

# How to Conduct and Preserve Oral History

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on commission to the [IT History Society](#)

## The Nature and Use of Oral History

Oral history became a standard source of historical information during the second half of the twentieth century. Oral histories:

- serve to explore issues that are not contained in other records; and
- capture the flow of events in a context where written and digital forms provide insufficient information.

Oral histories inform us about the people and organizations that came to be important in our time. Scholars use them in their research into significant events and in the preparation of publications. They serve as a valuable source of information to historians on all manner of subjects: from biology to organizations to the “national pastime” of baseball. Museum curators often use snippets of audio or video recordings to enliven an exhibit with a human element in the developments described. Journalists use them as background for articles they write. They can serve to stimulate a class of students to explore the history of their region, or the part local people played in a state or national issue, such as the Civil Rights Movement. Families and friends treasure oral histories with a family member that recall their family’s past or illustrate a friend’s remarkable contributions to them and their associates.

Historians can use oral histories in various ways, including

- illuminating the heritage and culture of a company for employees, vendors, and customers
- studying regional development, such as in the Silicon Valley of northern California and the Cambridge, MA, area to see the interlinking of technology firms, educational institutions, and other firms and associations that make up the infrastructure
- examining the relationships between newer and older firms, and
- tracing the role of venture capital in the development of imaginative ideas and companies.

Oral histories have been used effectively in a number of studies of information technology. Examples include:

- early computer firms in the United States in the 1950s;
- government policy for support of computer development;
- institutional development of professional societies;
- the computerization of the social security administration;
- the emergence and growth of new fields of computer science, such as artificial intelligence; and
- the growth of particle physics;

I submit two cautions with respect to the use of oral histories. First, in historical research and writing, oral histories are rarely used as the only source about a past development. Historians have learned that a complete story cannot be told using only oral histories. To furnish a more complete story, oral histories should be used in conjunction with written records, photographs, and artifacts. Researchers usually give priority to written documents. The description of past events, indeed the recording of an oral history itself, benefits from the reinforcing impact of employing other forms of records that have not changed over time. The process of conducting an oral history often offers the opportunity to ascertain whether the interviewee has any records that would expand on the interview and could be deposited in a repository. The ITHS can help with such records as a broker, finding an appropriate repository where these records would fit well with others in the collection.

Second, oral histories usually are recorded long after the events under discussion, so that the perspective of the interviewee is often skewed by time. Details can be remembered differently; people tend to enlarge their accomplishments with the passage of years. If the interviewer is well prepared (see below), these obstacles can be overcome.

The IT Historical Society encourages you to record the memories of contributors to IT history, and the remembrances of their families and friends. The Society can help track these projects, suggest people to help, and provide an audience interested in your findings. The ITHS will provide an online platform from which you can frame your oral history efforts. Please contact us with your ideas.

## Preparing for an Interview

Regardless of the type of interview, *it is important for the interviewer to be as prepared as possible for the interview.* Good preparation helps to bring many topics together in the interview, leads to good questioning and sustained follow-up, and readies the interviewer to integrate surprises into the interview process that might trigger additional thoughts in the interviewee or help him or her to see these events in a different light. Thus, an historian is the usual choice to conduct interviews. With a highly focused interview, it might be appropriate to choose someone other than an historian to conduct the interview. For example, a computer scientist could be the interviewer for a highly technical topic in computing; with business topics, a business historian could record the interview; a business venture could be explored by a business person.

Selection of *interview subjects is critical.* Interviews with accomplished information technology participants, who remember trends and details and who participated in historically significant developments, make the best subjects. The interviews can be enhanced with a social context for the discussion by asking questions about non-technical subjects that bracket the topic of the interview.

It is *important to understand the purpose for recording the interview,* and its expected use. The most frequent types of oral history are:

- Scholarly interviews meant to record an oral history for the research of others;
- Video recordings for capturing data for use in illustrative activities, such as museum exhibits;
- Project interviews meant to illuminate a limited context, such as the development of a particular computer or microprocessor, or theoretical accomplishment.

To repeat, regardless of the type of interview to be recorded, it is important that the interviewer be as prepared as possible. The better the preparation, the more likely the interviewer will be to ask follow-up questions and exploit a surprise remark that will give the interview a greater depth and uncover otherwise unknown aspects of the topic. Good preparation also helps to bring many topics together in the oral history and provides a sense of admiration on the part of the interviewee for the interviewer, which sets an environment that causes the interviewee to be more forthcoming. Preparation might make use, for example, of archival collections, copies of the interviewee's resume or curriculum

vita, papers and books published by the interviewee, or documents for organizations or educational institutions with which the interviewee was associated.

