

**For publication in
Robert Perks and Alistair Thompson, eds., *The Oral History Reader*
(Second edition, London: Routledge, in press)**

Oral History and the Digital Revolution: Toward a Post-Documentary Sensibility

Michael Frisch

Putting the Oral Back in Oral History

Everyone recognizes that the core audio-video dimension of oral history is notoriously underutilized. The nicely cataloged but rarely consulted shelves of audio and videocassettes in even the best media and oral history libraries are closer than most people realize to that shoebox of unviewed home-video camcorder cassettes in so many families - precious documentation that is inaccessible and generally unlistened to and unwatched. The content of these collections is rarely organized, much less indexed in any depth, and the actual audio or video is generally not searchable or browsable in any useful way. As a result, the considerable potential of audio and video documents to support high-impact, vivid, thematic, and analytic engagement with meaningful issues, personalities, and contexts, is largely untapped.

We all know, as well, that in most uses of oral history the shift from voice to text is extensive and controlling. Oral history source materials have generally been approached, used, and represented through expensive and cumbersome transcription into text. Even when the enormous flattening of meaning inherent in text reduction is recognized, transcription has seemed quite literally essential - not only inevitable but

something close to 'natural.' The assumption in this near-universal practice is that only in text can the material be efficiently and effectively engaged - text is easier to read, scan, browse, search, publish, display, and distribute. Audio or video documents, in contrast, inevitably have to be experienced in 'real time.' And paraphrasing Bob Dylan, 'Time passes slowly up here on the audio/video deck.' Even when there are any guides, finding aids, indexes, or descriptions of the actual video or audio, these are likely to be in text disconnected from and not easily linked to the actual media, with particular points and passages cumbersome to locate for auditing or viewing.

The basic point could not be simpler: Everyone knows that there are worlds of meaning that lie beyond words; nobody pretends for a moment that the transcript is in any real sense a better representation of reality than the voice itself. Meaning inheres in context and setting, in gesture, in tone, in body language, in expression, in pauses, in performed skills and movements. To the extent we are restricted to text and transcription, we will never locate such moments and meaning, much less have the chance to study, reflect on, learn from, and share them.

But we have, for decades if not centuries, operated under the sometimes explicit, sometimes implicit, sometimes simply unexamined assumption that the gains from transformation into text - in everything from analytic access to ease of casual use and broader public sharing - are worth the price of lost meaning and texture rendered inaccessible. We have also known that there are, at least, other compensating ways, mainly through documentary as will be discussed shortly, for retrieving and making use of those realms of meaning.

All of this proceeds from the core assumption that oral and film or video documents are next to impossible to work with, especially when they involve extensive collections and broader groups of imagined users who might be interested in the material.

But what if this assumption can be discarded? The digital revolution has two simple but profound ground-level implications. First, digitization means that in crucial respects all information can be considered the same - in digital form, there is simply no difference between text, photographs, drawings and models, music, speech, and visual information: all can be expressed as digital information that can be organized, searched, extracted, and integrated with equal facility. And second, as every user of a CD or DVD knows, digitization means that any point in the data can be accessed instantly ; one can

move from point to point, anywhere in the data, without having to scroll or play forward or backward through the documentation in a linear way, as with tapes.

Together, these considerations help define the threshold on which we stand: digital technologies are opening new ways to work directly and easily with audio and video documents. Oral history audio and video can now be placed in an environment in which rich annotation, cross-referencing codes, and other descriptive or analytic “meta-data” can be linked to specific passages of audio/video content. By searching or sorting by means of these reference tools, the audio video materials themselves-- not the transcribed text version-- can be searched, browsed, accessed, studied, and selected for use at a high level of specificity. Indeed, with many of the emerging tools for providing such access, users and researchers themselves can mark, assess, analyze, select, and export meaningful audio and video passages for a range of customized research, presentational, and pedagogic uses. On this software frontier, audio and video documentation becomes as richly and easily accessible as a well-organized text-based reference book, and far more easily usable. The actual voice—orality, in all its meanings—and embodied voices and contexts in even richer video documentation—return to the center of immediacy and focus in oral history, as they are in the experiential interview or field documentation setting.

