Oral History Search Systems: An Analysis of Original Research

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This essay will analyse an original research project entitled ‘On designing an oral history search system’, conducted by Martin Halvey and Iain Walker and published in the Journal of Documentation in 2017. This paper was peer-reviewed. It has been cited once at its DOI, and once more on Google Scholar.

Halvey is a Senior Lecturer in the Department of Computer and Information Sciences at the University of Strathclyde, and Course Director for the MSc in Information Management there also. His research interests include interactive information retrieval, multimodal interaction, and human computer interaction. To date, he has published 32 research papers, according to his staff page. At the time of publication of the study, co-researcher Walker was an MSc student on the University of Strathclyde Computer and Information Sciences programme. It was not possible to find information on any further research Walker has carried out since.

This essay uses the checklist presented in Bawden and Robinson (2012), p.323, as its framework for the analysis and presentation of Walker and Halvey’s research paper. That 18 point checklist is included at the end of this essay as Appendix A. All points have been answered.

A brief summary in the abstract of the paper tells us that the purpose of this research is to “conduct a UK-based assessment of oral history technology and identify the most important features that should be available in any oral history search system.” Therefore, the purposes and aims of this study are clear. The researchers used a co-design approach in carrying out interviews and focus groups to ensure that all stakeholders were involved in the process, thereby ensuring the results
were usable and robust. Stakeholders in the context of this study means: organisations, practitioners, and the public.

A framework analysis approach with elements of grounded theory was adopted for identifying themes within the transcripts. The authors acknowledge that framework analysis is similar to grounded theory, but better for research that has specific questions and a limited time frame. This enabled the researchers to design recommendations, run thematic analyses of textual data, and allow for the differing needs and statements of the focus groups; all of which were claimed to be important for this study (Walker and Halvey, 2017). However, the paper does not specify which elements of grounded theory were used, nor explain how it was used in tandem with the framework approach. It is possible that grounded theory is not the correct term for the methodology applied in this study. A study undertaken by Tan into grounded theory states that “Many GT studies are descriptive studies because they only answered ‘what is going on there’. Strictly, a GT study should answer ‘what is going on there and how’” (Becker, 1993 quoted in Tan, 2010). There is no evidence in the study that the ‘how’ was answered, only the ‘what’. Corroborating this, Bawden (2012) explains that many researchers now claim they are using grounded theory, when all they are doing is analysing qualitative data for themes (Oates, 2006 quoted in Bawden, 2012), which is what this study claims to do in the abstract and the methodology sections.

The study is not systematic or comprehensive.

Ethical Concerns, Limitations & Shortcomings

There was no external funding granted for this research, suggesting that the paper carries a low to zero ethical risk that outcomes and findings were manufactured for benefactors.

All participants were from one geographic region: Scotland. This renders the Purpose subheader within the abstract of the paper slightly misleading, which claims to be ‘UK-based’. However, the
authors acknowledge this, and suggest that the study could be used to open up further research opportunities in other regions.

Theoretical positions that appear to be held by the authors on a) the importance of access to marginalised narratives and traditionally unheard histories, and b) the need for open source software to enable this to happen, crystallise as the reader moves through the research, though as above with the practical context, these positions are not stated explicitly aside from in the analysis of their findings where they claim that technology built should be free (explored in more detail in the relevant section of this essay). This suggests that there is possibly some subjectivity present in the direction the research takes. However, the authors do acknowledge that the methodology of the research could be deemed to have elements of subjectivity, though that acknowledgement is not linked back to this specifically.

The practical context of the study is not immediately clear in the introduction, but can be deduced upon reading through the case studies where it is clarified what the needs in the field are, and whether they are being met or not. However, this paper would benefit from a summary at the beginning to explain where the field currently is in relation to the practical needs of practitioners; as well as an additional section in the Findings subheading that explores whether this has been answered in their research or not.

Of the 43 references cited in the reference list, only 41 are used. The remaining two could have been moved to a separate bibliography. The citations are presented thoroughly and usefully, in relevant sections, enabling for easy follow up.

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The introduction sets up the socio-political importance of oral history (OH) as a tradition and its potential as a tool for social change, which it does by listing and summarising several ground-breaking oral history projects that recorded and shared marginalised and minority voices, claiming
that groups falling under these categories were largely underrepresented in historiography until the late 20th Century. They summarise OH as “history from the bottom up” (Walker and Halvey, 2017). Therefore, their reasons for conducting the study would appear to be in order to explore how to build search systems holding oral history projects or material that are more easily accessible to organisations, the public, practitioners, and researchers alike, in order that these types of narratives be more widely shared and discovered.

