ORAL HISTORY AND THE MEDIA ART AUDIENCE

Lizzie Muller

'I'm an interactive artist: I construct experiences.'

'Many limit the value of oral history and interviewing to anecdotes, the illustrative incident, the ambience of the time... I think it helps get the event itself... the guts of the event, the heart of it.'

Documenting audience experience is one of the greatest challenges and one of the most promising new directions in the creation of media art archives. Media art theory emphasizes the role of participants, but descriptions of their experiences in their own words rarely appear in the documentary record. The field of oral history provides a valuable approach to addressing this gap. It presents arguments for the historical legitimacy and significance of first-hand accounts of actual experiences, as well as guidance for good practice in creating and managing such resources. The use of oral history is not new in art documentation; it has been used effectively to record information from the perspective of artists and important figures in the art world. In this essay, however, I argue that oral histories of media art should be expanded to include the experiences of the audience. I describe a recent case study in this area that focuses on the work of the seminal media artist David Rokeby.

In the quote that opens this essay David Rokeby acknowledges that as an artist working with computers his role is not to create objects, but experiences. The experiential nature of such artworks is often seen as a problem for documentation, raising the question of how, or even whether, we should preserve their immaterial aspects. But the mutability of media art can also be seen as a valuable opportunity for developing new forms of documentation. Archivist and theorist Alain Depocas argues that documentary practice must address the transitory and transitional state of media art: 'grasping all the consequences of this transitoriness requires a profound paradigm shift'.


Langlois, D., 'The Research reported in this chapter was conducted primarily during a residency at the Daniel Langlois Foundation in 2007. This essay was adapted from an essay published on the foundation's website http://www.langlois.org.'
There have already been significant advances in methodologies for documenting media artworks from an archival and preservation perspective. The Variable Media Network, for example, has developed an approach that seeks to identify the essential qualities of an artwork by interviewing the artist and others involved in the creation of the work.\(^6\) The Capturing Unstable Media project has developed a formal conceptual model for describing and preserving aspects of electronic artworks, which is flexible enough to accommodate the iterative and processual nature of media arts projects.\(^6\) Both the Variable Media Network and the Capturing Unstable Media initiative agree that audience experience is important, and both make space in their structures for experiential material. However, neither has developed methods for dealing with this aspect of documentation, and the audience experience continues to be a gap in the documentary record.

Oral Histories: valuing experience, listening to voices

The field of oral history offers precedents, models and guides for good practice in recording, cataloguing and preserving accounts of individual experiences. It also redresses a historical imbalance in the kinds of information that are recorded, valued, and will be made available to people in the future. Reimer describes oral history as the use of the actual words and voices of those who lived and witnessed history to document people and topics previously absent from the historical record. Such gaps appear, he argues, when ‘groups in society [have] neither the means nor occasion to represent themselves by written records and hence our knowledge of them [comes] through impersonal statistics.’\(^5\)

The media art audience is such a group. Whilst there are already existing oral history projects that relate to art, these focus mainly on the lives and accounts of important or powerful figures in art history. The Archives of American Art Oral History Program, for example, which began in 1958, documents the history of the visual arts in the United States, primarily through interviews with artists, historians, dealers and critics. The CACHe Project (Computer Arts, Contexts, Histories, etc.) collates numerous archives relating to British computer art, and includes interviews with artists considered to be pioneers in the field. The project What’s Welsh for Performance Art?, led by Heike Roms, has created a rich archive of interviews with leading Welsh performance artists. Roms’ innovative technique includes publicly staged interviews that allow members of the audience who were present during the events to question or correct the accounts given by the interviewee. Despite these valuable oral history projects there is still a lack of material that records the experience of the ‘non-professional’ participants. The audience remains a silent majority in the history of media art - much talked about but rarely heard.

