chludens.ch: Developing a digital archive for Swiss vintage games and their community

Noemi Chow

Gamelab, subject Area Game Design
Zurich University of the Arts, ZHdK
noemi.chow@zhdk.ch

ABSTRACT

This paper presents the development of an digital web archive for Swiss vintage games and their community, created as part of the CH LUDENS project. By preserving a largely overlooked yet vibrant game development scene, the project seeks to make this cultural heritage accessible to researchers and the public. The archive's development follows a practice-based, design-driven, and iterative approach that integrates methods such as archival analysis**,** User Interviews, data mapping, prototyping, and user testing. To accommodate diverse content and evolving research demands, a flexible data structure is designed to support a transdisciplinary team. Drawing on insights from existing game and related archives, the project frames archiving as a design challenge and investigates how a digital archive can remain adaptable, sustainable, and meaningful amid ongoing heterogeneous data collection.

Keywords

Game, Design, Swiss, Vintage, Archive, Website, Network, Wikipedia, Filter, Game History, Digital library

INTRODUCTION TO CH LUDENS

The Swiss research project CH LUDENS examines the diverse game design and development scene of the pre-Internet era. The games created in this context reflect numerous subcultures and are an expression of a society in transition as a result of advancing digitalization. The aim of the project is to promote a deeper understanding of the role digital games played in the early phases of the digital era and how they influenced technological, social and cultural developments.

By preparing the research results in accessible formats such as a digital web archive, the aim is to raise awareness of the topic among a broad audience and to provide specialist researchers in the field of game studies with a basis for further research.

GOALS & CHALLENGES IN SETTING UP AN OPEN ARCHIVE STRUCTURE

A central goal of the digital archive is its long-term usability beyond the duration of the project. To this end, user-friendly, sustainable and adaptable web formats are taken into account, as are alternative methods of data archiving.

CH LUDENS is based on the approach of "archiving the game without the game", as described by the Swiss Videogame Archive Group (SVGA)[1]. Instead of collecting software or source code, the focus is on contextual materials such as interviews, gameplay videos, metadata and historical documents. This makes the cultural significance of the games visible, even if the original software - often only available in cracked form - is deliberately excluded.

A particular challenge is to design the archive during the ongoing data collection in such a way that it remains open for future, potentially important content. At the start of a project, it is often unclear exactly what data will be collected, whether it will be publicly accessible or whether it can be used legally. Functions must therefore be developed even though the scope and structure of the data have not yet been determined. This requires a flexible archive structure right from the start.

The interdisciplinary project team brings in a variety of data types, which places different demands on the data structure. This should provide room for individual needs as well as ensure consistency and user-friendliness for the entire team. Close coordination, joint workflows and continuous adaptation of the structure are essential for this.

DESIGN RESEARCH METHOD & RESEARCH QUESTION

The development of the digital archive is based on a design-oriented and practical approach. Design research methods are used that enable iterative development processes and reflexive decisions - such as archival analysis, user interviews, data mapping, prototyping and usability tests. In this way, the archive structure can be continuously adapted to create a user-friendly and flexible solution that is both empirically sound and tailored to the needs of the stakeholders.

In addition, concepts from archival science are incorporated: Cassandra Ta Tačukciyan from the Canadian Museum of History[2] describes archiving as an active

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[1] https://svga.ch/fr/

[2] https://www.youtube.com/watch?v=rF0uwh-ruqE

process for the long-term preservation and accessibility of valuable content, which requires continuous maintenance. The digital archiving process comprises five steps: Identifying and selecting, collecting, organizing, securing and maintaining the data.

In addition to these theoretical principles, practical feedback from project and practice partners is also taken into account.

The central research question arises from these approaches: How can a digital archive be designed so that it remains adaptable, sustainable and meaningful during an ongoing and heterogeneous data collection process?

ANALYSIS OF EXISTING DIGITAL GAME ARCHIVES AND RELATED COLLECTIONS AND INSTITUTIONS

Various existing web archives were examined in preparation for the archive design. The focus was on structure, user guidance and the presentation of content. Among others, game-specific platforms such as Swissgamesgarden.ch[3], Mobygames.com[4] and gameuidatabase.com[5] were analyzed, as well as archives from related areas such as music or film. In addition, collaborations have been established with Swissgamesgarden and Mobygames in order to promote data exchange and incorporate existing knowledge directly into the development of CH LUDENS. This collaboration not only strengthens the database, but also anchors the archive in an international network of existing initiatives.

