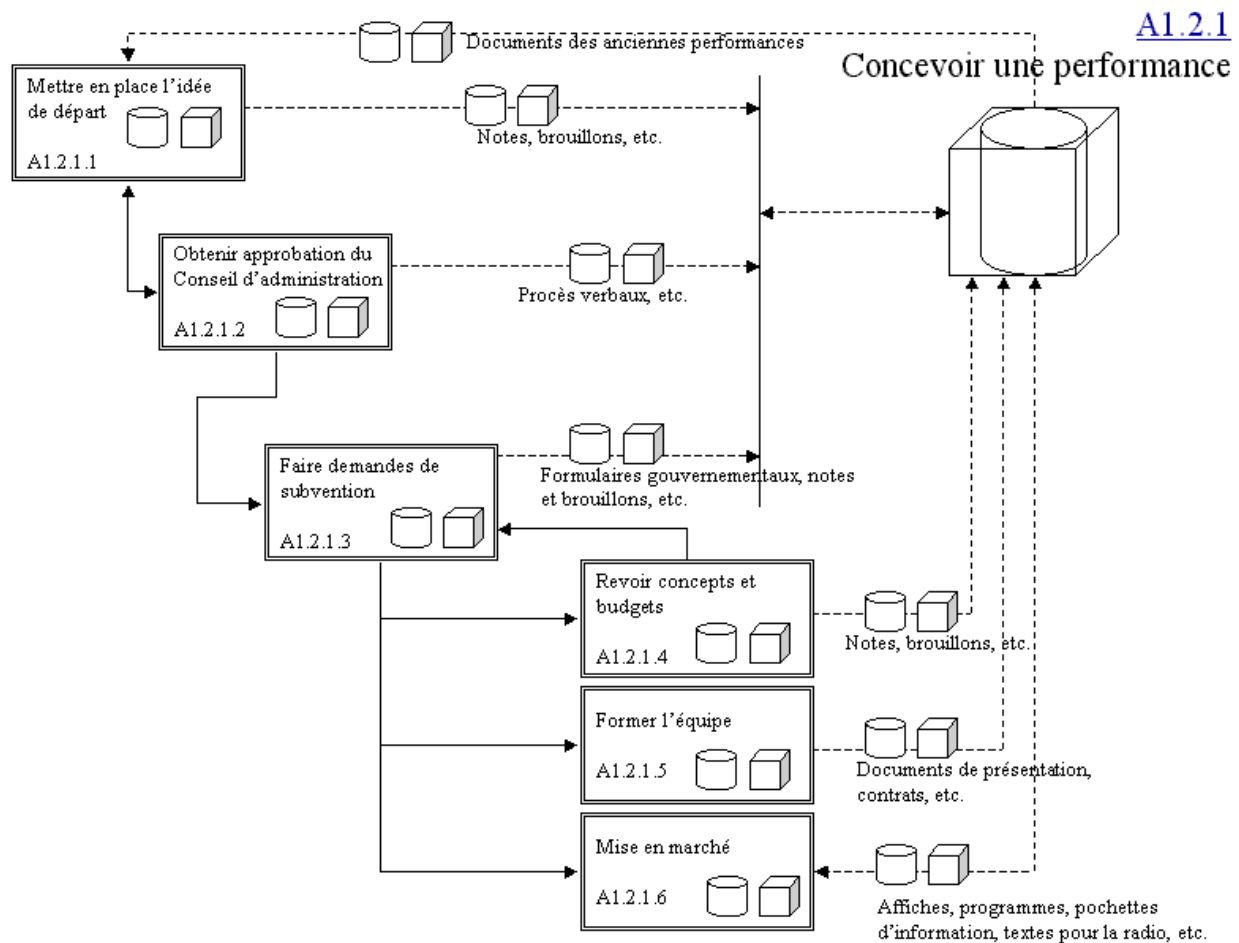
A1.1 Administration



A1.2 Recherche et Performance

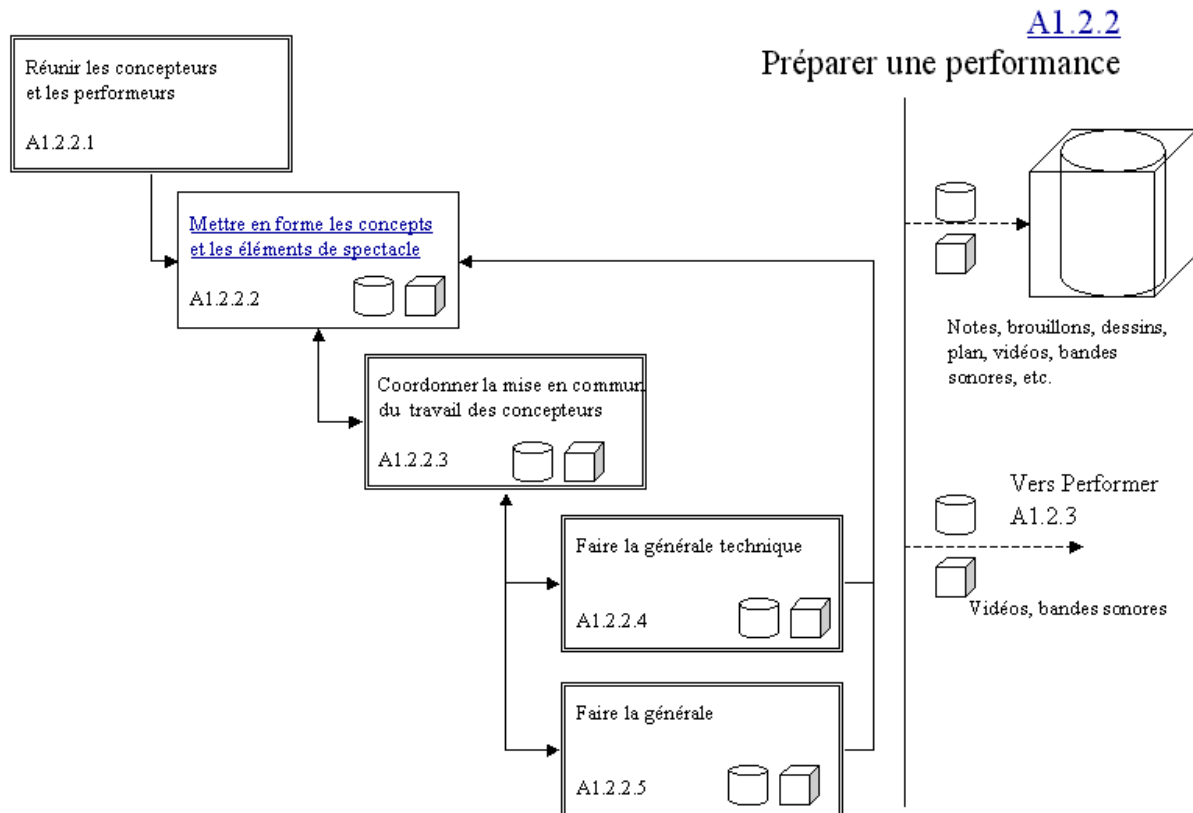


A1.2.1	Concevoir une performance	Activités servant à mettre en place la structure de production des spectacles.
A1.2.2	Préparer une performance	Préparation «artistique» des spectacles (répétitions, création bandes sonores, etc.)
A1.2.3	Performer	Création du spectacle devant public.
A1.2.4	Rencontrer les spectateurs	Après une représentation, les artistes et les spectateurs échangent sur leur expérience. Rétroaction possible vers (A1.2.2) ou (A1.2.3). Dans le premier cas, la performance peut être modifiée dans ses fondements. Dans le deuxième, les commentaires modifient le jeu des acteurs ou les façons de produire les Actions (sonores, vidéographiques ou technologiques) sans nécessiter une remise en cause des concepts de base de la performance.



A1.2.1.1	Mettre en place l'idée de départ	Un concepteur, membre de la troupe, trouve et met en forme (ébauche) une idée pour un spectacle.
A1.2.1.2	Obtenir l'approbation du Conseil d'administration	Le Conseil d'administration donne son accord pour que l'idée du concepteur devienne un projet pris en charge par la troupe.
A1.2.1.3	Faire demandes de subvention	La troupe fait des demandes de subvention pour obtenir du financement.
A1.2.1.4	Revoir concepts et budgets	La troupe peut avoir à réviser les concepts décrits ou les budgets annoncés dans la demande, soit pour faire une nouvelle demande soit pour ajuster le spectacle au financement obtenu.

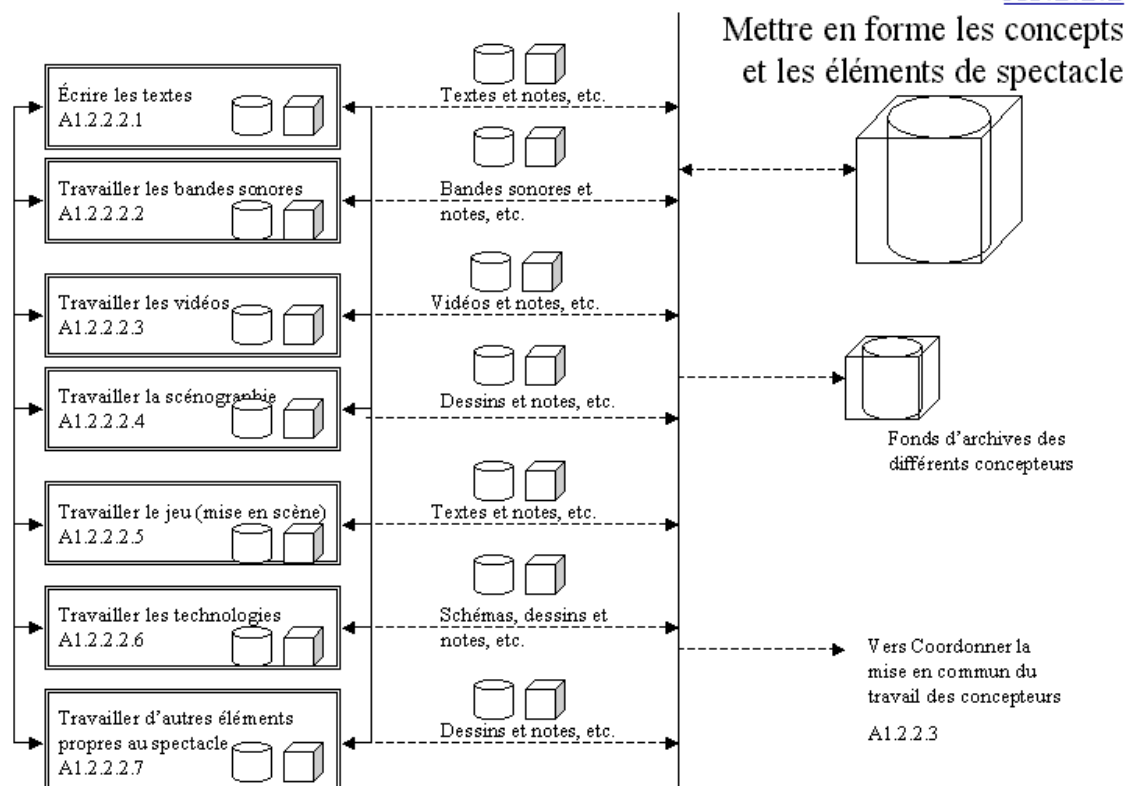
A1.2.1.5	Former l'équipe	Arbo prend contact avec d'autres artistes (acteurs, artistes du son, artistes de la vidéo, etc.) afin de former l'équipe de production.
A1.2.1.6	Mise en marché	Arbo réalise des outils pour faire la promotion de ses spectacles. Des documents produits lors d'étapes subséquentes (photographies de répétition, dessins, etc.) viendront s'intégrer à certains documents produits dans cette activité (i.e. affiches).



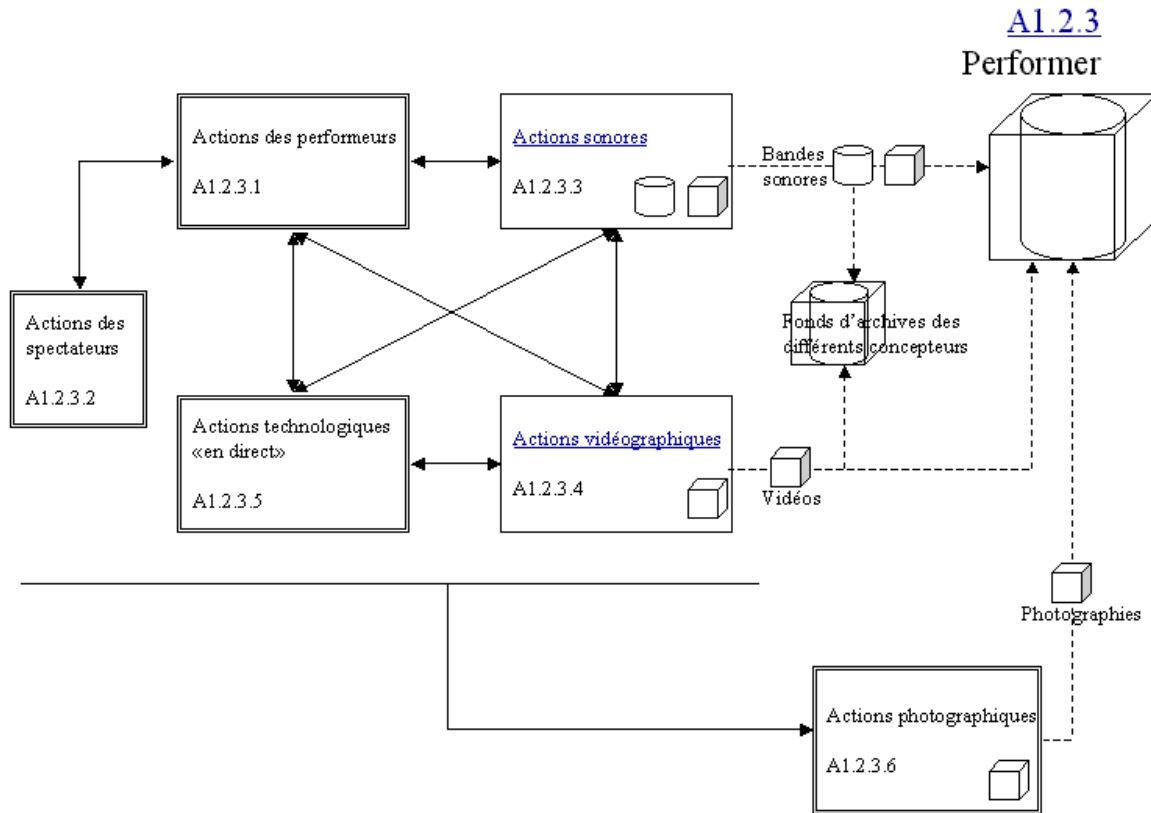
A1.2.2.1	Réunir les concepteurs et les performeurs	Les concepteurs et les performeurs se rencontrent afin de s'entendre sur le travail à effectuer pour la création du spectacle.
A1.2.2.2	Mettre en forme les concepts et les éléments du spectacle.	Les concepteurs et les performeurs travaillent individuellement aux éléments du spectacle en fonction de leurs responsabilités.
A1.2.2.3	Coordonner la mise en commun du travail des concepteurs	Les concepteurs et les performeurs se rassemblent pour mettre en commun leurs idées et travaux. Cela peut provoquer un retour vers A1.2.2.2. Jusqu'à présent, les documents créés sont préparatoires aux performances devant public. Cependant, certains peuvent avoir un statut de document complété. Par exemple, les bandes sonores préenregistrées et les vidéos SIMUL (enregistrés et traités avant les performances).
A1.2.2.4	Faire la générale technique	Les artistes font une répétition en intégrant les appareils technologiques. L'activité s'effectue comme une représentation, mais avec rétroaction plus grande. Des documents sonores et vidéographiques peuvent être produits. S'ils sont conservés, ils sont intégrés au «fonds d'archives» d'Arbo.
A1.2.2.5	Faire la générale	Les artistes font une répétition générale reproduisant à l'identique et en temps réel le spectacle qui sera présenté au public. L'activité s'effectue

		comme une représentation mais avec rétroaction plus grande. Au besoin, le spectacle peut être modifié. Les générales sont des pré-performances: voir (A1.2.3) pour le détail. Des documents sonores et vidéographiques peuvent être produits. S'ils sont conservés, ils sont intégrés au «fonds d'archives» d'Arbo.
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A1.2.2.2



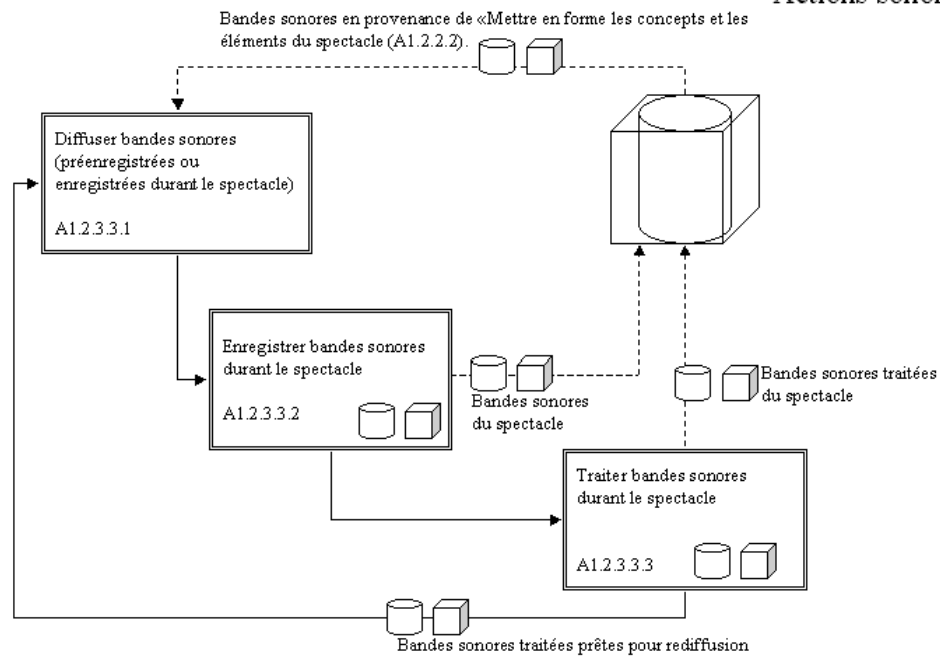
A1.2.2.2.1	Écrire les textes	Écrire les textes originaux ou adapter ou préparer l'improvisation.
A1.2.2.2.2	Travailler les bandes sonores	Produire des bandes à diffuser et/ou préparer le <i>processus</i> pour l'enregistrement et la rediffusion en direct.
A1.2.2.2.3	Travailler les vidéos	Produire des vidéos à diffuser (i.e. SIMUL) et/ou préparer le <i>processus</i> pour l'enregistrement et la rediffusion en direct.
A1.2.2.2.4	Travailler la scénographie	Mettre en place le décor, la disposition des appareils, l'éclairage, etc.
A1.2.2.2.5	Travailler le jeu	(Mise en scène) : mettre en place les actions des performeurs et leurs interactions avec le public et la technologie.
A1.2.2.2.6	Travailler la technologie	Construire les appareils et les dispositifs technologiques. Par exemple, trafiquer un système de diapositives pour automatiser l'éclairage.
A1.2.2.2.7	Travailler d'autres éléments du spectacle	Maquillage, costumes, accessoires, etc.



