



FILMUNIVERSITÄT  
BABELSBERG  
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FILMUNI  
SUMMER SCHOOL



## Summer School “Digital Archives. Data Literacy and Presentation Strategies in Audiovisual Archives” 2022 – Second Edition

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# Report

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**The summer school "Digital Archives. Data Literacy and Presentation Strategies in Audiovisual Archives" is a 5-day, practice-oriented training course aimed at people working in audiovisual archives as well as at everyone else who is interested in enhancing their knowledge about digital environments and processes related to digital archives. The second edition focused on the subject of digital curation.**

Organized by Dr. Adelheid Heftberger (Bundesarchiv); Jürgen Keiper (Deutsche Kinemathek); Prof. Dr. Chris Wahl (Filmuniversität Babelsberg KONRAD WOLF), Monika Richter (Filmuniversität Babelsberg KONRAD WOLF); with the support of the International Federation of Film Archives (fiaf).

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For audiovisual archives, long-term preservation doesn't stop at digitizing film. Rather the digitization of archives creates new challenges. During a five-day program, international experts from film archives and universities presented various solutions to the challenges of digitalization and addressed three pressing issues:

First, the challenge of long-term preservation in an always changing digital environment. In fact, digitalization is just one part of long-term preservation strategies. New technical requirements and extended demands of users raise questions about how the material can be updated constantly to be compatible and of high quality. It also brings up new questions

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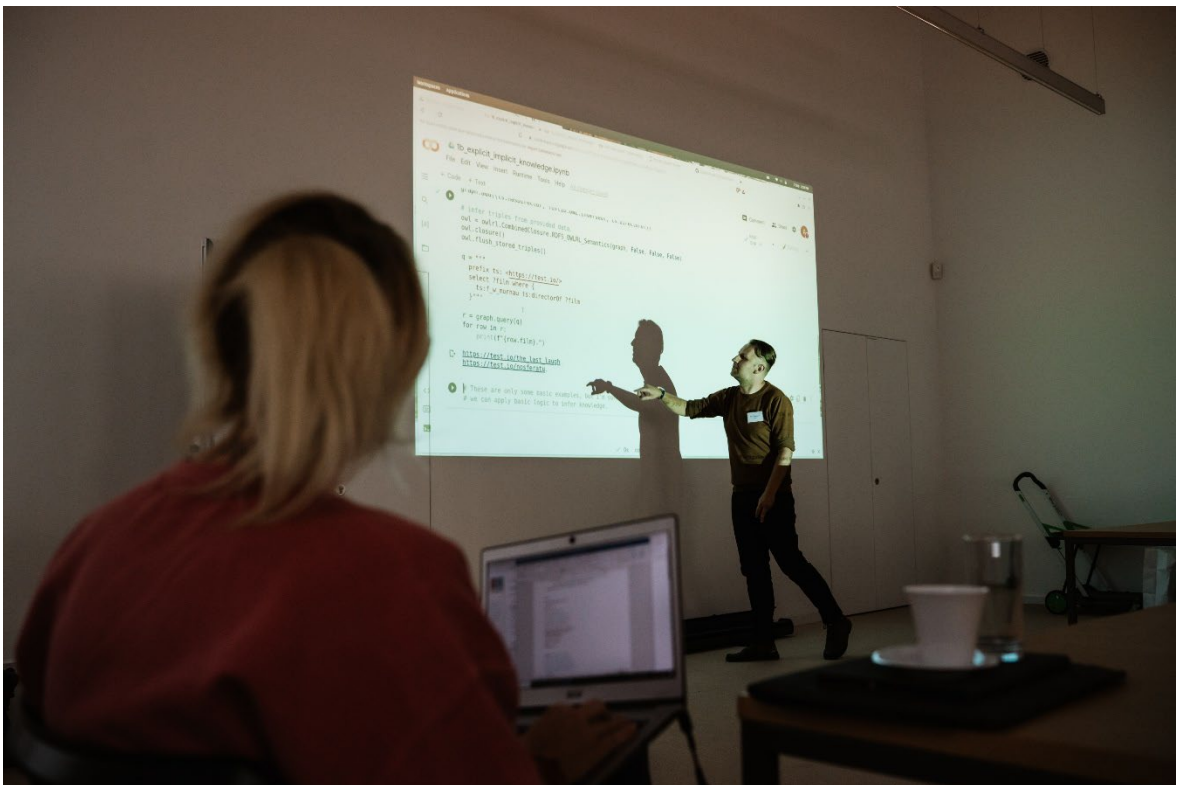
about how to control the digitalization process, especially when the material is digitized by an external vendor.

