

Worcester Women's Oral History Project

An Interactive Qualifying Project Report

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1. Oral History
2. Database

Abstract

This project investigated the feasibility of creating a permanent site of women's oral history at the new Worcester Visitor Center. Working with the Worcester Women's History Project, three main objectives were explored: designing an interactive exhibit space, creating a sound booth, and developing a digital resource center. This was accomplished by meetings and surveys with major parties involved in the project and conducting relevant research. We designed a directory and offered recommendations to enable a feasible implementation of the site.

Executive Summary

Women occupy a rich and important niche in the history of the City of Worcester, although it is widely unknown. The Worcester Women’s Oral History Project (WWOHP), a community group committed to illuminating this history, is considering the creation of a permanent site for communicating and recording women’s oral history in the Worcester Historical Museum section of the new Visitor Center. This IQP project explored the many aspects of feasibility surrounding the creation of such a site.

We had been given three primary objectives to explore: a sound booth to record oral histories, a permanent exhibit space, and a digital resource center. We worked closely with many of the people associated with the project as these objectives evolved over time. Preliminary discussions with Linda Rosenlund, chair of the WWOHP and the project liaison, Worcester State Professor Lisa Boehm, project consultant for WWOHP, and William Wallace, executive director of the Worcester Historical Museum, were conducted in an effort to better understand the scope of the project. Throughout the course of the project Boehm and Wallace were invaluable with their insights into different aspects of the project.

As stated by our sponsor, Worcester Women’s Oral History Project (WWOHP), the permanent exhibit space will be a place for “exhibitions and public programming related to the words of Worcester Women.” The site will provide the community with an interactive environment in which to learn. Feasibility of the site was analyzed by investigating the costs and benefits of all the components involved in creating such a site and giving recommendations to the WWOHP. The main feature of this site will be a group of touch screens with headsets that visitors can come and use to not only read about the history but actually hear it from the women themselves. We then took these results to the Worcester Historical Museum and found out if they could accommodate such a space in their part of the Visitor Center, which they could. The site will be used both as a learning tool for the general public and as a source of information for historians, genealogists, and other academics.

As noted previously, one of the primary objectives of this project was exploring the feasibility of creating a sound booth where visitors can record their stories. Our sponsor needed an estimate of the financial costs of a sound booth and the recommended

recording equipment. To determine the best choices for our project we evaluated these in terms of cost and efficiency. The cost of building a complete sound booth was very high, and the idea of a quiet room came up in discussions with our sponsor. This room would act as a location where people could come to record oral histories in a quiet and comfortable environment. This project investigated the costs of supplementing the room with sound reducing materials, and results from this were used to make recommendations to the WWOHP. Building thick walls can prevent outside noises, but inside echoes can still cause problems. Acoustic foam helps to reduce interior echoes and only costs \$2.50 per square foot. This foam, combined with draping fabric on the walls, ruffled like curtains, and building thick walls, is the most cost-effective choice.

Research into the recording of oral histories led to the discovery of a wide variety of equipment that can be used. Evaluation of these options on an equal basis required selection of the criteria by which to compare. The main groups of recording equipment we discovered were: analog audiocassette recorders, mp3 recorders, Hi-MD recorders, solid state recorders, and recording directly to a computer. After evaluating the strengths and weaknesses of each of these, solid state recorders were deemed the best to use in the quiet room. These recorders record digitally so that the interviews can be moved directly to a computer quickly and easily. They also have no moving parts, therefore nothing wears down over time and there is no noise to interfere with the recording. Solid state recorders cost anywhere from \$500 to \$5,000 with the more expensive ones recording with higher quality.

For the digital resource center we designed a database to store oral interviews. The database allows the systematic organization of collected interviews to facilitate storage, updating, and searching. It will also serve as a useful resource for the wide range of targeted audiences including historians, research students, and the general public.

We developed two sets of questionnaires to determine storage features, search features, and the possibility of publishing the directory online. One questionnaire set was for the general audience and the other was for members of the WWOHP. Based on feedback we refined our database design to fulfill the needs of potential users. The final database consists of seven main categories for storage features: Narrator (interviewee), Family, Career, Connections to Worcester, Interview, Interviewer/Group and Location

(where the interview is stored). Each individual category consists of its own sub categories such as Narrator having name, year of birth, and ethnicity. The categories that will be searchable are: Narrator, Interview, Interviewer, Connection, Family and Career. Consulting with website designers MySQL, an open source database program, was selected and used to create the database with the selected features.

Results from these questionnaires also showed an interest in publishing this directory online. Attempting this was beyond the scope of this project as it would require the creation of a web-interface. However, we designed a layer of functions similar to an interface, which will provide easy access to the database for inserts, updates and searches. In addition, flowcharts and general layouts were designed to facilitate the creation of the future website.

For this project to become a reality, there are still many obstacles that need to be overcome. The WWOHP should stay in close contact with the WHM throughout the planning stage of the Visitor Center in case any problems arise. Funding for this project must also be procured, possible through fundraising. Another possible option is collaboration with the Worcester Consortium, and in exchange for donations, offering the colleges of Worcester a place in the Visitor Center. The WWOHP must make decisions on equipment, building materials, and all the other components of this site for women's oral history. Finally, the database can be used for future storage of interviews and published online to allow public access. While this project shows many options and possibilities, and offers some recommendations, final decisions ultimately fall to the WWOHP. This project will be a great addition to the already rich culture of Worcester, and provide the community with a means to fully understand and become a part of their history.

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1.0 Introduction

Women's contributions to history have been largely undocumented until very recently. Although women have often played roles great as or even greater than men, little of this has been recorded or recognized. Only in the last few decades have these acts been discussed openly and been given their rightful place in history.

The need for more accurate information about women's historical contributions is shown in a recent poll funded by General Motors. The poll was conducted prior to GM's sponsorship of a film on Elizabeth Cady Stanton and Susan B. Anthony, two women "who transformed a nation." The results show that only one percent could identify Stanton as in some way connected with women's rights (NWHP, 2006).

As people become aware of this problem, there has been a growing interest to learn more about women's history. Educators are more eager than ever to introduce and increase the awareness of women's contribution to history. However, there are still very few resources available at this time. In the 1980s, according to National Women History Project, there were no records of women in educational materials such as textbooks. Even now "Only three percent of educational materials focus on women's contributions" (NWHP, 2006).

Women occupy a rich and important niche in the history of the City of Worcester, although, like everywhere else, it is widely unknown. Even among residents of the city it is not well known that the first and second National Women's Rights Conventions were held in Worcester in 1850 and 1851 respectively. Another example of the importance of women in Worcester was Frances Perkins, the first woman to serve on a President's cabinet, who served as Franklin D. Roosevelt Secretary of Labor.

A process to collect unknown parts of recent history that has been gaining popularity is oral history. This is the collection of living peoples' testimony about their own experiences. It can also be described as a method of historical documentation, using interviews with living survivors of the time being investigated. However, because oral history is limited to a generation or two back in time, it must be gathered before it is lost forever. Knowing this, many oral history projects have been undertaken in recent years in order to record this unique history before it disappears.

One of the largest projects to date that consists of gathering oral history is StoryCorps. StoryCorps is a national project to instruct and inspire people to record each others' stories in sound. They have been building soundproof recording booths across the country, called StoryBooths. They also have two traveling recording studios, called MobileBooths, which embark on cross-country tours annually. These interviews are then stored in the Library of Congress.

This IQP, along with the Worcester Women's History Project (WWHP), explored the feasibility of creating a permanent site dedicated to women's oral history in the Worcester Historical Museum section of the new Visitor Center. This project investigated the range of issues of creating this site that would display oral history gathered by the WWHP's newest initiative, the Worcester Women's Oral History Project. Possible components considered included a sound booth, a digital resource center, and a permanent exhibit space.

This project provided to the WWOHP the information necessary to aid in the creation of a place where the history of women in Worcester is easily accessible and which also provides the community with an interactive learning environment. This was achieved by estimating the cost and benefits of all the components involved in creating such a site and by offering recommendations to the WWHP to enable a feasible implementation. The site will be used both as a learning tool and as a source of information for the general public, historians, genealogists, and other academics. It will be a great addition to the already rich culture of Worcester and will provide the people of the city with a means to fully understand and become a part of their own history.

2.0 Background

This section provides the background information gathered at the beginning of the project. This information was used in creating a plan of action to undertake for the completion of the project.

The Worcester Women's History Project (WWHP) was founded in 1994 by a small group of women to raise awareness of the importance of the first National Woman's Rights Convention and to highlight the role of Worcester in the women's rights movement (Worcester Women's History Project, 2006). The WWHP now promotes the research of local women's history, offers educational programming, and sponsors public events. The WWHP's newest initiative, WWOHP, will document, collect, and share oral histories of women in Worcester.

One of the most visible accomplishments to date of the WWHP was the commissioning of four internationally known artists to paint portraits of four important Worcester County women to hang in the historic Mechanics Hall, which previously only held portraits of men. The WWHP has also created a 40 minute slide show documenting the contribution made by Worcester women in the ongoing issues of exploitation, equal rights, and abuse of women and children. They have made available a 46 page booklet which identifies sites, individuals, organizations and events vital to understanding the major role that Worcester and Central Massachusetts played in the historic struggle for women's rights and racial equality. The WWHP has also created and presented a dramatic one-woman play about Abby Kelley Foster, the 19th century Worcester abolitionist and women's rights activist. In the year 2000, the WWHP organized and hosted Women 2000, a national three day conference, to commemorate the 1st National Woman's Rights Convention in 1850 (Worcester Women's History Project, 2006).

The two core topics of the project are the collection and storage of oral history, both physically and digitally. The WWOHP aims to convey the history of women in Worcester through a series of oral interviews of the women telling of their past experiences. Once these have been recorded, they will need to be stored somewhere, and placed into a directory for sorting and easy reference. The directory will store the interviews indefinitely, and will allow easy searching in different areas such as name, content, and location.

2.1 Oral History Collection

Oral history is the collection of living people's testimony of their past experiences. Although oral history is considered by some historians to be an unreliable source for the study of history, and it does have some shortcomings, others consider it to be a valid means for preserving and transmitting history. Due to the lifespan of humans, oral history can only go back one generation. Thus it is important to collect as much history as possible while it is still available. This collection can be done in a variety of ways, from an interviewer taking notes to audio or video recordings (Step-by-Step Guide to Oral History, 1999).

There have been many projects dealing with oral history in the past, one of the most recent, and relevant, being StoryCorps. StoryCorps is building soundproof recording booths across the country, called StoryBooths, as a means to collect oral history. They also traveled across the country with two traveling recording studios called MobileBooths. A brief description of their process is best said by StoryCorps,

“We've tried to make the experience as simple as possible: We help you figure out what questions to ask. We handle all the technical aspects of the recording. At the end of the hour-long session, you get a copy of your interview on CD.... Since we want to make sure your story lives on for generations to come, we'll also add your interview to the StoryCorps Archive, housed at the American Folklife Center at the Library of Congress, which we hope will become nothing less than an oral history of America.” (StoryCorps, 2006)

Rutgers Oral History Archives, another oral history project, has 415 oral histories and transcripts by men and women involved in World War II, the Korean War, the Vietnam War and the Cold War. It “is an enterprise to record the personal experiences of the men and women who served on the home front and overseas” (Rutgers Oral History Archives, 2006). The archive also contains documents such as letters and photographs. All of this material is available online through the website, making it accessible to anyone who has an interest in personal experiences from the relevant time periods.

Another project available online is “The Whole World Was Watching: an oral history of 1968.” This was a project between South Kingstown High School and Brown University's Scholarly Technology Group, sponsored by the Rhode Island Committee for the Humanities and NetTech (The Whole World Was Watching, 2002). The resource contains

“transcripts, audio recordings, and edited stories of a series of interviews conducted in the spring of 1998. Members of the Sophomore Class at SKHS interviewed Rhode Islanders about their recollections of the year 1968. Their stories, which include references to the Vietnam War, the struggle for Civil Rights, the Assassinations of Martin Luther King and Robert Kennedy as well as many more personal memories are a living history of one of the most tumultuous years in United States history.”

(The Whole World Was Watching, 2002)

Issues presented in the interviews include civil rights, politics, Vietnam, and women’s rights. The site also has reference materials such as a timeline and glossary.

Lora Brueck, Assistant Director of Collections Management at WPI’s Gordon Library, participated in an oral history project conducted in 1994. In the project, WPI students interviewed seven female alumni from the 1960’s to celebrate 25 years of women’s history at WPI. The interviews were recorded via audiotape and videotape. The interviews were based on a set list of questions, but the interviewee was also allowed to talk of additional topics as they felt necessary. After the interviews were collected, they were all transcribed to text which is available in the WPI library (Brueck, 2006).

Rodney Obien, Curator of Special Collections and Archives at WPI’s Gordon Library, is partaking in the collection of oral histories at Alumni Reunions. The project is open to all alumni, who are asked to talk about their experiences at WPI. Mr. Obien suggests software for use in editing sound clips, and explains the importance of making the technical aspect of oral history collection as simple as possible to suit a wide range of users (Obien, 2006).

2.2 Storage and Processing

Once collected, the oral histories will need to be stored in such a way that they are open to the public and yet will not decay over the years. The National Library of Australia came across this challenge as it has a collection of oral histories that consists of

over 300,000 hours of recordings (Webb & Bradley, 1997). One of the problems they have encountered over the past few years is the preservation process. The changes in technology have produced a need to convert the tapes into a digital format. The benefits that have come from such a conversion include saving space, the ability to migrate the collection, and easier data preparation for public use. The only setback has been the high cost in both money and time (Webb & Bradley, 1997).

The ACT UP Oral History Project, a collection of interviews with surviving members of the AIDS Coalition to Unleash Power, New York, is an example of a large selection of interviews that are stored digitally and available online. All of the interviews are available from their website to download in PDF format, as well as streaming video clips. The full tapes of the interviews are stored at the San Francisco Main Library and the New York Public Library.

There are a number of other issues that need to be taken under consideration while collecting oral history. One of the larger of these is whether to keep the interviews in oral form, or to make hard copy transcripts. Transcription is the process of taking an oral interview and converting it to a written text. There are also legal issues that need to be considered such as consent and deed of gift forms. The narrator (interviewee) must sign a consent form before the interview that outlines how the interview will proceed and be used after. Once the interview is done and a transcript made, if applicable, a deed of gift form must be signed to donate the interview to the WWOHP (WWHP, 2006). These concerns are directly linked to the feasibility of designing a system to collect and process the oral histories of women in Worcester.

2.3 The Directory

Once the oral histories have been gathered, a directory will be needed for organizational purposes. Small amounts of information are easy to manage using simple techniques. However, as the oral history project continues over time and the number of interviews starts to grow, there will be a need for a better management system. A database will serve as a suitable directory for such a system. A database is described as “a collection of data that is organized so that its contents can be easily accessed, managed, and updated” (Whatis, 2006).

In the recent decade or so, computer engineers have been using relational databases because of their efficiency, flexibility, and easy accessibility. These databases are described by Codd (as cited in Ullman and Widom, 2002, p. 4) as “a view of data organized as tables called relations.” In this system, relations are the tables, each of which has a header that describes its attributes. Any entry of the column in the table is confirmed by its header. The tables are related to each other in some way to form a whole system. We can store the information into the system and we can also search general, specific, and complex questions in the system using operations such as “select” and “join”.

There are many different kinds of software available to create and maintain database systems. Three of the most common are Microsoft Access, Oracle, and MySQL. Oracle and MySQL requires learning Standard Query Language (SQL) whereas Microsoft Access is easier, compatible with Microsoft Excel, and only requires knowledge of SQL for more complex tasks.

Databases are often created for use on the internet. Two online database projects from previous IQP Projects in WPI have provided valuable information. The New England Jazz Alliance (NEJA) Historical Database was completed by three WPI Students Anthony Towne, Stephen Leavey, and Eric McDonough. The project produced an archive to store information about Jazz musicians in New England. The archive allows a submission process that helps other people to contribute to the database. As stated by the students, the submission process was made very easy to use “because many different musicologists, historical researchers, and professors with different computer skill levels would be adding to this database” (Leavey, Towne, and McDonough, 2002, p.2). The new archive was then integrated into the NEJA website <http://www.neJazz.org/>. The team added a MySQL database system to effectively store the archived materials and to provide good security. They then built the website using PHP script language which allows easy access to the database for website users. The archive was used to store not only the interviews, standard text files, but also multimedia files such as sound clips and pictures.