A1.2.3.1	Actions des performeurs	Les performeurs actent selon la mise en scène établie et réagissent aux réactions des spectateurs de même qu'à l'environnement scénique et technologique.
A1.2.3.2	Actions des spectateurs	Les réactions des spectateurs peuvent provoquer une rétroaction dans le spectacle. Les performeurs agissent en fonction des réactions des spectateurs.
A1.2.3.3	Actions sonores	Les artistes du son agissent dans le spectacle en diffusant, enregistrant et traitant du son.
A1.2.3.4	Actions vidéographiques	Les artistes de la vidéo agissent dans le spectacle en diffusant, filmant et traitant des images.
A1.2.3.5	Actions technologiques	Faire fonctionner les appareils technologiques, l'éclairage, les écouteurs [Voisins], etc.
A1.2.3.6	Actions photographiques	Principalement pour les premières années, les représentations (performances) sont photographiées par un professionnel. Plus tard, il n'y a plus de photographies des spectacles, uniquement des vidéos.

A1.2.3.3

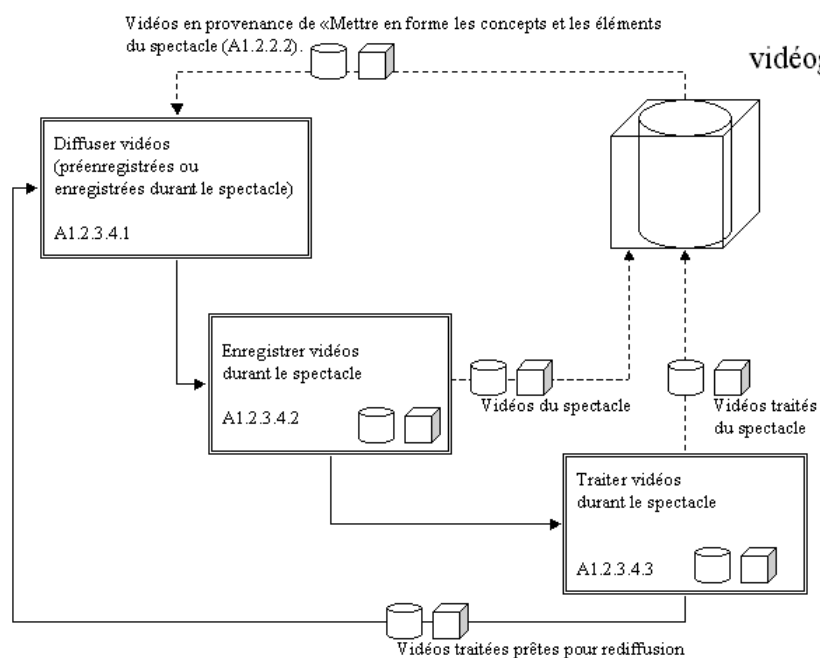
Actions sonores



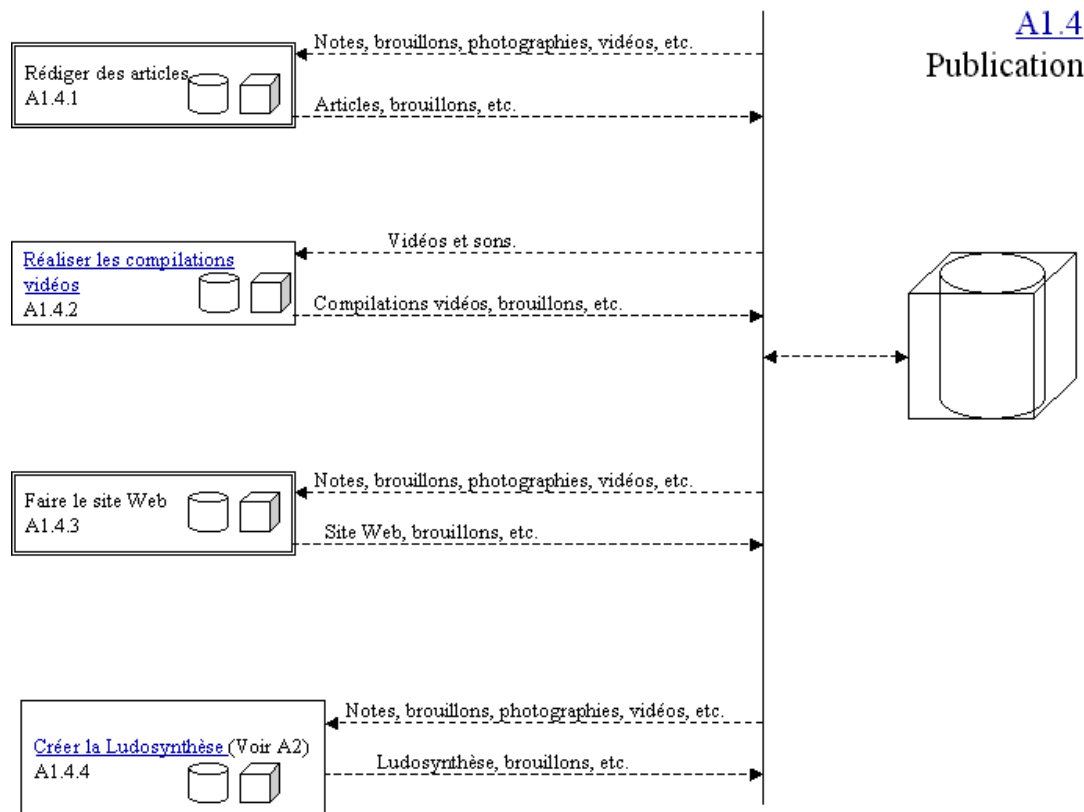
A1.2.3.3.1	Diffuser bandes sonores	Durant le spectacle, les artistes du son doivent diffuser les bandes sonores préenregistrées ou enregistrées en cours de représentation.
A1.2.3.3.2	Enregistrer bandes sonores	Durant certains spectacles, les artistes du son enregistrent l'environnement sonore de la représentation.
A1.2.3.3.3	Traiter bandes sonores durant le spectacle	Durant certains spectacles, les artistes du son traitent les sons enregistrés afin de les rediffuser (A1.2.3.3.1) en cours de représentation.

A1.2.3.4

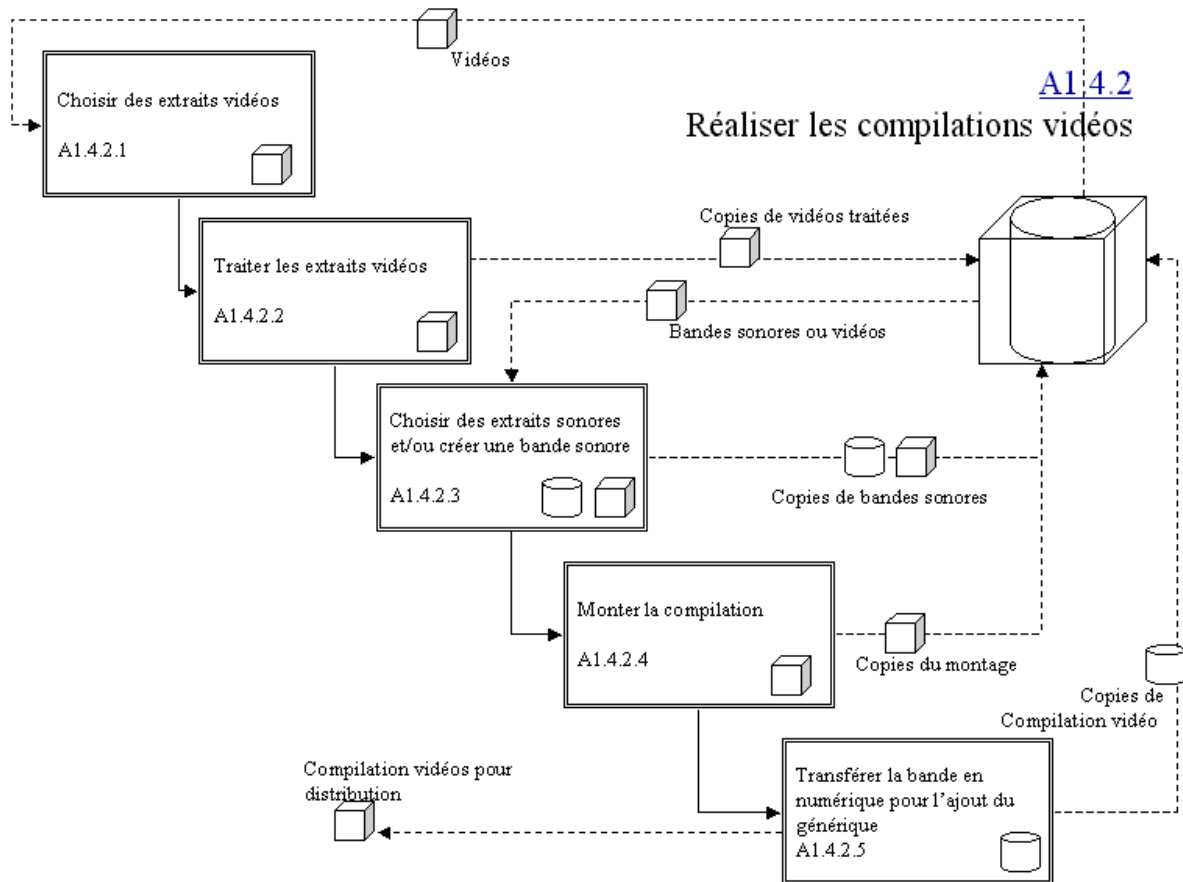
Actions vidéographiques



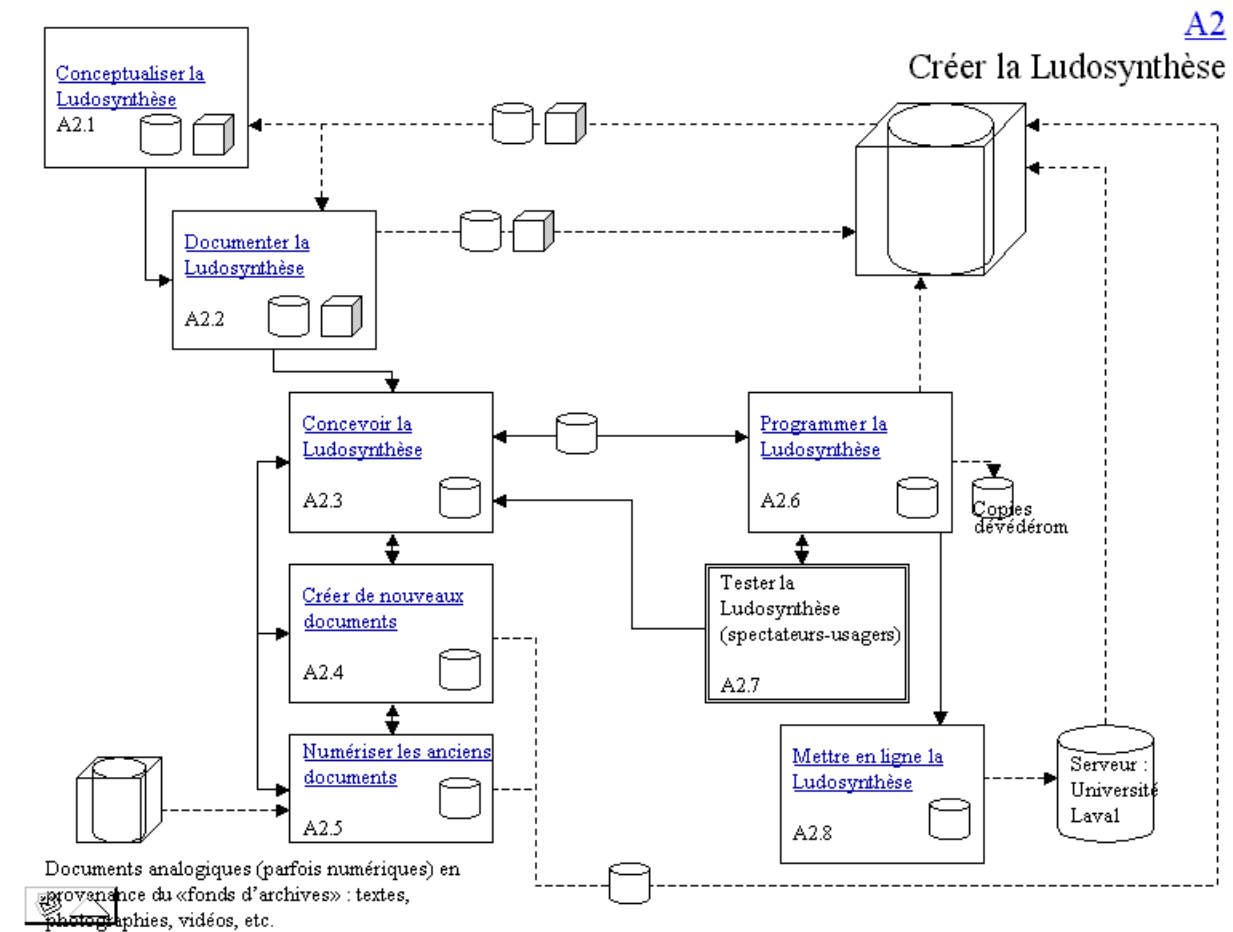
A1.2.3.4.1	Diffuser vidéos)	Durant le spectacle, les artistes de la vidéo doivent diffuser les vidéos préenregistrées ou enregistrées en cours de représentation.
A1.2.3.4.2	Enregistrer vidéos durant le spectacle	Durant certains spectacles, les artistes de la vidéo filment le spectacle ou certaines actions particulières du spectacle.
A1.2.3.4.3	Traiter vidéos durant le spectacle	Durant certains spectacles, les artistes de la vidéo traitent les vidéos enregistrées afin de les rediffuser (A1.2.3.4.1) en cours de représentation.



A1.4.1	Rédiger des articles	Pour des revues, les membres d'Arbo ont écrit des articles afin d'exposer leurs idées sur le théâtre. Les articles sont parfois illustrés de photographies ou d'images extraites des vidéos.
A1.4.2	Réaliser les compilations vidéos	Pour certains SIMUL, Arbo a produit des vidéos d'une durée de 13 minutes chacun afin de rendre compte des spectacles.
A1.4.3	Faire le site Web (ancien)	Il s'agit d'un embryon de la <i>Ludosynthèse</i> , mais sans interactivité ou dynamisme. Son processus de création, quoique beaucoup plus simple, ressemble à celui de la <i>Ludosynthèse</i> . Voir A2.
A1.4.4	Créer la Ludosynthèse	La <i>Ludosynthèse</i> s'inscrit dans les activités de publication, mais sa nature et l'importance qu'elle prend dans les activités actuelles de la troupe permettent de l'étudier comme un processus à part. Voir A2.



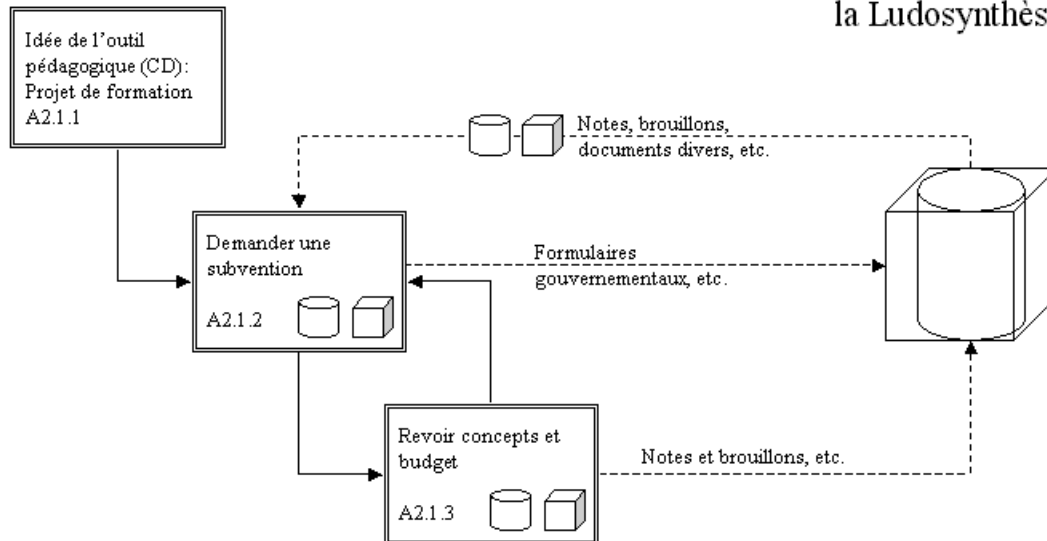
A1.4.2.1	Choisir des extraits vidéos	Les artistes chargés de la compilation font un choix d'extraits parmi les vidéos de la performance originale.
A1.4.2.2	Traiter les extraits vidéos	Les extraits choisis sont traités, lorsque nécessaire (c'est-à-dire le moins possible).
A1.4.2.3	Choisir des extraits sonores et/ou créer une bande sonore	Des extraits sonores sont choisis ou une bande sonore est créée pour être associés aux extraits vidéos.
A1.4.2.4	Monter la compilation	Montage des images et de la bande sonore.
A1.4.2.5	Transférer la bande en numérique pour l'ajout du générique	Transfert de la vidéo en format numérique pour l'ajout du générique. La vidéo originale demeure malgré tout en format analogique.