Second, the organization of metadata in a more and more linked network of information and collaboration. For archivists, this means not only taking care of standardized vocabulary describing the content, and the formal and technical data of a film (like title, author, format etc.) but also to make the data accessible in a network by using widespread standards and linked data.

Third, questions of curation and access to the content and metadata on a political and practical level. This means addressing the role of archives as publisher and developing new digital methods to present the materials. In the process of opening archives, it is crucial to delve into copyright regulations.

## Long-term preservation

Four experts presented strategies for long-term preservation in their institution. ELŻBIETA WYSOCKA-KOERBER (Deutsche Kinemathek) proposed to consider preservation and access equally by telling the story about recovered material of the movie "Iwonka" (E. Chaberski, 1925). The film stock was rediscovered but only a single scan was possible as the condition of the material didn't allow a second scan. This shows that it is very important to prepare the digitalization process properly, to arrange the workflow in a logical sequence and to establish a good cooperation between the scanner operator and the restorer. Otherwise, the material might be lost forever. She also recommended to document how the digitalization and cataloging took place.



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SARAH HIGGINS (Aberystwyth University) emphasized that curating data is an important part of long-term preservation. She proposed to think carefully what data archives want to maintain (raw data, linked data, etc). Standardized documents might help to develop a long-term strategy for data management. Higgins presented the DCC Curation Lifecycle Model, a document on research information management, and the OAIS Reference Model that provides detailed information on how archives can manage their digital data.

ETIENNE MARCHAND (Institut national de l'audiovisuel) introduced the strategies from Institut national de l'audiovisuel (ina), the French public national audiovisual archive. As the institute receives more than a thousand files in various formats per day, they developed an ingest policy. The policy allows only certain formats in the archive and defines periodic compatibility checks. These guidelines make sure that no unexpected formats enter the archive and compatibility is guaranteed. The institute's credo is to keep the original content intact when possible but convert it when necessary to make sure the content is accessible.

MICKY LINDLAR (Technische Informationsbibliothek) shared their experiences with an external vendor for digitalization. To find damaged or changed copies, they used checksums (per file, per frame and per slice) and open-source software for quality control (like MediaConch and QCTools by Media Area).

In a discussion the participants of the summer school - film archivists and scholars from all over the world (from Israel to Taiwan) – exchanged their solutions to long-term preservation. All archives developed a long-term preservation strategy that includes digitalization. In addition, most archives offer on demand digitalization for their customers but only some combine it with an immediate full preservation and/or restoration effort of the film. This depends a lot on the archives' capacities. Although most governments demand and support digitalization strategies by the national film archives, time and budget are limited and it is important to define priorities. The national archives usually focus on the film heritage of their country. Additionally, interests of donors and customers play an important role. As a participant from a Mexican film archive pointed out: You need to make clear to your funders that digitalization is an ongoing process that requires more than a digital copy – a lot of time and effort.

## Open-source Tools and Linked Data

Experts proposed to consider open-source software and standards for long-term preservation as they keep archives independent from providers and offer good documentation by communities. KIERAN O'LEARY (National Library of Ireland) presented FFVI, a free, open, lossless video codec and OLIVER HANLEY proposed to use the software DCP-o-matic to create files for cinema screenings.

Taking openness one step further, BARBARA K. FISCHER suggested to work directly with communities to create metadata. Her idea led to a discussion regarding quality control and new (technical or personal) gate keepers. In addition to the FAIR data principles (Findability, Accessibility, Interoperability, Reusability), she proposed that CARE data principles are

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important when working with communities. CARE includes collective benefit, authority to control, responsibility and ethics. She also advocated to open archives to creative use.