Another IQP Project, “Online Artist Directory and Virtual Galley for Worcester Artists,” was created by WPI Student Kate Farb-Johnson in collaboration with

ARTSWorcester. This directory contains the information about artists and the virtual gallery that consists of their artwork. The directory also allows searches using different categories such as name of an artist, their specialty or field of work, and keyword. Similarly one can search artworks by title, artist name, type of work etc. Authorized users can add their information and artwork into the database. Farb-Johnson has also provided a user manual for accessing and modifying this directory system (Farb-Johnson, 2003).

A simple text based database “Worldwide Museum Database” was created by Sharma and Shrestha as a project for a database class. This database stores information about artworks collected in museums worldwide and also allows users to search and add information to the database. The database contains detailed information about the artwork such as name, size, movement, artist, and the museum it belongs to. This project was created using Oracle’s SQL, JDBC, and Java.

There are several other websites that contain information about projects without sophisticated database systems. For example, an Oral History Project for the US Senators website has a collection of interviews from Senate officers, parliamentarians, clerks, police officers, chiefs of staff, reporters, photographers, Senate pages, and senators throughout the 20th century and now continuing into the 21st century. It is organized alphabetically by last name with links to related pages (U.S. Senate Oral History, 2006).

After gathering this background information, we formulated a course of action to fully investigate and understand the costs and benefits of creating a permanent site of women’s oral history. The next section outlines the steps we took to achieve this goal.

3.0 Methodology

To begin the process of conducting a feasibility study to identify and tackle the range of issues of creating a permanent site of women's oral history in the Worcester Historical Museum section of the new Visitor Center we had been given three primary objectives to explore: a sound booth, a digital resource center, and a permanent exhibit space. This section outlines the steps we took throughout the project.

Further developing our relationship with our sponsor at the start of the project, we conducted a series of informational meetings with the people closely associated with the WWOHP to fully understand their vision of this permanent site. These meetings focused on examining the purpose of the project and revolved around the following questions:

- Who wants this sound booth?
- Why is the site proposed to be in the Visitor Center?
- Who will be using the collected interviews?
- Who are the target subjects that will be using the site?
- In what way should the information be processed and stored?
- How will this project benefit Worcester?

These meetings were supplemented by weekly discussions with our liaison, Linda Rosenlund, to guide us and keep them informed of the project status.

Lisa Boehm, a teacher in the Department of Urban Studies at Worcester State College, is a member of and the project consultant of the WWOHP. She has conducted many oral histories on her own and has had her students do the same. Her background in oral history was a valuable resource in explaining how important oral histories can be. Our discussions with her covered such topics as how the project will benefit both historians and the community, what features should be included in a directory, the issue of transcription, and the intended audience of the project.

The executive director of the Worcester Historical Museum, William Wallace, was also contacted because the Museum would be the future location of this project. Preliminary discussions with Wallace included the amount of space available for the site of women's oral history and his own insights on the project. Mr. Wallace also spoke of

the benefits this project would bring to Worcester and the possibilities the sound booth could realize.

3.1 Permanent Exhibit Space

As stated by our sponsor, the permanent exhibit space will be a place for “exhibitions and public programming related to the words of Worcester Women.” This required investigating how much room such a space would take up, as well as different components to be included. Ideas for different sections of this exhibit space were explored during meetings with Linda Rosenlund, which were then investigated further in reference to cost and practicality.

In discussions with both the WHM and our liaison, an idea arose of making this exhibit space interactive. Working with this idea we explored other interactive exhibits, both those that work and those that do not. Also investigated were guidelines to follow to best create an interactive exhibit that appeals to many audiences.

Once space specifications were obtained, these results were brought to the WHM to see how much space was available for this project. The museum gave further ideas to create a truly interactive and successful exhibit to showcase the women of Worcester. Finally, we discuss with the WHM about their relationship with the new Visitor Center and the general layout of the building.

3.2 Sound Booth

As noted above, one of the primary objectives of this project is looking into the feasibility of creating a sound booth where visitors can record their stories. This included estimating the financial cost of such a sound booth and the associated recording equipment. To determine the best choices for our project we evaluated these in terms of cost and efficiency.

After investigating the materials necessary to create a sound booth, we realized that it would be possible to have not a complete sound booth, but rather a quiet room supplemented with sound reducing materials. With this in mind we looked at StoryCorps as they have created successful sound booths in New York (StoryCorps, 2006). We

compared the cost needed to create and maintain such a sound booth against that of a small quiet room.

Research into the recording of oral histories led to the discovery of a wide variety of equipment that can be used. The main groups of recorders that were most relevant were: Audiocassette Recorders, MiniDisc Recorders, Hi-MD Recorders, mp3 Recorders, Solid State Memory Card Recorders, and recording directly to a computer. Each of these groups of recorders was compared mainly in terms of cost and audio quality. Also included in the comparison were special benefits or possible problems that each kind of recorder has.

3.3 Digital Resource Center

Preliminary discussions with our liaison into what exactly a digital resource could entail brought about the idea of creating a directory in which to store collected interviews. This directory would take interviews stored in a digital format and, using a database, make them easy to search and manage. This brought about other ideas such as editing the interviews and determining user requirements for the directory.

3.3.1 Sound Editing Software:

Interviews that are recorded in a digital format have the ability to be edited very easily. This also allows cutting out parts of interviews to make small sound clips that can be distributed to increase awareness of the resource. Editing can help improve the quality of sound clips, change its format, cut time or add other multimedia facets such as photographs. There are few different audio formats to store the audio such as MP3, M4A/AAC, Protected AAC, AIFF, WAV, and Apple Lossless. Among these, Waveform Audio Format (WAV) was developed by Microsoft to store audio in computers. In the most recent decade as the popularity of the internet grew, WAV files became harder to share and access over the internet due to its size constraints. Currently, MP3 is one of the most popular audio formats due to its smaller size as well as faster transmission through the internet. According to Yuen (SearchSMB.com) “MP3 (MPEG-1 Audio Layer-3) is a standard technology and format for compressing a sound sequence into a very small

file...while preserving the original level of sound quality when it is played.” MP3 format has been so popular that there are many websites that make thousands of songs available in the internet using this format.

From the audio comparison above it can be seen that the production of new, better, and efficient technology is always evolving. Conversion software can be used to change audio format to suit the needs of the time. Therefore, technologies that can convert one kind of audio format to other can be very useful.

3.3.2 Determining requirements for the directory user

To make these interviews useful for the wide range of targeted audience such as historians, research students, and other interested parties of oral history projects it was necessary to manage this information. This is where a well structured directory comes into play. It allows the systematic organization of information to facilitate storage, updating, and searching

To create a directory as mentioned above, it was helpful to understand the kind of information that people using the directory would be searching for. Another consideration that needed to be addressed was the wide range of technical backgrounds of the users. Two sets of questions were developed that were used to determine the general structure of the directory. One set was designed for the general audience, including interested parties of oral history, students, and more. The other set was designed for our sponsoring agency, the Worcester Women’s History Project. A few examples are listed below, and the entire set can be found in Appendix C-1.

For the general audience:

- What information about the interview should be included in the directory that will be helpful to you? (For example – name, age, location, abstract of the interview, photograph, career)?
- Should this directory be available via the internet?

For the Sponsor Agency:

- Who is your target audience for this oral history project?
- What kind of information do you think the audience will be looking for?

- Who should have the access to this database for updating purposes?
- Should this information be available in the internet?

These questions were flexible and changed according to the background of the person involved.

Due to time constraints the set of questions for the general public was not distributed. Instead we decided to focus our questions on the involved organizations WWOHP and WHM. Meetings with Linda Rosenlund, our liaison, Bill Wallace, Executive Director of Worcester History Museum, Robyn Christensen, Librarian of Worcester Historical Museum, and Lisa Boehm, project consultant for WWHP, helped to further define how the directory would function.

Information was collected from a community workshop organized by the Worcester Women's History Project on techniques for documenting oral history. The interviewee bio data form, designed to get information about the narrator (interviewee), was distributed in the workshop. This form was very important in designing a preliminary structure of the directory (Appendix F-1.1). We interviewed various members of our sponsor agency, asking for their suggestions and getting their feedback on our project. We also met each week with the chair of WWOHP to discuss our project.

There were two sets of surveys distributed among our sponsor agency during this project. The first set included three surveys and was successfully completed by our sponsor agency members. The second set, a modified version of the first set, was also given to the WWOHP.

The weekly meetings that took place in between sending the first and second set of surveys were focused on what was needed to improve the directory design. Additional meetings with Linda Rosenlund, Lisa Boehm, and Robyn Christensen were conducted to get more feedback on the features of the directory (Appendix C-1). Their suggestions were used change the design and to create a more specific questionnaire to distribute amongst other members of the WWHP (Appendix C-1).

Also discussed during these informational meetings was how detailed the directory had become. Obtaining information for parts of the directory would require intensive labor as it could only be found by either reading through a transcription or

listening to the interview. Therefore, the design was changed to exclude any information not easily obtained through the pre-interview questionnaire (Appendix F-1.2). This change in the design was used to create the second set of surveys, which were then sent to the WWOHP (Appendix C-2). One in particular was sent directly to the president of WWHP who then passed it on to the steering committee.

3.3.3 Designing a Directory (Database)

As answers and feedback for the preliminary design of the directory were gathered, the design was further refined to fulfill the needs of the targeted audience while still holding to the objective of this project (APPENDIX F-1.2).

Incorporating new ideas into the evolving design as the project progressed, we decided on the general features of the directory, searchable categories, and which information should be available to users. One of these ideas was to include the WWOHP's Community Catalogue, which provides the locations of oral history collections around Worcester. This was done by adding a location category to the directory.

During one of our weekly meetings which included Bill Wallace, the Director of Worcester Historical Museum, discussions included how the directory could benefit both the WWOHP and the Museum. Since the WWOHP deals exclusively with women, the design was originally set up for women only. Following the meeting, the design was changed to include gender so that it would provide flexibility in future projects for both organizations (Appendix F-1.3).

A meeting with the webmaster of the WWHP, Troy Thompson, was used to learn about the server the website was currently hosted on and to decide the appropriate software to create a directory (Appendix C-1.3). Thompson also helped to further refine the design to make it easier to implement. According to his suggestions we decided to design flow charts and a web layout for the future website.

As stated previously, it was an ongoing process to further refine the design to make the directory both resourceful and simple to suit the needs of a wide range of technical backgrounds. Consulting with website designers and with the help of other

directory projects in the past, we decided on appropriate software to create this directory. These decisions depended on software already used in the project website and available compatible software for the given system.

4.0 Results and Analysis

The following section describes the results of our research and how it was applied to the project. After following the steps laid out in the methodology we collected all of the data and organized in such a way as to be easily understood. Below you will find these results which will then be used in the next chapter to offer recommendations to the WWHP.

4.1 Informational Meetings

The preliminary discussions with the people associated with the project were very useful in gaining a better understanding of the project in general. We began our meetings early on in the first term of our project with people that were closely related to this project, namely Linda Rosenlund, Lisa Boehm, and William Wallace.

Linda Rosenlund, the chair of the WWOHP, was our liaison to the sponsor. In our first meeting we went over all the aspects of the project and possible directions to explore. We spoke of the relationship between the WWHP, WHM, and the Visitor Center and how this would affect the exhibit space. She also spoke of how she wanted to get the Worcester Consortium involved in the project. We discussed how the WWOHP was currently functioning and how our project would add to it. She explained her definition of a feasibility study and what she wanted us to research. She also provided us with a list of contacts so we could speak to other interested parties in respect to their understanding of the project (Appendix B).

Lisa Boehm, one of said contacts, is a teacher in the Department of Urban Studies at Worcester State College as well as being both a member of and the project consultant for the WWOHP. She has conducted many oral histories on her own and her students have done the same. Due to her background in oral history she was a valuable resource in explaining how important oral histories can be. Throughout our interactions with Boehm we discussed how the interviews will be useful not only for historians and other scholars, but also for tourists, college students, and the general public. Boehm also explained the importance of the project as the targets of the interviews are any women who work or live in Worcester, not just community leaders. She also explained how the transcription of

interviews makes it much easier for researchers to easily browse interviews to find specific information. This information fit into our feasibility study in that it showed us how there is not only interest in such a project, but how it would benefit the City of Worcester (Appendix B).

The women's oral history site will be housed in the Worcester Historical Museum; it was therefore necessary to speak with the director of the museum, Mr. Wallace, in order to find out how much room was available, and his insights on the project. Part of our discussion with him involved how this project would help Worcester. Wallace spoke of how the project would allow the people of Worcester to become more aware of their past, and become true owners of their history. Our discussions with him also involved the amount of physical space that would be available in the museum for the project, as well as his thoughts on the directory and how it should be accessible (Appendix B).

The questions posed in the methodology were addressed during these meetings, and the answers can be seen below.

- Who wants this sound booth? - The WWHP wants this booth of course, but in discussions with Mr. Wallace, he also expressed quite a bit of interest in the sound booth and how it will be a great addition to the VC and WHM.
- Why is the site proposed to be in the Visitor Center? - The WHM is moving to the Visitor Center and since they are restructuring it is a perfect opportunity to add a place for the history of women.
- Who will be using the collected interviews? - The gathered interviews will be a valuable source of information for historians, students, and other academics. However, they are meant to be used by everyone and anyone interested in oral history can take advantage of this resource.
- Who are the target subjects that will be using the site? - Anyone who wants to record an oral history interview will be allowed to use the sound booth portion, and the exhibit space is meant to be used by all the VC/WHM visitors, which includes tourists, student, and residents of Worcester.

- In what way should the information be processed and stored? - Currently interviews gathered by the WWHP are stored in the WPL, but with the database, digital interviews can be stored there and accessed through it easily
- How will this project benefit Worcester? - Now this is quite the question, something like letting Worcester become a part of their own history, know the history

Another valuable result of these meetings was the clarification of relationships between the different organizations involved in the project. These results can be seen in Figure 4-1 below.

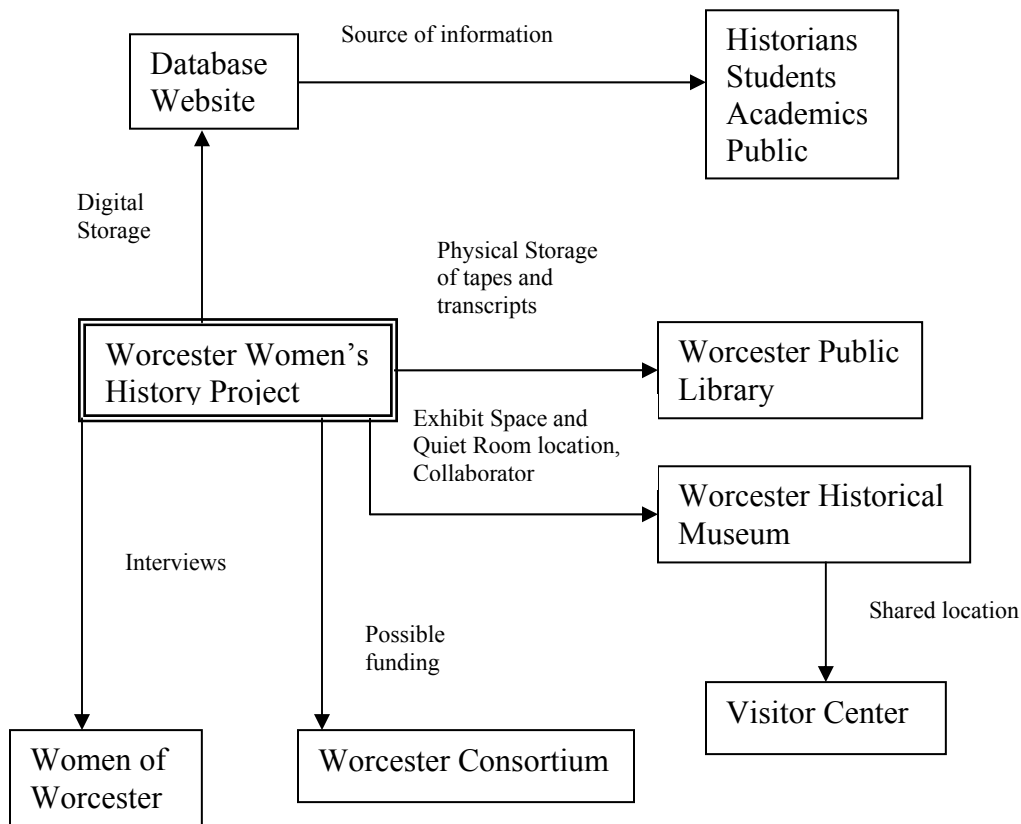


Figure 4-1: Relationship diagram for involved parties

After gathering initial information and gaining a better understanding of the project, we continued to have weekly meetings with these people. Every week we discussed the status of the project, any problems that had come up, and new ideas to be investigated.