A2.1	Conceptualiser la Ludo	Travail autour de l'idée et demandes de subvention pour la formalisation de cette idée.
A2.2	Documenter la Ludo	Inventaire et classement du «fonds d'archives» pour connaître la documentation.
A2.3	Concevoir la Ludo	Préparation avant la programmation de la <i>Ludosynthèse</i> simultanément à la création et à la numérisation des documents pour construire les brouillons d'Interface et à la programmation finale.
A2.4	Créer de nouveaux documents	Création de documents pour suppléer aux lacunes du «fonds d'archives» ou pour ajouter du nouveau matériel.
A2.5	Numériser les anciens documents	Numérisation des documents analogiques devant être intégrés à la <i>Ludosynthèse</i> .
A2.6	Programmer la Ludo	Programmation informatique de la <i>Ludosynthèse</i> telle que conçue.
A2.7	Tester la Ludo	Avant la mise en ligne, des spectateurs-usagers sont invités à tester la <i>Ludosynthèse</i> . Ils commentent leur visite et de rapportent les erreurs. Le cas échéant, les artistes apportent des corrections en retournant à A2.3 ou A2.6.
A2.8	Mette en ligne la Ludo	Lorsque la <i>Ludosynthèse</i> sera terminée, elle sera mise en ligne pour que les spectateurs-usagers puissent la visiter librement.

A2.1

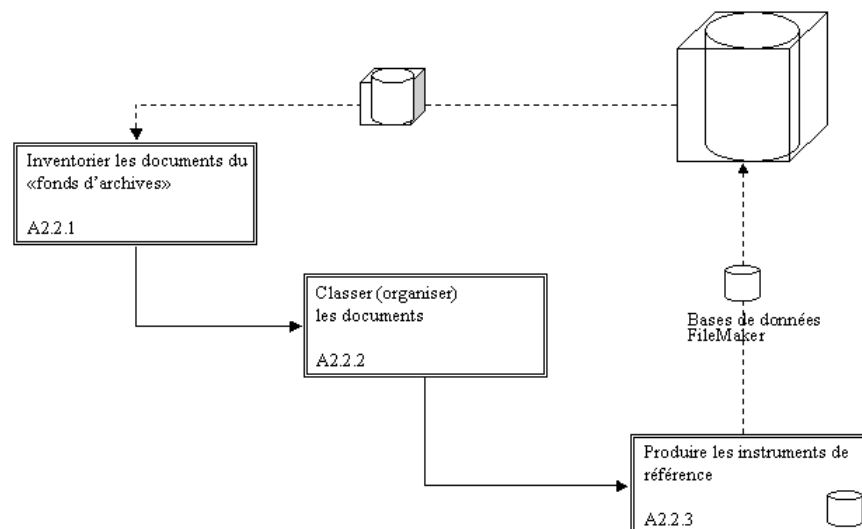
Conceptualiser la Ludosynthèse



A2.1.1	Idee de l'outil pédagogique et projet de formation	Au départ, l'idée était de faire un cédérom destiné aux étudiants dans les formations offertes par Arbo.
A2.1.2	Demander une subvention	Arbo fait une demande de subvention pour réaliser le cédérom. Lorsque la troupe a modifié le projet de cédérom en <i>Ludosynthèse</i> , une autre demande de subvention est faite pour développer la section ludique.
A2.1.3	Revoir les concepts et budgets	Arbo peut avoir réviser les concepts décrits ou les budgets annoncés dans ses demandes, pour faire une nouvelle demande ou pour ajuster la <i>Ludosynthèse</i> aux exigences du financement obtenu.

A2.2

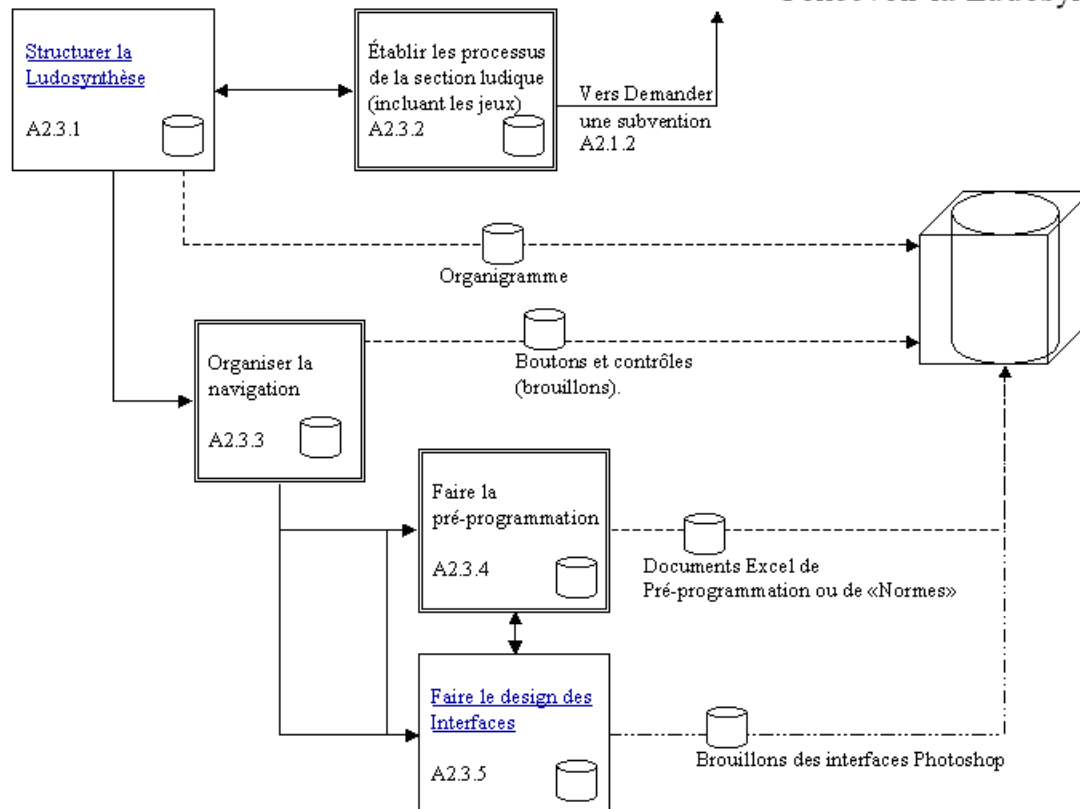
Documenter la Ludosynthèse



A2.2.1	Inventorier les fonds d'archives Arbo	Arbo a recensé les documents issus de ses activités.
A2.2.2	Classer les documents	Arbo a organisé ses archives en fonction de chacune des performances.
A2.2.3	Produire des instruments de référence aux archives	Arbo a créé une base de données de documentation (qui identifie des documents et consigne l'information sur les performances) et une base de données «Collaborateurs» qui rassemble des informations sur les différents participants aux performances d'Arbo.

A2.3

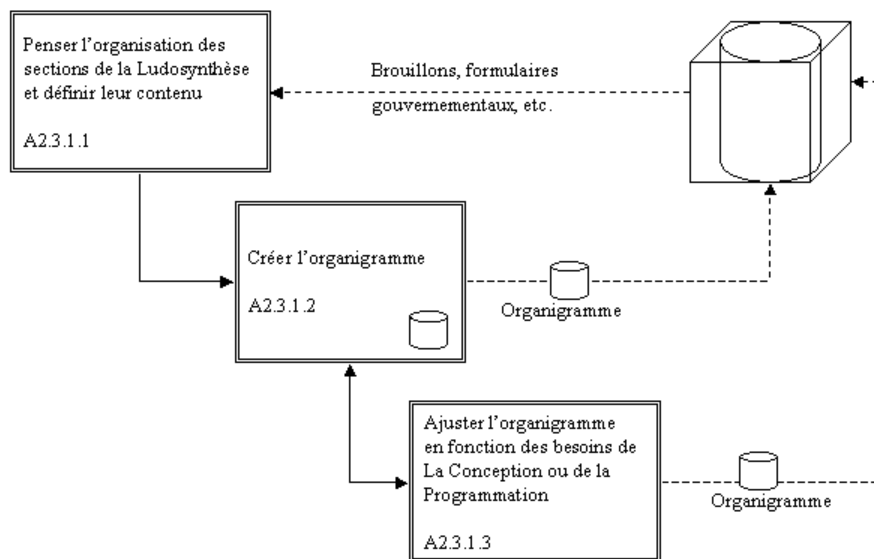
Concevoir la Ludosynthèse



A2.3.1	Structurer la Ludo	Mise en place la structure générale de la <i>Ludosynthèse</i> .
A2.3.2	Établir les processus de la section ludique (incluant les jeux)	Activités de conception qui consiste à établir les processus ludiques (interactifs) de la section du même nom. Simultanément à la conception de l'organigramme (le plan), les <i>jeux</i> sont conçus puisqu'ils ont une influence sur l'ensemble de la <i>Ludosynthèse</i> . Une demande de subvention a été faite uniquement pour le développement de ces processus.
A2.3.3	Organiser la navigation	Penser le système de boutons et le référentiel qui permet aux spectateurs-usagers de naviguer dans la <i>Ludosynthèse</i> .
A2.3.4	Faire la pré-programmation	S'assurer des algorithmes, des noms des fichiers, de la nomenclature, des opérations à produire, de la présence de l'ensemble des contenus, etc. La pré-programmation donne naissance à un document Excel dans lequel les informations nécessaires à la programmation sont consignées.
A2.3.5	Faire le design des Interfaces	Les artistes préparent un brouillon (avant programmation) de chacune des Interfaces (accueil des sections et chacune des «pages» de la <i>Ludosynthèse</i>).

A2.3.1

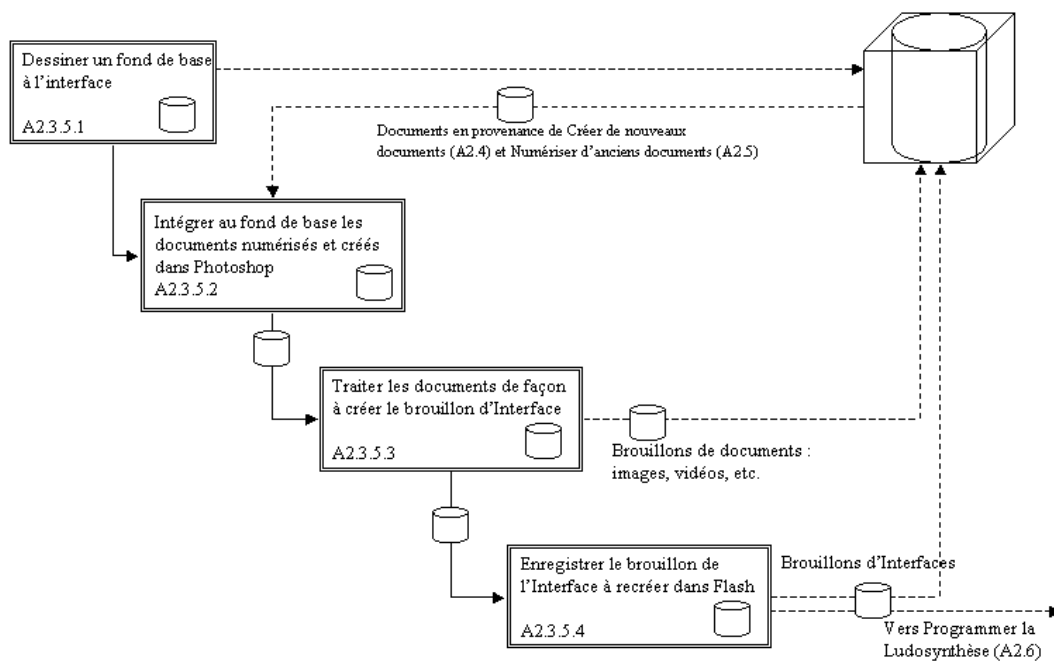
Structurer la Ludosynthèse



A2.3.1.1	Penser l'organisation des sections et définir leur contenu.	Concevoir la structure de la <i>Ludosynthèse</i> en établissant les Sections (Basique, Chronologique, Systémique et Ludique) et en définissant le contenu de chacune d'elles.
A2.3.1.2	Créer l'organigramme	Établir les liens intellectuels qui permettent de visualiser la structure et les contenus.
A2.3.1.3	Ajuster en fonction de la conception et de la programmation	Au fur et à mesure que le travail avance, des modifications peuvent être apportées à la structure ou aux contenus, ce qui produit des ajustements de l'organigramme.

A2.3.5

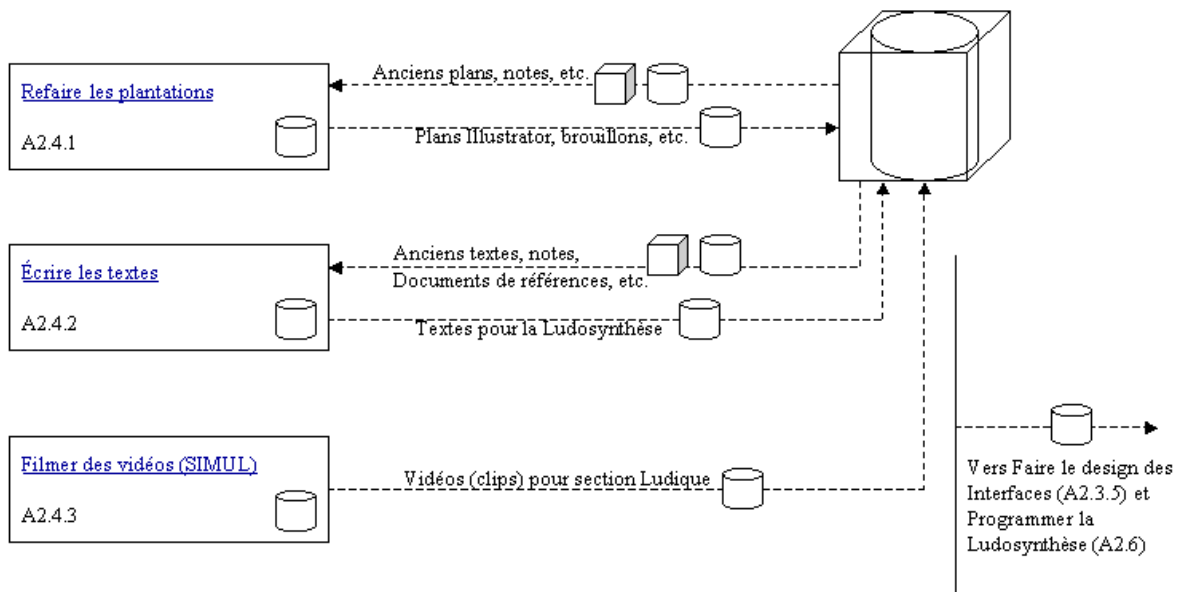
Faire le design des Interfaces



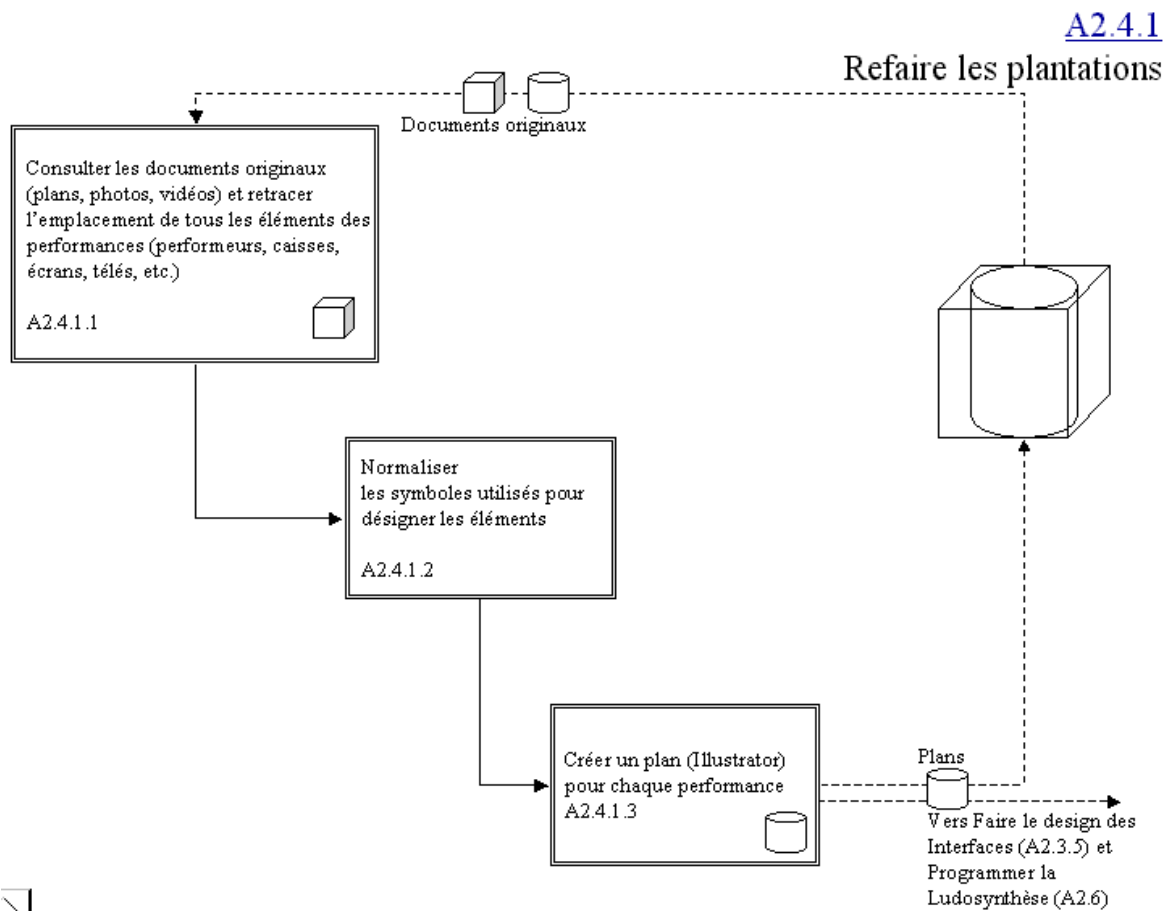
A2.3.5.1	Dessiner un fond de base à l'interface	Les artistes mettent en place les éléments qui serviront de fond à chacune des «pages» (couleurs, formes géométriques, motifs, etc.) pour l'intégration des autres documents (images, extraits vidéos, etc.)
A2.3.5.2	Intégrer au fond de base les documents numérisés et créés dans Photoshop	Les documents numérisés à l'étape A2.5 sont intégrés dans le brouillon d'Interface.
A2.3.5.3	Traiter les documents de façon à créer le brouillon d'Interface	Les documents et le fond sont traités (manipulés, déformés, modifiés) de manière à créer l'image désirée qui, une fois reconstituée strate par strate, deviendra une Interface prête à être programmée.
A2.3.5.4	Enregistrer le brouillon de l'Interface à recréer dans Flash	Une fois le résultat souhaité obtenu, l'image est enregistrée pour en faire le brouillon de l'Interface.