Approaches To Mapping or Indexing Audio-Visual Documents

The frontier I am describing is moving and changing very quickly, as is true with all software approaches, especially those being developed for working directly with media documents. By the time this essay appears in print, the particular tools available today, including those with which I have been working directly in a broad range of applied contexts, will seem very primitive. Newer approaches will certainly transform profoundly our sense of what is possible, and the choices before us.

It is therefore perhaps less than useful to discuss current work or modes in great detail, and it may be correspondingly more useful to describe this moving frontier in broad terms so as to get a better sense of the forces propelling it - in terms of needs, objectives, software approaches, and emerging modalities. This can suggest some of

the directions in which the field is headed, and these in turn inform directly the opportunities for new uses of oral history that I explore in the balance of this essay.

Broadly speaking, the challenges in searching and exploring audio-video digital materials are less technical than they are intellectual and even philosophical. Technically, the problem is straightforward, though there are many evolving and competing ways of addressing it. Essentially, digital audio or video carries precise time stamps that mark the audio or video stream, like markers on a highway. Passages can be defined by identifying start and stop time codes for a particular passage or segment or even a word, and a program can then go to and play such passages simply by locating the appropriate points. When particular identifiers or combinations of identifiers have been associated with points in the data stream, the program can use these for searching the audio video content in order to instantly locate and play the audio or video associated with those selected reference terms, whether these be subject headings, cross-reference codes, or words in a transcript.

Given the central dilemma of working with audio and video noted above - the need to watch or listen in real time, and the consequent difficulty of rapidly skimming through documentation as easily as the eye can move over pages of text - the real test of these tools is the ability to bring the user to relevant material, and to permit this material to be explored efficiently and used easily. The underlying challenge is the organization and practicality of the cross-referencing, and how this is connected to precise passages in the audio or video documentation - how the optimal qualities of access are defined, and then how these can best be served by software tools..

In this light, current and emerging approaches to cross-referencing and accessing audio oral history documentation, and to a lesser extent video documentation, can be helpfully organized - as on a literal map - as choices arrayed along a number of intersecting axes or dimensions. Before identifying and discussing these, it will be helpful to recognize the degree to which they are driven by what might be imagined as the scale or granularity of the map itself.

The most dramatic and comprehensive approaches to oral history audio-video documentation deal with very large collections and seek to make them accessible at a meaningful level to the widest extent possible, increasingly through website access.

Perhaps the most well known and most instructive example is the *Survivors of the Shoah Visual History Foundation*, the massive Holocaust survivor oral history project initiated by film director Stephen Spielberg <http://www.vhf.org/> . Confronting a body of documentation amounting to hundreds of thousands of hours, the Foundation has invested very extensively in technologies for organizing and navigating a colossal, multi-language archive. Its web site offer rich insights into what it has done and how - and the many ways in which this material is now open for exploration and use, much of it in video form.

Other illustrative award-winning large-scale projects include *The Virtual Oral/Aural History Archive* at California State University, Long Beach, <http://salticid.nmc.csulb.edu/cgi-bin/WebObjects/OralAural.woa/> , led by Sherna Berger Gluck, in which extensive audio interviews have been put on line in a uniquely interactive, highly searchable format, and the Kentucky Historical Society's *Kentucky Oral History Commission*, <http://history.ky.gov/Programs/KOHC/index.htm> , which has recently won a major Oral History Association award for its path breaking approach to turning a broad archival collection into an explorable on-line resource.

And finally, there is the imposing Alexander Street Press project *Oral History Online*, <http://alexanderstreetpress.com/products/orhi.htm> , offering a huge cross-collection union catalog of oral histories internationally, which even in its early form includes capacities to locate and access a considerable amount of audio documentation.

At the other end of this spectrum are tools for working closely with more discrete collections, by individual or team researchers, community projects, and the like. Here the interest is less likely to be with wholesale web-access for open-ended exploration, and more likely to involve user-driven hands-on engagement with particular bodies of material. The work I have been doing with via The Randforce Associates <http://www.randforce.com> stands closer to this pole. Using *Interclipper*, <http://www.interclipper.com/> software developed initially for focus-group recording and analysis in the market-research industry, one of our small-scale projects, for example, involves a collection of African American childhood stories being cross-referenced for use in community and classroom settings. Another is a law school alumni association's oral history project seeking to document educational and legal change as well as to develop a "memory bank: useful in alumni relations and fundraising. A third involves

content analysis of a discrete collection of researcher interviews conducted for a social-science project assessing group dynamics. All of these examples involve discrete collections that require descriptive and cross-referencing tailored to specific project content, needs, and intended uses.

