

# DirectHERS: Groundbreaking Women Group White Paper

Final Group Report

*DirectHERS*

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## Table of Contents

|                                                                  |    |
|------------------------------------------------------------------|----|
| <b>Section 1: Project Narrative</b> .....                        | 2  |
| <b>Section 2: Audience</b> .....                                 | 4  |
| <b>Section 3: Project Activities &amp; Accomplishments</b> ..... | 6  |
| <b>Section 4: Evaluation</b> .....                               | 11 |
| <b>Section 5: Continuation</b> .....                             | 15 |

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## Section 1: Project Narrative

Since a group of women pioneers started making their films in the late nineteenth century, women have been involved in diverse roles in the film/screen industry. Despite women's significant contributions to the industry, they have long been overlooked and undervalued, particularly as directors and in other roles behind the camera. According to the 2021 "Celluloid Ceiling" report by the Center for the Study of Women in Television and Film, only 25% of major roles, including directors, writers, and producers working on the top 250 grossing films (films that earn more money than any other) in the U.S. market, are women.<sup>1</sup>

Women's images in the film industry have long been filtered through a male gaze and thus have been historically objectified under a male-dominated culture of auteurism. However, within the past few years, we have seen rising women filmmakers in the industry and their films gaining recognition. There is also an emerging group of scholars working on introducing and analyzing these women's works to reshape the images of women in film studies. Although our cultural conversation has expanded to include more women's voices, there is still a need to address unequal and oppressive gender justice and promote social equity. Five digital humanists embarked on an ambitious digital encoding project titled *DirectHERS: Groundbreaking Women* that explores the incredibly diverse, worldwide voices of women film directors and focuses on their work to make a digitally encoded, open-source collection. We chose to be open-source so that our work would be collaborative, allowing others to participate and expand our work.

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<sup>1</sup> Martha M. Lauzen, "The Celluloid Ceiling in a Pandemic Year: Employment of Women on the Top U.S. Films of 2021," accessed December 15, 2022, <https://womenintvfilm.sdsu.edu/wp-content/uploads/2022/01/2021-Celluloid-Ceiling-Report.pdf>.

The primary objective of this project is to create a structured and organized database of women directors (all directors self-identified as women) encoded by XML (Extensive Markup Language), making it easier to search and retrieve specific pieces of information on relevant subjects in the directors' lives and works, such as education, employment, production, network, and social work. For the first trial of our model, we choose to work on fifteen groundbreaking women directors who represent diverse cultural and ethnic backgrounds and have made significant contributions to cinema by shedding light on unique non-mainstream perspectives and critical social issues.

At the core of our project's design, we have integrated insights from scholars Jacqueline Wernimont and Alan Liu. Wernimont's compelling argument for feminist text encoding as a political tool to highlight the works of marginalized groups has inspired our goal of creating feminist interventions in digital archives.<sup>2</sup> Liu's recommendation for the development of multilingual digital humanities (DH) to "create a digitally tractable, extensible taxonomy of diversity" through the construction of new databases and the renewal of protocols has steered our project towards focusing on non-English speaking background materials.<sup>3</sup>

Our project derives substantial inspiration from pioneering feminist digital/public humanities projects such as the *Orlando: Women's Writing in the British Isles from the Beginnings to the Present*, *Women Writers Online (WWO)*, and the *Japanese Women Directors Project*. Furthermore, we join the ongoing discourse on the role of gender as a category of research in text encoding, a conversation led by members of The Text Encoding Initiative (TEI) Consortium.

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<sup>2</sup> Jacqueline Wernimont, "Whence Feminism? Assessing Feminist Interventions in Digital Literary Archives," *Digital Humanities Quarterly* 7, no. 1 (2013): para.11.

<sup>3</sup> Alan Liu, "Toward a Diversity Stack: Digital Humanities and Diversity as Technical Problem." *PMLA* 135.1 (2020): 130–151.

As mentioned by MLA Guidelines, “Information technology is an integral part of the intellectual environment for all humanities faculty members. Digital media have expanded the objects and forms of inquiry of modern language departments to include images, sounds, data, kinetic attributes like animation, and new kinds of engagement with textual representation and analysis.”<sup>4</sup> In alignment with the digital revolution, we aim beyond celebrating the directors’ artistic achievements and propose to facilitate a new mode of study by establishing a comprehensive, researchable, and accessible digital archive for students, scholars, and any interested users.

## **Section 2: Audience**

Our team breaks down the overall audience into three main categories while appreciating the possibility that more audiences could be interested in or captured by our project.