Research into Swiss institutions and digital platforms archiving games revealed a highly active but fragmented landscape. Actors such as the GameLabs at the Universities of Zurich and Lausanne, the Enter Museum, and Gameorama in Lucerne preserve aspects of Swiss game culture, often with overlapping collections and without a coordinated national strategy—a situation confirmed in discussions with the Swiss Videogame Archive Group (SVGA). Similar duplication occurs across independent digital platforms, reflecting the grassroots character of game culture while underscoring the need for stronger collaborative frameworks. Despite this fragmentation, CH LUDENS contributes substantial new data and contextual perspectives not previously documented in this form.

DATA COLLECTION AND BUILDING A NETWORK STRUCTURE

In several so-called data jam workshops, researchers jointly analyzed the data and refined classifications, designations and links between the data. It became clear that a flexible wiki structure with a filter system was needed to integrate the various formats and map complex relationships between people, games and institutions. This

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[3] https://swissgames.garden/

[4] https://www.mobygames.com/

[5] https://gameuidatabase.com/

structure is supplemented by clear categorizations and systematic file naming, which ensure clear organization and easy traceability of the archive.
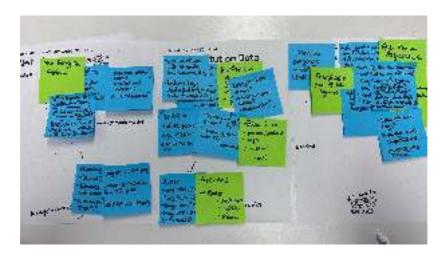

Figure 1: Early Data Jam workshop used to gather requirements, features, and expectations for the archive's data structure.

PROTOTYPING AND TEST PHASES OF THE ARCHIVE

In the course of the project, visual mockups and initial prototypes were developed to refine the structure and functionality of the digital archive. At the same time, research was carried out into suitable platforms and work processes for the technical implementation. A two-pronged approach emerged early on: the majority of the data is presented via a WordPress-based interface, which serves as a user-friendly window to deeper-lying raw data and physical archive content. Particular attention was paid to the selection of web tools that enable the integration of a powerful content management system (CMS) in order to manage large volumes of data efficiently.

Figure 2: Early Data organizing and Web Mockups.

The prototype went through several test phases. An initial, freely designed mock-up was already created in the preliminary project, which was used to record the needs of the researchers involved. The development of the prototype was closely interlinked with the data jam workshops so that technical solutions could be tested and adapted

directly. This was followed by two comprehensive internal test rounds in which individual requirements were added and technical errors corrected.

Figure 3: Testing the CHLUDENS web archive prototype at Vintage Computing Festival 2025

Figure 4: chludens.ch main project page, 15.11.24

Figure 5: chludens.ch Swiss Game Design Archive, 15.11.24.

CONCLUSION

The CH LUDENS Archive currently consists of three main collections: the Swiss Game Design The CH LUDENS Archive currently comprises three main collections: the Swiss Game Design Archive (1966-2000), the Arcade Collection and the Platform Timeline. These comprehensively document Swiss game culture by linking games, developers, historical arcade locations and technological developments in a flexible wiki structure with a wide range of filter and categorization options. In this way, the complexity of the content is presented in a clear and accessible way.

The aim of the project was to create a digital archive that remains adaptable, sustainable and user-friendly even during an ongoing, heterogeneous data collection process. Through the close integration of research, design and collaborative formats such as the Data Jam workshops, it was possible to create an open, expandable structure that meets the complex requirements and leaves room for future content.

Since archiving - as Cassandra Ta Tačukciyan emphasizes - is an ongoing process that requires continuous maintenance and adaptation, the focus is now on systematically expanding and maintaining the archive. The Data Jam workshops in particular play a central role in this by integrating new data, linking existing data and continuously optimizing the structure. In this way, CH LUDENS ensures its long-term relevance and usability as a resource for research, the public and the documentation of Swiss gaming culture.

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