Scale tends to drive choices in tools and approach as well. The larger and more diverse the collection, the more overwhelming and complex the task of cross-referencing, annotation, and indexing becomes. Large archival projects accordingly, have tended to rely on approaches that can be standardized - through controlled vocabulary thesauri and standardized subject-headings - to the greatest extent possible. Their finding and navigation tools have tended to rely on full-text searches of pre-existing transcripts, which then lead directly, via embedded time codes, to passages in the audio or video files.

Many have been experimenting with various forms of 'artificial intelligence' (AI) to model the thinking process of searchers. This can make it possible to process immense volumes of material more efficiently, and to narrow dramatically the counterproductively large number of 'hits' that cruder word or term searches tend to produce, even when narrowed through familiar Boolean query combinations. Such AI approaches are also increasingly significant in video work, where vast bodies of material can be automatically organized by analysis of visual qualities such as shot changes and rendered searchable by GPS location, face recognition, or other visual content tags.

There have been relatively fewer oral history applications to date of these tools from what in the business, media, and governmental world is coming to be known as 'digital asset management.' But the implications and potential uses of techniques developing there are substantial. The large-volume video analysis offered by *Streamsage* software <http://www.streamsage.com/index.htm> is one good example; another is the *Informedia Project* at Carnegie Mellon University, <http://www.informedia.cs.cmu.edu/>. In fact, *The History Makers, Inc.*, <http://www.thehistorymakers.com/>, an ambitious Chicago-based project documenting African American culture and history and our partner in the focused childhood story project noted above, is also working with CMU's *Informedia* to build an accessible video archive of the thousands of hours of video life history interviews collected to date.

Tools for smaller-scale work tend to share the characteristics of qualitative analysis approaches familiar in the social sciences. Well-known software like *N6*

(formerly *Nud*lst*)

http://www.qsr.com.au/products/productoverview/product_overview.htm and *Ethnograph* <http://www.qualisresearch.com/> have for some time provided sophisticated software for mapping complex interview or other data through marking text with a range of researcher-driven observational, thematic, or categorical organizers, flexible and capacious database tools for helping meet age-old researcher needs to organize, sort, and rearrange information, whether reading notes or more structured research data. The *Interclipper* software I have been working with is one of the first tools to permit this kind of qualitative analysis of video and audio directly. It allows us to note and cross-reference - as easily as we cross-reference the place, names, or explicit content of a story - the emotional intensity, body language, thematic meaning, or pedagogic uses observable by watching the video of a narrator telling that story.

These descriptions of scale imply somewhat more general distinctions in approach that are worth identifying as independent variables - as axes for mapping contemporary practice - since they are found to varying degrees and combinations even in similarly scaled projects.

Drawing on a comfortably old-fashioned library frame of reference, one basic axis has cataloging at one end, and indexing at the other. Generally speaking, the purpose of a catalog is to help you find a needed or relevant book, and the purpose of an index is to help locate content of interest within that book, once you have found it. But modern information tools are narrowing the distance between these functions, opening up an intriguing middle ground between them.

No longer limited to the one or two subject headings of the old card catalogs, modern tools permit cataloging to reach more deeply into the content of books, locating sources where there is material of interest even when this is not likely to be identified with the book's major subject-heading identifiers. In doing this, however, such descriptors still necessary tend to be relatively general subject headings, and do not necessarily identify or connect to specific passages.

Conversely, passage-specific indexing once limited to discrete individual works is now coming to reach beyond the particular book. Everyone is familiar with this from working with keywords and search engines, but the concept is more open-ended than

that. The idea basic to indexing from the beginning - that it can include anything worth noting, from explicit nominal references to broader umbrella ideas to abstract themes - is more responsive to a user or researcher's approach to analysis, in which particular avenues of inquiry not reducible to content alone can be the basis of cross-sectional searching and navigation. This has particular significance, as we will see, when working with audio and video data that is not always best approached by its explicit content - for example, an anecdote about a friend or a conversation that is really a story about relationships or personal life decisions - or where the data is simply not lexical at all.