### ***Section 2A: Audience One - Film Studies Undergraduates and instructors***

This archive is designed as a valuable resource for an undergraduate film studies course, facilitating easy access to a searchable database dedicated to women filmmakers. While existing websites such as IMDB and *Women Make Movies* provide a foundation for discovering basic information about women directors, our specialized model and search engine elevate this experience. We enhance the available data by aggregating filmmakers from various backgrounds and delving into the intricate processes behind their film production. This approach unveils their creative journeys’ complex dynamics and nuances, offering a deeper understanding of their work.

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<sup>4</sup> Modern Language Association, “Guidelines for Evaluating Work in Digital Humanities and Digital Media.” Modern Language Association, accessed May 22, 2023, <https://www.mla.org/About-Us/Governance/Committees/Committee-Listings/Professional-Issues/Committee-on-Information-Technology/Guidelines-for-Evaluating-Work-in-Digital-Humanities-and-Digital-Media>.

Our model encourages instructors and students to apply a feminist framework toward appreciating and analyzing films by helping them critically examine the social construct of gender, its evolution over time, and its manifestation across different cultures. As a potent medium, film plays an instrumental role in shaping these conversations, and our model, with its diverse collection, becomes a critical tool for promoting a more nuanced, intersectional understanding of global cinema from a feminist perspective.

### ***Section 2B: Audience Two - Gender Studies Undergraduates and Instructors***

One of the learning goals of an undergraduate gender studies course is to conduct a discussion revolving around feminist issues and a feminist perspective while acknowledging marginalized or non-visible voices. The issues most likely entail taking a critical perspective towards gender as a social construct and how it has changed over time and location in various cultures and eras. The discussion most likely would include how gender intersects with other variables such as power dynamics, socio-economic class, or race. Having a range of voices in the discussion will mitigate some of the power dynamics inherent in patriarchal systems that have been prevalent throughout the world. A digital component of the discussion is not only relevant but necessary. As Pressner noted, “Digital projects almost always have multiple applications and uses that enhance—at the same time—research, teaching, and service. Digital research projects can make transformative contributions in the classroom.”<sup>5</sup>The archive is a good resource to include various voices from women across a large swath of races and cultures. Acknowledging women’s experiences, challenges, and achievements is an essential part of a gender issues discussion, and the archive is a good source for including some of those voices.

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<sup>5</sup> Todd Pressner, “How to Evaluate Digital Scholarship,” *Journal of Digital Humanities* Vol. 1, No. 4 Fall 2012, 4. <https://journalofdigitalhumanities.org/1-4/how-to-evaluate-digital-scholarship-by-todd-presner/>

### ***Section 2C: Audience Three - Public Film Enthusiasts***

Any film enthusiast from the general public will have access to the site to peruse and discover women filmmakers and broaden their knowledge and film acumen. The archive is free and not behind a firewall allowing access to those interested and contributes to a communal ethos of the humanities in general. It is also open source which invites appropriate contributions.

#### ***Resources/Relationship***

University undergraduate programs have access to computers and internet connections. Public libraries can be used to connect to the archive if an individual does not have access to a computer with an internet connection.

#### ***Limitations/Concessions***

The site prototype does not offer a comprehensive listing of women film directors, nor are all cultures represented. This limitation is hoped to lessen as the archive develops.

With the initial phase of the project and the live demonstration, one can see the value of the site to different audiences. The team diligently ensured that best practices were followed in creating the archive. We considered accessibility to the community of study and expert consultations throughout the workflow to enrich the data to be annotated and linked appropriately. Being an open-source archive gives credibility to a communal effort and spirit, which increases the archive's contributors and raises its sustainability chances for the long term.

### **Section 3: Project Activities & Accomplishments**

Our team's primary commitment was gathering, sorting, organizing, and presenting information on the lives and works of a selected subset of women film directors. As a result, the conception and design of the end digital output was not necessarily overly defined throughout the initial stages of the project as the team simultaneously underwent a collaborative learning exercise on text encoding/markup languages.

Initially, the group's book of work was made of the search and collection of textual information, images, and audio/video materials related to the lives and works of women directors and their transcription and recording in a computer-processable textual format.