These meetings were a valuable resource that provided us with new components to explore each week as well as providing feedback on past work.

4.2 Interactive Exhibit Space

There are many different ways to make an interactive exhibit, but there are guidelines that must be followed and problems that need to be addressed. There are five main problems that crop up when designing and implementing an interactive exhibit: failed feedback from the exhibit, visitors not reading text, visitors not understanding the controls, poor choice of activity, and failure to set objectives for the exhibit (Gammon, 2004).

It is very important that the visitor know that they are continuing on with the exhibit in the right fashion, and what options they have next. It is also important not to have too much text as many visitors are reluctant to do a lot of reading. An interactive exhibit is bound to be a failure if the activity is not interesting. Some characteristics that have been shown to be successful in exhibits include presenting the visitor with a task, providing multiple outcomes, and promoting social interaction with nearby visitors (Gammon, 2004).

Two more interesting observations from various other interactive exhibits involved the first ten seconds of a display and the co-presence of others. It has been noted that the first ten seconds play a very large part in whether or not a visitor will continue interacting with an exhibit. The display must capture the attention of the person well enough that they will want to learn more and continue using the exhibit (Hornecker & Stifter, 2006). The other notable observation is that the co-presence of others encourages longer use of interactive exhibits. This does not mean that it is necessary to have more than one person interacting with the exhibit at once, but that having familiar people around helps to encourage the user to continue using the exhibit. This brings about the idea of making the display large enough that the interaction can be visible by more than one person.

While kiosks with small screen have often been used in museums, the exhibit for this project should aim to use something more visible. One option is the use of larger touch screens that can be used to interact with information about oral interviews. A good sized

touch screen monitor, 17", is approximately \$1000 (Touchscreens.com, 2006). These monitors could be mounted on walls, or place on kiosk-like objects on the floor.

Discussions with Rosenlund and Wallace involved the system that these displays would employ. It was decided that a layered approach would work best, as it would grab the initial attention of the visitor and let them delve deeper into the information as they wished. Also suggested was the use of handsets that would supply audio for listening to clips from selected oral history interviews (Appendix B).

4.2.1 'Quiet Room'

Included in the exhibit space will be a sound booth, or as it came to be called, a 'quiet room'. This brings along issues to be addressed beyond simply the space requirements. The cost of such a room is dependent on how quiet it must be, as there are many different items that can be used to block noise, and the more used the more expensive it becomes.

The first issue to consider is how big the room will be. If it is only intended to be a small room that two people can use for conducting an interview the room need not be larger than 10x10 feet. If there is the possibility that the room will be used more than two or three people at once, it will need to be expanded accordingly.

When making a soundproof room it is advisable to make the walls as thick as possible. While this will help to block most outside noises, there is still the issue of echoes inside the room. It is possible to decrease the effects of these internal echoes by using materials such as acoustic foam, acoustic ceiling tiles, and fabric wall hangings. Acoustic foam is often used on walls to absorb and break apart echoes, and costs approximately \$2.50 per square foot. Acoustic ceiling tiles, used on the ceiling of a soundproof room, cost approximately \$6.50 per square foot (SoundSuckers, 2006). Assuming a ceiling height of 8 feet, using acoustic foam to cover all the walls amounts to \$800. Adding ceiling tiles would be another \$650. However, these numbers reflect the cost of putting soundproof materials about the entire room. It is quite possible that so much will not be needed; this will depend on the noise level of the outside surroundings and the acoustics of the room itself. Also, while pre-made fabric covered panels are available, it is just as easy to drape fabric such as curtains around the room. Ruffling the fabric can also help to reduce echoes.

4.3 Analog versus Digital Recording

There is a multitude of different devices that can be used for recording the interviews, all of which had to be evaluated in a cost-benefit analysis. Before going into the specifics of each device it helps to categorize them into two groups: digital and analog. Each of these has its own benefits and weaknesses. While analog equipment costs less up front, digital equipment usually insures long term savings. The market life of analog has a long history; however there are few new devices today. Digital recording on the other hand is relatively new with a rapidly evolving market. The recorders in both categories are easy to use and learn.

Analog recorders are full of moving parts and thus wear down over time whereas digital recorders only need firmware updates once in a while and the quality of recordings does not decrease. Audio quality for analog most often depends on the tape used. Digital recorders can record in much higher quality when not using compression. Both analog and digital audio quality also depends heavily on the machine employed, usually the more expensive the better quality. Recording capacity for analog is limited to tape sizes, usually 90 minutes. Digital recorders have varying capacity depending on the quality of the audio. The higher quality of the audio the more space it will take up. Compression allows for much higher capacity, but the audio suffers.

The big difference between analog and digital recording is how the audio is handled once collected. Tapes wear out over time, are slowly becoming out of date, and need physical storage. Digital recordings are easily copied, edited, moved, and stored. Digital audio files are enormously more efficient to work with and distribute. However, it is worth noting that there is equipment that can convert analog audio to digital. This requires running the analog audio in real time, but is still a viable option.

4.3.1 Recording Equipment

Within the two groups of digital and analog audio, there are many different types of recording equipment available for recording oral history. Table 4-1 shows a quick overview of the types of recorders evaluated in this project.

	Digital	Compression	Quality	Price Range	Additional Costs
Audiocassette			Medium	\$20 - \$500	x
Minidisc	x	X	Low	\$200 - \$1000	
Hi-MD	x		High	\$200 - \$400	x
mp3	x	X	Medium	\$200 - \$500	
Solid State	x		High	\$500 - \$5000	x
Computer	x		High	\$400 - \$2000	x

Table 4-1: Displays the attributes and cost of the recording equipment investigated

While analog audiocassette recorders are still a standard for many oral historians it is a slowly dying market. These devices are no longer widely supported, but are still a viable option for recording oral history. Prices for these recorders range from \$20-\$500 (Vermont Folklife Center, 2006).

One of the digital recorder options is Minidisc recorders. These are no longer supported as much as they once were. These have audio compression, which increases the amount of audio that can be recorded at a time, but also lessens the quality of the audio. However, these recorders usually have compression that is better than most other recorders, and they are fairly cheap. Prices range from \$200-\$1000 (Vermont Folklife Center, 2006).

A newer digital recorder that was introduced recently is the Hi-MD recorder. These use USB connections to quickly upload audio to a computer. Some models come with a mic input that allows the use of an external microphone, which is advisable for recording oral history. The best thing about these is that they are capable of recording uncompressed linear PCM audio at 16bit/44.1kHz which is CD quality. The problems with these include having to use special software to upload the data, as well as having to first save it in an irregular format. The prices for these range from \$200-\$400, with discs being about \$7 a piece (Vermont Folklife Center, 2006).

An easily accessible recorder that is common is the .mp3 recorder, such as an iPod. While these work, they do not record at very good quality, and it's best to get one that can record in WAV format. These range from \$200-\$500 (Vermont Folklife Center, 2006).

One of the better recorders that can be used is the solid state recorder. These have no moving parts and record directly to a memory card like a flash drive. Due to no moving parts these usually take less power drain and do not make sounds that could intrude upon the recording. The recordings using solid state machines are very easily transferred to a computer. The cards can also be used over and over. The only downside is that recording at 16bit/44.1kHz takes a lot of memory and an hour recording at these settings can take over 500mb of space. The prices for these recorders range from \$500 to \$5000 with a 1GB card for about \$40 with prices decreasing all the time (Vermont Folklife Center, 2006).

The last option for recording digitally would be recording directly to a computer, such as a laptop. To do this requires a computer with a sound card. However, some microphone pre-amplifiers built into sound cards are not very good. A USB interface can be used to get around this. When using a laptop it is quite possible to run out of battery, in which case you can easily lose your recording. Computers also tend to make a lot of noise and can interfere with the interview if not placed sufficiently far away. The best thing about recording this way is that the audio is high quality and already on a computer. Prices for a computer or laptop can be from \$300-\$2000, and the interfaces range from \$35-\$1300 (Vermont Folklife Center, 2006).

4.4 Directory Features

There are two parts of the directory: storage features and search features. To decide and to create each type of these features, we have gathered information through many different means. Discussions with the sponsor agency, weekly meetings, surveys, feedback, and a pre-interview questionnaire (bio sheet provided for interviewee before the interview) have all helped in creating storage and search features for the directory.

4.4.1 Summary of surveys/Interviews

We spoke with various members of our sponsor agency asking for their suggestions and getting feedback on our project. In addition, two sets of surveys were sent out during this project. Following are some sample questions that were asked during a meeting or sent through a survey. For the complete survey refer to appendix C-2.

Questions	Choices
What information should be available in the directory?	Interviewee's name, age, location, abstract interview, photograph, career, etc
What would be the useful search criteria for the directory?	name, age, career, education, focus theme
Should this information be available in the internet?	

Table 4-2: Sample questions and choices used in surveys.

4.4.2 Survey, Meeting and Interview Results

Along with the interviews and survey, we had also met with the chair of the WWOHP each week to discuss our project. We sent two sets of surveys during this project (Appendix C). The first set involving three surveys were successfully completed and returned by our sponsor agency members. The second set of surveys was sent after receiving the first set with modifications based on what we thought necessary. One in particular was sent directly to the president of WWHP who then passed it on to the steering committee. Although we only received three successfully completed surveys, we did receive some very helpful feedback from the steering committee of WWHP.

Weekly meetings took place between sending the first and second set of surveys and included discussions that focused on what was needed to improve and address our directory design. Through these meetings it was decided to focus features on easily available data gathered by a pre-interview questionnaire.

All this information gathered through various means was used as data and we coded each one into mathematical numbers from “-1” to “2”. The total number accumulated for each feature was calculated and used to decide the final design decision. Negative responses, for example: “not necessary” or “labor intensive” were translated

into code of “-1”. If feature did not receive any response then it was interpreted as “0”. “May be”, “could be”, “possible” were coded as “1”. Finally a “2” was given to definite, positive and reassuring responses. Below in Figure 4-1 and 4-2 are the results from the analysis.

Figure 4-2 Storage Features for the Directory

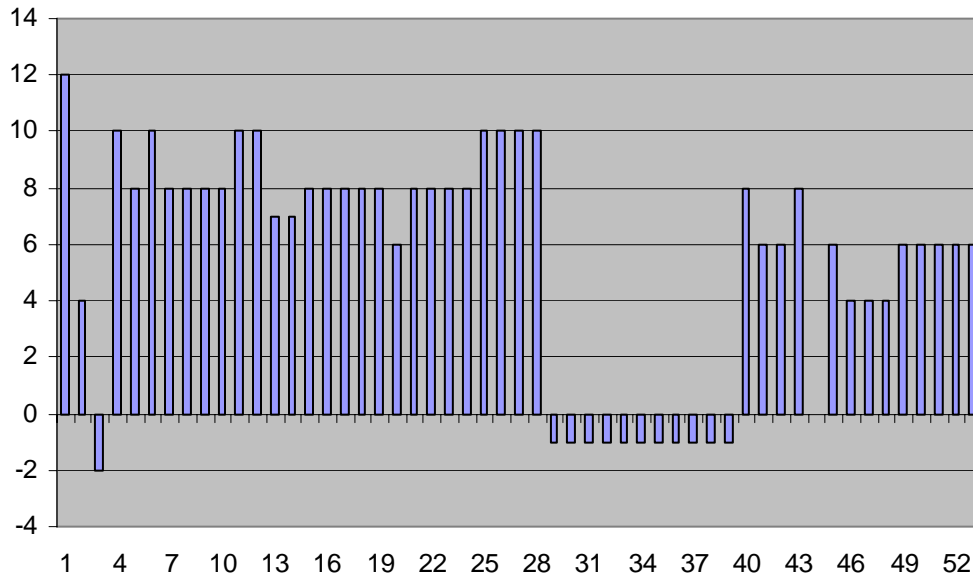


Figure 4-2: X-axis represents the storage feature numbers of the directory (from No. 1 to No. 53) and Y-axis corresponds to the total number each feature received through all above mentioned methods. (For a detailed translation of the storage features, please see the attached Appendix D-1 Data Analysis I)

Figure 4-3 Search Features for the Directory

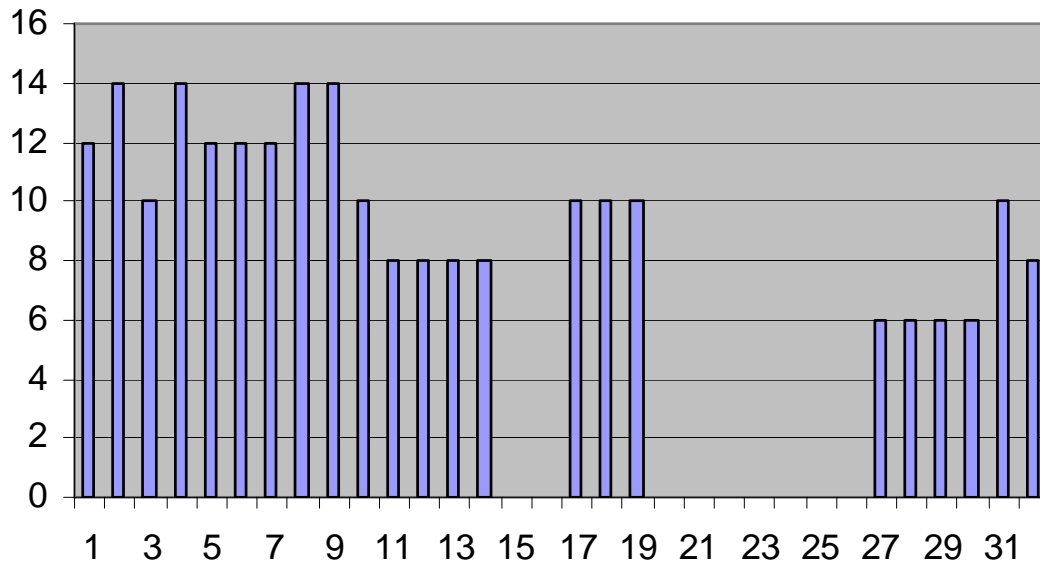


Figure 4-3: X-axis represents the searchable feature numbers of the directory (From No 1. to No. 31) and Y-axis corresponds to total number received for each feature through all above mentioned methods. (For a detailed translation of each feature please see the attached Appendix D-2 Data Analysis II)

4.4.3 Final Design of Storage Features for the Directory

As mentioned above, a main source of the information to be stored in the directory can be taken from the pre-interview questionnaire, known as the bio sheet (Appendix E-1). Since a definite response would be replied, the features included in the bio sheet automatically received a “2”. We kept all features with a score of 2 or above in the final version of the storage feature design. Any feature with a negative score indicated that that feature was either unnecessary, labor intensive, or personal and sensitive. These negative features were excluded from the final design.

The storage feature in the final design consists of seven main categories: Narrator, Family, Connections, Career, Interview, Interviewer and Location. The categories include features as shown in Table 4-3.

NARRATOR	FAMILY	CAREER	INTERVIEW
Name	Mother's Name	Position	Date
Year of Birth	Birth Place	Organization	Focus Topic
Birth Place	Father's Name	Address	Abstract
Address	Birth Place	No of years	Transcription
Phone	No of brothers		Sound Clip
Email	No of sisters		Clip time
Marital Status			Clip format
Spouse Name			Program
No of child			
Spouse Name	LOCATION	INTERVIEWER	CONNECTION
No of child	Contact person	Name	Connection name
No of Grand child	Phone	Group name (If part of a group)	School
Ethnicity	Email	Organization	Job
Religion	Organization	Address	Neighborhood
Photograph	Address	Course (university program)	Connection Year
	Instruction	Professor	

Table 4-3 – Each category describes storage features that will be included in that category.