Following this thread suggests the value of identifying as an overlapping but yet distinct dimension, the distinction between content-driven mapping and exploration, and what might be called meaning-driven, analysis-driven, or inquiry-driven mapping and exploration. This distinction has broader implications for describing and conceptualizing the range of contemporary approaches to mapping information in general, and audio-video documentation in particular.

Many archivists and librarians have traditionally assumed this distinction to be central, and controlling - it is the job of archivists to map content broadly, mainly by focusing on whole units such as collections, or perhaps specific interviews, rather than particular passages within documents. Archivists have generally been reluctant to privilege any particular approach to meaning or inquiry, much less to incorporate it in their taxonomies. In a recent discussion on the H-Oral electronic oral history discussion forum, for example, an American archivist termed anything other than collection-or interview-level indexing to be 'ethically problematic':

As an archivist it's not my job to create new meaning, it is just to try to stabilize the meaning of a recording or document in relation to the larger grouping from which it comes - to maintain it as best as possible within the intellectual context of its creation and use. Making new meaning is the job of a researcher using the materials. [A. Kolovos, posting to H-Oral Discussion List, November 17, 2004]

This is an understandable posture in traditional archiving, but its limitations in dealing with oral history audio and video documentation are manifest since, as noted earlier, without being able to get closer to passages of interest researchers simply are not able to explore collections given the time demanded by listening to or viewing tapes - which is exactly why most audio and video archives are so underutilized. It is a limiting notion even in traditional terms, since indexing, for hundreds of years, has offered flexible tools for identifying meaning as well as content, with no privileging or narrowing

of opportunities in the process: when the index of a book directs readers to page 312, they have access to the full text surrounding the identified point or passage. The traditional book index is, in this sense, less a restrictive filter or funnel than it is a kind of hyper-textual alternative to linear reading. Minimally, it can be said that a broad middle ground between and combining indexing and cataloging, content and meaning, a zone very much supported by new information tools and capacities, is only beginning to be recognized and understood as it applies to oral history collection management and use.

In oral history, the major response to this challenge, in many of the leading archives managing digital audio-video collections, has been the general reliance on text as the route to more specific passages of audio and video data, through embedded time-coded links between transcription and particular portions of videos. Word-based searches speak to some of the archivists' concerns in that they remain content-based, rather than driven by researcher-imposed themes, inquiries, or categories. And increasingly sophisticated word search tools move beyond the overly literal clumping of 'hits': context and proximity links, for example, can help distinguish a search interested in 'bomb' and 'airplane' from one focused on 'bomb' and 'Broadway.'

But the limits of this approach are clearly the inverse of its strengths, which is why many approaches, including a number of those referenced above, have been seeking to transcend the limits of text for reaching both non-lexical content and information, and dimensions of meaning or cross-referencing not explicit in the words of an interview. In this regard, the degree and form of text-reliance in searching and organizing, can be identified as a third axis along which current approaches are arrayed. At one end of this spectrum is total reliance on text—all searches based on the words in transcripts synchronized seamlessly to the audio or video stream. At the other end is no reliance on transcription—with searching or navigation based on cross-referencing independent of interview transcripts. Most approaches are coming to be located somewhere in between these poles, with various combinations of transcript-based and transcript-independent cross-referencing.

There is one final dimension useful to appreciate in considering the way approaches to working with audio and video documentation have been evolving. Imagine a spectrum at one end which is the essentially linear, funnel-like nature of search-engine queries, in which all possible references are treated similarly and the

search is narrowed or particularized by restrictive or inclusive combinations that can zoom in on a more and more manageable group of 'hits.' At the other end of the spectrum is the multi-dimensional or multi-field approach of a relational data-base, in which any piece of data can be identified in an unlimited number of discrete fields each of which can offer a range of values or choices in relation to a given object.