We would review the available online materials for each selected director and, based on our understanding of the contents, the group said information into macro categories or tags. These macro categories could also have subgroups or sub-tags, better defining a specific piece of information. To illustrate the concept of categories and sub-categories in the tagging process, consider this straightforward example: the broader category, or tag, <date\_of\_birth>, might encompass at least three sub-tags - <day\_of\_birth>, <month\_of\_birth>, and <year\_of\_birth>. However, the broader or more general the tag, the less 'encoded' or specific the retrievable information becomes. See Figure 1 for details of our tag glossary.

|            |                 |                  |                                                                                                                                                                                                                       |                                               |
|------------|-----------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Social     | Family          | <family>         | If one wants to encode the family background of the filmmaker. For example, Claudia Llosa (Peruvian filmmaker) is the niece of Mario Vargas Llosa, Peruvian writer who won the Nobel Prize in Literature in 2010      | Orlando Project                               |
| Social     | Groundbreaking  | <groundbreaking> | An element that could capture briefly one or many ways in which the directors have transformed their context, the film industry, the narrative or the technical aspects of cinema and gender                          | DirectHERS                                    |
| Social     | Year of release | <released_year>  | To encode when a specific movie was released to the public.                                                                                                                                                           | Orlando Project                               |
| Movie Info | Director        | <director>       | Movie's director                                                                                                                                                                                                      | DirectHERS                                    |
| Movie Info | Title           | <movie_title>    | It contains the title of a work, whether article, book, journal, or series, including any alternative titles or subtitles.                                                                                            | Text Encoding Initiative (TEI)                |
| Movie Info | Film Genre      | <genre>          | Editing by DirectHERS: A category or classification of films based on their shared thematic elements, narrative structures, visual styles, or subject matter, for example, drama, documentary, comedy, coming-of-age. | Text Encoding Initiative (TEI) - edited by DH |
| Movie Info | Awards          | <award>          | Edited by DirectHERS: honors or recognitions given to a director to celebrate excellence in their filmmaking.                                                                                                         | Orlando Project - edited by DH                |

*Figure 1*

As discussed, and simply put, tags are categories that help to organize information structure. The broader the tag, the less ‘encoded’ the information. One might argue that individuals could search the internet and extract the desired details themselves. Strictly speaking, this could happen; however, one important detail cannot be ignored: internet contents are frequently automatically indexed based on predefined browser criteria and volumes of search, often systematically arranged by existing content management systems (CMS); so, here it is where our team steps in and attempts to provide more structure to niche information on non-stream women directors in order to make it easier to retrieve by digital search engines. As this was an ambitious plan, we opted for an exploratory solution to create our database of information and search engine prototype before cracking Google’s CMS. The workflow would start with us reading and humanly processing the information, then organizing and standardizing the contents based on pre-agreed tags, and consequently uploading the contents in an XML format in a shared file. The need for accurate and precise tags, or categories, derives from the fact that this information would need to be processed by a computer that recognizes the meaning of categories or tags based on how we set the criteria.

This encoding process would later constitute the foundation of a searchable database model that could be accessed via targeted keywords (i.e., specific text search) and through tags. Next, the team worked on developing an online search engine that the team's encoded information would feed. Finally, our team of developers worked to find solutions on two key aspects; the first was to create an online page that would host the project's contents, and the second was to build a search engine that would be integrated into the project's website.

Collectively, we decided to create our website from scratch, utilizing HTML, CSS, and JavaScript instead of an existing template or framework. The rationale behind this decision was to allow for flexibility, especially when accounting for potential issues integrating a brand-new search engine into a space such as a pre-built WordPress page.

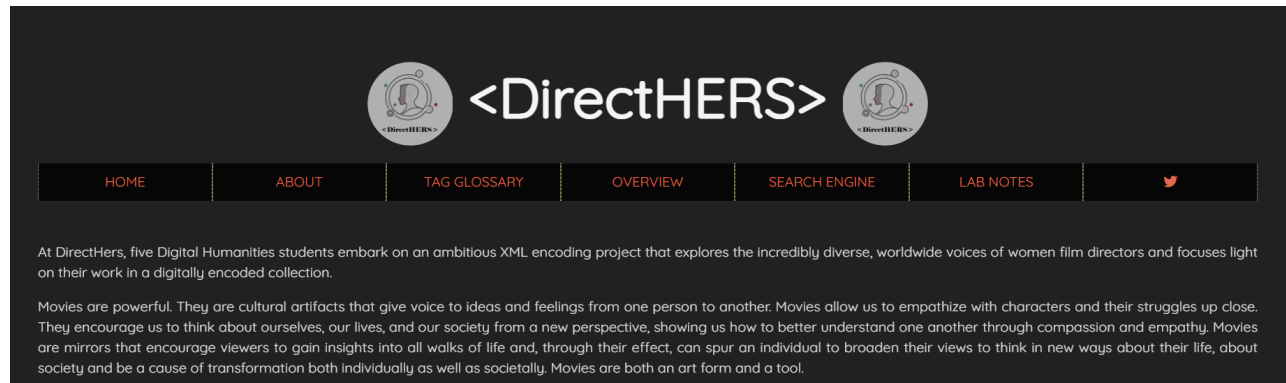
When looking at possibilities for search engine creation, we considered three main routes:

- 1) Building a search engine with vanilla Javascript and Ajax, which would be running within the limited capacity of GitHub pages. Although this option seemed feasible, the downside was the latency of information processing as the team could not use a dedicated virtual machine (VM) in the cloud, causing the crawler to be slow at indexing and showing results. This solution would have also required optimization and code refactoring to enhance its performance.
- 2) Incorporating a basic search within GitHub pages in the knowledge that this would be limited to keywords search only but could grant a functional engine that could produce the desired output.