Curators, conservators, artists and arts administrators have the power and the responsibility to select or produce institutional archival records about the art of today. Oral histories of media art should address the gap in experiential documentation by recording many different perspectives on a work - including the views of the artist, curator and technician - but their particular contributions would serve to emphasise the experience of the general audience. These histories would offer rich and varied portraits of how the artworks existed in experience and would necessarily widen our understanding of the relationship of media art to its social and cultural context. Oral history is part of a spoken rather than a written tradition. Its materials are produced from a conversation between the archivist/researcher and the subject, which implies a significant ethical dimension in its production. As described in the quote from Walter Lord that opens this essay, many historians immediately consign oral documents to the periphery. Such accounts are necessarily less polished than written records, and therefore seem to have less authority in the text-based world of historical research. Countering this position Reimer points out that oral history was in fact one of the first ways of registering history, which was eclipsed when the technology of the written word became our primary mode of recording.\(^6\)

However, modern technologies such as the telephone, video and internet are bringing orality back more strongly into our culture. Mackay argues that oral history has developed hand-in-hand with technology.\(^6\) Beginning with the open reel tape recorders of the 1930s and 1940s, it was developments in recording technology that first made the recording of people’s verbal descriptions possible. The 1960s and 1970s represented a boom in oral history recordings due to the introduction of small


\(^6\) Reimer, D. 1984. op. cit.
portable tape recorders. Digital technology introduced in the 1990s opened new possibilities for preserving and presenting records, and video offered the option of adding visual information. The relationship of oral history to technology makes it a particularly interesting form of documentation for media art, as both the artform and its means of documentation reflect and exploit technological change.

Advances in Internet technologies - particularly the ability to easily upload and download video and audio content to websites - offer the possibilities of distributed production and widespread dissemination of audiovisual records. Whereas in the early days of oral history the written transcription of an account was considered the primary document, current practice emphasizes the central importance of the audiovisual recording. This emphasis recognizes that the value and content of an oral account is inextricably bound up with its telling: the time-based unravelling of the story in the voice of the person who tells it. The tone of voice, attitude and the emotion of the speaker, the memory lapses and self-correction are all vital parts of oral records, which situate the account related by the speaker. Even in their complete form oral records are clearly subjective and selective: no single oral record claims to hold the whole truth. As Reimer argues, few historical records reveal the biases of their creators as openly as oral interviews. The challenge, then, in creating an oral history of media art is to find ways to present experiential accounts that allow the oral register to be valued, understood and placed centrally in the history of media art. In the second part of this essay I describe an example that attempted to solve some of these problems through the creation of an online documentary case study that combined traditional archival materials with oral records from both the artist and the audience.

Case study: An oral history of David Rokeby's 'The Giver of Names'

In 2007 The Daniel Langlois Foundation commissioned Caitlin Jones and me to create a documentary collection for the artwork 'The Giver of Names' (1991-), by David Rokeby (see image). Through the creation of this case study we have developed a promising approach to media art documentation that integrates oral records from both the artist and the audience with traditional archival materials. 'The Giver of Names' is a computer system programmed to see, analyze and describe objects offered to it by participants. In the ideal scenario envisaged by the artist, a participant chooses objects from a pile on the floor and places them on a plinth to be analyzed and described by the computer. The computer's descriptions are assembled from its language database, responding to parameters such as colour, form and position. The computer speaks the description aloud, and it appears as text on a screen showing an image of the object, suspended directly above the plinth. The sentences it produces are grammatically correct but nonsensical. The descriptions may seem poetic, whimsical or foolish to the human observer, but, crucially for Rokeby, they should not be perceived as being completely random.

The documentary collection includes an interview with David Rokeby, interviews with audience members and museum guards, as well as detailed technical documentation of the work, photographs and bibliographic references. Our strategy was to emphasise the dialogue between the ideal, conceptual existence of the work, and its actual manifestation through different iterations and exhibitions in the real world. Maintaining this tension between the real and the ideal allowed us to articulate the relationship of experiential material in the broader archival context.

During the course of the exhibition we interviewed audience members of all ages and with many different backgrounds, professions and levels of experience with art and technology. The creation of this case study shed light on the many practical and methodological issues that must be considered when producing oral records of audience experiences. In the remainder of this essay I outline the most important of these issues, and describe the solutions we implemented in our own work.

1 The role of the researcher

The creation of oral records necessarily entails questions of validity and reliability. Oral records are considered by some to have diminished status among other forms of historical documentation, because they necessarily reflect the personal viewpoints of both the record-creator and the subject. There are two useful strategies proposed in the literature of oral history to counter these objections. The first is to make created oral materials available in conjunction with a variety of other kinds of materials wherever possible. This allows for a form of triangulation in which different types of material can validate and problematize one another. The second is to emphasise the unique value of the reflexive way in which oral records are produced. Oral documentation implies a proactive role for the archivist/researcher as the record-creator - and not merely as the custodian. Materials are produced self-consciously for an array of future purposes and
with an awareness of current practice. The rigour of this practice is generated through an emphasis on clarity of motives and methods and a reflex.