A neighborhood, for instance, can be identified as having a particular ethnic composition, a particular socio-economic status, an architectural character, a density level, or a value of whatever variable might be of interest - it is the same neighborhood, but it can be identified in terms of its particular value in any of these variable fields. What can seem new and intimidating when terms like relational data base are used has actually been quite common for a long time in common-sense usage. In book indexes, for instance, a given passage may be given a range of identifiers that in turn may be listed both individually and under broader subheadings. A cookbook might have a recipe for a Greek lamb stew indexed by ethnic origin, by type of dish, and by both the general 'meat' and the specific 'lamb' - the variables are completely independent, and the book can be explored by initiating searches through any of them, in any order, which reveals how they are related and combined in the attributes of each recipe. Such notions apply to meaning-mapping as well: In confronting demanding academic or scholarly books, I've told my students for years, it's always a good idea to study the index, which can be seen as offering an overview of the book's central concerns and approach. These are made particularly vivid in the way master-idea headings jump out at the reader via the long indented lists of references and sub-references that such headings - and not others less central to the argument - command.

These approaches require notions of generality and categorization that are necessarily other than literal, and rarely found by word searches. In electronic form, such approaches become more and more powerful, as if the entire book were being re-indexed on demand - with its content displayed and organized through the lens of any particular field or combination of fields. The ease of manipulation and navigation, and the analytic capacity these confer, is one reason why contemporary information tools have so dramatically advanced the power of fluid, relational approaches to information. It means the same content can easily be explored from a variety of contrasting directions. In our childhood story project, for instance, the same anecdote might be located by searching choices in a typology of biographical stories (say, conflict with parents), or by

a searching a typology of historical or cultural topics (say, the Civil Rights movement). And unlike random searches that might combine such explicit terms, in these modes a richer exploration is possible—for instance, we could select all stories about conflict with parents sub-sorted by historical topic, or, alternatively, we could select all stories about the Civil Rights movement sub-sorted by biographical theme. Either route would lead to our selected combination—conflict with parents and the Civil Rights movement-- but in getting there we would also have a chance to discover and explore a wide range of combinations we might never have thought to look for.

Taken together, then, our map of emergent approaches to working with audio-video materials involves four overlapping, interrelated, but conceptually and operationally distinct dimensions, or axes: 1) from cataloging to indexing, 2) from content-referencing to meaning or qualitative analysis referencing; 3) from text-transcript based audio or video access to direct or observational cross referencing of audio or video as such; and 4) from linear search-engine tools to relational data-based mapping of audio and video documentation.

At the current moment, many leading approaches to digital oral history collections in general, and to accessing their audio and video content in particular, remain closer to the first-mentioned end of each of these dimensions: they are closer to cataloging than indexing, to content-mapping than to meaning-mapping, to transcript driven searches than to non-transcript or observational referencing, and to linear searches rather than relational database approaches to organization and navigation. These preferences are driven to a certain degree by scale, to an additional degree by the archival and library collection-management auspices of most of these projects, and to some extent as well by the state of current technology.

Those software approaches originating in researcher or user-driven qualitative analysis, or outside oral history in fields such as digital asset management or market research, have been exploring the other end of each of these dimensions, as illustrated by some of the examples from my own practice previously discussed.

I think it can safely be said that these distinctions are all very much in motion - much of the 'action' in current software development for oral history applications involves seeking various ways in which the capacities of every approach can be combined and

more effectively mobilized for working with the audio-video documentation at the heart of all oral history.

And what all of these approaches have in common, what defines the current and prospective development of the field in this regard, is that one way or the other, from large-scale archive to small community project to home and family collections, it is going to be more and more feasible to hear, see, browse, search, study, refine, select, export, and make use of audio and video extracts from oral histories directly - through engaging the documentation itself. In the future that is rapidly unfolding, I can claim with considerable confidence, this mode, rather than piles or even files of text transcription, will become the primary, preferred way to explore and use oral history. And that returns us to the problem with which this paper began - the implications of 'putting the oral back in oral history,' in terms of theory, practice, and most especially use, that flow from this profound reorientation to the core orality, voice, and embodiment found in oral history documents.

Beyond Raw and Cooked: Documentary and Oral History in the Digital Age

Documentary has been the mode in which oral history has most generally, and usefully, been mobilized for communicative, historical, and political purposes. As such, documentary has been in effect the long-standing solution of choice to the problem I have identified here. It has been the main resource for engaging and presenting those realms of meaning embodied in oral and embodied performance, the realms and dimensions that make our oral history collections valuable as such. Whatever the particular approach or format, documentary involves virtually by definition an exploration of a broader body of documentation in search of desired qualities or content, which leads in turn to a evocative product - some selection, arrangement, incorporation, and presentation of meaning grounded in that documentation, which takes the form of a presentation - whether film, video, exhibit, book, radio presentation, CD, or DVD.