In addition to the above data analysis, we had incorporated new ideas into our evolving design as our project progressed. For example, we decided to include information from the community catalogue, which is a collection of information about other oral interviews conducted outside of the WWHP. This information is collected by the WWHP through online submissions. Also, after our weekly meetings which included Bill Wallace, the Director of Worcester Historical Museum (WHM), our design was evolving to including gender in the directory which could provide flexibility for future projects for both organizations.

4.4.4 Final Design of Search Features for the Directory

For the final searchable features we considered the importance of what will be interesting to audiences of the directory: visitors, students and historians. Features that are interesting to any of the above parties received a “2”. We decided to keep features that received a total score of 2 or more in the final version of the directory. Any feature with a score of zero or negative number indicated that that feature is unnecessary. These features were excluded from the final design.

The search features in the final design consists of two searching methods: General search and Advanced search. The features in the General/basic search include narrator’s name, year of birth, birth place, and interview’s focus topic. Advanced search features include five categories: Narrator, Family, Career, Connections, and Interviewer. These categories include features as shown in Table 4-4.

NARRATOR	FAMILY	CAREER	CONNECTIONS
Age (Range)	Mother’s Name	Position	Connection Name
Marital Status	Birth Place	Organization	Year
Spouse Name	Father’s Name		
Ethnicity	Birth Place	INTERVIEWER	
Religion		Interviewer Name	
		Group Name	
		Organization	
		Course	
		Professor	

Table 4-4 – Each category describes search features that will be included in that category.

There were suggestions from the surveys to include ‘keyword’ and ‘major historical events’ as search features. We are in the process of including ‘keyword’ as a search feature. We have considered including ‘major historical event’ as part of either Interview’s program or focus topic. Since Interview’s focus topic is already included as searchable feature, we decided to add Interview’s program. In addition, the location where the interview is stored could be an important part of the search, so we decided to include it as well. Finally, we added gender as a searchable feature.

After all these features were decided, we used storage features to draw a storage database structure. This diagram, often referred to as an E-R diagram (Entity Relationship model), shows seven different categories of storage features and how they relate to each other in a big picture. (For a detailed structure of this diagram please refer to technical manual appendix)

This diagram was translated into 16 tables in a database. We decided to use MySQL database program to create corresponding database tables. MySQL is an open source database program which allows the user to create standard database

applications. After creating the tables, we decided to add a layer similar to an interface. This layer consists of many functions called “stored procedures and views”. A stored procedure is a group of SQL statements (database language) that “form a logical unit and perform a particular task...” (Java Tutorials, 2006). The stored procedures help database users to insert, update and view database tables more efficiently. Also, instead of interacting directly with the database tables using the complicated database language, it allows much simpler access by calling some already-made functions.

As mentioned earlier, this project is not focused on creating a web interface. However, we will be suggesting flow charts and general layouts for the future website. The layer created in the above mentioned database table has great potential for usage in creating the web interface. The flowcharts and general layouts for the website are currently in an initial phases. We also will be compiling all the details of these design decision and program code into a technical manual which can be referenced for future extension of database or creation of web-interface.

After collecting all these results and analyzing them we came to many different conclusions. The next section describes these conclusions and how they influenced our recommendations to the WWHP.

5.0 Conclusions and Recommendations

This section uses the results obtained to reach conclusions surrounding many of the issues involved in this project. These conclusions are then used to suggest recommendations to the WWOHP to help in creating a permanent site for women's oral history. Finally, this section provides ideas as how to further build upon this project in the future.

5.1 Exhibit Space

The exhibit space will be a place to showcase the history of women in Worcester and to provide the community with an interactive environment in which to learn. We recommend using a number of touch screens, possibly 3 to 5, to enable multiple visitors to use the exhibit at once. These can be either wall mounted, or placed on kiosk-like stands about the room. The touch screens could be supplemented with headsets so that visitors can not only read about the history but actually hear it from the women themselves.

An effective interactive system to display information on these screens takes a layered approach. A visitor first approaching the screen will be presented with a wide view of the history of women in Worcester with interesting topics to explore. As the visitors interact with this system they can delve into it more deeply to gain access to more detailed information. This system is effective as it grabs the attention of a visitor early on and manages to hold onto it over a longer period of time as well.

5.2 Quiet Room

The cost of building a complete sound booth was very high, and the idea of a quiet room came up in discussions with our sponsor. This room will act as a location where people could come to record oral histories in a quiet and comfortable environment. As such, the room should be large enough to accommodate two to three people. We recommend a room that is 10x10 feet or larger in order to make it comfortable for the visitors. Although this will not be a sound booth we still recommend supplementing the room with sound reducing materials. Outside noises can be prevented by building thick walls, but inside echoes can be problematic when recording in small rooms. Acoustic

foam helps to reduce interior echoes and only costs \$2.50 per square foot. This foam, combined with draping fabric on the walls, ruffled like curtains, is the most cost-effective choice to make the room a perfect place to record quality oral interviews.

As seen in the results section, digital recording offers many benefits over analog. Following these results we recommend that the WWOHP use digital recording in this project to create high quality and easily manageable interviews. Using digital recording restricts the equipment available, and after evaluating the strengths and weaknesses of the remaining devices, solid state recorders were deemed the best to use to obtain high quality interviews. These recorders record digitally so that the interviews can be moved directly to a computer quickly and easily. The recorders do not have moving parts, which provides two benefits: it does not wear down over time and it does not make noise to interfere with the recording. Solid state recorders cost anywhere from \$500 to \$5,000 with the more expensive ones recording in higher quality.

However, it should be noted that although these do record in great quality they may be outside the price range of the WWOHP. Other recorders, while not having the same quality, are still viable options for recording oral history interviews. If the WWOHP does not require very high quality recordings, any of the other recorders can work just as well.

5.3 Directory

After reviewing our surveys, informational meetings with various members of the WWHP, and weekly meetings, we decided on the storage features and search features of the database. We selected an open source database program, MySQL, and created the database. An open source program is by definition “available to the general public for use and/or modification from its original design free of charge, ie, open.” This type of program “is typically created as a collaborative effort in which programmers improve upon the code and share the changes within the community” (Jaha Design, 2006).

Added to this database is a layer, similar to an interface, which consists of many functions. These functions allow the database user to insert, update and view database tables more efficiently. The functions will also be helpful when creating a future web-interface.

This project created a database program, including an interface layer (enclosed in a CD), and flowcharts/storyboards for a future website (Appendix F). Also included is a technical model for the database. The database program includes seven main categories, Narrator, Family, Career, Connections, Interview, Interviewer and Location, and a total of sixteen tables.

The first four categories of information, Narrator, Family, Career and Connections, can be obtained easily from the pre-interview questionnaire currently used by the WWOHP, shown in Figure 5-1 (Appendix E-1).

WORCESTER WOMEN'S ORAL HISTORY PROJECT

PRE- INTERVIEW QUESTIONNAIRE FORM

Name: _____ Date: _____

Address: _____

Phone: _____ Email: _____

Date of birth: _____ Birth Place _____

Children: Yes / No (If yes) How many? _____

Grandchildren: Yes / No (If yes) How many? _____

Marital status: Single Married Separated Divorced

What (if any) other names have you used? _____

Husband/Partner's name (if applicable): _____

Mother's name: _____

Mother's birthplace _____

Father's name: _____

Father's birthplace: _____

Siblings: # brothers _____ # sisters _____ Where you fall in the order: _____

Racial/ethnic background: _____

Religious affiliation (if applicable): _____

What is your connection to Worcester? (Check all that apply)

Born here (neighborhood/street) _____

Grew-up here (year) _____ (neighborhood/street) _____

Moved here later (year) _____ (neighborhood/street) _____

Work here (year) _____ (job) _____

Go to school here (year) _____ (school) _____

Interviewer

Affiliation

Figure 5-1: Pre-Interview Questionnaire

In addition to this we are proposing a post-interview questionnaire form, focused on information about the interviewer, interview, and the storage location, to get the remaining information (Appendix E-2).

WORCESTER WOMEN'S ORAL HISTORY PROJECT
POST- INTERVIEW QUESTIONNAIRE FORM

INTERVIEWER

Group Name (If part of a group): _____

If more than one interviewer please enter the number _____

Name: _____ Name: _____

Name: _____ Name: _____

Name: _____ Name: _____

Affiliated Organization: _____

Address: _____ City: _____ State: _____

Course No: (If part of a University Program): _____

Course Name: _____ Professor _____

INTERVIEW

Date of interview: _____

Abstract Interview (MAX 1000 words): _____

Focus Topic of this interview: (Multiple choice) _____

Attach Sound clip Excerpts (Please check) Yes No

Available Clip Formats: _____

Program: (ex. Community Catalogue) _____

LOCATION

Contact Person _____

Phone: _____ Email: _____

Organization: _____ Department: _____

Address: _____

Website: _____

Instruction (200 words): _____

Figure 5-2: Post-Interview Questionnaire

This form, shown in Figure 5-2, should be filled out by an interviewer or an administrator after the interview has already been conducted. The combination of these two forms supplies the needed information for the database.

Although this project was not focused on creating a web interface, we have designed flow charts and a general layout as suggestions to aid in the creation of such an

interface (Appendix F). The flowcharts show a logical order of how the information should be entered into the database and the general layout gives examples of how different pages of the website could look.

5.4 Future Work and Extension

Although this project has investigated the issues surrounding the creation of a site for women's oral history, and even created a directory to store interviews, there are still many obstacles that need to be overcome to make this a reality. This section gives possible paths to follow to carry out the recommendations suggested in this project.

5.4.1 The Exhibit Space and Quiet Room

The WWOHP should stay in close contact with the WHM throughout the planning stage of the Visitor Center in case any problems arise. Funding for this project must also be procured, possibly through fundraising. Another possible option is collaboration with the Worcester Consortium, and in exchange for donations, offering the colleges of Worcester a place in the Visitor Center. Finally, the WWOHP must make decisions on equipment, building materials, and all the other components of this site for women's oral history. While this project shows many options and possibilities, and offers some recommendations, final decisions ultimately fall to the WWOHP.

5.4.2 Directory

In order to publish this database in a website there are different steps the WWHP needs to take. Many of these steps should be taken either by or under the supervision of a technical person, such as the WWHP webmaster.

5.4.2.1 Updating Consent Form

There have been concerns about the consent form not clearly impressing upon the narrator the availability of their information online (Appendix E-3). Currently the consent form says

“4. Subject to the provisions of paragraph five below, I understand that, upon completion of the interview, the tape and content of the interview belong to the Worcester Women's History Project and _____, and that the information in the

interview can be used by them in any manner they will determine, including, but not limited to, use by researchers in presentations and publications and on websites.” (WVOHP, 2006)

However, the WVOHP may feel it is necessary to change the consent form because of the higher accessibility of this information. The addition of a statement to the form stating explicitly that this information will be available online would be the best solution to this problem.

5.4.2.2 Upgrading the existing web host

Currently the WWHP web host does not support databases, and thus will need to upgrade the host in order to use the database on its website. The upgrade will enable the WWHP to add the database to their server and create an appropriate web-interface to display information online.

5.4.2.3 Installing database software (MySQL)

The WVOHP needs to download database software to either transfer or recreate the delivered database program. The database program was created using open source software MySQL. For details of the installation process of this software please refer to Appendix F-3. After installing MySQL, refer to Appendix F-5 to either move the already created database onto the WWHP server or to re-create the database using the provided source code from the enclosed CD.

5.4.2.4 Creating a Web interface

A web interface is the final step to publish this database. This interface will provide an easy way for WVOHP to add information to the database and other users including WVOHP to search information from this database. In addition to the database we provided a layer of functions to insert, update and view the database more efficiently. This database program and functions were created using MySQL. Therefore, a web-interface should be created using a program that is compatible with MySQL and HTML. According to discussions with webmaster Troy Thompson, PHP Hypertext Preprocessor (PHP) is the best fit for this purpose. “PHP is a widely-used general-purpose scripting

language that is especially suited for web development and can be embedded into HTML” (PHP, 2006). It supports MySQL and is also an open source program.

Besides a database program and layer of functions, we have also provided flow charts and several general layouts for the website and a technical specification/model. These all could be valuable resources for further extending this project.

There is one issue that needs to be addressed before publishing interviews in the website. From the surveys conducted we received feedback concerning the possible misuse of publicly accessible sensitive information such as Narrator’s Date of birth, Mother’s Maiden name, Phone Number, Email Address, and Current Address (Appendix D-9). One step in changing this was only including the Narrator’s year of birth in the database.

To address the remaining concerns, it was suggested that detailed information about the narrator, while still stored in the directory, will not be displayed in the website (Appendix D-9). This is not a difficult task, and there are two main solutions to the problem.

- 1) **Security Layer:** A web interface can include different layers of security; for example Administration, Interns or general public. Each layer can have different level of access to the directory. Administration and Interns should be able to insert and update information from the database. They also should be able to view all the information stored in the directory. On the other hand, access can be restricted so the general public can only view certain levels of detail from the directory.
- 2) **Limited Selection:** Another similar option is that to only show select amounts of information in the website. The rest of the information, while still in the database, will not be accessible from the website and would require special access.

5.4.2.5 Creating other necessary interfaces

The database can also be very useful when used in interactions with other media. For example, the touch screens used in the exhibit space can use the same database. This will require the addition of a different type of interface as suitable for the touch screen program.

5.4.2.6 Database Maintenance

As with any system, one of the most important aspects of keeping a database intact is to maintain it on a regular basis. The database should be checked from time to time to see if there are any errors or corruption. Corruption can occur for many reasons, such as the operating system crashing while writing to the database, or a power loss at a critical time. As a result, the database may contain incomplete data. Therefore, it is a good practice to perform maintenance on the database from time to time to prevent widespread corruption. For a brief overview of database maintenance please refer to Appendix F-4.

5.4.3 Conclusion

This project provided to the WWOHP the information necessary to aid in the creation of a place where the history of women in Worcester is easily accessible and which also provides the community with an interactive learning environment. This was achieved by estimating the cost and benefits of all the components involved in creating such a site and by offering recommendations to the WWHP to enable a feasible implementation. We also created a directory to store interviews and laid the foundation for a future website. The site and directory will be used both as a learning tool and as a source of information for the general public, historians, genealogists, and other academics. The completion of this project will be a great addition to the already rich culture of Worcester and will provide the community with a means to fully understand and become a part of their history.

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APPENDICES

The following pages include the appendices referred in this paper.

APPENDIX A: PQP Informational Meetings

Notes from conference call with Lisa Boehm 9/18/06

- Different levels of interaction – high level research, almost no place for more modern History in New England has been mostly focused on the colonial era
- This site will be useful to tourists, visitors, interested parties, and even college students doing projects
- The WWOHP currently interviews almost anyone interesting in being interviewed, as long as they are women working or living in and around Worcester county
- Problems in past with just community leaders being interviewed, a desire to get interviews from women not in the limelight
- Hoping that this project will expand as more people become interested in it, already there are special groups like the polish and Spanish communities
- Always transcribe interviews, unless they are somehow really accessible: small sound clips,
- When transcribing, it is best for the interviewer to do the transcription
- Put the interviews on the internet, making them very reachable
- Interviews are good for lots of researchers, no matter what investigating, there can be bits and pieces taken from all kinds of places

Notes from meeting with Bill Wallace and Robyn Christensen 10/6/06

- Rosenlund is a former employee, talked about how oral history will help Worcester, became co-participants in the project
- Hope to create a highly interactive Visitor Center for public participants
- Visitor Center will be a community museum, collaboration with the WHM
- everybody, ww2 done lots already, state mutual, mostly people
- How the project will benefit Worcester - community understanding, people will come to own their past, first-hand accounts, listen not read, know the history
- The space will be fun, attractive, and possibly house archives
- There is currently more interest in 20th century history recent
- How much room will the WHM have in the VC? - 50,000 square feet
- No set aside budget – use fundraising possible
- Use speech to text software for on-site transcriptions
- Self-service – just let the visitors talk, have an option for facilitation
- Use a green screen combined with video as well, use it almost like a studio
- Possible topics for searching a directory - subject heading, name, lots of keywords
- Access to directory changes should be staff only
- Put the interviews on the internet, at least a portion, use abstracts, pay for full access

APPENDIX B: IQP Meeting Notes

Notes from meeting with Lisa Boehm at Worcester State 11/1/06

- Look more at the work, subjects of the interviews
- Health hard to ask, and usually not in interviews, but it is important
- Directories are hard to find, and they would be very useful, other wise historians have to search randomly
 - Usually searching for career and community involvement
- Look more at the work, subjects of the interviews
- Tourist attraction
- Vermont folklife center

Notes from meeting with Robyn Christensen 11/1/06

- Search by Narrator's Name and age
- Focus topic: Education, Career, Health, Community Politics, Veterans/Military
- Different communities: Jewish, Polish, ethnic groups
- Worcester immigrant community

Notes from meeting with Rosenlund and Demetry 11/7/06

- Possibility of using sound cancellers instead
- What will be noises that will interfere with the interviews?
 - Trucks, motorcycles, police sirens, close to a railroad
 - What is overkill? – possibly just make a quiet room like the WPL
- Post interview form, 4 topics, keep it simple
 - Balance between information easily accessible and what can only be gathered through the interviews.