A2.4

Créer de nouveaux documents



A2.4.1	Refaire les plantations	Les artistes redessinent le plan de l'espace théâtrale de chacune de leur performance.
A2.4.2	Écrire les textes	Des textes sont produits afin d'être intégrés à la <i>Ludosynthèse</i> .
A2.4.3	Filmer des vidéos (SIMUL)	Pour compléter la base de la section SIMUL Ludique, des nouveaux clips devront être enregistrés.

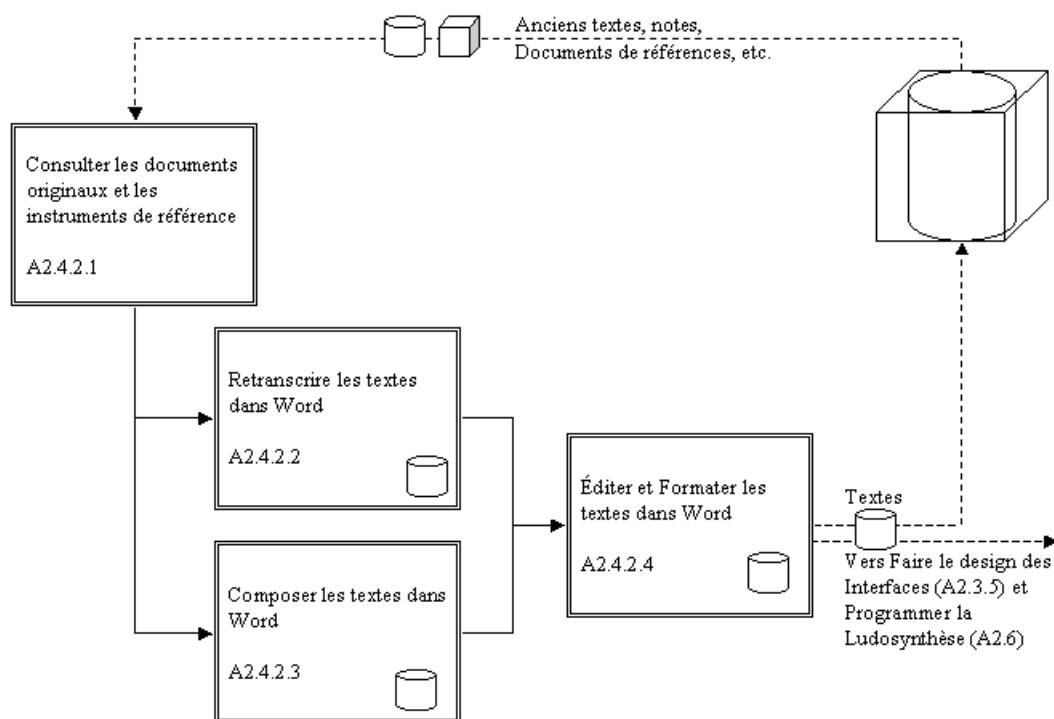


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A2.4.1.1	Consulter les documents originaux et retracer l'emplacement des éléments des performances	Les anciens documents (plans, photos, vidéos) sont mis à profit afin de manière à pouvoir créer un plan des salles de spectacle en retraçant l'emplacement de tous les éléments des spectacles (caisses de sons, écrans de téléviseur, performeurs, etc.)
A2.4.1.2	Normaliser les symboles utilisés pour designer les éléments	Un symbole est choisi pour désigner les éléments des performances peu importe le spectacle.
A2.4.1.3	Créer un plan pour chaque Interface	Un plan est créé à l'aide du logiciel Illustrator pour chacun des spectacles.

A2.4.2

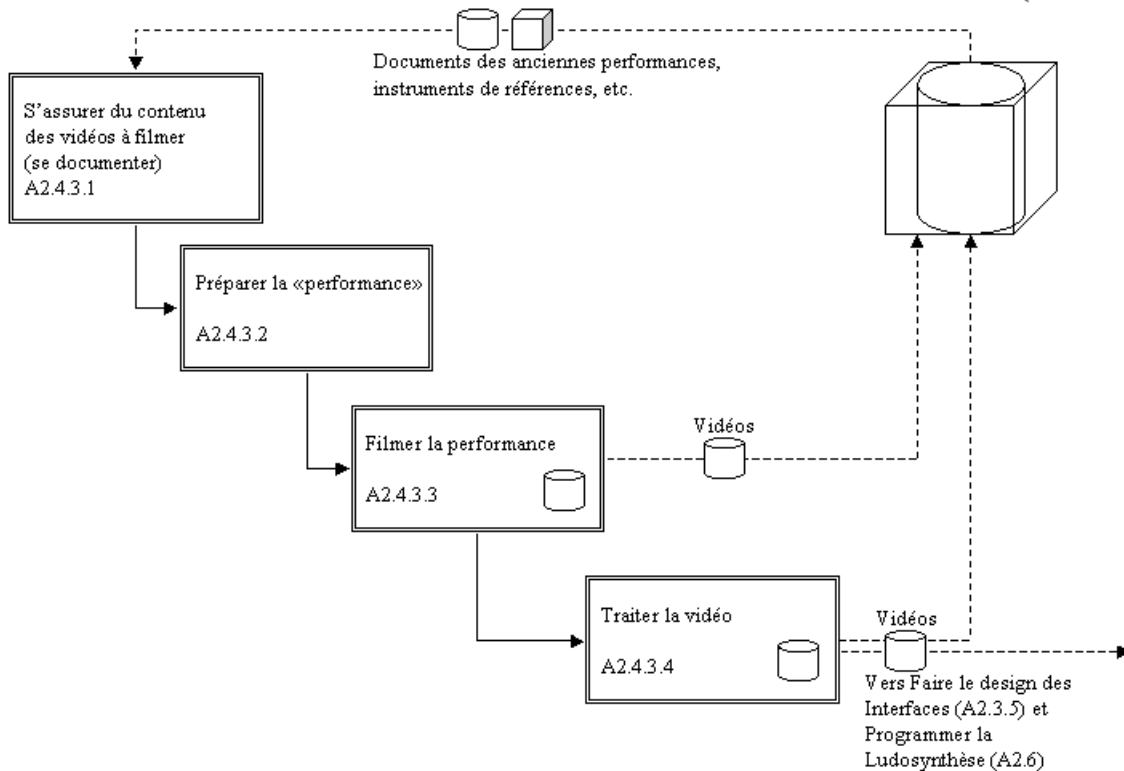
Écrire les textes



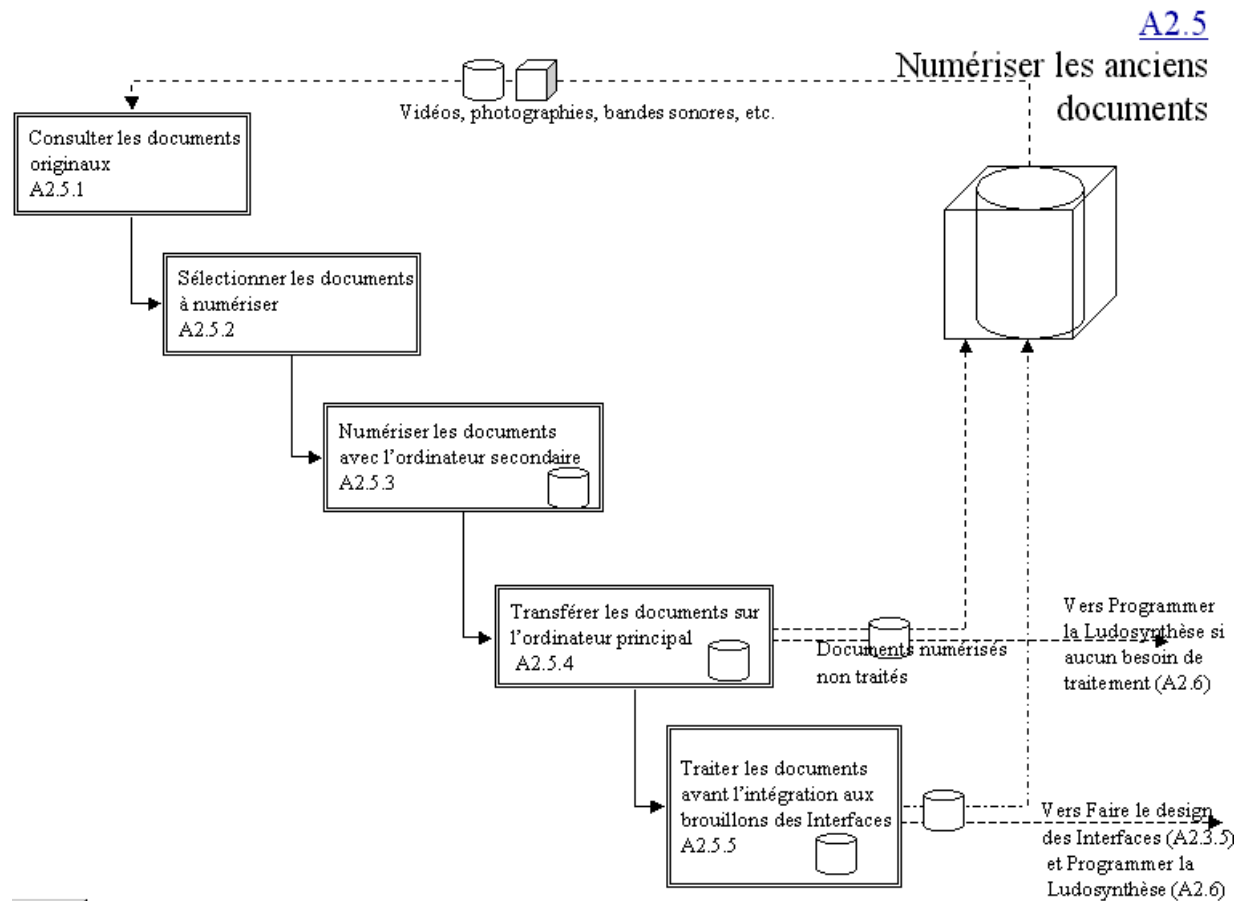
A2.4.2.1	Consulter les documents originaux et les documents de référence	Les documents originaux servent de référence pour les textes intégrés à la <i>Ludosynthèse</i> .
A2.4.2.2	Retranscrire les textes dans Word	Des textes sont retranscrits et/ou «copiés/collés» dans le logiciel Word.
A2.4.2.3	Composer les textes dans Word	Des textes sont composés (mise en contexte, présentation, etc.) dans le logiciel Word.
A2.4.2.4	Éditer et formater les textes dans Word	Les textes sont édités et formatés à l'aide du logiciel Word (paragraphe, police, couleur des caractères).

A2.4.3

Filmer des vidéos (SIMUL)

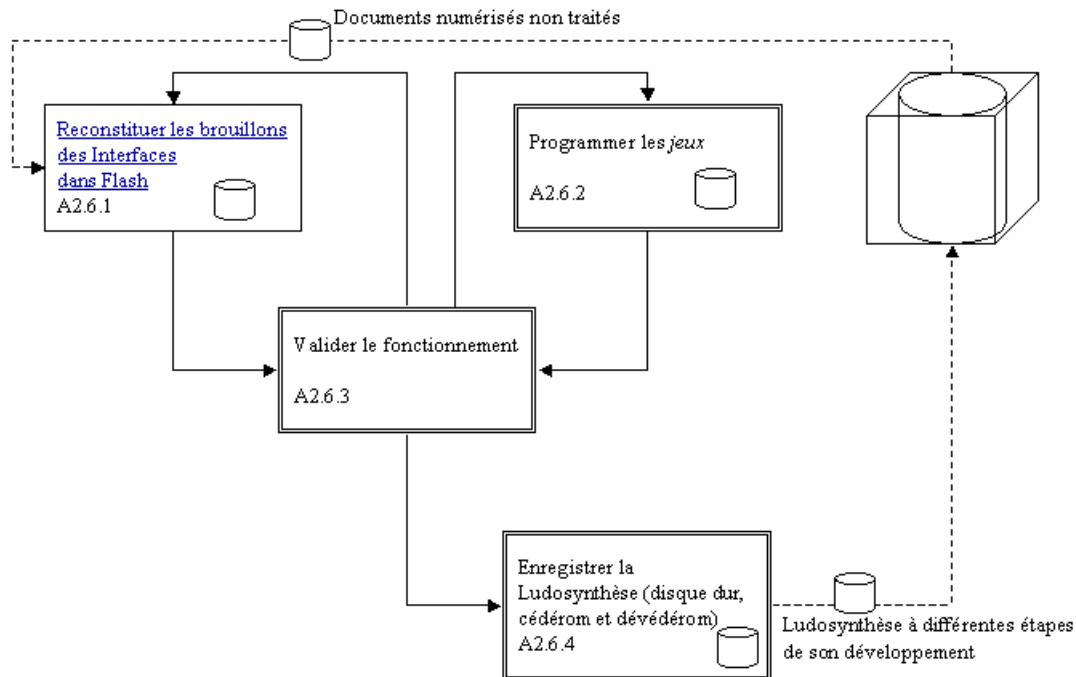


A2.4.3.1	S'assurer du contenu des vidéos à filmer (se documenter)	Avant de filmer, les artistes devront s'assurer de la nature des clips à réaliser en fonction des besoins de la base de clips et des besoins de la démonstration.
A2.4.3.2	Préparer la «performance»	La performance à filmer doit être préparée (décor, mise en scène, etc.)
A2.4.3.3	Filmer la performance	La performance est réalisée et enregistrée, à l'aide d'une caméra numérique.
A2.4.3.4	Traiter la vidéo	Les clips sont traités pour être intégrés à la base de clips. Les logiciels pour le traitement vidéo ne sont pas encore connus (probablement Final Cut).

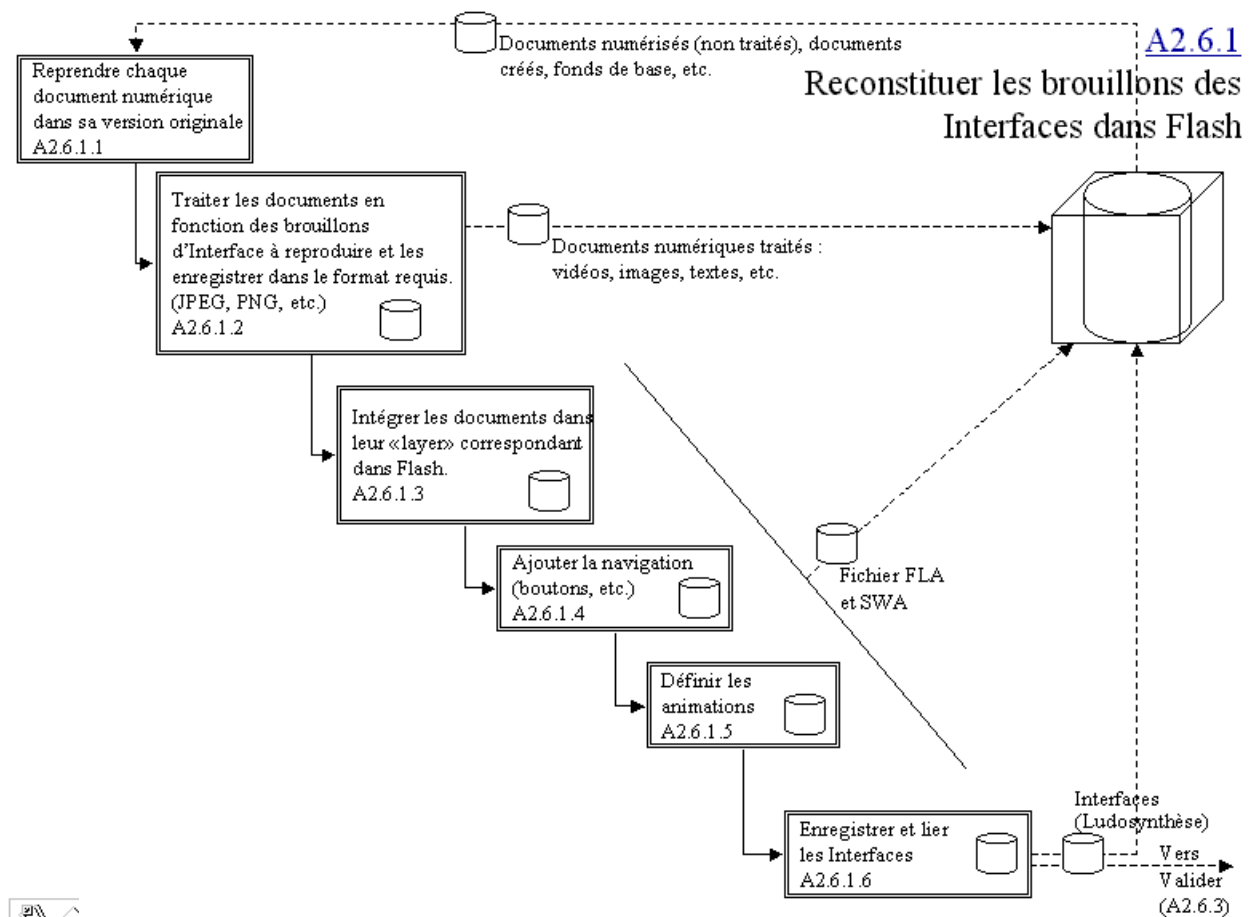


A2.5.1	Consulter les documents originaux	Retourner aux sources pour prendre connaissance des documents conservés (photographies, sons, vidéos) pour chacune des représentations.
A2.5.2	Sélectionner les documents à numériser	Choisir les documents (en fonction de l'esthétique, du concept à démontrer, du droit d'auteur et droit à l'image) qui doivent être intégrés à la <i>Ludosynthèse</i> .
A2.5.3	Numériser les documents avec l'ordinateur secondaire	Les documents sont numérisés à l'aide de l'ordinateur secondaire.
A2.5.4	Transférer les documents sur l'ordinateur principal	Les documents sont transférés de l'ordinateur secondaire à l'ordinateur principal où ils seront traités. S'ils n'ont besoin d'aucun traitement, ces documents sont envoyés directement à la Programmation (A2.6).
A2.5.5	Traiter les documents avant l'intégration aux brouillons des interfaces	Les documents seront traités (dimensionnés, mis en négatifs, etc.) en fonction des besoins du Design des Interfaces (A2.3.5 car ils sont intégrés aux brouillons des Interfaces) ou de la Programmation (A2.6). Les logiciels utilisés dépendront des types de documents (images fixes, images en mouvement, sons, etc.)