2 Technical considerations
Creating audiovisual documentation of digital installations is notoriously difficult because of the prevalence of darkness, screens and projections. Often the local conditions of an artwork (e.g., the ambient lighting) will need to be adjusted to create good photographic or video documentation. When documenting audience interactions, these kinds of adjustments are impossible, as they will affect the participant’s experience of the work. There is no easy solution to this problem. Experience suggests that a combination of the best available camera and maximum manual control (to avoid particular problems like autofocus), a good camera operator, as well as considerable tweaking during post-production, achieves reasonable results. On the other hand it is important to remember that in recording audience experiences the verbal report of the participant is the most important information. Our technical priority in The Giver of Names case study was to always ensure that the sound quality was as good as possible.

3 Ethics, consent, copyright
The ethical and legal status of an experiential record is vital if it is to be made available to future researchers. The main requirements include the need to certify informed consent, and to transfer copyright from the participant to the researcher. In most instances the necessity of completing the correct paperwork needs to be balanced against the challenge of persuading general visitors to participate in an interview. Long, complex and intimidating consent forms could discourage potential participants, so it is vital to spend time preparing the simplest paperwork possible, whilst meeting all necessary legal and ethical requirements.

4 Capturing negative or neutral experiences
An important challenge in creating experiential documentation is the question of how to record ‘negative’ experiences. It is much easier for researchers to record interviews with participants who have clearly had a satisfying, or at least a reasonably long interaction with the artwork. In many cases, however, visitors are likely to have only minimal engagement with the work. In order for the documentation not to be misleading, it is necessary to contextualize the high-quality experiences recorded in interviews within the larger field of less attentive encounters. The solution we used in The Giver of Names case study was to include interviews with the professional gallery attendants who watch over the artwork every day. The attendants describe their own perceptions of the general behaviour of the crowd, and provide something of a contextual overview of the audience. Capturing the individual experiences of the attendants in this way provides a more interesting source of more general information than quantitative surveys.

5 How many experiences to record?
The aim of creating an oral record of the audience’s experiences of any particular artwork is not (and could never be) to create a complete record of the different ways in which an artwork manifests. Each person’s experience is both necessarily partial - only showing some of the many aspects of an artwork - and at the same time complete in itself. Just one real experience is enough to open up the field of possibilities that exists in an artwork and add a spark of life to its documentation. The kind of experiential records that would form an oral history are qualitative rather than quantitative in nature, and do not lend themselves to statistical uses. On the other hand, comparisons between different people’s experiences can be very illuminating, and recording a variety of different experiences adds richness to a collection. In The Giver of Names case study we created a multilayered portrait of the work by ensuring a balance between the gendors, a good spread of age, and different kinds of expertise and interests in the people we interviewed.

Conclusion:
Towards an oral history of media art
The work done for The Giver of Names case study demonstrates that oral documentation is valuable, but also time-consuming and difficult. To make a significant impact on the way that media art is understood now and in the future, oral history initiatives need to pool the efforts of the many researchers and institutions who are interested in audience experience, and to galvanize others to begin to include this kind of work in their documentary processes. The increasing ease of uploading and downloading video content via the Internet makes such a global perspective not only desirable, but also achievable. The issues raised by this case study show that such an initiative would need to strike a delicate balance between openness and flexibility on the one hand, and rigour and structure on the other. An oral history of media art would need to establish standards of collection and curating that cover a range of areas, including production values, ethical and legal issues, reflexive and accountabiliry and the intelligibility of records supported by detailed contextual information and cataloguing. The reward would be a significant response to the gap that currently exists in our records of audience experience. Such a resource would ensure the lively existence of today’s artworks.
in the future, as well as a re-balancing of art historical accounts to include the reality, not just the idea, of the audience’s active role in media art.

Lizzie Muller is a curator, writer and researcher specializing in interaction, audience experience and interdisciplinary collaboration. She is Senior Lecturer in the School of Design at the University of Technology, Sydney. Recent projects include Thinking Through the Body, a programme of interdisciplinary collaborative research funded by the Australia Council and Mirror States; and an exhibition of interactive artworks at Campbelltown Art Centre, Sydney and MIC Toi Rerehiko, Auckland. In 2007 she was Researcher in Residence at the Daniel Langlois Foundation in Montreal, investigating the role of audience experience in media art archives and documentation.