Some people might have been interviewed several times. People who have been interviewed multiple times about some famous episode are likely to have a canonical way in which they tell this story, and it may or may not be true. By having a well-prepared interviewer, it is possible to probe whether there are missing portions or inaccuracies in the canonical account. Previous interviews should be consulted before recording another interview. In this way, the latest interviewer gains from the questioning in earlier interviews. This preparation also makes for a more efficient use of time, avoiding questions that have been answered well in previous interviews.

## **The Interview**

### *Settings for the Interview*

*Interviewee and Interviewer.* This is the case for most interviews. Both participants find this intimate but not intimidating. This arrangement gives the interviewer the sole responsibility for keeping track of the overall architecture of the interview, which generally results in a more coherent interview. If there is a single interviewer, he or she can get the interviewee to elaborate on a topic without needing to be aware of the direction that others in the room might want to take the interview.

*Two or three interviewees and the Interviewer.* The persons being interviewed can stimulate remembrance of details by others in the group, but the interview is in their hands as they form a consensus of the group about issues and details. Largely the interviewer is here as recorder and can contribute little to the interview besides the questions he or she asks of the group of interviewees. The interviewees have the opportunity to consult one other and offer a consensus view, which sometimes can be detrimental to the interviewer's objective.

*Larger groups of interviewees and the interviewer.* Such an interview is rarely recorded because it is difficult for the interviewer to manage. It is occasionally worth the effort, especially if the group worked together in various tasks that resulted in some particularly historical development, such as an artifact, a higher-level language, or an entrepreneurial quest. But it has the same shortcomings as pointed out in the case of two or three interviewees. Sometimes it is not consensus that is reached among the interviewees, but instead some of

the interviewees defer to the answers of one or two members of the group, who might be the loudest, most assertive, or most confident in the room, or who may have held higher authority positions at the time of the events being recorded, or who may have had relatively more successful subsequent careers.

In every case, the room should be selected for the ability to keep out extraneous noises and be free of distractions such as telephones and heating/cooling systems.

### *Technology*

New technologies have broadened the array of ways to record an interview. Among the devices are analog-cassette tape, still the favorite type of system, because it is still the longest lasting medium available; video tape; computers; and digital voice recorders. Lifetime studies of storage media indicate only limited time before degradation makes the medium unusable. And it is still unclear how long a video tape will last. Digital voice recorders, MP3 players, and microphones on a computer are other ways to record an interview. With the convergence of digital media that is now occurring, digital voice recordings can typically be played by anyone with a computer, Ipod, DVD player, or several other digital media devices. For transcription, the interview can be burned to a CD. The tried and true medium is still the analog cassette recorder and tape, though this is becoming less common. An external microphone provides a better quality recording. Many interviewers use a backup cassette recording system or a computer with microphone for safety in case something goes wrong with the primary system. It is surprisingly often that something goes wrong, and it is often inconvenient or impossible to re-record an interview.

If one's focus is on the content of the interview in the expectation of using many interviews to fill out the information to construct a useful history, and if the interview is to be transcribed, cassette tapes are the cheapest and the most reliable at this time. Video taping requires technicians and more equipment in the interview room if you want professional quality (although that, too, is beginning to change with the advances in video technology for home use), and it can be intimidating to both the interviewer and the interviewee. Fewer things to attend to helps the interviewer keep attention on the questions and answers. Too many tasks to attend to can produce a less important interview in the end.

### *Questioning*

Interviews can be classified into two major categories: Career interviews and focused interviews. In a career interview, attention is paid to the overall background and professional activities of the interview subject. In some ways,

this is the easiest interview, because the interviewee soon relaxes because he or she knows that everything on their mind will be covered. The interviewer should start with questions that emerge from preparatory research in public documents and correspondence related to the purpose of doing the interview. In short, the interviewer should enter the recording process with a fact-based and as complete as possible historical timeline of the interviewee's past activities. The interviewer should in general know how the interviewee's life unfolded; what led to certain new positions, new research problems, elected positions, and founding of companies, to name a few topics that frequently are explored during an interview. In the career interview, questions should go as deeply as possible without causing dismay in the interviewee. For someone with a long and rich history, and a good memory, it is possible that the interview will go on long enough that more than one session will be necessary.