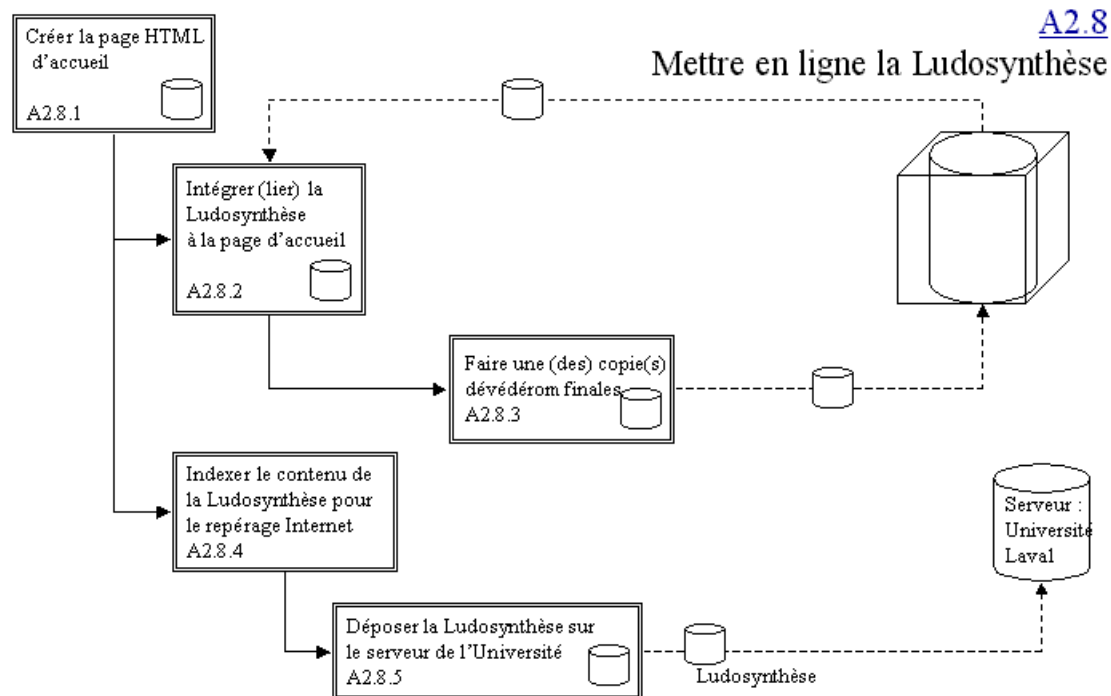
A2.6 Programmer la Ludosynthèse



A2.6.1	Reconstituer les brouillons des Interfaces dans Flash	Les brouillons créés aux étapes précédentes (A2.3 à A2.5) sont recréés et animés dans le site Web (<i>Ludosynthèse</i>) créé à l'aide du logiciel Flash.
A2.6.2	Programmer les jeux	Pour les jeux (manipulation d'objet à l'écran, questionnaires, jeux d'actions, etc.), les artistes ne savaient pas comment ils procéderaient ni quels logiciels ils utiliseraient. Le processus risque d'être similaire à celui de A2.6.1
A2.6.3	Valider le fonctionnement	Il s'agit de tests constants effectués par les artistes de manière à ce qu'ils soient certains du bon fonctionnement de la <i>Ludosynthèse</i> et de sa programmation. Un échec dans un test peut ramener aux activités A2.6.1 ou A2.6.3.
A2.6.4	Enregistrer la Ludosynthèse (disque dur, cédérom et dévédérom)	La <i>Ludosynthèse</i> est constamment enregistrée à différentes étapes de son développement. Une version finale sur dévédérom (équivalente à la version qui sera mise en ligne) sera produite à la fin du processus (A2.8.3).



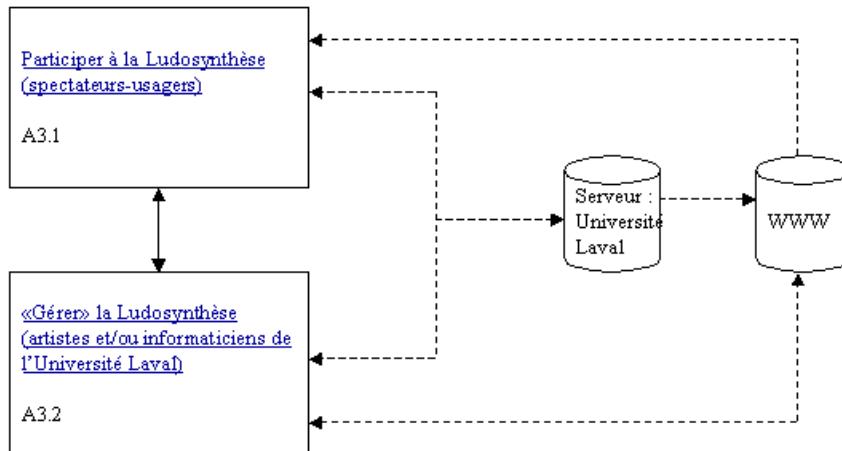
A2.6.1.1	Reprendre chaque document numérique dans sa version originale	Pour la programmation, chaque document (fond, images, textes, etc.) ayant servi à créer les brouillons d'Interface est repris dans son format original.
A2.6.1.2	Traiter les documents en fonction des brouillons d'Interface à reproduire et les enregistrer dans le format requis.(JPEG, PNG, etc.)	Les documents numériques originaux sont traités de manière à reproduire les brouillons d'Interface, document par document (strate par strate). Les documents sont enregistrés en fonction du format requis pour leur intégration à la <i>Ludosynthèse</i> (JPEG, PNG, etc.).
A2.6.1.3	Intégrer les documents dans leur «layer» correspondant dans Flash.	Dans Flash, pour chacune des interfaces, les documents requis (images, vidéos, sons, etc.) sont enregistrés dans le «layer» correspondant à leur fonction.
A2.6.1.4	Ajouter la navigation (boutons, etc.)	Les boutons de navigation nécessaires sont ajoutés sur chacune des Interfaces.
A2.6.1.5	Définir les animations	Les animations sont programmées.
A2.6.1.6	Enregistrer et lier les Interfaces	Les différentes Interfaces sont enregistrées et liées entre elles en fonction de la structure de la <i>Ludosynthèse</i> (organigramme).



A2.8.1	Créer la page HTML d'accueil	Une page d'accueil HTML sera créée afin de permettre l'indexation de la <i>Ludosynthèse</i> et d'y donner accès à via Internet.
A2.8.2	Intégrer (lier) la Ludosynthèse à la page d'accueil	Lorsque la page d'accueil HTML sera créée, la <i>Ludosynthèse</i> en format SWF pourra y être associée.
A2.8.3	Faire une (des) copie(s) dévédérom finales	Des copies dévédérom pourront alors être effectuées à des fins de diffusion particulière.
A2.8.4	Indexer le contenu de la Ludosynthèse pour le repérage Internet	Le contenu de la <i>Ludosynthèse</i> sera indexé afin de permettre le repérage de la <i>Ludosynthèse</i> sur Internet.
A2.8.5	Déposer la Ludosynthèse sur le serveur de l'Université	La <i>Ludosynthèse</i> sera déposée sur le serveur de l'Université.

A3

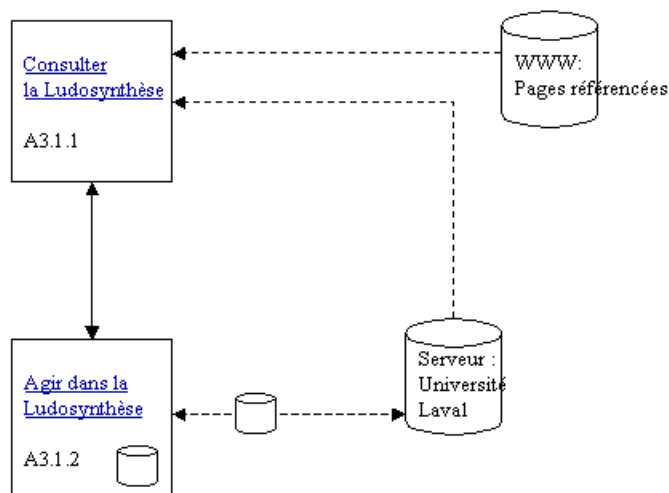
Fonctionnement de la Ludosynthèse



A3.1	Participer à la Ludosynthèse (spectateurs-usagers)	Les spectateurs-usagers pourront participer à la <i>Ludosynthèse</i> soit en consultant les Interfaces, soit en prenant une part active en interagissant (création de documents) avec la <i>Ludosynthèse</i> .
A3.2	«Gérer» la Ludosynthèse (artistes et/ou informaticiens de l'Université Laval)	Une fois la <i>Ludosynthèse</i> mise en ligne, certaines opérations de maintenance ou de récupération de données (performances des spectateurs-usagers) devront ou pourront être effectuées

A3.1

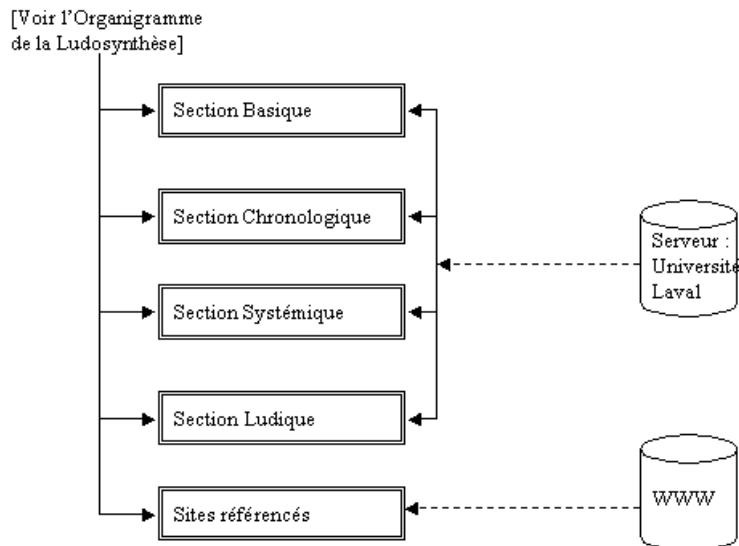
Participer à la Ludosynthèse



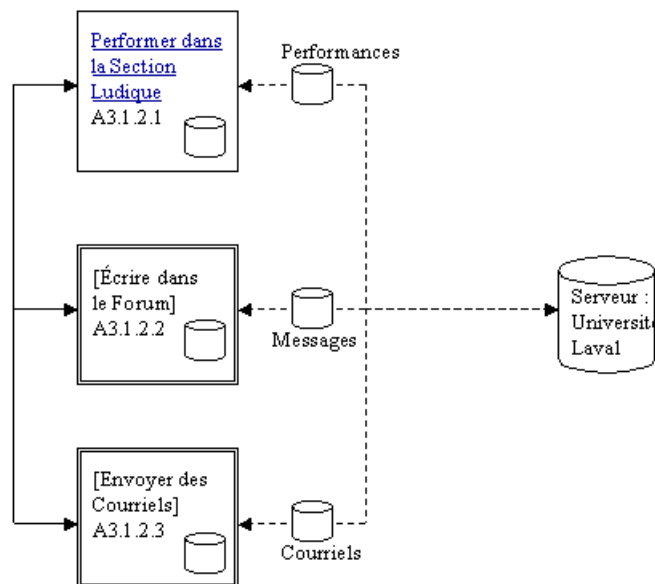
A3.1.1	Consulter la Ludosynthèse	La consultation se fait, selon les hyperliens définis dans l'organigramme
A3.1.2	Agir dans la Ludosynthèse	Les actions des spectateurs-usagers seront constituées par la réalisation de performances (ou participation aux jeux) et par des échanges dans un forum (?) ou par courriels (?)

A3.1.1

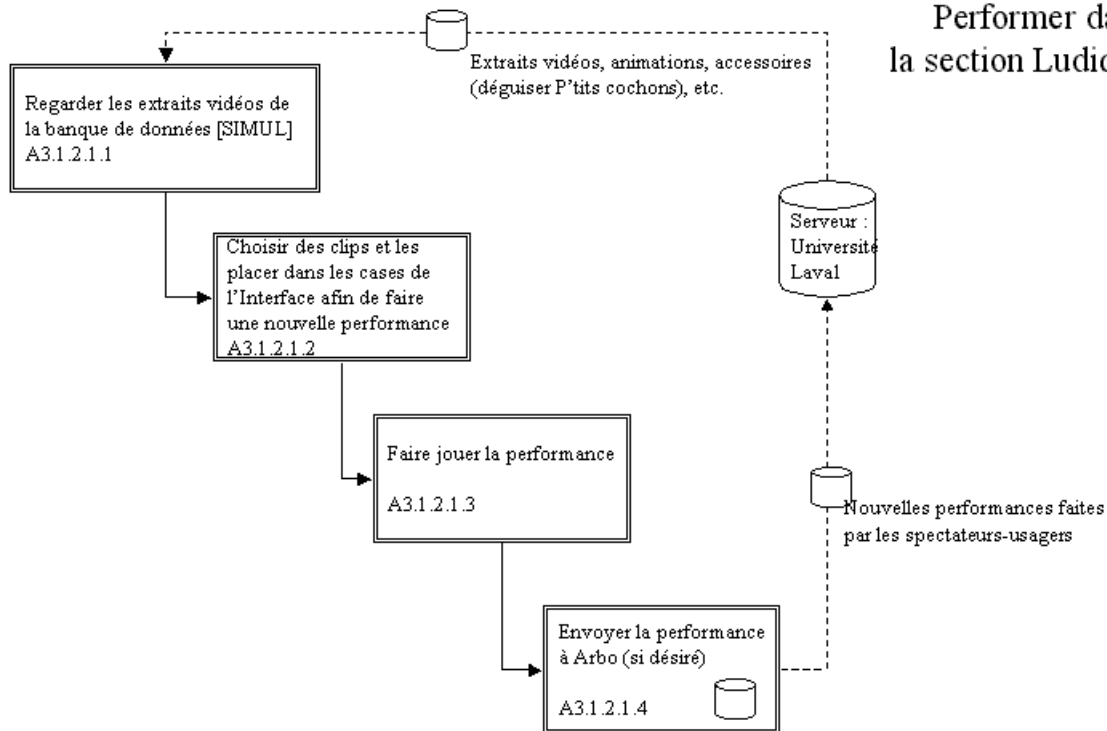
Consulter la Ludosynthèse

A3.1.2

Agir dans la Ludosynthèse



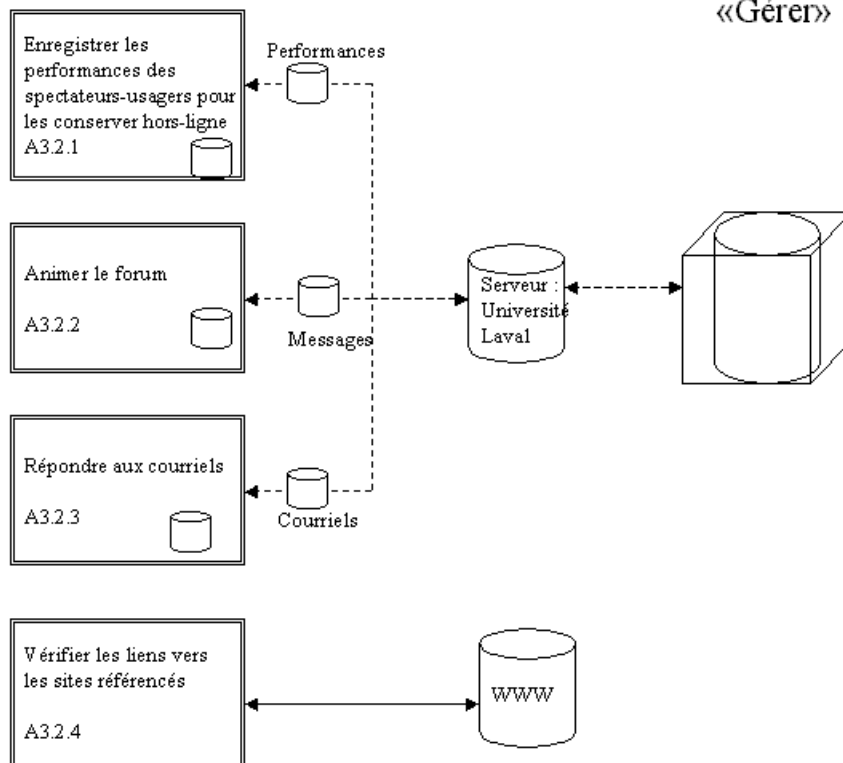
A3.1.2.1	Performez dans la section Ludique	À l'aide du matériel fourni dans la <i>Ludosynthèse</i> , les spectateurs-usagers pourront réaliser leur propre performance en mettant en pratique les concepts développés par Arbo.
A3.1.2.2	Écrire dans le forum	Arbo souhaite faire un forum, mais il ne sait pas encore s'il le fera ni comment il le fera.
A3.1.2.3	Envoyer des courriels	Les spectateurs-usagers pourront sûrement envoyer des courriels, mais le fonctionnement n'a pas encore été pensé par Arbo.