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archive2020

SERIOUS ARCHIVING
PRESERVING THE INTANGIBLE BY CAPTURING PROCESSES

Annet Dekker in conversation with Jeroen van Mastriigt

file under

audience participation. oral history. non-professional. context. (audio) visual documentation. copyright. standards
SUSTAINABLE ARCHIVING OF BORN-DIGITAL CULTURAL CONTENT

Born-digital is a term derived from the field of digital preservation and digital heritage practises, describing digital materials that are not intended to have an analogue equivalent, either as the originating source or as a result of conversion to analogue form.

Annet Dekker is program manager at Virtueel Platform, Amsterdam. Her main interests are the influence of digital media and popular culture on art, and vice versa. She worked as a curator and head of exhibitions and education at Nederlands Media Art Institute (NIMK) in Amsterdam. Besides her activities for Virtueel Platform, Annet works as a freelance curator and is currently writing her Ph.D. thesis, 'Archaeology of the Future: Strategies for Documenting Net Art', at the Centre for Cultural Studies, Goldsmiths, University of London, under the supervision of Matthew Fuller.

Under

Darwinistic Archiving, standardisation, DIY, sustainability, responsibility, accessibility, funding, knowledge sharing, best practices, presentation, Jack the Wrapper
Gabriele Blome is an art historian and teaches at the Department of Media Studies at the University Siegen (Germany). She researches access and documentation strategies for media art archives. As a researcher at the Ludwig Boltzmann Institute Media Art Research in Linz (Austria) from 2007 to 2009, she worked on online resources for scientific documentation and archiving of new media art and collaborated on the GAMA project. She worked at the media museum of the Center for Art and Media (ZKM) in Karlsruhe from 1997 to 1999, and was the editor of netzspannung.org at the MARS Exploratory Media Lab of Fraunhofer IAIS from 2000 to 2007.

Gaby Wijers is the head of collection, conservation and related research at the Netherlands Media Art Institute (NIMK), Amsterdam (NL). She has a background in librarianship, theatre and informatics. Gaby coordinated the Preservation of Video Art in the Netherlands 2001-2003 project, and has participated in several research projects, including Inside Installations, GAMA, and currently, Inside Movement Knowledge and Obsolete Equipment. She has edited the online newsletter Monitoring Media Art Preservation since 2005 and is a guest lecturer at the University of Amsterdam. Gaby is head of the steering committee of the Foundation for the Preservation of Contemporary Art (GBdK).

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archive 2020

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virtueel platform
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Born-digital is a term derived from the field of digital preservation and digital heritage practices, describing digital materials that are not intended to have an analogue equivalent, either as the originating source or as a result of conversion to analogue form.®

Digitisation of archives has opened up possibilities for access to huge quantities of material, be it text, image or audiovisual. The heritage sector is increasingly aware of the value its archives have for a professional audience and the broader public. They see the digitisation of their collections and the use of new techniques as improving access to their collections. In addition, cultural organizations increasingly recognize the value of recording, streaming online and archiving their conferences, performances and other live events, and of implementing content management systems that make this content accessible. According to a recent report, BBC's Radio 4 has taken to using the word 'archive' as a noun, without a definite or indefinite article, as in, 'the programme will feature archive to tell the story of ...'. The same article highlights that there are even four 'archived' volumes of the computer game Sonic the Hedgehog available for purchase, inviting fans to 'travel back in time to where it all began'.® In the Netherlands the National Archive has always been called the National Archive, but its equivalent in the UK has just changed its name from the UK Public Record Office to The National Archives, implying that archives are collective memory banks instead of state instruments. At the same time many artworks created specifically for online purposes have already disappeared, victims of new standards, high-speed Internet connections or their own time-based design. Artists and cultural organizations alike face the challenge of developing sustainable, long-term systems to document and access their knowledge. There is also a growing interest and awareness on the part of the general public about the perils of born-digital content. Newspapers report about 'online history facing extinction', 'seeking clarity on archiving e-mails' and 'forget storage if you want your files to last'. All the above point to the need to understand the nature of this new type of material, or to put it simply: what does archiving mean in the Internet era?