ADELHEID HEFTBERGER (Bundesarchiv) and PAUL DUCHESNE (Technische Informationsbibliothek) proposed to open archives on a technical level by developing knowledge on Linked Open Data (LOD). Linked Open Data is structured data that is interlinked with other data and openly licensed. By using LOD, archives become more accessible and able to cooperate with other projects through machine-readable standards. The idea of LOD is to use URIs (e.g. Wikidata links) as unique identifiers to avoid ambiguity and be able to look up information through a weblink. Paul Duchesne showed how to build a graph-structured data model using interlinked descriptions of entities (“knowledge graph”). The statements are standardized by the Resource Description Framework (RDF), a standard by the World Wide Web Consortium (W3C).

## Curation and Access

Archives have a duty to open their contents to the public. Although digital publishing may seem simple at first glance, there can be many obstacles along the way.

First of all, copyright regulations apply. Claudy Op Den Kamp (Bournemouth University) wrote a whole book about “The Greatest Films Never Seen” (2018) which are hidden from the public because of copyright restrictions. Being optimistic nevertheless, she proposed to use the space that copyright provides to open the archive as much as possible. For example, exceptions are made for artistic adaptations like a parody or a critique. Also, quotations are allowed under the Berne convention, and - contrary to general believe - the law does not define a fixed limit to how long quotations can be. Artistic adaptations or quotations can be published without permission. By showing famous movie scenes, she demonstrated further examples of use that can be free depending on the use case, like incidental inclusion of film, homage, or clips used for authenticity.



Once the copyright has been clarified, the question how archives can present their contents arises. JÜRGEN KEIPER (Deutsche Kinemathek) suggested archives are important players in publication processes. By presenting the concept of web-based storytelling from its roots in early interactive webpages to immersive documentaries, he gave numerous examples how publication can work out. For example, he showed “The Boat” by SBS, a web graphic novel about a refugee fleeing Vietnam after the war. GIOVANNA FOSSATI (University of Amsterdam; Eye Filmmuseum) spoke about exhibiting film as museum objects. She developed high scale

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projections of film displayed at the museum halls of Eye Filmmuseum in Amsterdam. Unlike in cinemas, the visitors were able to experience several movies simultaneously and side by side, thus making connections between the movies. Fossati explained that the complex technical set-up in the museum was only possible through new digital methods. In addition, she presented innovative artistic projects like Jan Bot, a robot creating film through news archives.

## Conclusion

The summer school showed how the role of film archives is changing with digitalization processes. Digitalization demands new abilities from archivists on a technical and communicational level. It is a balancing act to keep up to date in a fast-changing digital environment that focuses more and more on linked data. Also, expectations of the public towards archives are changing and require new strategies to provide access and curate the material. Film archives are not boring and dusty places but develop central strategies on long-term preservation, (linked) data management and how to present our cultural heritage to the general public.

Conference overview:

- Elżbieta Wysocka (Deutsche Kinemathek): Digitization Workflows
- Dr. Sarah Higgins (Aberystwyth University): Theoretical Aspects of Digital Curation
- Kieran O’Lear (National Library of Ireland): Long-Term Preservation (Converting to FFV1)
- Etienne Marchand (Institut national de l’audiovisuel): Long-Term Preservation (File Normalization)
- Micky Lindlar (Technische Informationsbibliothek): Long-Term Preservation (Checking Files for Preservation)
- Barbara K. Fischer (Deutsche Nationalbibliothek): Metaconcepts for Metadata
- Dr. Adelheid Heftberger (Bundesarchiv) und Paul Duchesne (Technische Informationsbibliothek): Linked Open Data for Film Archives
- Oliver Hanley: Using Open Source Software (DCP-o-matic)
- Dr. Claudy Op Den Kamp (Bournemouth University): Copyright for Film
- Jürgen Keiper (Deutsche Kinemathek): Storytelling
- Prof. Dr. Giovanna Fossati (University of Amsterdam; Eye Filmmuseum): Digital Curation in Practice

The Summer School "Digital Archives" is organised by the Filmuniversität Babelsberg KONRAD WOLF (Filmuni Summer School) in cooperation with the Bundesarchiv and the Stiftung Deutsche Kinemathek Berlin and with the support of the FIAF Cataloguing & Documentation Commission. It was conceived by Dr. Adelheid Heftberger, Jürgen Keiper and Prof. Dr. Chris Wahl.