A3.1.2.1Performers dans
la section Ludique

A3.1.2.1.1	Regarder les extraits vidéos de la banque de données [SIMUL]	Les spectateurs-usagers devront prendre connaissance du fonctionnement des Interfaces ludiques [SIMUL] et des matériaux fournis [clips] pour la réalisation des performances. [Pour les P'tits cochons : les spectateurs-usagers devront déguiser un cochon à l'aide d'accessoires (lunettes, cheveux, etc.)]
A3.1.2.1.2	Choisir des clips et les placer dans les cases de l'Interface afin de faire une nouvelle performance	Les spectateurs-usagers choisissent les clips qu'ils désirent intégrer à leur performance en les associant à des cases de l'Interface spécialement conçues à cet effet. [Pour les P'tits cochons, les spectateurs-usagers choisissent des accessoires et les apposent sur le cochon à l'écran]
A3.1.2.1.3	Faire jouer la performance	Les spectateurs-usagers peuvent faire jouer leur performance comme une compilation vidéo qu'ils auraient eux-mêmes effectuées.
A3.1.2.1.4	Envoyer la performance à Arbo (si désiré)	Les spectateurs-usagers devraient pouvoir envoyer leur performance dans la base de données de la <i>Ludosynthèse</i> . D'autres spectateurs-usagers pourront regarder leurs performances et les intégrer aux leurs.

A3.2

«Gérer» la Ludosynthèse



A3.2.1	Enregistrer les performances des spectateurs-usagers	À la suite des entrevues, Arbo a vu l'intérêt de conserver les performances des spectateurs-usagers. Le processus par lequel les données seront extraites du serveur de l'Université Laval et stockées n'est pas encore établi.
A3.2.2	Animer le forum (?)	Nous ne savons pas s'il y aura un forum dans la <i>Ludosynthèse</i> . Il en était question lors des entrevues.
A3.2.3	Répondre aux courriels (?)	Arbo recevra des courriels de spectateurs-usagers si un lien avec un logiciel de messagerie est créé. Toutefois, les artistes n'ont pas l'intention des «gérer» les courriels. Pour le moment, ils pensent les conserver mais sans maintenir de liens avec la <i>Ludosynthèse</i> . En fait, Arbo n'a pas encore penser aux processus de réception, de conservation ni de réponse aux courriels.
A3.2.4	Vérifier les liens vers les sites référencés (?)	Nous n'avons pas d'information à ce sujet. Les responsables du site à l'Université auront probablement une responsabilité dans cette activité.

Appendix A: Dossier d'entrevue

Not translated into English; please refer to the French language version of this report.

Appendix B: Plan of Enquiry – Producer and Document Production

(Draft 1: June 16, 2003)

INTERVIEWEE

Surname, First Name

Date and Place of Birth

Training [What? When? Where?]

Experience [What? When? Where?]

Status within the theatre community

Membership in related associations

Status, position and responsibilities within the group which created the records

<i>PRODUCER / ARTISTIC CREATOR / CREATOR OF THE ARCHIVAL COLLECTION</i>

NAME OF THE THEATRE COMPANY

[Reasons and influences behind this choice of name]

ADDRESS, HEAD OFFICE

Year in which the group was founded

[Origins of the group before being legally established

First show / Official founding date / Founding event]

LEGAL STATUS

Year of legal establishment

Type [company, for-profit or not-for-profit business, research group...]

Legal status: (By what power? Name of act) [Incorporation, minutes, resolution of board of directors, license, union/guild...]

Associated groups and partners [Legal status inherited from other organizations or associations, links within the field]

Members [number, skills required (≠ employees)]

MISSION, MANDATE AND OBJECTIVES

Mission statement and sketch of historical development (fundamental goals)

Powers (legal); mandates (stated)

MAJOR FUNCTIONS AND ACCOMPLISHMENTS

Types of activities undertaken in the fulfilment of mission and mandate

Management / Administration

Performance

MODE OF GOVERNANCE

Management of group [Cooperative, collective, partnership...]
 Organizational chart and structure [Manager, team leader, work group]
 Employees [Number, areas of specialization, qualifications, turnover]

RULES AND REGULATIONS

Laws regulating mandate, activities...
 [Impact on activities and on document creation.
 Impact on the use of digital technology]
 Norms, policies, internal or external regulations
 [Relationship with other associations or authorities and their normative influence.
 Impact on activities and on document production.]
 [Are there written policies on records management? Are they followed?]

FUNDING

Sources of revenue
 Productions, Subscriptions, Investments, Donations
 Financial aid
 Subsidies, Grants

Physical resources

Infrastructure and equipment
 [movable goods, real estate]
 Organizations
 [Access to shared resources]

Philosophy and orientation

Philosophical and artistic values
 Artistic conception, Theoretical foundations
 [Multidisciplinary approaches, Technology, Interactivity...]
 Individuality, unique qualities of the productions
 [Distinctive elements in relation to peers, other groups...]
 Trademark (intended or not)
 [What is the group's signature ? In 100 years, how will one of the group's productions be recognized? What will verify the authenticity of these works? Are the same elements recognizable in the digital world?]
 Favoured artistic styles
 [Position of the group vis-à-vis those artistic practises related to the domain]
 Schools of thought, artistic trends
 [Choice of theoretical models and practises which helped mould the group's theoretical outlook]

Recognition

Achievements, honours, prizes, contests, galas...

ACTIVITIES RESULTING IN THE CREATION OF DOCUMENTS

MAJOR EVENTS

List of major events which occur in the fulfilment of mandates and objectives.
[Administration, Research, Performances, Training, Publication]

Administration

General description of administrative practises

List and types of administrative activities undertaken on a regular basis

Document production resulting from administrative activities

Activities related to archives and records management

Policies governing archives and records management

[See also *Producer/ Regulations/ Norms*]

Individual responsible for records and archives

[Who takes care of records management? How? What are their qualifications? Why this person? Are there links between their management responsibilities and the process of artistic creation?]

Group's archival collections

[Where are the group's archives? Are they scattered (held by various members) or are they together in a single place? Does the group have formally organized collections?]

Legal requirements and constraints

Impact on administrative activities

Creation, Form, Content, *Authenticity*, Organization

Impact on administrative document production and on electronic records

Creation of documents, Form, Content, *Authenticity*, Organization, Conservation

Technological requirements and constraints: analogue formats, hardware and software

Impact on administrative activities

Creation, Form, Content, *Authenticity*, Organization

Impact on the production of administrative document production and on electronic records

Creation of documents, Form, Content, *Authenticity*, Organization, Conservation

Theatre research

General description of theatre research
--

[Meaning of authenticity in this context. Is it the same for the activity as for the records produced?]

Development of theoretical concepts

Critical discourses

Description of tools

[Tools of performance, Production norms, Procedures...]

List and types of theatre research activities

[Principal theatre research activities and their mode of expression]

Document production resulting from theatre research activities

Documents and/or types of documents: large series or unique instances

[Distinction between research and performance: In practise, can both activities lead to the production of the same kinds of records? To what extent do the two activities overlap?]

Legal requirements and constraints

Impact on theatre research activities

Creation, Form, Content, *Authenticity*, Organization

Impact on theatre research document production and on electronic records

Creation of documents, Form, Content, *Authenticity*, *Organization*,
Conservation

Scientific requirements and constraints associated with artistic creation

[Scientific foundations of the domain which require or prohibit certain research behaviours: Methodology.]

[What is the role of documentary references in research? Does the group rely on its own records (self-reference)? How does the group gather its documentation?]

Impact on theatre research activities

Creation, Form, Content, *Authenticity*, Organization

Impact on theatre research document production and on electronic records

Creation of documents, Form, Content, *Authenticity*, Organization,
Conservation

Artistic requirements and constraints

Impact on theatre research activities

Creation, Form, Content, *Authenticity*, Organization

Impact on theatre research document production and on electronic records

Creation of documents, Form, Content, *Authenticity*, Organization,
Conservation

Ethical requirements and constraints

Impact on theatre research activities

Creation, Form, Content, *Authenticity*, Organization

Impact on theatre research document production and on electronic records

Creation of documents, Form, Content, *Authenticity*, Organization, Conservation

Technological requirements and constraints: analogue formats, hardware and software
--

Impact on theatre research activities

Creation, Form, Content, *Authenticity*, Organization

Impact on theatre research document production and on electronic records

Creation of documents, Form, Content, *Authenticity*, Organization, Conservation

Staging of works [production and performance]

General description of how works are staged

[What constitutes a “work” in the eyes of the group? Meaning of authenticity in this context: Is it the same for the activity as for the documents which are produced? How is the notion of experimentation defined in these works? That of interactivity? That of dynamism? What role does technology play in these works? What role does digital technology play in these works?]

List and types of activities relating to the performance of staged works (Creations)

Productions, Laboratories, Participation in events...

[Principal activities and their mode of expression]

Document production resulting from the staging of works
--

Records and/or types of records: large series or unique instances

Legal requirements and constraints [Copyright, Privacy...]

Impact on activities related to the staging of works

Creation, Form, Content, *Authenticity*, Organization

Impact on document production resulting from performances and on electronic records.

Creation of documents, Form, Content, *Authenticity*, Organization, Conservation

Artistic requirements and restrictions: written or unwritten rules

[Return to philosophical concepts + new elements: examples of time frame limitations, improvisation, playing blind ...]

Impact on theatrical performances

Creation, Form, Content, *Authenticity*, Organization

Impact on document production resulting from performances and on electronic records.

Document creation, Form, Content, *Authenticity*, Organization, Conservation

Technological requirements and constraints: analogue formats, hardware and software

Impact on the performance of works

Creation, Form, Content, *Authenticity*, Organization

Ethical requirements and constraints

[Propriety or Rules (behaviour), Contextual norms (what is acceptable in an artistic context, what is not...)]

Impact on the activities surrounding theatrical performances

Creation, Form, Content, *Authenticity*, Organization, Conservation

Impact on document production resulting from performances and on electronic records.

Creation of documents, Form, Content, *Authenticity*, Organization, Conservation

Production process

Steps of creation

[How is a performance conceived, step by step? What documents are produced during each step? What are the roles played by each? Is the process essentially the same for all performances?]

Steps of performance (of the play)

[How does an artistic performance unfold? (See how the performance takes place to be able to compare it with what will be included in the ludo-synthesis.) What documents are produced during each step? What role is played by each?]

Artistic production : In terms of the diversity of artistic media, as a system of signs

[Enumeration and description of the different layers of meaning (systems of signs) divided into direct modes of expression and mediated modes of expression]

Use of direct modes of expression (unrecorded modes)

[Voice, Kinesic (gestural), Proxemic (spatial separation of individuals)...]

Recording systems of signs in modes of direct expression

[Direct expression = absence of mediation: How are these different systems of signs recorded (act of production)? What documents are created? What are their uses?]

Conservation of records resulting from direct modes of expression

[How are these records conserved for reference, reuse or reconstitution? What are the criteria used for selecting documents? Does technology affect choices or practises in this field?]

Use of mediated modes of expression (necessarily recorded: therefore creators of documents)

[Text, Video, Sound, Electronic, digital... *These questions should have been addressed in the section Technological requirements and constraints.*]

Recording of systems of signs in mediated modes of expression

[How are these different systems of signs recorded (act of production)? What documents are created as a result? What are their uses?]

Conservation of documents resulting from mediated modes of expression

[How are records conserved for reference, reuse, and reconstitution? What are the selection criteria? Does technology affect the choices made or practises adopted in this context?]

Instrumentation

Infrastructure of performance

Location

Installation

Stage...

Equipment (tools of performance)

Accessories, Musical instruments, Production tools used as accessories, etc.

Equipment (tools of production: information technology)

Creation or input tools: equipment, for example, camera, microphone, computer

Processing tools: for example software, console

Conservation tools: storage media, for example reel-to-reel tape, CD-ROM

Equipment (tools of production: broadcast technology)

Broadcast tools: for example newspapers, microphone, telephone...

TRAININGGeneral description of training activitiesList and types of activities

[Principal activities and their mode of expression]

Document production resulting from training activities

Documents and/or types of documents : large series or unique instances

Legal requirements and constraints

Activities / Document production and electronic records

Artistic requirements and constraints

Activities / Document production and electronic records

Technological requirements and constraints: analogue formats, hardware and software

Activities / Document production and electronic records

Ethical requirements and constraints

Activities / Document production and electronic records

publications**General description of publication activities**

[What is a publication? What is the difference between a publication and a “work”?
 Definition of authenticity: is it the same as for performances? In the same vein, is the
 meaning of experimentation changed? Of interactivity? Of dynamism? What role does
 technology play in publications? What is the role of digital technologies in publications?]

List and types of activities related to publishing

[Printing, promotional material, video, Web site, ludo-synthesis...]

Document production resulting from publishing activities

Documents and/or types of documents : large series or unique instances

ELECTRONIC ludo-synthesis (ARTISTICO PROJECT - DOCUMENTARY)**General description of the activity**

What is the ludo-synthesis? What are its goals, its functions? How are notions of
 interactivity, dynamism and experimentation defined in this particular context?

Document production resulting from the activity [ludo-synthesis]

Documents and/or types of documents : large series or unique instances

Uniformity or multiplicity of formats, forms...

Legal requirements and constraints

Laws, norms, regulations or policies [Privacy protection, artists' guilds and unions,
 copyright, Income tax and financial receipts, certificates of authenticity]

[Are there laws regulating the production of the ludo-synthesis? As with original performances, must the respect for privacy be maintained? If yes, how is this to be assured?]

Impact on publishing activities

Creation, Form, Content, *Authenticity*, Organization

Impact on publishing-related documents creation and on electronic records

Creation of documents, Form, Content, *Authenticity*, Organization,
Conservation

Artistic requirements and constraints: official and unofficial rules

[Are there *artistic* rules, within the discipline, which dictate how the activity must be undertaken?]

[How are philosophical concepts relevant to the ludo-synthesis? For example, are ongoing practises merely described or does the ludo-synthesis seek to recreate the experience itself? Does this affect the definition of authenticity? If improvisation is an integral part of the spectator's experience, how can the ludo-synthesis transmit that experience? etc...]

Impact on publishing activities

Creation, Form, Content, *Authenticity*, Organization

Impact on publishing-related document production and on electronic records

Creation of documents, Form, Content, *Authenticity*, *Organization*,
Conservation

Technological requirements and constraints

[Includes technological norms: for example, compression of sound or video files.]

Analogue technology (tape recorder, video camera...)

[Analogue technology necessary for completing the activity: What devices need to be connected to the computer? Does the nature and/or the operation of these devices influence how the activity is carried out?]

Impact on publishing activities

Creation, Form (involves digitization), Content, *Authenticity*, Organization

Impact on publishing-related document production and on electronic records

Creation or recording of documents (reproduction : **loss of quality**), Form,
Content, *Authenticity*, *Organization*, Conservation

Computer equipment (hardware)

[Hardware and peripheral devices used during the activity. Characteristics of this equipment. Reasons for choices (an existing norm?)]

Impact on publishing activities

Creation, Form, Content, *Authenticity*, Organization

Impact on publishing-related document production and on electronic records
Creation or recording of documents, Form, Content, *Authenticity*,
Organization, Conservation [for example, Does the storage capacity of the
chosen medium influence the choice of excerpts taken from works?]

Software

[Software (and its features) used in the completion of the activity] [for
example: Does the use of processing software affect the authenticity of the
activities and documents? (Touch-ups, added effects)]

Impact on publishing activities

Creation, Form, Content, *Authenticity*, Organization

Impact on publishing-related document production and on electronic records
Creation or recording of documents, Form, Content, *Authenticity*,
Organization, Conservation

Ethical requirements and constraints

[Acceptable behaviour and rules, Norms of the milieu (this is art, that is not, ...)]

Impact on publishing activities

Creation, Form, Content, *Authenticity*, Organization

Impact on publishing-related document production and on electronic records
Creation of documents, Form, Content, *Authenticity*, *Organization*,
Conservation

Production process

Steps of Creation

[Step by step, how is the activity completed? What are the documents produced
during each step? What are the roles of each?]

Steps of performance (of the ludo-synthesis)

[How the ludo-synthesis is experienced. Documents produced during each step.
Role played by these documents]

[What are the conceptual elements from the original performance which can be
recovered? Which cannot? Does this affect the *Authenticity* of the ludo-synthesis?
Can participation in the ludo-synthesis recreate for the spectator the experience of
an original performance? Does the notion of interactivity retain the same
meaning?]

Product of publication : (ludo-synthesis as a collection documenting the plurality
of systems of signs, as a context for convergence)

Use of documents created by the recording of direct and mediated modes of
expression

[Digitization implies the use of a single signal for all systems of signs: Impact of
this change. for example, is seeing all of the systems through a screen *authentic*?

Does this correspond to the fundamental thought of the group? If yes, how? If no, would it be possible to think of preserving this Authenticity? Does the spectator's experience necessarily become more that of a viewing a documentary than witnessing a performance?]

[What equivalence exists between the original performances and their reproduction/reconstitution in the ludo-synthesis? Do the performances and the ludo-synthesis have the same value? What are the criteria on which such a judgement can be based?]

[Relationship between the documents of the ludo-synthesis and their sources? Is it possible to recreate the analogue version of a digitized film.]

[Creation or re-Creation of documents (analogue or digital) for the ludo-synthesis. For example, hold interviews with the director of a performance or reconstruct a set with the help of an image from the synthesis: Relationship with authenticity?]

Conservation of documents resulting from modes of direct expression

[How are these documents conserved for reference, reuse or reconstitution? What are the selection criteria used? Do technological considerations affect the choices made or the practises followed in this field?]

Instrumentation

Infrastructure of production for the ludo-synthesis

Location (Web site)

Organizational chart of the ludo-synthesis

Equipment (show tools)

[Are the tools used to mount the original performances integrated into the ludo-synthesis? If yes, how?]