Archives have the important task of saving cultural heritage from being lost forever. The field of archiving born-digital material has to deal with documents that are characterized by their dynamic nature, leading to difficulties in the archiving process. Rather than discussing the pros and cons of the digital world we need to examine the conditions of the digital realm and its effects in concrete terms. What, indeed, is the nature of born-digital material and how can we analyze it? Should we prioritize the preservation of the computer programs designed especially to make these works

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what is the significance and importance of knowing, emulation and migration? And how can the context in which these works dealt with be preserved? Knowledge transfer is important but what does it mean - what is the significance and importance of knowledge transfer? These data are relative and we have to operate under this condition and so, at times, we have to be pragmatic. With this publication Virtueel Platform wants to get to the core of these issues: how manifold are they, who is dealing with them, and how, and what is needed and necessary. We have asked several stakeholders from different disciplines to write down their experiences, findings and solutions. These specialists from the area of born-digital preservation and archiving reflect on the current state of affairs in their specific field and identify the most pressing concerns.

Established Internet artist Martine Weddam elaborates on the challenges an Internet artist faces over the years, from domain name registration expiration, to database back-ups, recent updates and much more. Researchers and artists Anne Laforest, Aymeric Mansoux and Marloes de Valk explain the benefits of using FLUSH and open standards for preserving born-digital material.

Florian Cramer, lecturer at the Piet Zwart Institute in Rotterdam, reflects on the PRINT/pixel international conference that was organized in May 2009, and discusses the issue of digital print material. Departing from the closure of two important archives for media art preservation - the Daniel Langlois Foundation and the Ludwig Boltzmann Institute - Canadian researcher and writer Caitlin Jones focuses on the issue of responsibility for keeping our media art heritage alive. Gaby Wijers, head of Collection and Conservation at HKU, Amsterdam and Gabriele Blome, art historian, University of Siegen, Germany, shed light on the first internationally shared online archive GAMA - the Gateway to European Media Art. Australian curator and researcher Lizzie Muller draws attention to the importance of capturing audience experiences when dealing with the preservation of born-digital cultural material. Jeroen van M astrigt, lecturer at the Art, Media and Technology Faculty of the Utrecht School of the Arts (HKU-KMT) in Hilversum, discusses archiving strategies in gaming. This anthology concludes with a recent report by Aymeric LanglOis, head of Collection and Conservation at HKU, Amsterdam and Gabriele Blome, art historian, University of Siegen, Germany, which has conducted quantitative research into born-digital cultural heritage in the Netherlands.

Together with a report of the Archive 2020 expert meeting, organized by Virtueel Platform in May 2009, this publication is a first step towards understanding the challenges facing born-digital archiving and how to remedy these in an energetic and growing digital world.

**Report: Archive 2020 Expert Meeting**

Annet Dekker

In May 2009 Virtueel Platform organized Archive 2020, an expert meeting that focused on the longevity and sustainability of born-digital content produced by cultural organizations or practitioners. The term ‘born-digital’ refers to ‘digital materials that are not intended to have an analogue equivalent, either as the originating source or as a result of conversion to analogue form’. The archiving of such content has received very little attention in the Netherlands, to the extent that, unless immediate steps are taken, we could soon talk of a ‘digital Dark Age’ in which valuable content is lost to future generations. The aim of the expert meeting was therefore to examine existing examples of these types of archives and determine which issues need to be addressed if we are to champion their growth in the short and long term. Some of the questions that Virtueel Platform raised included:

- Which born-digital cultural archives already exist and what lessons can we learn from them?
- Can a community establish its own archive without an institutional structure?
- Could a community-driven approach with social software help develop innovative strategies for group archiving? How can new and traditional tools best be merged to improve access and improve usability?

Representatives from international museums, organisations and artists’ initiatives convened in Amsterdam in May 2009 for a frank dialogue regarding the current state of born-digital archives. The meeting provided a unique opportunity for both major collecting institutes and small artists’ archives to reconsider the ways in which archives of born-digital cultural content are created, managed, disseminated and preserved.

**Starting points**

The participants grappled with the challenges and opportunities posed by existing online archives. We asked them to send us questions or statements relating to the theme of Archive 2020. Of course, the questions were manifold but could be summarized as follows:

- Virtueel Platform organized the event in combination with Digital Heritage Netherlands. The Netherlands Institute for Heritage and Netherlands Media Art Institute.
- Sourced from the list of Definitions and Concepts on the Digital Preservation Coalition website: http://www.dpconline.org/advice/
- Introduction-definitions-and-concepts.html.
The first question concerned the nature of a born-digital archive:

- Does archiving born-digital works raise problems that require new solutions?
- What does the act of archiving mean in terms of activity, software support, etc.?
- Could we regard archiving as a process?
- Should digital archives set up a retention policy or should they keep all the content and metadata and invest in search engine technology?
- How can we safeguard and archive contextual information (the context in which the work came into being, was commented on, and contributed to)?