**Literature Review**

The literature review is thorough, categorised into six subheadings: ‘oral history in the digital age'; ‘automatic transcription'; ‘benchmarking and standard practice'; ‘video'; and 'case studies'. To summarise these, they discovered that:

1) Oral history can be mapped around three key axes: cataloguing v. indexing, transcriptions v. recording, and content mapping v. data mapping.

2) Transcripts are thought to fail at conveying the emotional content of speech, with the transcription process widely considered to be the most expensive and time-consuming element of OH, although efforts by practitioners have been made to enable digital indexing using time stamps instead of transcription. This shows that as digital technologies develop there is a lesser need in the field for transcripts. However, it is also acknowledged that transcripts do remain useful for several purposes.

3) Automatic speech recognition (ASR) is highly expensive and highly specialised, thus only practical for large OH collections. OH presents complex dialogue and language that is not easily interpreted by ASR technology: resulting transcripts can miss key elements of the narrative.

4) Due to the vast range of stakeholders and technologies, it is difficult to establish standards and benchmarking for the field as a whole. Some researchers have been successful at recommending certain practices such as partnering with tech firms for affordable digital
solutions, and developing user forums, but there will most likely never be one perfect software that everyone in the field can use to meet their needs effectively. This is supported by the literature, with Sloane (2013) asserting “it is essential for us to think more about the standards for digital recording, particularly given the diversity of practitioners. A survey of [users] showed them to be archivists, historians, folklorists, linguists, videographers, IT professionals, anthropologists, and teachers, who operated out of museums, libraries, universities, and community organizations, or simply listed themselves as “other” ... how can [we] possibly recommend 'best practices' that would fit all practitioners?”

5) Video technology allows for greater interaction from all users and captures elements of interviews that audio and transcripts alone do not, for example facial expressions, which add another layer of emotional relatability. However, there are ethical considerations with video when considering sensitive material and the identification of participants.

The literature review cites 18 of the 43 references found in the reference list. The findings that this study outlines support the sources examined in the literature review, therefore synthesising and adding to the existing body of knowledge on the subject of oral history search systems.

The Research: Methodology

For this study, “five sets of focus groups and interviews were conducted, involving 1-4 participants each,” with a table listing the names and the number of participants representing each organisation (Walker and Halvey, 2017). The criteria for selection is explained clearly: they used the literature review to guide them, with the aim of involving as diverse a set of stakeholders as possible. The authors hold a background assumption that they label clearly as such, which is that the public, organisations, historians, researchers and graduates all have different user needs and backgrounds, with a diverse range of participants in this study having the potential to provide a valuable set of
results from across the board (Walker and Halvey, 2017). The participant information sheet and consent forms were not included as an appendix, nor linked to.

The general questions asked of members of the public, practitioners and organisations (stakeholders) in semi-structured interviews were:

- What is your current understanding of OH and OH technologies?
- What is your main interest in OH?
- What would be your main use of an OH archive?

The researchers disclose that they edited the questions slightly depending on who the stakeholder was, however they do not provide specific examples of these differing questions, just the general ones above. That said, this is supported by Bawden and Robinson (2012) who state that semi-structured interviews ask a number of predefined questions, with subsequent questioning depending on the responses given. However, the paper would nevertheless still benefit from the inclusion of the questions as they developed during the course of the interviews and focus groups, as being that the authors claim elements of grounded theory were used, corroborating evidence would be very useful in assessing how the questions changed as they proceeded.

Domain-specific questions differed as follows, depending on whether the stakeholder was a user (member of the public) or an organisation (designing, utilising or deploying the technology):

- What features would you consider fundamental to your organisation? (organisation)
- What search features would you consider fundamental? (public)

The focus groups had an additional secondary activity based on studies outlined in the literature review, which involved organising design features and terminologies in hierarchies of importance. This was to prompt further discussion, with ideas emerging as a result (Walker and Halvey, 2017). No record of these was provided with the study, nor is the reader directed to where they might be found.
No quantitative methods were used in the study.

Data (audio) were collected on a dictaphone, and all interviews and focus groups were held in the premises of the organisations or public libraries, with the authors claiming that these spaces afforded reliable and comfortable surroundings for the participants. This assessment is supported by Bawden and Robinson (2012) who state that “interviewees are usually more relaxed and forthcoming in their own space.” There is no statement on where the audio files were stored.

The technology used to manage transcriptions was NVivo 8.

There is no evidence within the study that the data collection instruments used were validated.

Original data is not presented, nor is the reader signposted to where it can be found, however a total of twenty-four direct verbatim quotes from participants are used throughout to support the recommendations and conclusions made.

The Research: Questions

The authors used four clear research questions (RQ's) to guide their investigation, which informed the design of the questions put to the participant stakeholders discussed above. These follow, with brief summaries of findings to outline whether the researchers answered their RQ's:

RQ1: What are the most important features that should be available in any oral history archiving and search system?