Equipment (production tools: information technology)

This element should have been addressed in the section Technological requirements and constraints

Creation or recording tools: material, for example, camera, tape recorder, computer

Processing tools: for example, software

Conservation tools: for example, reel-to-reel tape, CD-ROM

Equipment (production tools: broadcast technology)

Broadcast tools: for example, newspapers, microphone, telephone...

FINAL QUESTION

[In the production of the ludo-synthesis, does theoretical (artistic) enquiry still have as much importance as in the original performances or is there a tension between it and more technical questions? In other words, do technological possibilities and barriers promote thought or reflection more in terms of technology than theatre?

Appendix C: Inquiry producers and activities

Not translated into English; please refer to the French language version of this report.

Appendix D: Consolidated Questionnaire

This document is designed to complement the plan of enquiry previously used by CS1 Arbo. We began by developing a plan of enquiry to aid in the collection of information on (1) the creator and (2) the document-creating activities within a semi-structured interview format. This made it possible to record the information from the perspective of the five InterPARES contexts.

This new questionnaire is intended to complete the methodological tool-kit. Specifically, it is intended to provide a structured interview format for the collection of information about archival documents. It is a synthesis of the various questions formulated to date by the different InterPARES teams. Consequently, this questionnaire is called the consolidated questionnaire.

The structure of the consolidated questionnaire presupposes that the list of 23 questions was aimed first and foremost at the researchers of InterPARES 2. These 23 questions are issues to be documented to varying degrees by individual case studies. From this perspective, the 23 questions have been arranged under 13 general themes which also include sub-themes, where necessary.

Such an approach has made it possible to establish descriptors which can be used to index collected information according to the primary research interests of InterPARES 2. The first column of the following table provides a list of these themes and sub-themes. Descriptors for indexing the results of interviews and research within the database are drawn from this framework.

THEMES AND SUB-THEMES	Link with 23 questions
1. ACTIVITIES OF THE CREATOR	1. What activities of the creator have you investigated? 2. Which of these activities generated the digital records under investigation in your case study?
2. FUNCTIONS OF DIGITAL RECORDS	3. For what purpose(s) were the digital records created?
3. TYPE AND FORM OF DIGITAL RECORDS	4. In what form are the digital records (for example, e-mail, CAD, database)?
3.1. Form, attributes and behaviour of digital records	4a. What are the key formal elements, attributes, and behaviour (if any) of the digital records?
3.2 Digital components and record specifications	4b. What are the digital components which make up the records and what are their specifications?
3.3 Relationship between intellectual content and technical components	4c. What is the relationship between the intellectual content and the technical components?

3.4 Identification of digital records	4d. How are the digital records identified (for example, is there a [persistent] unique identifier)?
3.5 Hierarchical organization of digital records	4e. What aggregation levels are used in the organization of the digital records, if any? 4f. What determines the way in which the digital records are organized?
4. CREATION OF DIGITAL RECORDS	5. How were the digital records created? 6. From what specific process(es) or procedure(s), or part thereof, did the digital records result? 7. To what other digital or non-digital records are they connected in either a conceptual or a technical manner? Is such a connection documented or captured?
4.1 Technological System	5a. What is the nature of the system(s) with which the records are created (for example, functions, software, hardware, peripherals etc.)? 5b. Does the system manage the complete range of digital records created in the identified activity or activities for the organization (or part thereof) in which they operate?
4.2 Procedures and Processes of Creation	6. From what specific process(es) or procedure(s), or part thereof, do the digital records result?
4.3 Links Between Digital and/or Analogue Records	7. To what other digital or non-digital records are they connected in either a conceptual or a technical way? Is such connection documented or captured?
5. SEARCHING AND ACCESS	8. What are the documentary and technological processes or procedures that the creator follows to identify, retrieve, and access the digital records? 9. Are those processes and procedures documented? How? In what form?
6. USE OF DIGITAL RECORDS AND RESULTING EFFECTS	12. How does the creator use the digital records being studied? 13. How are changes to the digital records made and recorded? 14. Do external users have access to these digital records? If so, how, and how do they use the records?

7. SKILLS AND RESPONSIBILITIES	<p>15. Are specific job skills (or responsibilities) required with respect to the creation, maintenance, and/or use of the digital records? If yes, what are they?</p> <p>16. Are the access rights (to objects and/or systems) connected to the job skills of the responsible person? If yes, what are they?</p>
8. QUALITY CONTROL: RELIABILITY, AUTHENTICITY AND ACCURACY	10. What measures does the creator take to ensure the quality, reliability and authenticity of the digital records and their documentation?
8.1 Reliability	10. What measures does the creator take to ensure the quality, reliability and authenticity of the digital records and their documentation?
8.2 Authenticity	<p>10. What measures does the creator take to ensure the quality, reliability and authenticity of the digital records and their documentation?</p> <p>11. Does the creator think that the authenticity of his digital records is assured and, if so, why?</p>
8.3 Accuracy	10. What measures does the creator take to ensure the quality, reliability and authenticity of the digital records and their documentation?
9. ARCHIVES: SELECTION AND VALUE	<p>17. Among their digital records, which ones does the creator consider to be archival records and why?</p> <p>18. Does the creator archive the digital records that are currently being examined? That is, are these digital records part of a record keeping system? If so, what are its features?</p>
10. RECORDKEEPING SYSTEM (STORAGE OF DIGITAL RECORDS)	18. Does the creator archive the digital records that are currently being examined? That is, are these digital records part of a recordkeeping system? If so, what are its features?
10.1 Specificity of the recordkeeping system	18a. Do(es) the recordkeeping system(s) (or processes) routinely capture all digital records within its scope of the activity?
10.2 Origins of the recordkeeping system	18b. From what applications do(es) the recordkeeping system(s) inherit or capture the digital records and the related metadata (for example, e-mail, tracking systems, work-flow systems, office systems, databases, etc.)?

10.3 Organization of documents within the recordkeeping system	18c. Are the digital records organized in a way that reflects the processes of creation? What is the schema, if any, for organizing the digital records?
10.4 Access to information stored in the recordkeeping system	18d. Does the recordkeeping system provide ready access to all relevant digital records and related metadata?
10.5 Recording changes within the recordkeeping system	18e. Does the recordkeeping system document all actions/ transactions that take place in the system re: the digital records? If so, what metadata is captured?
11. NAMING STANDARDS (OR METADATA)	22. What descriptive or other metadata schema or standards are currently used in the creation, maintenance, use and preservation of the recordkeeping system or environment being studied? 23. What is the source of these descriptive or other metadata schema or standards (institutional convention, professional body, international standard, individual practise, etc.?)
12. TECHNOLOGICAL CHANGE	19. How does the creator maintain their/its digital records in the face of technological change? 19a. What preservation strategies and/or methods have been implemented and how? 19b. Are these strategies or methods determined by the type of digital records (in a technical sense) or by other criteria? In the latter case, what criteria are used?
13. NORMS, POLICIES AND LEGAL, MORAL OR ETHICAL OBLIGATIONS	20. To what extent do policies, procedures, and standards currently control records creation, maintenance, preservation and use in the context of the creator's work? Do these policies, procedures, and standards need to be modified or augmented? 21. What legal, moral (for example: control over artistic expression) or ethical obligations, concerns or issues exist regarding the creation, maintenance, preservation and use of the records in the context of the creator's work?

The second column of the preceding table makes a link between the themes and the 23 questions. In this respect, it is important to note that the themes do not necessarily follow the order of the 23 questions. Rather, the order was chosen to facilitate a logical flow during the interviews with the informants. This reflects an attempt to structure the questionnaire in such a way as to make it more fluid during the collection of information. It is therefore necessary to keep in mind that this does not compromise the structure of the final report of the Case Studies which should be

structured according to the order of the 23 questions. Once this thematic framework is established, it was used to classify the questions drawn from the various questionnaires produced by the InterPARES 2 teams. These questionnaires are:

- 23Q = 23 research questions
- 22Q = ex-22 questions
- Pos = Possible questions
- IP1 = InterPARES 1 (CSIP1)
- Auth = Authenticity
- Dom1 = Domain 1
- Dom2 = Domain 2
- Cdom = Cross-domain Questions
- Mod = Modelling
- Hof = Hofman Modeling Sub-Questions
- Horiz = Horizon
- ArOnt = Ontario Archives

In addition to what has already been stated about the list of 23 questions, it is important to note the presence of this same list among the questionnaires produced for the purpose of interviewing the informants. This is because some of these questions could be addressed to the informants “as is.” In some cases, they addressed topics which were not discussed elsewhere, while in other cases they provided good summaries of the questions appearing in other questionnaires. From this perspective, the list of 23 questions has been treated as a completely separate questionnaire and has been included in the list of questionnaires to be integrated into the consolidated questionnaire.

After classifying the questions drawn from our list of questionnaires, we removed redundant questions while ensuring that multiple origins of the concordance with the questions were recorded. The origins are indicated in the third column of the consolidated questionnaire and will be integrated into the indexing system of the database.

Questions 10.1.7, 4.1.3e and f come from Arbo. This fact is noted by an “X” in the cell corresponding to these three questions. The origin of question 3.0. has been difficult to determine. A rapid search in our documentation revealed a handwritten note made by Philippe Perron on a table prepared by Yvette Hackett, dated 18 March 2003. However, it is also possible that this question was originally drawn from other questionnaires and consequently we have noted it with an “X” and a “?” in the corresponding cell.

Even if the consolidated questionnaire was originally written in French, reflecting the linguistic reality of Arbo Cyber and our case study, it has been entirely translated into English. As a result, it is important to know that although the questions were modified for reasons of synthesis or to conform to the reality of Arbo, many were simply translated.

Finally, it should be noted that the themes 1 and 2 have not been developed. We considered these subjects to have been covered in the plan of enquiry. Additionally, the first round of interviews provided responses to numerous questions regarding the documents. These topics have nevertheless been retained in the consolidated questionnaire. In this respect, we have deemed it

pertinent to construct and use a questionnaire which is complete and autonomous so as to ensure that all of the questions addressed by InterPARES 2 are covered, as well as those questions related to the different fields of research, and also to verify the validity of the answers we had previously received.

N.B. The term «*Ludosynthèse*» as used in this questionnaire refers to the activities of Arbo which we are in the process of studying – both the production of a Web site which seeks to be artistic, fun and historical, as well as the Web site itself, as it is treated as a digital record.

1. Activities of the Producer		
1.1	In general terms, what are the activities of Arbo Cyber, théâtre (?)?	23Q 1
1.2	Among your activities, which generate the electronic records relevant to our study?	23Q 2
1.3	Briefly describe the digital information created in carrying out that activity [the <i>Ludosynthèse</i>]?	Pos 1
1.4	Do you consider this activity [the <i>Ludosynthèse</i>] to be interactive? If yes, how?	22Q 00
2. Functions of the Digital Records		
2.0	What are the goals and intended uses behind the creation and conservation of the digital records being studied? Do these digital records have specific functions? [What experiences, knowledge or understandings do you hope that people can gain from your work?]	23Q 3, Cdom 4, 22q 1, Pos 2 Pos 3, Mod 3a
3. Type and Form of the Digital Records		
3.0	<p>[In your electronically-based work, what do you consider to be a document?</p> <p>In your own view, does the <i>Ludosynthèse</i> constitute a document, or each of its parts, or each of its pages or each of its elements taken individually (sound files, images, moving images, text document.) [What is a document in the system being studied?]</p> <p>Before delving directly into the study of your digital records, I would like to briefly return to the structure or the modules of the <i>Ludosynthèse</i> :</p> <p>In the first interview, we saw that the <i>Ludosynthèse</i> was divided into three main parts: Historical, Conceptual and Fun: Has this changed? - How far have you progressed with the work of production [programming]?</p> <p>Have you added new modules to the <i>Ludosynthèse</i> or do you foresee adding any : for example, an e-mail module or a forum? If yes, have these modules already been conceived, programmed?</p>	X?
3.1. Form, Attributes and Behaviour of Digital Records		
3.1.1	[In order to produce or operate the <i>Ludosynthèse</i> ,] what sorts of computer files [document types] (text, graphics, spreadsheet, e-mail, database, CAD, etc....) must you create or be able to receive? [to be able to accomplish the goals you have described?] Can you list and describe them?	23Q 4, Mod3b, Dom1 1.1a, Pos 5, IP1 2.1, Cdom 2, 22q 4

3.1.2	For each type of file, what are its attributes (intrinsic elements) and what is the significance of each of these attributes? [See the following list of questions:]	23Q 4a, Pos 4, Dom1 13a, Cdom 10, Hof 3a, Dom2 13b,
	<p>a) Does the identity, name or signature of the author, creator, producer or owner [holder] of the document appear somewhere in the document or documents? Is each document signed? How (type of signature)? If it is in the form of a code, can the latter be linked to the real name?</p> <p>b) Can users see these signatures?</p> <p>c) If documents are not signed, how is it possible to know who created what?</p> <p>d) Are the date, time and place of creation (compilation) included in the document? If yes, are they recorded automatically or at the discretion of the user? If no, can this information be found elsewhere in the system?</p> <p>e) Is the subject (contents) of the document either explicitly or implicitly recorded? If yes, how?</p> <p>f) Does the electronic system include a method to ensure that the subject is properly displayed?</p> <p>g) If applicable, who are the primary and secondary recipients of the digital records? Are their names (or other forms of identification) included in the documents? If yes, where are they indicated? Can end users see them? If no, can they be found elsewhere in the system?</p>	IP1 2
3.1.3	For each type of file, what are the principal formal elements (for example, rules of presentation)? [See the following list of questions:]	23Q 4a, Pos 4, Dom1 13a, Cdom 10, Hof 3a

	<p>a) What human language is used in your documents? (English, French, mathematics...)</p> <p>b) Are there any requirements regarding what language or how a language must be used within documents?</p> <p>c) How is the content of document presented to human users? (for example: words, numbers, graphics, images, sounds, a combination...)</p> <p>d) In order to serve the functions for which they were created, must the documents have a specific appearance [Fonts, colours, links...], a particular structure [Header, body...] or a certain layout? If yes, describe these characteristics.</p> <p>e) Is the form of the documents variable or dynamic? Can it be altered over time? Can the form change? [How are the <i>Ludosynthèse</i> documents coded: HTML, XML...?]</p> <p>[The question of electronic signatures and other forms of certification is raised under theme 8.]</p>	IP1 3, Pos 4, Dom1 13a, Cdom 10, Hof 3a ArOnt 17
3.1.4	If relevant, describe the behaviour of each file type (behaviour: what it does, how it acts or interacts with the system and other digital records in the system).	
3.2 Digital Components and Record Specifications		
3.2.1	For each type of record, can you describe each of its digital components and their specifications? [Digital components: digital elements added (to the document) and requiring specific conservation methods: e-mail header, digital signature, images and text for multimedia documents.]	23Q 4b
3.3 Relationship Between Intellectual Content and Technical Components		
3.3.1	Do certain files in the <i>Ludosynthèse</i> contain intellectual content while others contain technical specifications? If yes, how are the two connected? [What is the relationship between the intellectual content and the technical components?]	23Q 4c, Hof 3c, Mod 3c
3.4 Identification of Digital Records		
3.4.1	<p>Have you established suggested or recommended mandatory file naming conventions for your records or a particular way of labelling your files? If no, how are your digital records and documents identified?</p> <p>Do you include a persistent unique identifier when naming your different files?</p>	23Q 4d, Hof 3d, Pos 6, Mod 3d.1 et 3d.2, IP1 5.3

3.4.2	Do the names of your files ever change? If yes, why?	Pos 6, Mod 3d.1 et 3d.2
3.5 Hierarchichal Organization of Digital Records		
3.5.1	What type of hierarchy is used in the organization of your digital records (folder, subfolder, etc.)?	23Q 4e, Hof 7b, Pos 7, Mod 17b
3.5.2	If applicable, how did you decide on this structure? What factors influenced your choice?	23Q 4f, Hof7c, Pos 8, Mod 7c
4. Creation of Digital Records		
4.0	[How are the digital records created?]	23Q 5
4.1 Technological System		
4.1.1	Are all files created with the same technological system or is more than one system used? [For example, with a single computer or with several computers at different locations?]	Mod 5a, Pos 11
4.1.2	Does the system manage the full range of digital records created for carrying out the activity?	23Q 5b, Hof 5a
4.1.3	What type of system is used to create digital records? a) What are its features? What is it used for? (e-mail, Internet, video-conferencing, storage, broadcasting...)	23Q 5a
	b) What is the operating system (Windows, Unix...)? Was this system chosen over another for a particular reason?	Mod 5b, Pos 12, 23Q 5a
	c) What software (type, name, version) is used? What is it used for (what applications)?	Mod 7a, Mod 5b, Pos 12, 23Q 5a
	d) What peripheral devices are used? Is special equipment connected to the computer?	23Q 5a, Mod 5b, Pos 13

	e) What is the storage capacity of the system where the records are kept?	X
	f) What communications network is used?	X
4.1.4	Do you have technical standards for your electronic systems? If yes, what are they?	IP1 5.1
4.1.5	Is the system capable of generating a diagram of its operation (for example, links between software applications or between modules)? If no, can you draw one?	IP1 1.11
4.2 Procedures and Processes Of Creation		
4.2.1	Which specific processes or procedures, or elements thereof, result in the creation of digital records? [Does a specific procedure or process exist?] - Does each file type (text, sound, image...) have its own process or procedure for creation?	23Q 6, Cdom 6, 22q 5 et 6
4.2.2	If yes, do you consider it important to follow this procedure when creating a document or fulfilling a task? Why?	Auth7, Pos 21
4.2.3	Are these processes or procedures (methods and technologies) documented? How? In what format?	Cdom 9, 22q 7 et 8
4.2.4	Are there steps you must complete in your work which influence the final product in such a way that if you were to skip one of the steps it would have an impact on the work?	Auth7, Pos 21
4.2.5	Is there something in the way you create a digital record (work) that would make it distinguishable from similar works completed by others?	Auth7, Pos 21
4.2.6	Have you established rules or adopted standards to help you in your work? Have rules had to be established or standards adopted in order to help you with your work? Do they have to be updated regularly? [See also the following list of questions:]	Pos 37
4.2.7	27. Does the system limit what can be entered into a document when the latter is created (for example, standardized forms, restricted vocabulary, limited-sized fields, validation, drop-down menus...)? 28. If yes, are these limitations documented? 29. Are there other restrictions, norms, rules or conventions regulating the creation of documents? (ISO, system design, international or professional standards...)	IP1 3