Not surprisingly, these questions gave rise to issues about the notions of visibility and accessibility of archives:

- How can the quality of content in new archives be ensured within the larger and mostly institutional discourse?
- Should special organizations be established to research and systematically document media art, i.e., organizations that bundle relevant information, or should this task be transferred to traditional institutes such as museums (which, in some countries, are not very open to born-digital artworks)?
- Can an archive survive outside the museum structure?
- How can we make archives more visible and increase access?

Related to this notion of accessibility was, of course, a concern about the dissemination of the content, ways of possible reuse, and the role communities could play in this process:

- How can the knowledge about archiving born-digital content and digital archiving be disseminated and be made available to professionals and laymen; in other words, how open can an archive be?
- Should we design archives that facilitate the re-use or remixing of material, or the creation of mash-ups? What examples already exist?
- What role can communities play in strengthening connections between archives?
- Will we ever find a way to build a global archive - and do we want to?

And, obviously, the most pressing concern is who will pay for this. How will these archives deal with their funding?

- How can financial stability be guaranteed for non-institutional and/or informal online archives and platforms?
- What can be learned from new funding models that differ from 'traditional' institutional or project-based funding?

Group discussions

In order to direct the small group discussions we invited representatives from several established and emerging archives to present their archives and highlight the problems and challenges they faced. Each case involved a series of specific issues. These issues were analyzed, compared and discussed.

Christiane Paul - Whitney Artport: Internet art in a museum context: preservation strategies and initiatives.

Eric Kluitenberg - The Living Archive: The Living Archive aims to create a model in which the documentation of ongoing cultural processes, archived materials, ephemera and discursive practices is interwoven as seamlessly as possible. Approaching the ‘archive’ as a discursive principle.

Olga Gorlunova - Runme.org: Looking at the archive as a process: ethical considerations when dealing with aesthetic and historical change.

Monika Fleischmann & Wolfgang Strauss - Netzspannung.org: The archive as a constantly living and growing entity, and the possibilities of using semantic mapping as a tool that organizes the content in new ways each time it is visited.

Esther Weltevrede: The appearance of a web archive when capturing hyperlinks, search engine results, and other digital objects. Saving relevant aspects besides the digital document, and how to repurpose born-digital devices (search engines, platforms and recommendation systems) for web archiving.

Aymeric Manousou - art.deb: Using live distribution systems, repositories, virtual machines and servers as more stable and lasting infrastructures for software art.

Alessandro Ludovico - Neur: What individual and small archives can learn from shared collaborative platforms.

We did not expect to provide answers to all the questions, nor did we believe there would be single perfect solutions for each of the problems raised. This meeting of professionals and peers was foremost an inventory of the challenges associated with born-digital archives. In this sense, the meeting was notable for the forum it provided for sharing and comparing experiences and priorities, but also because a group of professionals from various countries and organizations came together to devote attention to critical aspects of born-digital cultural content, discuss the potential benefits of sharing information, and learn from each other. As was stated at the end of the day:

More information about these archives and the biographies of the presenters can be read on our website: http://www.virtueelplatform.nl/archive2020.
There is an increasing overlap between the problems relating to the different types of archives (small, large, government-private, art, documentary, and audio/visual archives) with regard to storage, opening up and accessibility to the digital domain, which are, to a degree, becoming increasingly similar. Issues such as authenticity and integrity, selection and documentation, reproducibility, recording interactivity, etc., impact on all areas and are bound up with the type of collection that is being managed, to a greater degree than in the analogue era.

Emerging issues

The working groups made many interesting remarks and raised several issues that require attention. Some participants were already familiar with the field of contemporary art conservation, but some very specific issues also emerged from the discussions.

**Documentation strategies:**
From Darwinistic Archiving to standardisation and DIY

A new strategy for the future re-creation of software art was suggested, aptly referred to as 'Jack the Wrapper', which would involve putting all the software in a box and describing and documenting the entire artwork so that it could be cloned in the future. But, as was clearly demonstrated, not all born-digital material is easily documented and packaged. The term 'Darwinistic Archiving' was suggested, referring to the survival of the best-documented artworks.