In documentary, of course, the 'naturalness' or inevitability of text transcription is not the unexamined core assumption, though neither is its opposite, the subordination of text, since the documentary approach can be similar whether the object is a film or a book such as Theodore Rosengarten's *All God's Dangers: The Life of Nate Shaw* (New

York: Knopf, 1974) or my own *Portraits in Steel* (Ithaca: Cornell University Press, 1993) in which oral histories were combined with Milton Rogovin's photographs so that images and text could represent parallel and resonant modes of documentary portraiture.

Rather, the central assumption in documentary is the inevitability and indeed - as I have argued elsewhere - the indispensability of editorial intervention, selection, shaping, arrangement, and even manipulation. Documents may be found, even if this is perhaps less straightforward a matter than it can seem. But everyone understands that documentaries are not found - they are made, although it is also easy to avoid thinking carefully about what is involved in the process. Rather than mediating oral history through text, documentary requires the mediating of the oral history as a whole through some critical intelligence - the editor's, the artist's, the director's, the curator's, the producer's.

Put differently, if audio/video oral history content itself has characteristically been seen as 'raw' documentation almost impossible to search or navigate analytically, oral history documentation has become meaningful, sharable, and usable only when it is 'cooked' - in the form of a documentary selection or arrangement then served up to consumers. This 'cooking' has seemed as necessary, natural, and inevitable in documentary as text transcription has seemed in working with oral history collections. Whatever the uses, political content, community purpose, or artistic and expressive intent, documentary has always presumed this kind of culinary role.

But what happens if that assumption, too, can be dramatically recast, or discarded altogether, when the potential of new technological tools is fully unfolded? Let me suggest two lines of approach that describe what is, in fact, happening already, each of which speaks to this question.

One - the more obvious and visible to date - involves the crucial issue of access and privilege, where new modes are so dramatically democratizing access to the tools and processes of documentary production as to transform the approach profoundly. The most immediate and dramatic effect of new tools and techniques is to distribute widely the capacity for documentary production. The digital revolution has taken film from the darkroom and the movie studio into anyone's computer and elementary school classroom. It is redistributing to students, families, teachers, artists, social scientists, and activists the capacity to manage and exploit extensive bodies of documentation, and to produce meaningful versions of it. All now have, easily at hand, exciting and

increasingly affordable tools for consolidating and communicating the meanings they find in materials that matter to them, and for purposes that matter to them.

The radical simplification and distribution of what had been highly restricted skills and equipment is, in this sense, surely transforming what up to now has been the privilege of the documentary producer - a transformation with political implications that are as unbounded as they are straightforward. A wide-open door changes not only access, but the very nature of what takes place within, of what can be done, by whom and for what purposes.

However there is another implication of new technology that is far less obvious, but potentially even more powerful and transformative. Here I refer to the implicit challenge posed to the assumption of pathed linearity, an assumption embedded in documentary production.

Most documentaries, even experimental ones that challenge the form, are necessarily versions - a selection out of a broader body of material. They represent a linear product: a path, through the material that embodies, supports, represents, or evokes a story being told, a point being made, a context or mood or texture being evoked and conveyed. This is the definitional difference between documentation and documentary. But it is precisely this distinction, as such, that new tools are subverting, in some potentially very exciting ways.

Consider that fundamental quality of digital media noted earlier, and familiar to anyone who has made the shift from tapes to listening to CDs or watching DVDs: in digital modes, all information is instantly accessible, at will. One can get anywhere, and go anywhere, instantly. Capacities in this regard are limited or expanded only by the modes in which the digital content is organized and mapped.

Almost all production in film and video now is taking place in such digital modes, and oral history editing is rapidly moving into this realm as well: it can safely be predicted that in ten years tape will not be used at all in any form, whether magnetic or DAT. There will be little use for and of CD-ROMs. All material will be in digital file formats for editing, and for recording as well, as witness the new generation of recorders that continue, quaintly, to look like tape recorders - but in actuality are small computers with enhanced audio and video recording capacity.