Notes from meeting with Troy Thompson and Linda Rosenlund 11/7/06

- What is possible, how to go about it in the best way, not actually do it
- IQP – feasibility study, will it work?
- Exceptions etc, - fit in with what they have now
- Structure usability, storyboarding
- Collections, college affiliations, primary: thematic/organizational
 - Classes, not really categorization
 - Program – optional, not apply to everything
- VC – screen there, touch, for searching,
- Browsing/linking together, not so much just a search
 - Make it interesting, trap people in the system

Notes from meeting with Wallace, Rosenlund, Demetry 11/17/06

- VC plans on hold because of governor, design in March, 1st of January at earliest
- 10,000 sq feet for the VC, 35-50k sq ft for museum
- Booth in back: triggers from the museum to prompt for remembrances
 - Pay/fee still unknown
 - Double entrance to the area
- Higher Ed internships, advertisement and visibility for schools
- Use the museum staff for facilitation
- Green screen so that people can appear where they want
- Store male interviews with the WHM
- Layered approach for the exhibit – high level to start off, and can delve more deeply into it if you want
 - Examples - Pequot museum in Foxwoods, flickr
- Should be a location that is for Worcester's history as told using oral history
- Text -> handsets with more audio, screens(3-5)
- Interactive – leave your own words behind
- Visitors – will not be for visitors, only residents of Worcester County
- Use the sound booth as to go if nowhere else to record interviews
 - Interviews mostly generated offsite (students)
 - Schedule appointments, direct others from WHM to them
- Criteria for physical arrangement
- Database expanded
- What needs to be done by whom to continue this past us? ROADMAP
 - Roadmap, here is how to make this work
- Other groups can take advantage for this

APPENDIX C: Directory Features Survey Questions

1. First Set of Surveys/ Informational Meetings

Survey for features of Directory for Worcester Women Oral History Project

1.1 For general audience:

- What kind of information will you be looking for in the Oral History Project directory?
- What is your technical background?
- What information about the interview should be included in the directory that will be helpful to you? (For example – name, age, location, abstract of the interview, photograph, career)?
- Should this directory be available in the internet?
- How would you like to search the directory? (eg. by name, age, career, related part of the history, location)?
- Would an abstract of the interview be helpful?
- Should the interview be accessible as a digital format or plain text?
- If digital format, would you spend time listening to these interviews through the internet?

1.2 For Worcester Women's History Project (WWHP):

- Who is your target audience for Worcester women oral history project?
- What kind of information do you think the audience will be looking for?
- What is the range of technical background of your company and other related organizations of this project?
- What information should be available in the directory? (interviewee – name, age, location, abstract interview, photograph, career, etc)
- Who should have the access to this database for updating purposes?
- Who will be responsible for updating the directory? And what is the technical background of the responsible person?
- Should this information be available in the internet?

- What would be the useful search criteria for the directory? (name, age, career, education, history theme)?
- Could an authorized user be able to add their information into the directory?
- Should the interviews be accessible as a digital format or plain text?

1.3 For Troy Thompson, webmaster, WWHP

- Should Worcester Oral History Project's Directory be available in the internet?
- If through the internet, what hardware or software is available at WWHP?
- What database software should be used for directory (Oracle/SQL + PHP, MySQL +PHP etc)?
- How will it appear visually in the internet?
- Could an authorized user be able to add their information into the directory?
- Should the interviews be accessible as a digital format or plain text?
- What is the available space in the internet for this project?

2. Second Set of Surveys/ Informational Meetings

Survey for features of Directory for Worcester Women's Oral History Project

We will be creating a directory for Worcester Women's Oral History Project. The user of this directory will be able to search for different information about the Interviewee (Narrator) and Interview. As a member of Worcester Women's History Project and Worcester Women's Oral History Project, we will need your feedback to help us create a resourceful directory.

There are two parts to the directory: storage and search engine. All the information about the narrator and the interview will be stored in the directory. And search engine will help the user to search either general or specific information from this stored directory.

DIRECTORY STORAGE:

- What information about the narrator and interview should be stored in the directory? (Delete the ones you do not feel are necessary and add other criteria that should be included)

NARRATOR

Name
Nick Name
Age
Birthplace

Address
Marital Status
Spouse Name
No of children
No of grand children
Ethnicity
Religion
Photograph

NARRATOR'S FAMILY

Mother's Name
Mother's Birth Place
Father's Name
Father's Birth Place
No of Sisters
No of Brothers

NARRATOR'S CONNECTION TO WORCESTER

Connections (Worked/lived/went to school in Worcester etc)
Neighborhood
Name (if school or job)
Connection Year

INTERVIEW

Date of interview
Focus topic (Career, Education, Health, Community/Politics)
Sub Topic (Optional: May be interview is focused on sub topics within Focus Topic)
Abstract of the interview
Sound Clip (Audio)
Clip Time
Clip format (eg. digital format, tape)
Program (eg. Community Catalogue or University affiliated program)
Location where this interview is stored

INTERVIEWER/INTERVIEWER GROUP (Group can contain only one to many interviewers)

No of Interviewer's (could be only one to many)
Interviewer's Name/Group name
Affiliated Organization/School/University
Course (If it is part of School/College Program)

- Should this directory be available in the internet?

DIRECTORY SEARCH ENGINE:

There are two parts to the search engine, basic search and advanced search.

- What would be the most useful basic search and advanced search criteria for the directory? (Delete the ones you do not feel are necessary and add other criteria under Search Criteria/Topic Column that should be included) Also please indicate by “Y” if you think this criteria will be of interest to the given groups such as visitor (to the website or directory), administration, students, and historian/researchers.

SEARCH CRITERIA/TOPIC	Visitor (Y ?)	Administration (Y?)	Students (Y?)	Historians Researchers (Y?)
BASIC SEARCH: In basic search user will be able to search by general topic such as name of the narrator etc.	Eg. Y			
BY NARRATOR: Name Age Birth Place				
BY Focus Topic of the INTERVIEW: Career Education Health Community/Politics				
BY other (Please state):				

SEARCH CRITERIA/TOPIC	Visitor (Y ?)	Administration (Y?)	Students (Y?)	Historians Researchers (Y?)
ADVANCED SEARCH: Advanced search will focus on more specific search such as specific connection to Worcester (eg. Narrators who grew up in Worcester).				
BY NARRATOR:				

Range of Age (eg. age >20) Marital Status Spouse Name Birth Place Ethnicity Religion				
BY NARRATOR'S FAMILY: Parent's Name Parent's birthplace				
BY NARRATOR'S CONNECTION: (eg. Born/Live) Connection to Worcester Connection Year				
BY INTERVIEW: Clip format Clip time Interview Date				
BY INTERVIEWER: Interviewer's Name (If interview conducted by a group) Group Name Affiliated organization/school (if interview was part of college course) Course				
BY Keyword:				
BY other (Please state):				

- Should the interviews be accessible as a digital format (audio clips) or plain text (transcription)?
- If yes to audio clips or both, would it be helpful to have full audio or excerpts of the clip?

APPENDIX D: Survey Responses and Feedback

1. Bill Wallace and Robyn Christensen, Informational Meeting

(Please refer to Appendix A for meeting notes)

2. Lisa Boehm, Phone Meeting

(Please refer to Appendix A for meeting notes)

3. Erin Anderson, First Survey Response

Survey for features of Directory for Worcester Women Oral History Project

For Worcester Women's History Project (WWHP):

- Who is your target audience for Worcester women oral history project?
We're hoping to expand from our traditional base of white, middle to upper class, older women and draw in a more diverse audience (young people, different cultural/language groups, schools, grassroots organizations, etc.)
- What kind of information do you think the audience will be looking for?
Who has been interviewed, what general topics the interviews cover, full interview transcripts, how to access interview recordings, how to get involved as an interviewer or interviewee.
- What is the range of technical background of your company and other related organizations of this project?
As far as I know, Troy, the web guy, is the only one with a high level of technical knowledge/experience.
- What information should be available in the directory? (interviewee – name, age, location, abstract interview, photograph, career, etc)
Names of women who have been interviewed, summary of what the interview covers, age of interviewees, connection with different organizations/groups in Worcester, occupation, searchable key words, optional photo, ethnic background, full transcript.
- Who should have the access to this database for updating purposes?
WWHP administrator, Linda Rosenlund, other future WWHP oral history committee volunteers, college interns.
- Who will be responsible for updating the directory? And what is the technical background of the responsible person?
At this point, I imagine it would be Laurie Krueger, the WWHP administrator. I do not believe she has a very extensive technical background and she would need to be trained.

- Should this information be available in the internet?
I think we need to be careful not to include birthdays and exact addresses for interviewees for their safety and privacy.
- What would be the useful search criteria for the directory? (name, age, career, education, history theme)?
Name, age, career, historical event, ethnic or cultural background, other places they have lived, involvement with organizations/groups.
- Could an authorized user be able to add their information into the directory?
I think there should be an online form where volunteer interviewers can upload their transcripts electronically, fill in an abstract, site key words, and upload any photographs. This information should be fed to the administrator who then checks it over and approves it for the directory.
- Should the interviews be accessible as a digital format or plain text?
I don't know what you are asking. Sorry.

4. Linda Rosenlund, First Survey Response

Survey for features of Directory for Worcester Women Oral History Project For Worcester Women's History Project (WWHP):

- Who is your target audience for Worcester women oral history project?
Women with a Worcester connection. This could mean a woman born in Worcester, presently living and/or working in Worcester or used to live/work in Worcester.
- What kind of information do you think the audience will be looking for?
On the website? If so, information that our general audience will look for may include transcripts and possibly audio clips from interviews conducted. Visitors from higher ed may wish to find information about "how to" develop oral history projects and "how to" conduct oral history interviews. In addition, researchers may wish to use our "Community Catalogue" (i.e., inventory list) to find other oral history projects that have been conducted in Worcester.
- What is the range of technical background of your company and other related organizations of this project?
Limited regarding our steering committee members. However, we have the assistance of Troy Thompson of Daedel Creations who serves as our webmaster.

- What information should be available in the directory? (interviewee – name, age, location, abstract interview, photograph, career, etc)
Interviewee (which we like to call “narrator”), Name, Age, Location (just city), abstract interview (or brief description of what interview covers), career, and photograph.
- Who should have the access to this database for updating purposes?
Chair of the oral history project (currently Linda Rosenlund) and WWHP administrator (currently Laurie Krueger)
- Who will be responsible for updating the directory? And what is the technical background of the responsible person?
Mostly the administrator, but sometimes the chair of the project. Basically, the technical background of each person is limited.
- Should this information be available in the internet?
Not sure what you mean.
- What would be the useful search criteria for the directory? (name, age, career, education, history theme)?
All of the above.
- Could an authorized user be able to add their information into the directory?
Yes, I think so, but we would have to talk about this further.
- Should the interviews be accessible as a digital format or plain text?
Not sure.

5. Robyn Christensen, Informational Meeting

(Please refer to Appendix B for meeting notes)

6. Heather Lyn-Haley, Second Survey Response

Survey for features of Directory for Worcester Women’s Oral History Project

- Who is the targeted audience for this interview?
- What information about the narrator and interview should be visible to the general public? (Delete the ones you do not feel are necessary and add other criteria that should be included)

NARRATOR

Name, Age, Birthplace, Address, Connections to Worcester
(Worked/lived/went to school in Worcester etc), **Connection Year, Marital Status, Spouse Name, No of children, No of grand children, Ethnicity, Religion, Mother’s name, Mother’s birthplace, Father’s name, Father’s birthplace,**

Photograph, Detail of Narrator’s Career (eg. Position, Company, Address, No of years worked), **Details of Narrator’s Health** (eg. Different health issues), **Details of Narrator’s Education** (eg. Highest Degree, School/College, major, completed year), **Details of Narrator’s Community/Politics** (eg. Organization, Objective, year worked)
How much of this is searchable? For the “details” sections – do we want a lot of text here or just keywords?

INTERVIEW

Interviewee name,
Interviewer name & affiliation/OHP subgroup – If 20 students all do interviews for the same class, or a group of women from one church all collect histories as a group project, it would be good to be able to search and bring up all of the group together
Date of interview, Focus topic (Career, Education, Health, Community/Politics), **Sub Topic** (If interview is focused on sub topics within Focus Topic), **Abstract of the interview, Sound Clip** (Audio), **Location where interview is stored**

- Should this directory be available in the internet? **Yes and searchable**
- What would be the most useful search criteria for the directory? (Delete the ones you do not feel are necessary and add other criteria that should be included) I thought all the above were for this

BY NARRATOR: **Name, Age, Connections to Worcester, ethnicity, religion, “details” keywords**

BY **Focus Topic** of the INTERVIEW: **Career, Education, Health and Community/Politics**

BY other (Please state):

- Should the interviews be accessible as a digital format (audio clips) or plain text (transcription)? **Both as possible**

If yes to audio clips or both, would it be helpful to have full audio or excerpts of the clip? I’m guessing it will depend. I know that on my digital recorder, there’s a way to make index marks so people can jump easily to a certain section – could we index to new topic or to Qs asked?

7. Erin Anderson, Second Survey Response

Survey for features of Directory for Worcester Women’s Oral History Project

DIRECTORY STORAGE:

- What information about the narrator and interview should be stored in the directory? (Delete the ones you do not feel are necessary and add other criteria that should be included)

NARRATOR

Name, Other names used, Birth Year, Birthplace, Address, Marital Status, Spouse Name, No of children, No of grand children, Ethnicity, Religion, Photograph

NARRATOR’S FAMILY

Mother’s Name, Mother’s Birth Place, Father’s Name, Father’s Birth Place, No of Sisters, No of Brothers, Place in birth order

NARRATOR’S CONNECTION TO WORCESTER

Connections (Worked/lived/went to school in Worcester etc), **Neighborhood, Name** (if school or job), **Connection Year**

INTERVIEW

Date of interview, Focus topic (Optional: Work, Education, Health, Community/Politics, Other), **Sub Topic** (Optional: May be interview is focused on sub topics within Focus Topic), **Abstract of the interview, Sound Clip** (Audio), **Clip Time, Clip format** (eg. digital format, tape), **Program** (eg. Community Catalogue or University affiliated program), **Location** where recordings and transcripts are stored

INTERVIEWER/INTERVIEWER GROUP (Group can contain only one to many interviewers)

Interviewer’s Name/Group name, Other interviewer’s name, Affiliated Organization/School/University, Course (If it is part of School/College Program)

- Should this directory be available in the internet? **yes**

DIRECTORY SEARCH ENGINE:

There are two parts to the search engine, basic search and advanced search.

- What would be the most useful basic search and advanced search criteria for the directory? (Delete the ones you do not feel are necessary and add other criteria under Search Criteria/Topic Column that should be included) Also please indicate by “Y” if you think this criteria will be of interest to the given groups such as visitor (to the website or directory), administration, students, and historian/researchers.