The focused interview is devoted to specific topics about which the interviewee has knowledge. Here, only a part of a person's life activities is relevant to the interview. This is the more difficult interview to record, because all sorts of interventions can happen. The interviewer needs to work harder to keep the interviewee on track, and make sure the limited time is not "wasted" on other topics, particularly if the interviewee believes these tangents are more central to his or her life's contributions. The interviewer must be determined and unafraid of interrupting the interviewee to get him or her back to the main subject of the interview. It is the interviewer, not the interviewee who controls the agenda for the interview. Nevertheless, it is important that the interviewee be content at the end of the process and believe he or she has contributed material that exhibits the importance of his or her work.

What kinds of questions is it good to ask and what kinds of questions should one avoid in the interview? Questions may include those to gain information about family background, education and training, how the interviewee became interested in information technology, early jobs, development of new concepts and systems, company or academic affiliations, colleagues, consulting and advisory efforts, and awards.

For the most part, interviewees handle questions, even sensitive questions, with aplomb. To avoid causing unpleasantness during the interview, questions should be asked in general ways first and follow-up questions can be increasingly specific as the interviewer assesses the knowledge of the interviewee and the sensitivity of the topic. The interviewer should not inject his or her own opinions, but should ask for clarification when facts presented by the interviewee

do not mesh with other accounts. Questions should be phrased in such a way that the interviewer is not leading the interviewee, and that the interviewee should feel free to answer a question in any way without incurring any kind of negative or positive feedback from the interviewer. The interviewer should try very hard to keep his or her own personality out of the interview. There is a particular danger of an interview becoming a two-sided conversation where both interviewee and interviewer talk about experiences and views in cases when the interviewer is a former or present colleague of the interviewee, or if they were both practitioners. This is less likely to happen when the interviewer is an historian. During the editing process (see below), questions and comments that make the interviewee uncomfortable can be expunged from the interview. Rarely does the interviewee bring the recording to a halt because of his or her awkward sensitivities that the interviewer had no knowledge of, but it does happen occasionally and one should be prepared for it.

The length of time for a recording session is dependent on the abilities and understanding of the interviewer and interviewee. The interview process is intense for both the interviewer and the interviewee, and it is hard to sustain a session of greater than two hours without a break. If there is a lot of material to be covered, a four hour session with a break in the middle might work, or a morning and an afternoon session separated by a lunch break is also a possibility.

### **Disseminating the Interview(s)**

Researchers and exhibitors who use oral history in research and exhibiting strongly prefer full transcripts over either only abstracts or audio access. Transcripts can be searched and researchers do not want to take the time to read them linearly from beginning to end searching for a particular passage. If the recording is to be transcribed, it is useful to the transcriber if a running list of proper names is developed by the interviewer as the interview proceeds. Editing is usually driven by the purpose of doing the interview in the first place, and is done by both the interviewer and interviewee separately. Sometimes very little editing is done to an interview, leaving in false starts and removing only sensitive things (as identified by the interviewee). Additions made during the editing process should be identified as such if they are extensive. Video recordings are typically edited for use and a one or two minute spot for exhibit purposes is made. This is acceptable, provided that the editing does not change the meaning of the comments.

A frequent question is to what degree should an interviewer should prepare various aids such as a subject index and running table of contents. If the transcript is mounted on a web site in a searchable form (such as pdf), this requirement is unnecessary (whereas good archival practice use to dictate running tables of content when the full text was not searchable). A good abstract of the topics covered should be prepared, and a running table of contents still provides additional value even when the full text of the interview is searchable.

Before an oral history can be made available for use, an agreement form needs to be signed by the interviewee. Copyright law in the United States assigns the recorded interview as the property of the interviewee and his or her heirs for 50 years, unless the subject turns the copyright over to the organization that makes the interview public. The copyright is rarely turned over to the interviewer. The interviewer is responsible for telling the interviewee the reason for recording the interview. A one-on-one interview with a subject during which the questioner makes notes of what is being said does not fall under this rule. A standard form can be acquired from one of the many organizations involved in interviewing (see for example the ACM enlarged version, <http://history.acm.org/content.php?do=publicdocuments> This form shows all the possibilities of affiliations; a shorter version can be assembled from this form. Most organizations have their own form, but not necessarily online.). If the interviewee is happy with the interview, the copyright form can be signed at the end of the session. The interviewee should be told that he or she has the right to evaluate the transcript before it will be made public. Interviewers are beginning to explore the use of Creative Commons licenses, which supplement copyright and described allowed uses of the interview. See <http://creativecommons.org/> for more details.