This digital transformation has only begun to be appreciated, even - perhaps especially - by those who work with these media routinely. Michael Haller, developer of the indexing software Interclipper, began as a documentary filmmaker, and he likes to observe that while everyone is now doing their editing and production in non-linear digital editing modes, they still approach what they are producing in linear, analog terms: as a documentary that will begin here and end there, telling its story through a sequential arrangement of whatever materials are selected and refined through the digital editing process, and leaving everything else behind, obscured in the archive or collection or left as outtakes from which the selection emerged.

Towards A Post-Documentary Sensibility

What would a contrasting approach to documentary be like, one that proceeded from the fluid, flexible, multi-pathed non-linear access to core documentation? The new modalities for working with oral history documentation discussed in the first part of this paper all suggest powerfully that emphasis can and will shift from the final documentary to a notion at the core of which is located the body of documentation in a searchable and easily navigated and used database environment - a platform for the generation of paths and versions on a far more fluid, ongoing basis. In such modes, every search and inquiry can lead to a different focus, or material for a different story, and each one is as instantly and continually as accessible and easily constructed as any other.

To take a prosaic but instructive example, imagine the family video collections that millions are now being encouraged to transform, via their I-macs or the like, into little documentary movies. And ask whether instead of one, two, or even a file folder full of such pre-cast movies, it wouldn't be more interesting to imagine the material so organized and accessible that such a path could be instantly generated in response to any visiting relative, or a child's birthday, or a grandparent's funeral, or the sale of a house in the hometown, or whatever might be occasioning interest in the relevant resources found in the video record. Such a located selection could easily be displayed, saved, and worked into a presentational form, if it proved interesting. Or, it could be released to return to the database, awaiting some later inquiry or use.

Such notions apply to more complex settings and to more complex collections of documentation, wherein accessibility for very different dimensions of question, evaluation, and application would make an easily navigable map far more useful and interesting than a pre-selected itinerary. This is precisely what new modes offer, and as this is realized, so too is the potential to imagine documentary itself as a natural extension of such non-linear modes, rather than as a linear path and destination. In this way, the documentary impulse and intelligence becomes more responsive, contingent, and sharable. This is not a new idea by any means, and in fact its ancient provenance offers yet another dimension in which new tools ought best be seen as permitting a return and rediscovery, rather than in invocation to invention. Any reference work is a compilation of answers awaiting questions - as, indeed, is any book-- the instantly and fluidly navigable book being in this sense the mother of all hypertext instruments in contrast to the scrolls it so easily superseded centuries ago. In this very same sense, new tools need only mean that audio and video documentation can become a similarly liberating, flexible, resource for whatever questions and uses, situationally, are presented, and by whatever diversity of users.

It seems to me the implications of such a reorientation of our relation to documentary source material are suggestive, and potentially quite profound in practice. Beyond returning the power of 'voice' in oral history, digital indexing of audio and video thus speaks to political questions central to oral history discourse. The much-touted democratic promise of oral history has been in fact usually restricted either to the 'input' into collections, or to the audience receipt of 'output.' In-between has been the author, the mediator, the documentary filmmaker, the TV or radio producer - the shapers of whatever is selected from those oral histories for representation in public forms, whether through films, exhibits, books, radio and TV documentaries, and the like.

I am arguing here that new digital tools open the significant non-linear, fluidly multi-pathed ground between these poles. Because audio/video indexing means the entire content can be usefully, intelligently, instrumentally searched and accessed at a rich level, it becomes a great deal more than a 'raw' collection. And the same tools providing that access permit anyone - continually - to 'cook' - to explore a collection and select and order meaningful materials. In other words, documentary representation becomes a democratically sharable process. Implicit in this approach are whole new modes of publication and public access. Imagine, for example, the value of producing a

broadly distributed collections of richly mapped and thoroughly searchable interviews, music, and performance, or other field documentation, in which users might find and make their own meanings. In producing such a documentary source, with authorship would reside not in fixed path-making but rather in the richness and openness of the mapping coordinates, codes, and finding tools offered to users.

Such modalities suggest something even more significant and potentially transformative in our relationship to audio and video documentation itself - a deeply and essentially non-linear orientation that I will term a post-documentary sensibility. With accessible, meaningful, fluid, and non-privileged access to the content of oral history, the authority of the mediating intelligence or documentary authorship is displaced by a sharable, dialogic capacity to explore, select, order, and interpret.