Discussions about these issues focused on whether different strategies should be considered. For example, should we focus on documentation instead of trying to preserve complete works? There was general agreement that not everything can be saved, and that the most informative parts that convey the main idea of the work should be prioritized. This attitude echoes current strategies in contemporary art preservation. To what extent will the increasing democratization of the technology that is used also democratize the responsibility to preserve digital works? And at the same time, does archiving as a human-led centralized practice have any future - Internet storage and archiving can already cache data in two dimensions (location and time/revision)? Human or machine preservation aside, the most important concern was who decides and selects the material. Since most of the content is (not yet) collected in museum structures, their future as well as the choice of what to preserve becomes more problematic.

Other suggestions included documenting process. Instead of saving the original code it might be better to make a diagram that represents all the possible states and scenarios of the work. Recording the work to video - as both a desktop video and a context video - to capture the original work and how it was experienced would be a vital step. Another strategy that some national archives use is 'scanning on demand', i.e., content is only digitised when someone asks for it. Issues of invisibility and choice will still remain, of course.

In order to highlight the problem a general call went out to write books and publish articles and reviews in magazine or newspapers: 'the online' has to become physical. This includes organizing exhibitions that will emphasize the urgency of preserving.

There was also a call to change the term 'digital preservation' into 'permanent access', which might provide an impetus to the understanding and importance of the work. Everyone was in favour of devoting more attention to presentation and exposure.

**Sustainability**

In order to ensure a longer lifespan for born-digital cultural content, it was suggested that online archives should share responsibility in a bottom-up approach: create or organize a network that feels responsible and is involved in the process or with the content of the work. One could think in terms of social networking strategies that collaborate on creating shared resources and knowledge. A certain level of centralisation was seen as important. If only to clarify and distribute responsibilities. Another approach to explore would be to integrate archiving into existing institutions and have them apply for project funding. While this strategy has many positive aspects it is important that everyone in the institute is aware of the activities involved in a project and that it is not in the hands of one (enthusiastic) individual. Moreover, the procedures to follow if funding stops must be unambiguous. Another strategy was to distribute the work as much as possible: think of remixing strategies and an approach Kevin Kelly calls 'movage': the more it is out there, the more it is seen, and the better it is archived. Although contested, standardisation should also be considered. The same indexing standards will improve access, but an international task force is needed to deal with this. Instead of traditional methods one could investigate strategies similar to the Wikipedia model.

**Responsibility**

The discussion about sustainability inevitably led to the issue of responsibility: who is responsible and what is the role of the artist, programmer, curator, museum and audience? A suggestion was made to increase the responsibility of the artists and make them aware of the problem by introducing preservation strategies into...
funding applications, for example. However, referring to Darwinistic Archiving, this raises the question of what is considered more important: the quality of the work or the preservation strategy. Institutes and museums, or even universities, who have more resources and expertise, should receive more attention. These institutes could assume a coordinating role, so that smaller organisations or individuals can participate. A 'funding for research' approach was suggested to make it beneficial for both sides. Because the web is made by individuals and not by organisations the network community and users appealed for a strategy to mobilise these people and make them aware of their self-sustainability. In some cases, this would also better reflect the origin and process of the work.

Urgent actions have to be taken
Central to the discussions at the meeting was the participants' high level of commitment and their sense of urgency, and there was a general agreement that the primary focus should be on:

- **Raising awareness**: About the websites of artists, curators, organisations, museums as well as of funding bodies;
- **Funding**: Preservation strategies could be included in funding applications. 'Artists should make digital wills';
- **Accessibility**, open standards: Because most institutions have specific demands, open source software can provide the flexibility that is needed in the field as well as provide a sound basis with universal standards;
- **Knowledge sharing**: Also between different disciplines (music, broadcasting, gaming, science, oral history);
- **Research and best practices**: Examine existing archives and how they function, as well as publish examples of best practices and unsuccessful strategies. This will create a shared knowledge base and foster the learning process;
- **Presentation**: Create urgency by showcasing, presenting and publishing. In the end it is vital that each work has more possibilities for presentation. Make the field visible.

We would very much like to thank the speakers, the reporters and of course all the participants of Archive 2020 for their efforts, insightful comments, and their genuine optimism that the sustainable archiving of born digital material is just over the horizon. A special thank you goes to Niels Kerssemans who helped process all the data and the notes of the discussions and talks.

It was mentioned that the Daniel Langlois Foundation had participated in similar projects.