SEARCH CRITERIA/TOPIC	Visitor (Y ?)	Administration (Y?)	Students (Y?)	Historians Researchers (Y?)
BASIC SEARCH: In basic search user will be able to	Eg. Y			

search by general topic such as name of the narrator etc.				
BY NARRATOR: Name Birth Year Birth Place	Y	Y	Y	Y
BY Focus Topic of the INTERVIEW: Work Education Health Community/Politics Other	Y	Y	Y	Y

SEARCH CRITERIA/TOPIC	Visitor (Y ?)	Administration (Y?)	Students (Y?)	Historians Researchers (Y?)
ADVANCED SEARCH: Advanced search will focus on more specific search such as specific connection to Worcester (eg. Narrators who grew up in Worcester).				
BY NARRATOR: Birth Year Marital Status Spouse Name Birth Place Ethnicity Religion	Y	Y	Y	Y
BY NARRATOR'S FAMILY: Parent's Name Parent's birthplace	Y	Y	Y	Y
BY NARRATOR'S CONNECTION:(eg. Born/Live/Work) Connection to Worcester Connection Year	Y	Y	Y	Y

BY INTERVIEWER: Interviewer's Name (If interview conducted by a group) Group Name Affiliated organization/school (if interview was part of college course) Course	Y		Y	
BY Keyword:	Y	Y	Y	Y
BY other (Please state): Major historical event	Y	Y	Y	Y

- Should the interviews be accessible as a digital format (audio clips) or plain text (transcription)? **Ideally audio clips and transcripts, but audio takes up A LOT of space and may not be feasible at this time without a grant to support it. Maybe selected interviews could have audio clips and then others would just be referenced as to where one could locate the tapes to listen to them.**
- If yes to audio clips or both, would it be helpful to have full audio or excerpts of the clip? **I don't think full audio interviews would be feasible unless we just did a few interviews. Audio clips of every interview would be ideal and then a few selected full audio...**

8. Lisa Boehm, Second Survey Response

Survey for features of Directory for Worcester Women's Oral History Project

DIRECTORY STORAGE:

- What information about the narrator and interview should be stored in the directory? (Delete the ones you do not feel are necessary and add other criteria that should be included)

NARRATOR

Name, Age, Birthplace, Address, Marital Status, Spouse Name, No of children, No of grand children, Ethnicity, Religion, Photograph

NARRATOR'S FAMILY

Mother's Name I think maybe mother's maiden name should be on need to know basis only. People are afraid about giving this info out, as it is a security for many credit cards

Mother's Birth Place, Father's Name, Father's Birth Place, No of Sisters, No of Brothers

NARRATOR’S CONNECTION TO WORCESTER

Connections (Worked/lived/went to school in Worcester etc), Neighborhood Name (if school or job), Connection Year

INTERVIEW

Date of interview, Focus topic (Career, Education, Health, Community/Politics)

Sub Topic (Optional: May be interview is focused on sub topics within Focus Topic)

Abstract of the interview, Sound Clip (Audio), Clip Time, Clip format (eg. digital format, tape), **Program** (eg. Community Catalogue or University affiliated program), **Location** where this interview is stored

INTERVIEWER/INTERVIEWER GROUP (Group can contain only one to many interviewers)

No of Interviewer’s (could be only one to many), **Interviewer’s Name/Group name, Affiliated Organization/School/University, Course** (If it is part of School/College Program)

- Should this directory be available in the internet? **Maybe not, for security reasons. We could have it be available in a secure site, perhaps, to members only, etc.**
-

DIRECTORY SEARCH ENGINE:

There are two parts to the search engine, basic search and advanced search.

- What would be the most useful basic search and advanced search criteria for the directory? (Delete the ones you do not feel are necessary and add other criteria under Search Criteria/Topic Column that should be included) Also please indicate by “Y” if you think this criteria will be of interest to the given groups such as visitor (to the website or directory), administration, students, and historian/researchers.

SEARCH CRITERIA/TOPIC	Visitor (Y ?)	Administration (Y?)	Students (Y?)	Historians Researchers (Y?)
BASIC SEARCH: In basic search user will be able to search by general topic such as name of the narrator etc.	Eg. Y			
BY NARRATOR: Name Age Birth Place	Y	y	Y	Y

BY Focus Topic of the INTERVIEW: Career Education Health Community/Politics	Y	y	Y	Y
---	---	---	---	---

SEARCH CRITERIA/TOPIC	Visitor (Y ?)	Administration (Y?)	Students (Y?)	Historians Researchers (Y?)
ADVANCED SEARCH: Advanced search will focus on more specific search such as specific connection to Worcester (eg. Narrators who grew up in Worcester).				
BY NARRATOR: Range of Age (eg. age >20) Marital Status Spouse Name Birth Place Ethnicity Religion	y	y	Y	Y

- Should the interviews be accessible as a digital format (audio clips) or plain text (transcription)? **BOTH, BUT JUST CLIPS, NOT ENTIRE INTERVIEW ONLINE DIGITALLY**
- If yes to audio clips or both, would it be helpful to have full audio or excerpts of the clip? **MOST SITES DO INTERESTING CLIPS ONLY, FULL AUDIO AVAILABLE AT LIBRARY, ETC.**

9. Email Feedback from Second Survey

From: Heather-Lyn Haley
Sent: Wednesday, November 15, 2006 4:48 PM
Subject: PLEASE ACT QUICKLY: Directory survey for WWHP members

.....PLEASE take a look and send feedback for Niva - a few good thoughtful comments may make up for lack of numbers. Remember, they're trying to build a searchable directory for the oral history collection - what do you want to be able to search for?

From: More, Ellen S
Sent: Wed 11/15/2006 4:57 PM
Subject: RE: PLEASE ACT QUICKLY: Directory survey for WWHP members

Hi. heather on such short notice all I can say is that I am somewhat, perhaps *very*, **uncomfortable having so much "deep" biographical information about the subjects (narrators) online. I am not sure the informed consent process covered all this, but I would feel better if it did.** Could someone fill me in a little on that aspect of the project, i.e. how much information the narrators expect to be available for general consumption. **Alternatively, you could arrange to have the collection password-protected.** What do you think? Best, Ellen
PS I was especially concerned because I wondered about certain bits of data on child or spousal abuse, etc etc. that might need to be kept out of general circulation.

From: "Wilson, Kara"
Date: Thu, 16 Nov 2006 10:38:48 -0500
Subject: RE: PLEASE ACT QUICKLY: Directory survey for WWHP members

I agree with Ellen's concern about the amount of information that will be available about the narrators online. **I also don't know if the informed consent process covered this, but it's extremely important to make the narrators aware of just how widely accessible their interviews will be. The idea of password-protecting the site is a good one. On the positive side, I do like how comprehensive the data is expected to be for each person interviewed - it looks quite thorough, which is great!**

-Kara

From: Rosenlund, Linda
Sent: Mon 11/27/2006 9:34 AM
Subject: WWOHP - WPI students

Hi all-
Hope you had a great Thanksgiving.
The point of this email is to ask for your assistance... The WPI students will be closing out their IQP for us in about 3 weeks, so it is imperative that we spend the next few weeks focusing on the work they are conducting.

The surveys that Niva had sent to WWHP SC members have been reviewed. Please see emails pasted below that voice certain concerns and suggestions. I will re-send you the surveys in a separate email in

case you need to review them again.

Lisa and Erin--> Please review the responses and give Niva your feedback. Please remember to "cc" the rest of us. **To me, it seems that the Project should have the narrator's information safe-guarded (i.e., to be retrieved/seen by WWHP president and chair of project, and any others deemed privy to such info.). Basic info should be available Online, such as name, DOB, birthplace, "connection" to Worcester and themes discussed--** I don't know for sure, but I'm certain Lisa will know the correct way to display info.

THANK YOU!

Linda

From: Erin Aanderson
Sent: Mon 12/4/2006 4:12 PM
Subject: Re: WWOHP - WPI students

... I'm really not sure how well the consent form covers the availability of certain biographical info online. But I do think that it is important not to have people's birthdates listed. Instead of age, though, it makes more sense to list their birth year, because that remains constant. Other than that, I'm not really sure what else I have to offer. I filled out both surveys I was sent and gave my input that way already. Lisa, what are your thoughts on this?

Thanks.

Erin

From: Boehm, Lisa
Sent: Tue 12/5/2006 12:24 PM
Subject: RE: WWOHP - WPI students

What if we keep the bio form available at the library only, not online? And we take out references to exact birthdate, listing only year, and mother's maiden name, if mentioned in interview?

I would also take out exact address, or other very private infor. I think only vetted interviews should be on line. Many collections have 30 or so on line, with the rest at the library. We can think about this further.

Lisa

From: Troy B. Thompson [mailto:troy@daedalcreations.com]
Sent: Tue 12/5/2006 2:06 PM
Subject: Re: WWOHP - WPI students

Something to keep in mind is that we can have information in the database that's not available to the public. I think it's best to keep the information together in one place. Maybe only people with special access could see all of the information in the database.

-Troy

10. Data Analysis I

(see next page)

Storage Search Survey Analysis

	-1	Should not be included										
	0	no response										
	1	may be										
	2	Should be included										
		First set of interview/surv					Second set of interview/survey					
	SURVEY SOURCE	BW1	LB1	EA1	LR1	RC2	EA2	HL2	LB2	Mtg	Bio Dat	Total
NARRATOR												
1	Name	2	2	2	2			2			2	12
2	other names used						2	0			2	4
3	DOB		-1	-1	-1		0	0		-1	2	-2
4	Birth Year		2	2	2			2			2	10
5	Birthplace						2	2	2		2	8
6	Address				2		2	2	2		2	10
7	Marital Status						2	2	2		2	8
8	Spouse Name						2	2	2		2	8
9	No of children						2	2	2		2	8
10	No of grand children						2	2	2		2	8
11	Ethnicity	2					2	2	2		2	10
12	Religion	2	2	2				2			2	10
13	Photograph				1	2			2	2	0	7
NARRATOR'S FAMILY												
14	Mother's Name							2	2	1	2	7
15	Mother's Birth Place						2	2	2		2	8
16	Father's Name						2	2	2		2	8
17	Father's Birth Place						2	2	2		2	8
18	No of Sisters						2	2	2		2	8
19	No of Brothers						2	2	2		2	8
20	Place in birth order						2	2	0		2	6
NARRATOR'S CONNECTION TO WORCESTER												
21	Connections		2	2					2		2	8
22	Neighborhood		2	2				2			2	8
23	Name (if school or job)		2	2				2			2	8
24	Connection Year		2	2				2			2	8
NARRATOR'S CAREER												
25	Postion		2	2	2		0	2			2	10
26	Organization		2	2	2		0	2			2	10
27	Address		2	2	2		0	2			2	10
28	Years Worked		2	2	2		0	2			2	10
NARRATOR'S EDUCATION												
29	School/College									-1		-1
30	Address									-1		-1
31	Degree									-1		-1
32	Major/Minor									-1		-1
33	Completed Year									-1		-1
NARRATOR'S HEALTH												
34	HealthIssue									-1		-1
35	Years Worked									-1		-1

11. Data Analysis II

(see next page)

APPENDIX E: Questionnaire Forms

1: Pre-Interview Questionnaire Form

WORCESTER WOMEN'S ORAL HISTORY PROJECT

Name: _____ Gender: M F Date: _____

Address: _____

Phone: _____ Email: _____

Date of birth: _____ Birth Place _____

Children: Yes / No (If yes) How many? _____

Grandchildren: Yes / No (If yes) How many? _____

Marital status: Single Married Separated Divorced

What (if any) other names have you used? _____

Husband/Partner's name (if applicable): _____

Mother's name: _____

Mother's birthplace _____

Father's name: _____

Father's birthplace: _____

Siblings: # brothers _____ # sisters _____ Where you fall in the order: _____

Racial/ethnic background: _____

Religious affiliation (if applicable): _____

What is your connection to Worcester? (Check all that apply)

Born here (neighborhood/street) _____

Grew-up here (year) _____ (neighborhood/street) _____

Moved here later (year) _____ (neighborhood/street) _____

Work here (year) _____ (job) _____

Go to school here (year) _____ (school) _____

Interviewer

Affiliation

2: Post-Interview Questionnaire Form

WORCESTER WOMEN'S ORAL HISTORY PROJECT

INTERVIEWER

Group Name (If part of a group): _____

If more than one interviewer please enter the number _____

Name: _____ Name: _____

Name: _____ Name: _____

Name: _____ Name: _____

Affiliated Organization: _____

Address: _____ City: _____ State: _____

Course No: (If part of a University Program): _____

Course Name: _____ Professor _____

INTERVIEW

Date of interview: _____

Abstract Interview (MAX 1000 words) : _____

Focus Topic of this interview: (Multiple choice) _____

Attach Sound clip Excerpts (Please check) Yes No

Available Clip Formats: _____

Program: (ex. Community Catalogue) _____

LOCATION

Contact Person _____

Phone: _____ Email: _____

Organization: _____ Department: _____

Address: _____

Website: _____

Instruction (200 words): _____

3: Consent Form

WORCESTER WOMEN'S ORAL HISTORY PROJECT INFORMED CONSENT

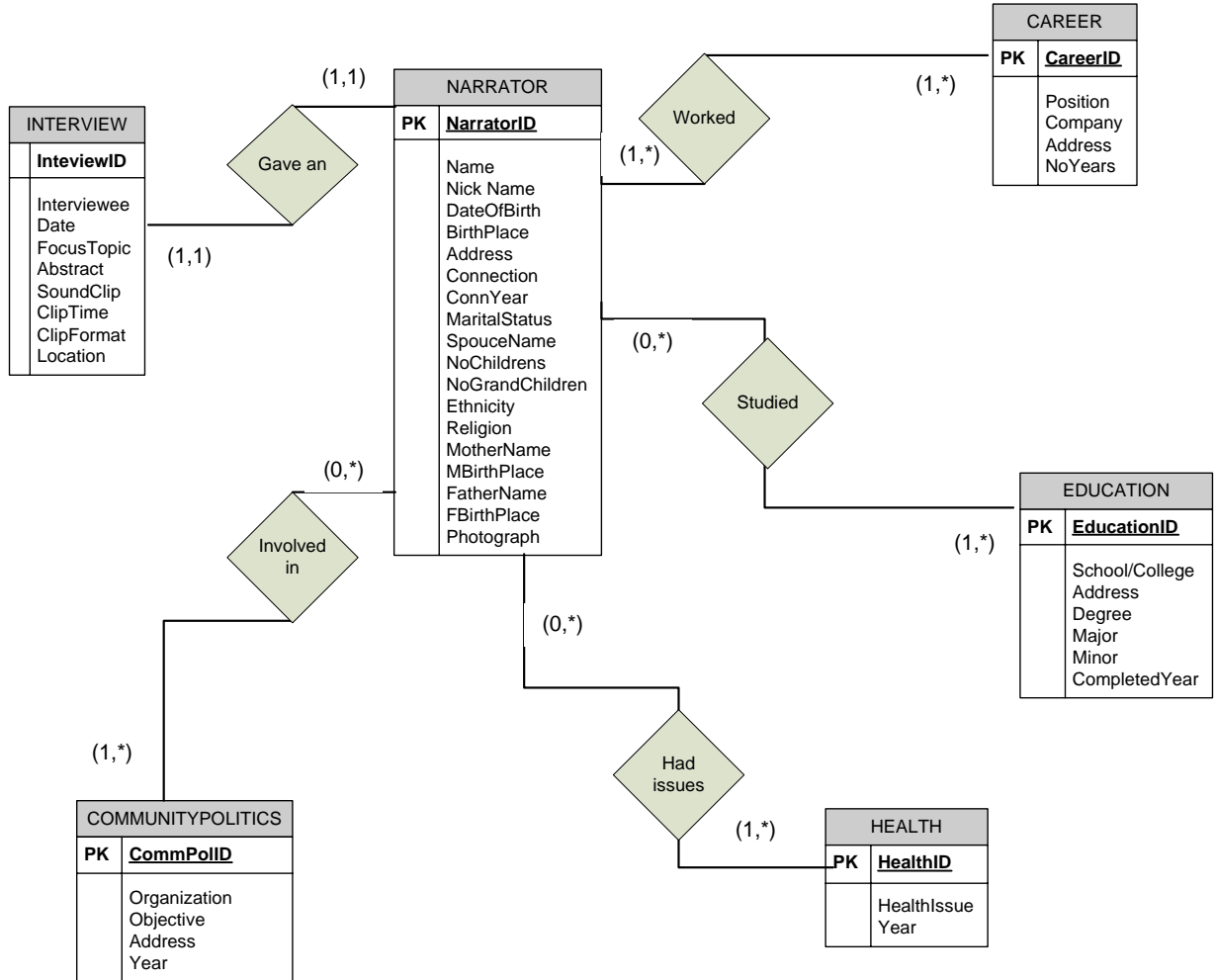
1. I hereby agree to participate in an interview in connection with _____ and the oral history project known as the Worcester Women's Oral History Project. I understand that I will be asked about my role in the Worcester community over my lifetime.
2. The interview will be audiotaped. In the interview I may be identified by name, subject to my consent. I may also be identified by name in any transcript (whether verbatim or edited) of such interview, subject to my consent.
3. I understand that the interview will take approximately ____ hours and that I can withdraw for the project without prejudice prior to the execution and delivery of a deed of gift, a form of which is attached hereto. In the event that I withdraw from the interview, any tape made of the interview will be either given to me or destroyed, and no transcript will be made of the interview.
4. Subject to the provisions of paragraph five below, I understand that, upon completion of the interview, the tape and content of the interview belong to the Worcester Women's History Project and _____, and that the information in the interview can be used by them in any manner they will determine, including, but not limited to, use by researchers in presentations and publications and on websites.
5. All parties agree that: (i) no one will use or exercise any of its rights to the information in the interview prior to the signing of the deed of gift, (ii) the deed of gift will be submitted to me for my signature at completion of the interviews; and (iii) restrictions on the use of the interview can be placed in the deed of gift and will be accepted as amending rights to the content of the interview. I understand that I have the right to review the tape or transcript of the interview before I sign the deed of gift.
6. Any restrictions as to use of portions of the tape will be edited out of the final copy of the transcript.
7. I understand that at the conclusion of this particular study and upon signing the deed of gift, the tape and a copy of the transcript will be donated to the Worcester Women's History Project and/or another academic collection for academic use by other researchers.
8. If I have questions about the research project or procedures, I know I can contact Linda Rosenlund, chair of the Worcester Women's Oral History Project, 30 Elm Street, Worcester, MA. Tel. 508-767-1852.