4.3 Links Between Digital and/ar Analogue Records		
4.3.1	Is the <i>Ludosynthèse</i> , or are the digital documents created for it, linked to other analogue or digital documents, either conceptually (intellectually) or technologically (materially)? If yes, what is the link? Is it easy to follow, to re-establish?	23Q 7, Pos 14, Mod 7a, Pos 15, Mod 7b
5. Searching and Access		
5.1	What processes or procedures [documentary or technological] are followed in order to identify, search and access digital records? (For example, naming, browsing an index, opening, etc.) Describe each of these steps.	23Q 8, Cdom 8
5.2	Are these processes or procedures documented? How? In what format?	23Q 9
5.3	Are security controls integrated into the electronic system? (For example: password, voice recognition, physical security, single software application for creation and access...) If yes, at what level? (For example, within the operating system, the applications, the peripheral devices, etc.)	IP1 5.7
5.4	Do the ways the content is presented vary according to the various users' roles? (Limited access, restricted content...) If there are different classes of users, what are they?	IP1 1.10
6. Use of Digital Records and Resulting Effects		
6.1	[From a technical and operational perspective,] how do you use the digital records being studied? What do you do with the records after they are created (processes / procedures)? How or to what ends do you use them?	23Q 12, 22q 11, Cdom 13 (aussi 23q3)
6.2	Do external users [other employees, other work groups or observers] have access to these digital records? If yes, how and at what times? What do they do with the records? Does this change over time?	23Q 14, Cdom 14, Mod 14a, 14b, 14c, 14d, 14e, Horiz 3.12, Pos 20, 22q 13
6.3	Can certain individuals add information to the documents in order to create new ones?	22Q 14
6.4	If changes are made to the digital records during use (by you or by outside users), how are these changes made? (for example, adding new content, erasing or replacing existing content, etc.)? Are these changes recorded?	23Q 13, 22q 12, Cdom12

6.5	<p>After a document is created or received (and it is considered complete), can elements [annotations] be added [by you, the electronic system or another user] during a) an administrative procedure, b) a work session or c) a records management procedure? (see the details noted below). If yes for a), b) or c):</p> <ul style="list-style-type: none"> • What elements are added? • Are these elements added by the system or by the user? When? How? • What form do these added elements take? • What is the purpose of these annotations? [Authenticity] • How are these elements attached or bound to the document? • If the elements are related, is it possible to import them into the document itself? • Once new elements are added, is it possible to modify or erase them? How? • Are these elements required by law, external regulations, accreditation services, internal administrative regulations, work procedures in which the document is used? • Are certain annotations always added to all documents (for example, to indicate its priority for delivery or processing)? <p>Note:</p> <p><i>Administrative procedures: Annotations are normally used for authenticating or registering legal documents. For example: lot registration number, proof of authenticity for a will. For digital records: date/ time/ origin, delivery priority, attachments.</i></p> <p><i>Work procedures: Annotations show the subsequent steps taken during processing: date / time of reception, name of office or person responsible for processing, comments, notes.</i></p> <p><i>Document management: Annotations made after the completion of the document, with the aim of conserving (managing) it: archiving date, classification code, registration number, folder number, version number, reference to other documents, name of creator.</i></p>	IP1 4
6.6	<p>Are measures (procedures, controls, administrative or archival guidelines) taken to allow you to locate and/or record all changes, updates, amendments or modifications to made the digital records regardless of when they occurred?</p>	Pos 41, IP1 1.7

6.7	Does a time come when the content of the document is considered complete, stable and unchangeable (immutable)?	IP1 2
6.8	During use, is a copy of the [active] document saved separately [outside the system] for reasons of security, restoration or backup (for example, in the event of a catastrophic failure)? How long is the back-up copy of a digital record saved before it is replaced (overwritten)?	IP1 5.2
7. Skills and Responsibilities		
7.1	Are particular job skills or responsibilities (exclusively) associated with the creation, maintenance and/or use of digital records? If yes, what are they? [Is the creation, management or use of digital records reserved for individuals holding a particular title or expertise?]	23Q 15, Hof 14a et 14c
7.2	<i>Is anyone officially responsible for the activities generating the Ludosynthèse [individual, team...]?</i> - Does the responsible party actually perform the work of managing the information, records, and archives? If no, what is the relationship between that individual and those activities? - Does the responsible party offer technical support for the electronic system? If no, what is their relationship with that activity?	IP1 1.4
7.3	In such a case, what are the responsibilities of the person in charge of a) creation b) management, c) conservation, d) use e) of any other relevant process?	Hof 14e
7.4	Must someone indicate their agreement or authorization before your documents can be created?	Auth5
7.5	Who decides what data or what information will be included in the document? Who decides how they will be presented?	IP1 2.13
7.6	Is a title or attribution indicated on the document? If yes, where?	IP1 2.15
7.7	Must your documents or your work follow rules established by someone else? If applicable, what would be the status of a document/work completed outside of these rules?	Auth6, Pos 17

7.8	Do you possess any official qualifications which provide your documents/works with a credibility which would be absent from the work of another person who did not possess those qualifications? [the term “qualifications” can refer to an academic degree or to experience which distinguishes an amateur from a professional...]	Auth5, Pos 22
7.9	Who holds the authority to publish or circulate the digital records?	IP1 2.2
7.10	Must someone verify, control or critique your documents or your works? If yes, do they use standards or norms in order to evaluate your documents/works? Which ones?	Auth11, Pos 23
7.11	Does the electronic system include a method for ensuring that only that person with the proper authorization can publish or otherwise distribute your documents?	IP1 2.2.4
7.12	Are access rights to records and systems linked to the qualifications of the responsible individual? If yes, what are they?	23Q 16, Hof 14b et 14d
8. Quality Control: Reliability, Authenticity and Accuracy		
8.0	What steps do you take in order to ensure the quality (accuracy), reliability and authenticity of your records and related documentation? In the context of your work, of the creation of the <i>Ludosynthèse</i> and your digital records, explain the meaning, if any, the following terms have for you: reliability, authenticity, accuracy (quality) of digital records? [The questions to be answered in light of the questions listed under the following three sub-themes:]	23Q 10, AUTH4, Pos 30
8.1 Reliability [the questions for this sub-theme may be used for the two other sub-themes as well]		
8.1.1	In the context of your electronic artistic activities, do the notions of reliability and “reliable document” have a meaning for you? - Can the digital record you have created while producing the <i>Ludosynthèse</i> be considered reliable? Why? - With regard to the form or the control of their creation, what conditions must your digital records satisfy in order to be considered reliable?	Dom2 2.1, Horiz 3.14
8.1.2	At what moment do you consider your works, your documents as being in their definitive version? How do you know that they contain enough of the required information to meet the goals for which they were created?	Auth10

8.1.3	What elements of a record can someone verify in order to be sure that a digital record in one of yours? [See also the following lists of questions:] [Also related to authenticity]	Auth16, Pos 38
8.1.4	<p>Do you label or mark your digital records [your works, your documents] in a certain way so as to show that they are yours, that they belong to you?</p> <p>a) Do you create or do you receive digital records containing logos or official seals, electronic watermarks or signatures or timestamps [by a trusted third party]?</p> <p>b) If yes, are they used for all or only for a selection of digital records? If it is only a selection, which documents are affected? Why?</p> <p>c) If you use electronic signatures, when are they used?</p> <p>d) Do you use other methods [electronic or other] in order to show with certainty that your digital records are, in fact, yours? If yes, name them.</p> <p>e) Do you have an official method for certification or specific procedures used for the digital records in your system which state or guarantee that they can be verified, considered as reliable and credible (for example : a seal...)?</p> <p>f) In the electronic system, are mechanisms applied to the documents in order to insert codes or secret messages (for example, with stenographic tools)?</p>	Auth2, Pos 28, IP1 3
8.1.5	If they are dated, how can someone verify that the records were created (approximately, at least) on the indicated date?	Auth16, Pos 38
8.1.6	Do your documents/works represent, show, allow someone to see the activities involved in the creation of the <i>Ludosynthèse</i> ? Can you say that they represent the ongoing process of electronic creation? How is this evaluated? Does it influence the status of your records/works? If yes, how?	Auth8
8.2 Authenticity [the questions for this sub-theme may be used for the two other sub-themes as well]		
8.2.1	What do you conceive as an authentic record (document)? In your view, is this different from the question of reliability?	22Q 16
8.2.2	<p>- Do you believe that the authenticity of your digital records is ensured?</p> <p>- If yes, why? On what bases is it possible to presume this authenticity? If no, is it possible to verify the authenticity of the digital records?</p>	23Q 11, Cdom 16, Dom2 2.4a, Dom2 2.4b

8.2.3	Do you take certain measures in order to ensure that your digital records are not altered, corrupted, or modified over time? Do you take certain measures in order to allow you to locate any change (intentional, accidental, environmental) in your digital records?	Pos 41
8.2.4	Do you believe that the authenticity of your digital records can be affected by their transmission [distribution] in space or time? If yes, how?	Dom2 2.5a
8.2.5	Do quality control procedures in the process of transmission [or distribution] allow you to ensure that your documents remain authentic?	Dom2 2.5b
8.2.6	How can someone know if one of your digital records or your works has not been altered over time? That its form and content have not changed since the time of its creation? In the context of the creation of the <i>Ludosynthèse</i> , what would be for you the status of a digital record (photos, video or other) which has been altered [either by accident or intentionally]?	Auth 18, Pos 24
8.2.7	If someone damages your records or your work (or causes them to be degraded) or if you leave errors in them, would you prefer that this damage or these errors be recognized, noted, catalogued?	Auth3, Pos 29
8.2.8	A hundred years from now, how will someone be able to know if a document or a work is yours? Is this important?	Auth17, Pos 39
8.2.9	Are all of your digital records your exclusive property? If not, do you take particular measures in order to ensure the integrity of your digital records? Which ones?	Horiz 3.16
8.3 Accuracy [the questions for this sub-theme may be used for the two other sub-themes as well]		
8.3.1	In the context of your electronic work, what does it mean that your digital records are accurate? What aspects of your records or your work are influenced by this accuracy? Does this have a clear meaning for you? Is it important?	Auth12, Pos 31
8.3.2	What is the relationship between your digital records [work] and “reality”? To what extent is it important that all of the facts included in your digital records or in your work are accurate, error-free and correspond to reality?	Auth13, Pos 33, Dom2 2.2b, Auth15, Pos 25
8.3.3	Is it possible to evaluate the accuracy of your electronic records and works? If yes, how? On what can this accuracy be based?	Auth13, Pos 33, Dom2 2.2b

8.3.4	Have you established any procedures to be carried out at the moment your digital records are created in order to permit a presumption of accuracy with regard to your documents? If yes, what are they?	Dom2 2.2c
8.3.5	Are there any grounds for someone to critique your documents/work for being inaccurate? What are those grounds?	Auth14, Pos 32
8.3.6	[If no measures are taken to ensure the reliability, authenticity or accuracy of the documents]: Do you believe that your digital records must satisfy these criteria – reliability, authenticity, accuracy?	Cdom 11
9. Archives: Selection and Value		
9.1	Among your digital data and documents, which do you consider to be archives (records) ? Why? What, in your opinion, makes them archives?	23Q 17, Cdom 15, 22q 15
9.2	Are they stored? If yes, for how long? What are the reasons behind any long-term storage?	23Q 18, Horiz 3.4, Cdom 17, Horiz 3.5
9.3	What digital records are actually stored – only those considered to be archives or a larger collection of documents? In other words, is everything stored or only selected files? What selection criteria are used in storing documents?	Pos 44, Dom 1.7a
9.4	Has technology [or its use] affected decisions and practises related to document storage? If yes, how?	Dom1 1.7b
9.5	After publishing your work [broadcasting/distributing your works], manuscripts, notes, letters... remain. Should these documents survive intact as long as the electronic work [the <i>Ludosynthèse</i>] is available? [Distinction between products and by-products] For what reason (for example, links with published documents, proof, emotional, heritage or monetary value, etc.)?	Auth1, Pos 27
9.6	Do you consider the <i>Ludosynthèse</i> to be a copy of documents managed and stored elsewhere, or does it constitute a new collection of documents? If it constitutes a new collection, do you see it as being autonomous or does it need to be linked with the old documents in order to function properly?	ArOnt 29
9.7	For how long will the <i>Ludosynthèse</i> be kept (online / offline)?	ArOnt 23
10. Recordkeeping System (Conservation of Digital Records)		
10.1 Specificity of the Recordkeeping System		

10.1.1	Do you keep your records in the same system as the one in which they were created, or are they moved to a separate recordkeeping system? If they are kept in the same system, is a specific recordkeeping functionality built into the system with which you create the digital records being studied? If they are moved, to where are they moved? To an electronic recordkeeping system?	23Q 18, Mod 17b, Pos 43, Hof 17b, ArcOnt 26
10.1.2	If the system is new, describe its characteristics (for example, functions, software, operating system...).	23Q 18, Cdom 17
10.1.3	Does the existing system for preserving digital records systematically record all records produced in all of the activities it covers? Is the system run automatically or manually?	23Q 18a, Hof 17c
10.1.4	Do you have an established or standardized procedure for the long-term preservation of your digital records? Do you have a specific process to initiate, steps to follow, or measures to take in order to manage or maintain your digital records?	Mod 17a, Pos 42, Hof 17a
10.1.5	If the content of some documents is dynamic: What measures are taken to preserve the dynamic nature of the documents and their functionality?	Horiz 3.7
10.1.6	If certain documents were created interactively: Are the interactive capabilities of the system recorded? Does the recordkeeping system recognize interactivity?	Horiz 3.8
10.1.7	If some documents are linked to others (hyperlinks or multimedia) : Does the recordkeeping system also save these links?	X
10.2 Origins of the Recordkeeping System		
10.2.1	If applicable, on which application(s) or functions [business system (for example, tracking system, work-flow system, office system, database...)] does the system for conserving digital records [recordkeeping system] rely for retrieving digital records and/or related information [metadata]? If you save records on a second system, does the latter inherit or record information from the system which originally created the records?	23Q 18b, Hof 17d, Mod 17d, Pos 45
10.3 Organization of Documents in the Recordkeeping System		
10.3.1	When they are stored, do your digital records remain organized in the same manner as when they were used or are they organized differently?	Pos 46

10.3.2	Once they are stored, does the organization of digital records reflect the way they were created? Is an outline [plan of classification] used in the organization of digital records? If yes, which one?	23Q 18c
10.4 Access to Information Conserved in the Recordkeeping System		
10.4.1	Are your digital records identified differently when they are being stored (long-term storage) than during their active life? If yes, how are they identified?	ArcOnt 25
10.4.2	Does the system for keeping digital records offer direct access to all of the digital records and related information [metadata]?	23Q 18d
10.4.3	What kind of controls [procedural or technological] are in place within the recordkeeping system to limit access to information, documents and/or archives marked for modification or destruction?	IP1 1.7.1
10.5 Recording Changes within the Recordkeeping System		
10.5.1	Does the recordkeeping system record or collect information any time it manipulates the digital records? If yes, what information is recorded (metadata)?	23Q 18e
10.5.2	From the moment when records are “stored,” is any access to these records or subsequent changes to them recorded? What kind of information is collected?	Pos 48, ArOnt 24
10.5.3	Have you established any procedures or controls which allow you to identify or follow any alteration or destruction of data/documents/archives which occurs during the management of the recordkeeping system.	IP1 5.6
11. Naming Standards (or Metadata)		
11.1	Have you created or do you use a standardized list of information (diagrams, naming standards, metadata) which you attempt to record for each of your files or digital records? If yes, what is in this list? What information do you record?	23Q 22, 22Q 21, Pos 9
11.2	If yes, is this standardized list used during the creation, management, use and/or conservation of digital records? If no, does the information recorded vary according to the activity in question (creation, management, use, conservation)?	23Q22, Cdom 21

11.3	Where do these outlines or naming standards or metadata originate (institutional agreement, professional body, international standards, individual practise)? Do you know if other individuals or organization follow the same standards?	23Q 23, Cdom 22, 22Q 22, Pos 10
12. Technological Change		
12.1	How do you conserve your digital records or the <i>Ludosynthèse</i> in the face of technological change? [The next two questions provide the information needed to answer]	23Q 19, Cdom 18, 22q 18, ArOnt 27
12.2	What strategies and/or methods of conservation have you put in place to guard against the obsolescence of your technology or your data? How have you implemented these strategies or methods? Do you have a specific strategy for the conservation of your files, your digital records, your artistic works in relation to this obsolescence of the material (for example: backup, mirroring, migration: export paths, re-interpretation [Langlois])?	23Q 19a, Cdom 18a, IP1 5.5
12.3	Are these strategies and/or methods determined by the type of digital records (from a technological perspective)? If yes, how? If no, what are the criteria which determined the choice of these strategies or methods?	23Q 19b, Cdom 18b
12.4	With the passage of time, have you already had trouble finding something you had previously created?	Pos 47
13. Norms, Policies and Legal, Moral or Ethical Obligations		
13.1	Currently, to what extent do policies and standards influence the creation, management, conservation and use of your digital records in the context of your work? Do these policies, procedures and standards need to be continually modified, reinforced or updated?	23Q 20, 22Q 19, Cdom 19
13.2	Are there any professional standards or models ["best practises"] which you must follow in order to ensure that your records and your work are deemed acceptable by your colleagues?	Auth9
13.3	Have you encountered or do you face other pre-occupations, questions, constraints or legal, moral or ethical obligations with respect to the creation, management, conservation or use of your documents and of the <i>Ludosynthèse</i> ?	23Q 21, Cdom 20, Pos 49, 22 q 20

13.4	If yes, do these external obligations affect the creation, form, content, authenticity and organization of your digital records? If yes, how?	IP 1.1.2
Final	What potential problems do you foresee with respect to the long-term conservation of your digital records?	Horiz 3.21

Appendix E: Form & Guide écoute

Not translated into English; please refer to the French language version of this report.

Appendix F: Guide écoute Entrevue 2a

Not translated into English; please refer to the French language version of this report.

Appendix G: Guide écoute 2a & 23 questions

Not translated into English; please refer to the French language version of this report.

Appendix H: Ludo organigramme