In this mode, the privilege of a fixed documentary version that necessarily marginalizes other meanings or stories in the material - - the very notion of documentary as product - is displaced by a notion of documentary as process - as an ongoing, contextually contingent, fluid construction of meaning. In so doing, I suggest, new digital tools and the rich landscape of practice they define may become powerful resources in restoring one of the original appeals of oral history - to open new dimensions of understanding and engagement through the broadly inclusive sharing and interrogation of memory.

REFERENCES

Web Sites noted in text :

The Survivors of the Shoah Visual History Foundation, <http://www.vhf.org/>

The Virtual Oral/Aural History Archive, California State University, Long Beach,
<http://salticid.nmc.csulb.edu/cgi-bin/WebObjects/OralAural.woa/>

Kentucky Oral History Commission, <http://history.ky.gov/Programs/KOHC/index.htm>

Alexander Street Press, Oral History Online,
<http://alexanderstreetpress.com/products/orhi.htm>

Interclipper, <http://www.interclipper.com/>

Streamsage, <http://www.streamsage.com/index.htm>

Carnegie Mellon University, Informedia Project <http://www.informedia.cs.cmu.edu/> .

The History Makers, Inc., <http://www.thehistorymakers.com/>

*N6 (formerly Nud*Ist)*
http://www.qsr.com.au/products/productoverview/product_overview.htm

Ethnograph <http://www.qualisresearch.com/>

The Randforce Associates <http://www.randforce.com>

Additional References Discussing History, Oral History, and the Digital Revolution

Bond, T. J. 'Streaming audio from African American oral history collections', *OCLS Systems & Services* vol. 20 no. 1, 2004, pp.15-23.

Crothers, G. A. "'Bringing history to life": oral History, community research, and multiple levels of learning', *Journal of American History*, vol. 88 no. 4, 2002, pp. 1446-1451.

Fogg, T. 'Using new computer technology for oral history interviews and archival research', *American Educational History Journal* vol. 28 no. 2001, pp. 135-141.

Larson, M. 'Beyond the page: Nonprint oral history resources for educators', *Oral History Review* vol. 25 no. 1-2, 1998, pp.129-135.

Ritchie, D. A. 'The changing current of oral history', *History News* vol. 59 no. 1, 2004, pp. 7-10.

Ritchie, D.A., *Doing oral history: a practical guide*, Oxford, Oxford University Press, 2003.

Rosenzweig, R., A. McMichael, et al., 'Historians and the web: A guide', *Perspectives: American Historical Association Newsletter* vol. 34 no. 1, 1996, pp.11-15.

Rosenzweig, R. 'Scarcity or abundance: Preserving the past in a digital era', *American Historical Review* vol. 108 no. 3, 2003, pp.735-762.

Swain, E. D. 'Oral History in the archives: Its documentary role in the twenty-first century', *American Archivist* vol. 66 no. 1, 2003, pp.139-158.

Weis, T. M., R. Benmayor, et al., 'Digital technologies and pedagogies', *Social Justice* vol. 29 no. 4, 2002, pp.153-168.

Wilmsen, C., 'For the record: Editing and the production of meaning in oral history', *Oral History Review* vol. 28 no. 1, 2001, pp.65-85.

Author Note

Michael Frisch teaches history and American Studies at the University at Buffalo, State University of New York. He is the author of *A shared authority: Essays on the craft and meaning of oral and public history*, SUNY Press, 1990, and, with photographer Milton Rogovin, *Portraits in Steel*, Cornell University Press, 1993, among other writings. His current work with digital indexing of oral history audio and video is being conducted through his consulting office, The Randforce Associates, www.randforce.com, located in the University at Buffalo's Technology Incubator. His email address is mfrisch@buffalo.edu

The Digital Revolution is the change from mechanical and analogue electronic technology to digital electronics which began anywhere from the late 1950s to the late 1970s with the adoption and proliferation of digital computers and digital record keeping that continues to the present day. Implicitly, the term also refers to the sweeping changes brought about by digital computing and communication technology during (and after) the latter half of the 20th century. Analogous to the Agricultural Revolution