Due to some technical issues encountered during the latest stages of the web development, a few patches became needed to ensure having a fully functional website by the day of the project's public presentation. The source code of our website and the XML files from where our search engine crawler would source the information is available here:

<https://github.com/directhers/directhers.github.io> See Figure 3 for a snippet of our site.



*Figure 3*

The GitHub repository (<https://github.com/directhers/directhers.github.io>) is open to anyone who wishes to learn more about the project or replicate the project's steps to achieve such encoding. In addition, the documentation discussed in the previous section allows users to explore and download the data, metadata, and any additional materials.

As we fully appreciate the value of open-source development praxes in the Digital Humanities community, and we are committed to ensuring free accessibility and availability of the encoded data repositories on the project website, we decided to use GitHub as a collaborative coding infrastructure to simplify the exchange of information within the team and encourage future contributions to the project. Additionally, we kept a shared repository of the preexisting codes and materials on TEI/XML on a communal [Google Drive](#), which can be made available upon request. However, we reserve the right to decline such a request should the latter cause

harm or danger. We believe this approach can improve the project's outlook and sustainability over a longer time horizon.

## **Section 4: Evaluation**

From the very onset of the project, *DirectHERS* focused on developing an appropriate workflow to gather directors' information and properly cite our research sources. This focus nourished our methodology and engaged us more broadly with Digital Humanities concerns regarding open educational resources. Jill Cirasella, the associate librarian, was fundamental in this process. With her help, we started deciphering the landscape and possibilities regarding copyright, fair use, and open access. In addition, Cirasella provided early advice on how to collect data from our primary sources – mainly composed of available information on the internet but from different mediums such as videos, interviews, podcasts, blogs, and news reports, and how to frame our project under the U.S fair use guidelines and laws.

The feedback provided by Cirasella propelled our work towards using the open-source software Hypothesis to annotate our information individually and collectively brainstorm possible tags (see Figure 4). Furthermore, the project manager investigated other similar resources, although not all open access or free, to annotate videos and podcasts, such as Annotate.tv. Both tools and methods became a vital aspect of the *DirectHERS* project. It allowed us to create hyperlinks to the database user directly to our annotation and the source from which the information originally came. Any user can also create their own annotation,

reply to our comments, and discuss, accept, or reject our annotation. In other words, it gives space for an active user and, in a way, a tag collaborator.

The project manager had a chance to do an invited talk and introduce our project via Zoom at a virtual event on women and arts in the digital era hosted by the University of South Carolina. This opportunity allowed us to introduce our project to a broader audience and engage in meaningful discussions on art and feminism in a digital world. A significant topic of discussion at the event revolved around sustainability issues. These conversations were crucial in highlighting the challenges associated with maintaining the longevity and viability of such projects, offering critical reflections for our own project's future.

At the Digital Showcase and dress rehearsal, we received valuable feedback regarding the design of our website. Suggestions included reversing the order of our lab notes for improved chronology, incorporating a drop-down menu for our tag glossary linked to the tag search engine, and finding a suitable website domain to host our project. In response, our web developers are proactively implementing these changes to enhance the user experience and the overall functionality of our site. We understand the importance of continually refining and updating our platform in response to feedback, and our web development team is committed to achieving these improvements.

If we were to have the capacity to expand our research and include more directors, encode more XML files, and brainstorm more tags, we would like to reach out to other academics and projects that have been, all along, the primary source of inspiration for *DirectHERS*. The Orlando Project, for example, could give us much valuable feedback regarding selecting our tags and further insight into how they developed their structure. Conversations like this could nourish future efforts and initiate a more profound critique of

our classification system. At the same time, it could allow the project to develop a more organized XML structure with a defined DTD and further investigate how to incorporate TEI guidelines if there's a need for it in other iterations of the work.

Finally, we also would like to receive feedback from our potential users, which could be done by working with a group of students and professors in film studies and gender studies during the initial launch of the database next semester in 2023 Fall. Their feedback could rebuke or confirm some of our categories and tags. It could also create and spark new ideas about which sources to look for, what directors to encode, what kind of film techniques or narratives the users are more interested in, and many more aspects that could enhance our work.