_____ I may be identified by name in any transcript or reference to any information contained in this interview.

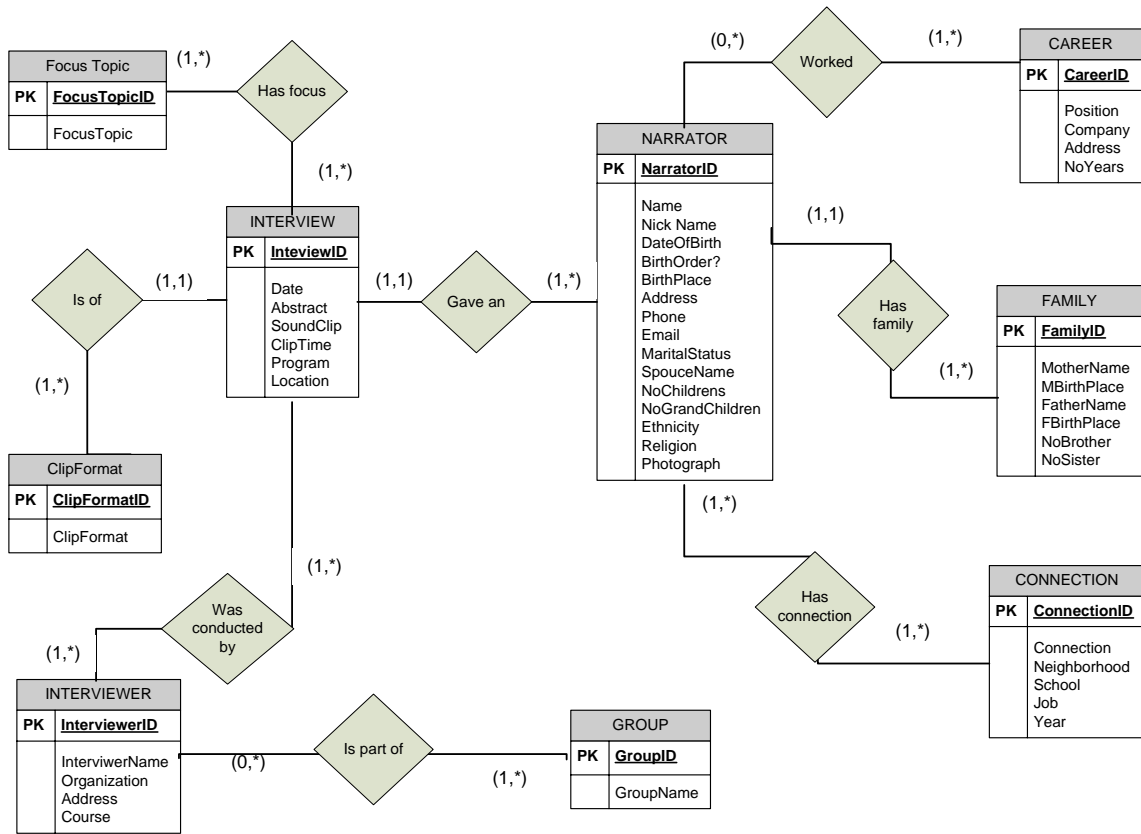
APPENDIX F: Technical Specification/Models

1. E-R Models (Entity-Relationship Models)

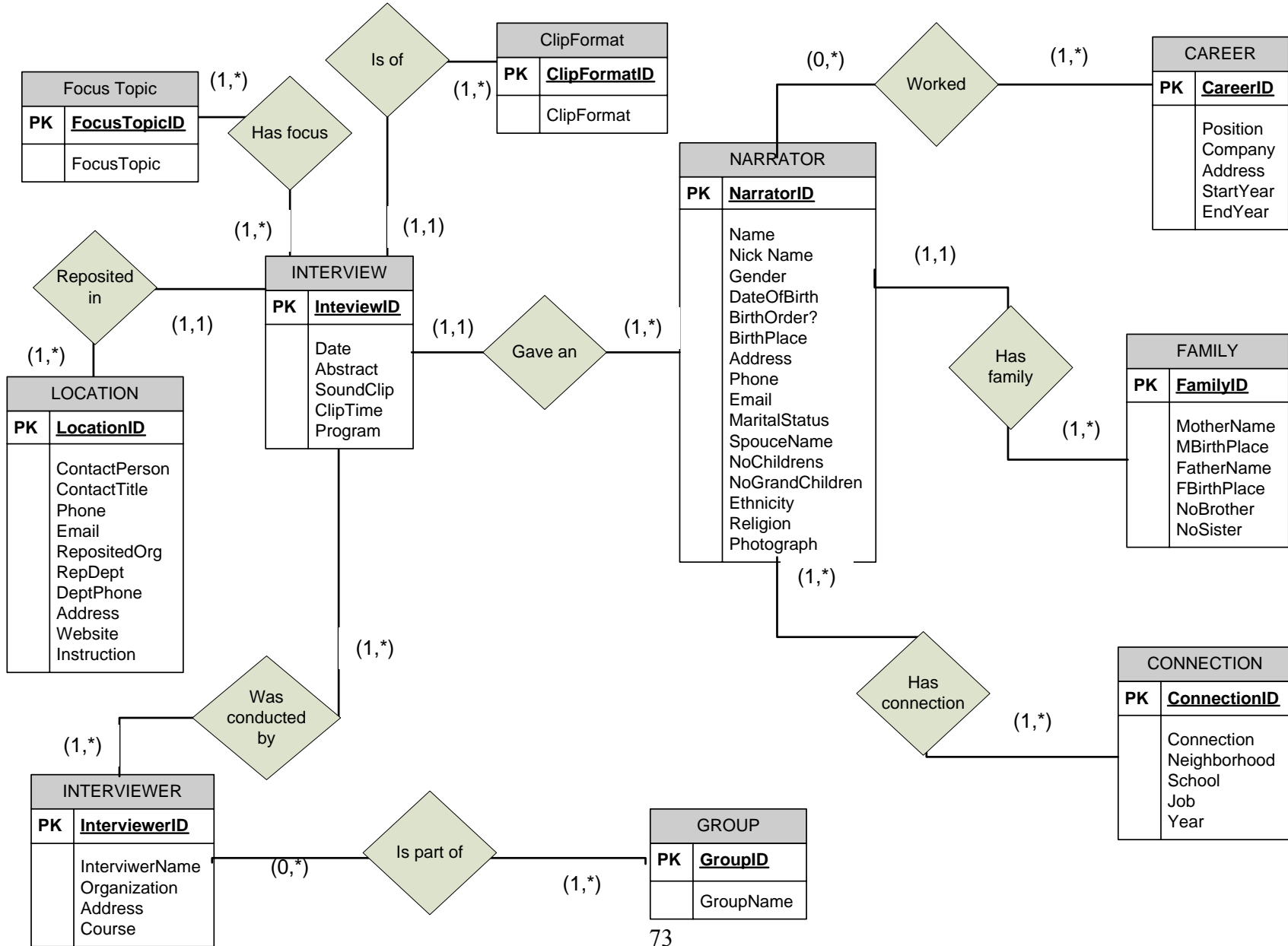
1.1 E-R Model Version 1.0



1.2 E-R Model Version 2.0



1.3 E-R Model Version 3.0 (Final)



2. Relational Model

Narrator (narratorID , firstName , lastName, gender, bornYear, birthOrder,birthCity, birthState, birthCountry, currentStreet, currentCity, currentState, phone, email, maritalStatus,spouseName,noChild, noGrandChild, ethnicity, religion, photograph)

Family(familyID, motherFirst, motherLast, motherBirthCity, motherBirthState, motherBirthCountry , fatherFirst , fatherLast , fatherBirthCity , fatherBirthState, fatherBirthCountry, NoBrothers, NoSisters)

NarratorFamily(narrator, family)

Career (careerID ,position ,Organization ,city ,startYear, endYear)

NarratorCareer(narrator, career)

FocusTopic(focusID, focusTopic)

ClipFormat(formatID, formatType)

Location(LocationID, contactFirst, contactLast, contactPhone, contactEmail, RepositedOrg, DeptPhone ,RepStreet ,RepCity ,RepState ,RepWebsite ,Instruction)

Interview (interviewID , narrator ,date ,abstractInterview ,fullTranscript ,soundClip , ,clipTime ,clipFormat ,program ,location)

InterviewFocus(interview,focus)

Interviewer(interviewerID, firstName , lastName ,orgStreet ,OrgCity, courseName, professor)

InterviewInterviewer(interview, interviewer)

Connections(connectionID, connectionName, school, job, neighborhood, year)

NarratorConnections(narrator , connections)

Groups(groupID, groupName)

InterviewerGroups(groups, interviewer);

3. Installing database software (MySQL)

The database program used to create the WWOHP database is MySQL Community Server 5.0 Version. This is the most updated version available to date. It can be downloaded from the website <http://dev.mysql.com/downloads/mysql/5.0.html>. This software is available for different platforms including Windows and Linux. Each platform has a link next to it called “platform notes”. The link provides a detailed instruction for requirements for installation and installation steps. If the WWOHP has a Windows Platform they should download “Windows (x86) ZIP/Setup.EXE”. It is also referred as “The complete Package” and it “contains all files needed for a complete Windows installation...” For detailed instruction to download and install this version please refer to <http://dev.mysql.com/doc/refman/5.0/en/windows-installation.html>. After installing MySQL, create a root account.

4. Database Maintenance

A brief overview of maintaining database is as follows:

- 1) Backing up data regularly: The database can either be backed up as a whole unit or each individual table can be backed up separately into different files. (For details refer to Appendix F-5)

- 2) Performing Database Maintenance: There should be regular checks in the database tables to identify incorrect data, errors, or any other problems.

- 3) Reviewing Log Files: MySQL keeps log files as records for the many activities a database performs. These log files can be reviewed to check for corruption or other errors.

5. Backing up and/or relocating Database application

5.1. Using Command Prompt

A Command Prompt window can be used to back up the database by using “mysqldump”. The output of this command will dump the contents of the database in SQL statements. This output can be used to relocate to a different server or file if necessary.

1) For a simple database backup:

First switch to the drive which has mysql\bin directory: Eg. G:> c:

Then move into the mysql/bin directory: cd mysql\bin

Now use following syntax:

```
C:\mysql\bin>
```

```
mysqldump -u [username] -p --databases [databasename] >[path\dir\ backupfile.sql]
```

[username] - this is database username

[databasename] - the name of the database

[path\dir\] - the directory to store the backup file

[backupfile.sql] - the file to which the backup should be written

The backupfile.sql file will contain all the SQL statements needed to create the table and populate the table in a new database server. If there are “stored procedure and functions” in the database, add “-R” after “-p” to back them as well.

```
mysqldump -u [username] -p -R --databases [databasename] >[path\dir\ backupfile.sql]
```

5.2. Using Shell or Telnet

Using either a shell or telnet access to a database server, the database can be backed up by using mysqldump. The output of this command will dump the contents of the database in SQL statements. This output can be used to relocate to a different server or file if necessary.

1) For a simple database backup use following syntax in shell:

```
shell> mysqldump -u [username] -p [password] [databasename] >[path\dir\ backupfile.sql]
```

[username] - this is database username

[password] - this is the password for the database

[databasename] - the name of the database

[path\dir\] - the directory to store the backup file

[backupfile.sql] - the file to which the backup should be written

The backupfile.sql file will contain all the SQL statements needed to create the table and populate the table in a new database server.

2) To relocate dumped file into different directory or server, first connect to new database server. Then use following syntax:

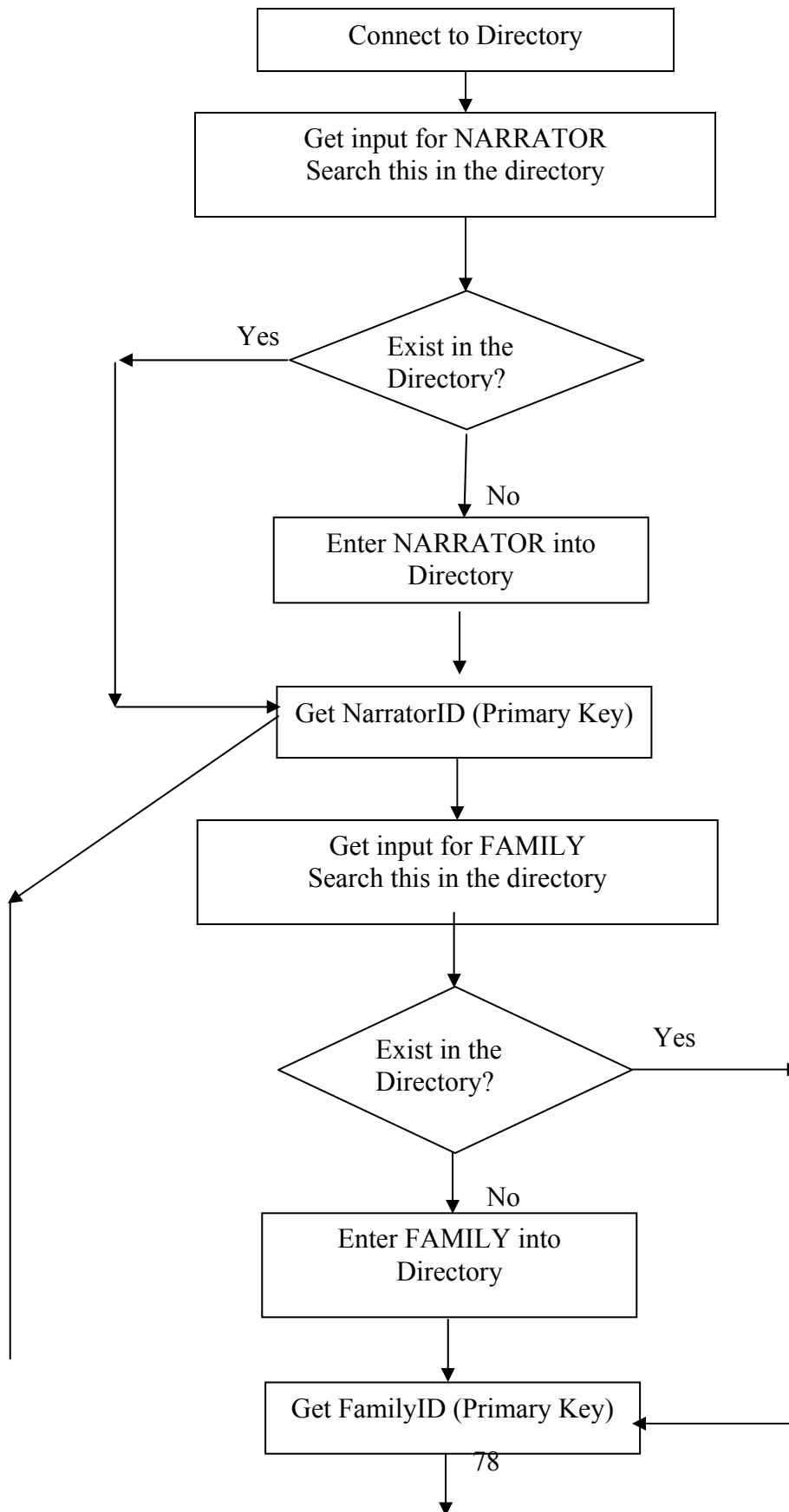
```
shell> mysql -u [username] -p [password] [database_to_restore] < [path\dir\ backupfile.sql]
```