Is it important to place the interview in an on-going institution? What access should be given? Interviewees are typically more comfortable turning over copyright to a recognized institution or group, such as a university or museum. They can be confident that the interests of the interviewee will be protected by the laws and regulations adhered to by the organization, that the organization will be in business for a long time thus protecting the long-term availability of the interview, and the transcript will be available to all users. In a public institution, such as a public university, the transcript must be available to all people who wish to read the transcript.

What are the issues with posting an interview online? An organization sponsoring a project in oral history with the intention of posting the interview online should be careful about what is said in the recording because the interview is much more widely available and there is no means for screening the users. People being interviewed do not always exercise caution when talking about colleagues or events. The organization accepting copyright could become involved in unpleasant circumstances. The interviewer and the editor should be aware when something could be actionable and make some changes to reduce liability. Items that are expressed as a belief rather than a certainty should get by this obstacle. Also, the interview should be a pdf file on line to prevent someone tampering with the transcript.

## Useful Links

### Oral History Manuals and Advice

- Paul Thompson, *The Voice of the Past: Oral History*, 3rd. Edition (Oxford University Press, 2000)
- Donald A. Ritchie, *Doing Oral History: A Practical Guide*, (Oxford University Press, 2003).
- Oral History Association has valuable advice about all aspects of oral history <http://alpha.dickinson.edu/oha/>
- Step-by Step Guide to Oral History, Judith Moyer revised 1999.

[http://dohistory.org/on\\_your\\_own/toolkit/oralHistory.html](http://dohistory.org/on_your_own/toolkit/oralHistory.html)

Oral History Collections with examples of good interviews in Information Technology, Entrepreneurship, and the Computing Business:

- The Charles Babbage Institute has transcripts for many interviews recorded on cassette tapes.  
<http://www.cbi.umn.edu/oh/index.phtml>
- The IEEE History Center has a large number of interviews with members of the engineering community related to developments in computing.  
[http://www.ieee.org/web/aboutus/history\\_center/oral\\_history/oral\\_history.html](http://www.ieee.org/web/aboutus/history_center/oral_history/oral_history.html)

- The Regional Oral History Office of The Bancroft Library in the University of California, Berkeley, has specialized in the memorial form of oral history where the interview is an expansive account of the life of the interviewee as well as the gathering of similar sociological information across interviews in a project-related way.

[http://bancroft.berkeley.edu/ROHO/collections/av\\_online.html](http://bancroft.berkeley.edu/ROHO/collections/av_online.html)

This site also has a number of video interviews to view on line.

### Books that are good examples of the combined use of oral history and written records

- William Aspray, *John von Neumann and the Origins of Modern Computing*, (MIT Press, 1990).
- Arthur Norberg and Judy O'Neill, *Transforming Computer Technology: Information Processing for the Pentagon, 1962 – 1986*, (Johns Hopkins University Press, 1996).
- Leslie Berlin, *Man behind the Microchip: Robert Noyce and the Invention of Silicon Valley*, (Oxford University Press, 2006).

### Sample interviews illustrating elegant and exemplary questions and development:

- Charles W. Bachman interviewed by Thomas Haigh (ACM; in CBI)  
<http://tomandmaria.com/tom/Writing/Bachman%20Haigh%20Oral%20History.pdf>
- James Bidzos interviewed by Jeffrey Yost (CBI)  
<http://www.cbi.umn.edu/oh/display.phtml?id=354>
- Paul Baran interviewed by David Hochfelder (IEEE History Center)  
[http://www.ieee.org/portal/cms\\_docs\\_iportals/iportals/aboutus/history\\_center/oral\\_history/pdfs/Baran378.pdf](http://www.ieee.org/portal/cms_docs_iportals/iportals/aboutus/history_center/oral_history/pdfs/Baran378.pdf)
- Charles H. Townes interviewed by Rik Nebeker (IEEE History Center)  
[http://www.ieee.org/portal/cms\\_docs\\_iportals/iportals/aboutus/history\\_center/oral\\_history/pdfs/Town143.PDF](http://www.ieee.org/portal/cms_docs_iportals/iportals/aboutus/history_center/oral_history/pdfs/Town143.PDF)

- Alice E. Friedman M.D. interviewed by Sally Hughes (Bancroft Library)  
[http://content.cdlib.org/xtf/view?docId=hb9t1nb3rn&brand=calisphere&doc.view=entire\\_text](http://content.cdlib.org/xtf/view?docId=hb9t1nb3rn&brand=calisphere&doc.view=entire_text)