One of the key strengths of this project lies in its innovative methodological process. Successfully transforming scattered data from diverse web sources into an organized, searchable database is undoubtedly a notable accomplishment. Moreover, compiling this data into a resource potentially enriching scholars' investigations in their respective fields represents a triumph for the project. However, like any project, there are areas where we acknowledge the need for improvement. The scope of our data is relatively narrow, with only 15 directors selected and a limited set of tags employed. These tags may not wholly reflect the comprehensive artistic output of a particular filmmaker. Unlike The Orlando Project, which primarily encodes the work of deceased women writers, *DirectHERS* focuses on profiles of women actively producing and innovating within the artistic landscape. Many of these artists are film creators and founders of independent media agencies or experimental video artists exhibiting at museums and cultural institutions. As their careers

are still in flux, the fixed nature of our encoding tags may not adequately capture their evolving trajectories.

Addressing these limitations would require a dynamic approach to maintaining the project. The database would need constant revisions and re-evaluations of tags and definitions to track the directors' evolving career paths and stay engaged with current debates in feminist and queer studies. Such discussions could potentially offer valuable critiques to our term and category selection, contributing to the ongoing growth and refinement of the project. In hindsight, a potential improvement could have been to design the project as an evolving platform from the start, allowing for ongoing updates and revisions, better capturing these women directors' vibrant and evolving careers, and facilitating a more interactive and engaging exploration of their work.

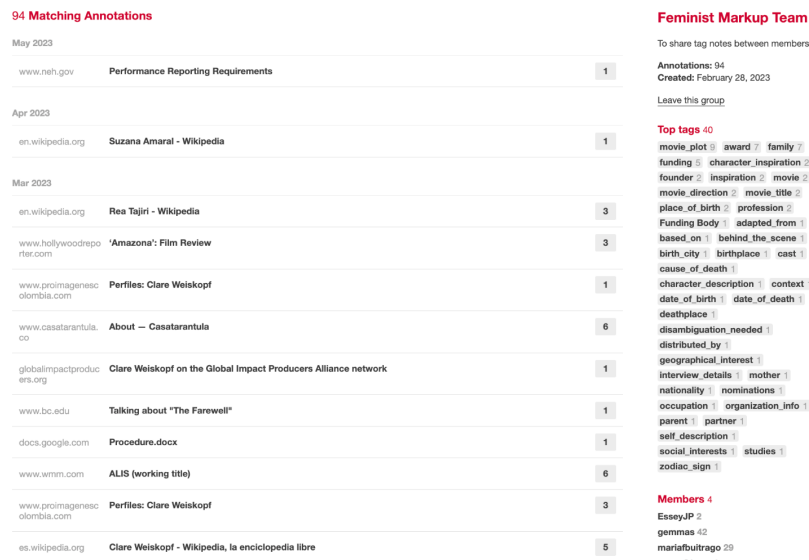


Figure 4

## Section 5: Continuation

Undoubtedly, there are various features of the project that bring us great enthusiasm. However, what stands out the most and truly fills us with anticipation and thrill is the possibility of revolutionizing our current workflow to incorporate diverse topics, various forms of artistic productions, or different groups and communities. This aspect of the project opens a world of opportunities for us to explore and grow, extending our reach beyond what we had initially envisaged.

In particular, the advanced digital annotating technique we have developed has the potential to be replicated across a wide range of formats and mediums. When harnessed effectively, this unique ability can transform the landscape of digital annotation. This model is especially beneficial for those wishing to encode non-textual materials. We hope that our project could serve as an inspiring template for other passionate individuals creating a database in a similar structure.

Looking forward to the future with great anticipation, we are thrilled to announce that an exceptional opportunity has arisen for one of our members. She will be able to integrate our project's tangible learning outcomes into her upcoming classes. This development opens up a significant possibility for amplifying our project's influence and visibility, essentially widening its impact. This outstanding opportunity also paves the way for the practical application of our model to a course that delves into film history and historiographies. In this class, students will have the opportunity to work with the NYPL archive; therefore, we see a potential collaboration that could be made by integrating *DirectHERS* and the future output of said classes.

Furthermore, our project manager is actively exploring partnering with other public humanities projects focusing on area studies, women directors, and films. The aim is to organize a series of virtual XML encoding workshops to provide practical training and deepen understanding of encoding in digital humanities.

Such prospective collaborations are not just an exciting possibility we are looking forward to, but it also symbolizes our deep-seated belief in the transformative power of working together and sharing knowledge in the digital era.

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