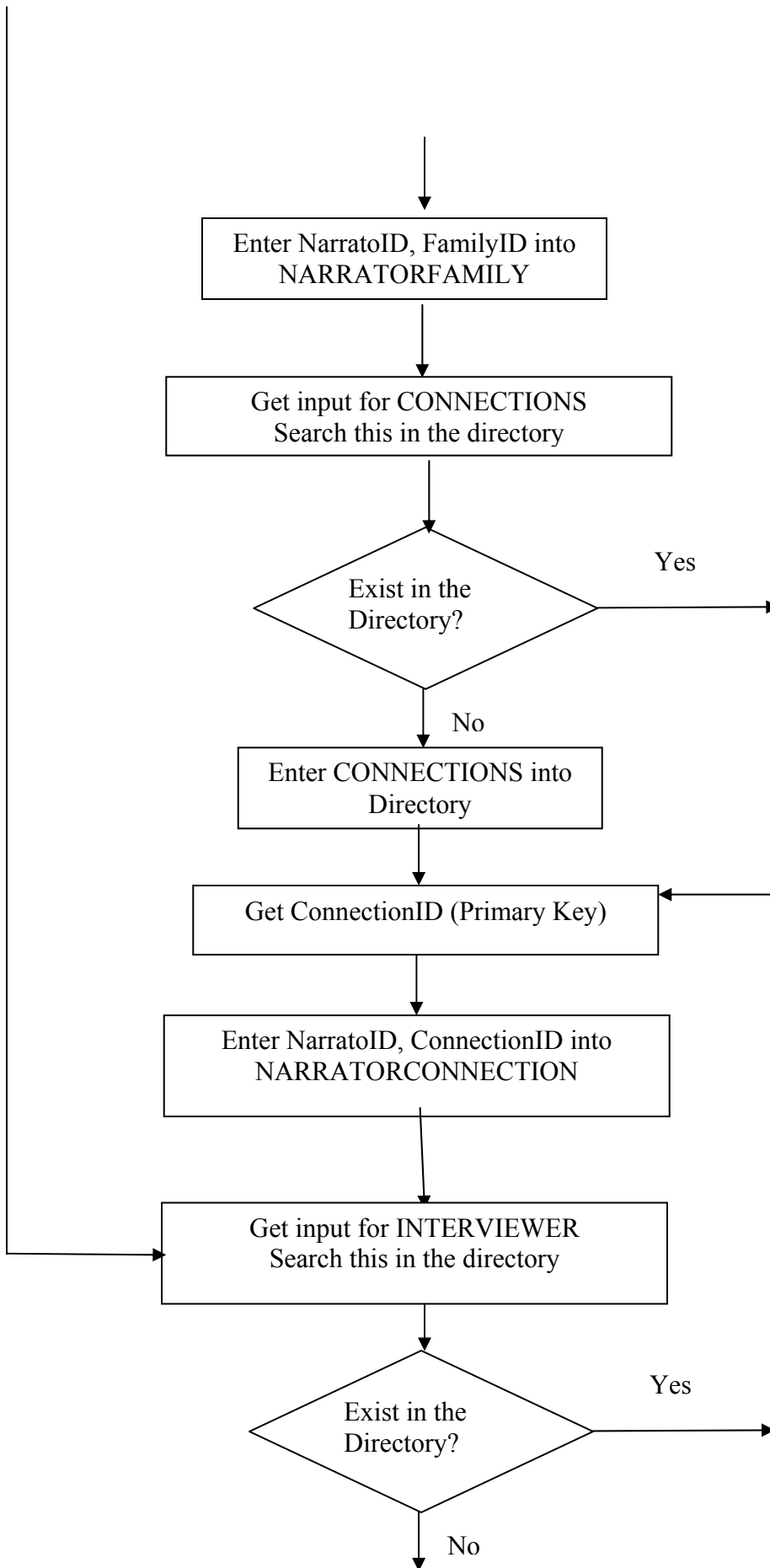
[database_to_restore] - the name of new database to locate this backup file

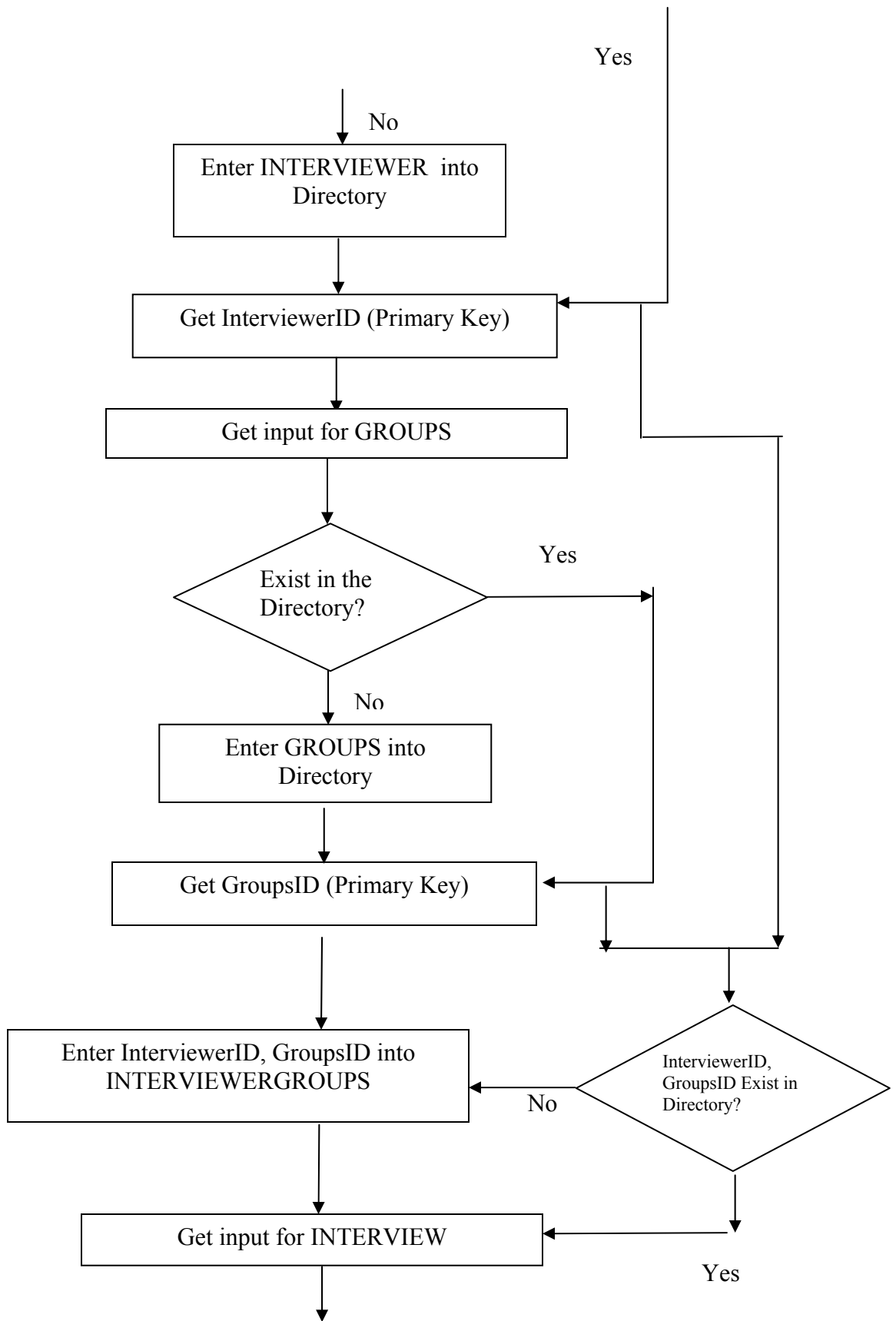
Now the database_to_restore database will be recreated using backupfile.sql in a new database server.

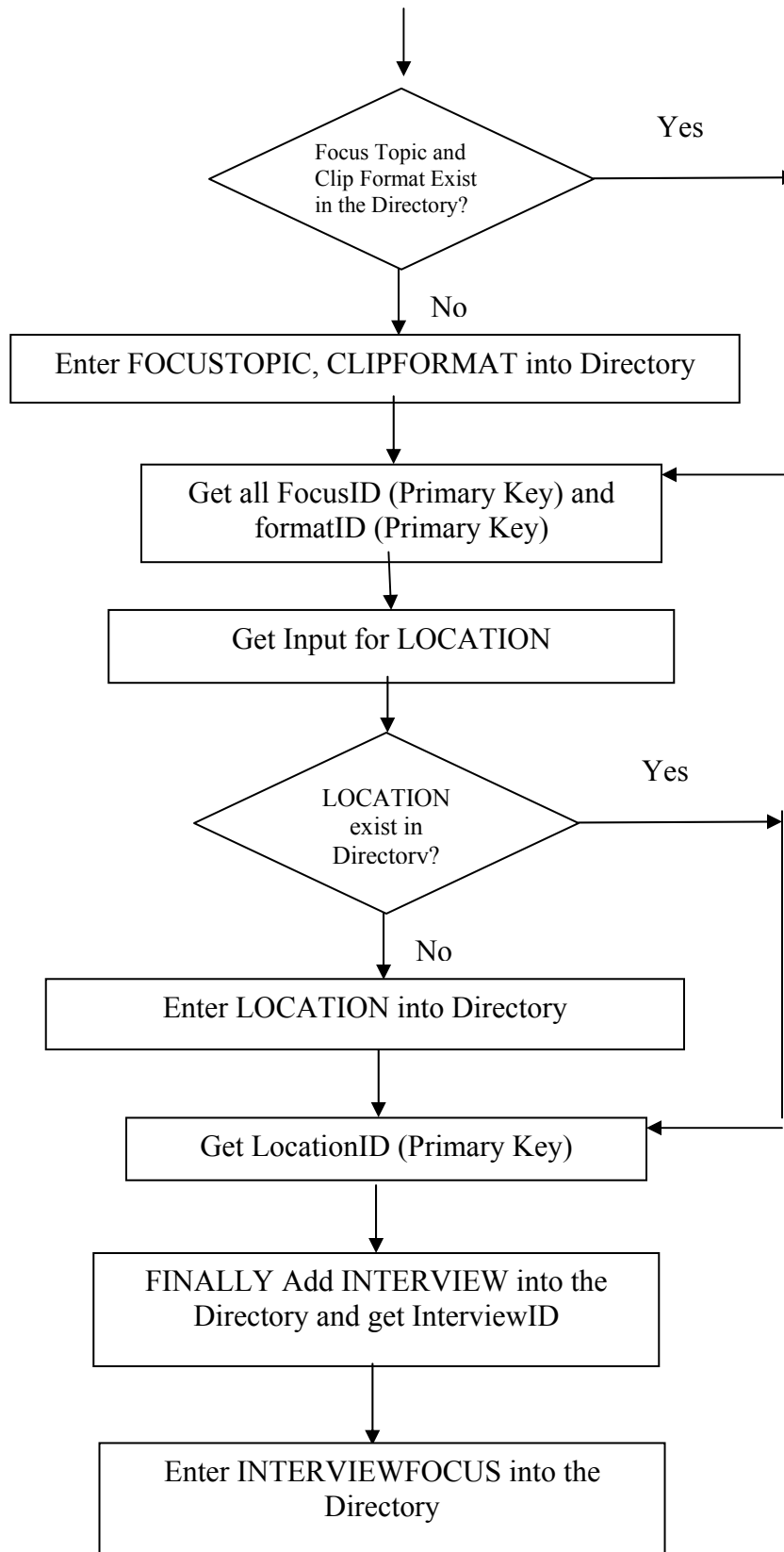
6. Technical Flow Charts

ENTERING INFORMATION INTO DATABASE









7. Web General Layouts



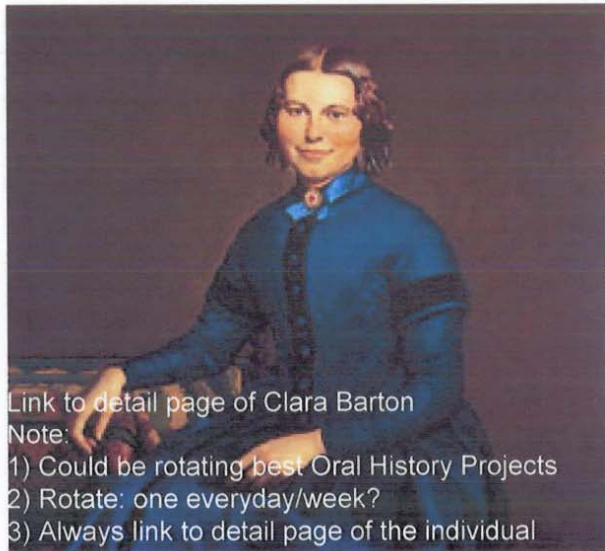
WORCESTER WOMEN'S HISTORY PROJECT

[Log in](#)

WWHP Oral History Directory

Search through a collection of Oral testimony from women in Worcester about career, education, health, and many more.....

Search for more Interviews?
[Sign up for Directory Now!](#)



Link to detail page of Clara Barton
Note:

- 1) Could be rotating best Oral History Projects
- 2) Rotate: one everyday/week?
- 3) Always link to detail page of the individual

The story about memory of Civil War ~ Clara Barton

SEARCH

OK

Browse by

[Interviews of the month](#)



Worcester Women's History Project - 30 Elm Street - Worcester, MA 01609 - info@wwhp.org - 508-767-1852

First Intro Page



WORCESTER WOMEN'S HISTORY PROJECT

WWHP Oral History Directory



The story about memory of Civil War

Focus Topic: Civil War, Education



Listen

Hear what you like...

How to make your own oral collection ?

Interview conducted on 11/29/2006

By Shaun Tyman, Niva Shrestha

Worcester Polytechnic Institute

IQP, Professor Demetry

Part of Community Catalogue Program

Get complete transcript and audio (mp3, tape – 15 minutes)

Worcester Historical Museum

Contact Bill Wallace @ 508-990-0000

Detail Page of an interview

Clara Barton

Gender: Female

Age: 126

Birth Place: Oxford, MA

Parents

Mother: Sarah Barton

Birth Place: Oxford, MA

Father: Stephen Barton

Birth Place: Oxford, MA

Career

Position: Founder

Organization: American Red Cross

Years: 60

Connection

Moved to Worcester in 1950

Went to Clark University in 1952



WORCESTER WOMEN'S HISTORY PROJECT

WWHP Oral History Directory

Advanced Search

Searching for interviews matches the following

Birth Place: MA

13 Interviews matches



Clara Barton

Gender: Female

Age: 126

Matches: Birth Place

Focus Topic: Civil War, Education

The story about memory of Civil War



Abby Kelly Foster

Gender: Female

Age: 116

Matches: Birth Place

Focus Topic: Activism, Education

The story about Activism...

Summary matching clicked
underline link



WORCESTER WOMEN'S HISTORY PROJECT

SEARCH

[Advanced Search](#)

Narrator:

Name:

Search by Name

Age:

Search by Age

Birth Place: City:

State:

Country:

Search by Birth Place

Interview:

Focus Topic:



Search by Focus Topic

Interview Date:

Search by Focus Topic

Worcester Women's History Project - 30 Elm Street - Worcester, MA 01609 - info@wwhp.org - 508-767-1852

Basic/General Search Page



WORCESTER WOMEN'S HISTORY PROJECT

ADVANCED SEARCH

Narrator:

Age

to

Gender

Marital Status

Spouse Name

Ethnicity

Religion

Family:

Mother's Name

Birth City

Birth State

Birth Country (if not USA)

Father's Name

Birth City

Birth State

Birth Country (if not USA)

Career:

Position

Organization

Connections:

Connection Name



Connection Year

Interview:

Program



Keywords

Interviewer:

Interviewer's Name

Group Name

Affiliated Organization

Course Name

Course Number

Professor

Location:

Organization



Advanced Search

Clear