A: Transcripts, metadata, tags, keywords, multilinguality, video segments, audio, consent policies, guides and mobile applications are fundamental features of any OH search system.

RQ2: What are the current understandings of oral history and oral history technologies?
A: Current understandings are limited across stakeholders and users. There is a general understanding of the importance of preservation, access and engagement, but a general lack of understanding of the technologies already available.

RQ3: What are the different needs of numerous users and stakeholders?

A: This varies enormously depending on the needs of each party, however, the majority of participants agreed that transcripts still remained the best method of conducting OH interviews in order to meet the needs of the majority of stakeholders, with audio and video elements regarded as crucial for engaging younger and wider demographics.

RQ4: What are the major opportunities for new media tools in the near future?

A: All stakeholders emphasised the importance of mobile app technologies as tools to reach wider audiences. However, it was acknowledged that those on the other side of the digital divide would find it difficult to engage with these technologies, and those without the means to access them would also. ASR was seen as valuable, but there were concerns around reliability, cost and user-friendliness.

The results above were presented fully and clearly for the intended audience, which is primarily practitioners.

The Research: Analysis of Findings

Walker and Halvey used the five step process outlined by Srivastava and Thomson (2009) for their transcript analysis, however they do not specify the five steps in question within the paper itself, so this essay examines that paper to cross reference it with the study. Supporting Walker and Halvey’s earlier statement regarding the flexibility of using framework analysis, Srivastava and Thomson (2009) state: “Framework analysis is flexible during the analysis process in that it allows the user to either collect all the data and then analyze it or do data analysis during the collection process. In the
analysis stage the gathered data is sifted, charted and sorted in accordance with key issues and themes.”

The five steps are: 1. familiarization; 2. identifying a thematic framework; 3. indexing; 4. charting; and 5. mapping and interpretation (Srivastava and Thomson, 2009).

There were four key themes that emerged from the analysis. A summary of each follows:

**Accessibility and engagement**

This was central to all discussions about how to design an OH search system. Transcriptions were acknowledged as having downfalls, such as losing emotional content, but nevertheless agreed upon unanimously by all participants to be the foundation of OH, despite their cost. It was also found that the preferred method of access (transcriptions, timestamps, or audio/video) is largely dependent on the audience or user: overall, researchers benefit from transcripts and timestamps, and members of the public are more engaged with audio and video. The prohibitive cost of transcriptions is corroborated by multiple OH projects and archives, with Boyd stating that: “only projects that have major funding are accessible … the likelihood of raising the millions necessary to transcribe and audit [smaller] collections, however, remains very small” (Boyd, 2013).

Metadata was also acknowledged to be of paramount importance: keywords and tags made content easier to find and engage with, thus provided “a major benefit to accessibility and engagement” (Walker and Halvey, 2017).

Another key point to emerge here was that varying levels of literacy, users with aural or visual disabilities, and non-native language users, should always be taken into consideration.

In the summary of this section, the authors also claim they found that any systems designed should be “free, and attempt to avoid bias towards a particular user group or institution” (Walker and Halvey, 2017). However, this statement is not supported by the preceding paragraphs or any
included participant quotes, although Doug Boyd and his assessment of the open source web-based application, the Oral History Metadata Synchronizer, is explored in the literature review.

Ethics, consent and control

Ethics were unanimously agreed to be a fundamental concern to all stakeholders, irrespective of their priorities. Respect for a participants human dignity was one key theme that emerged, with all respondents largely acknowledging an awareness that participants must be fully aware of what they are participating in and why, how their contribution will be used, and where it will end up; thus ensuring full consent. This is supported by Perks (2002) who asserts that “there is a real danger that people’s stories are being commodified and taken out of their control, copied, used and abused without their knowledge or consent. ... mounting audio and video on the web is an extremely risky exercise from an ethical point of view.” Also deemed of great importance were: who decides how material is categorised, and an awareness of “who [is] responsible for the sharing and policing of collections” (Walker and Halvey, 2017). To these ends, multiple participants suggested user-generated platforms would be the most useful overall, with the study therefore recommending: Creative Commons style frameworks; local, national or organisational depositories of materials; policies and rules that attempt to implement a level of control and consistency; assessments of ethical and legal risks with regards to sensitive materials and consent; and allowing access to materials by request. (Walker and Halvey, 2017).

Publicity, interest and awareness

A lack of knowledge was found with regards to which platforms were available for use beyond the ubiquitous corporate brands such as YouTube, Google and SoundCloud, and although participants knew other platforms existed, overall they did not possess a wide awareness of them. The authors acknowledge that this is a major limitation of the study, claiming that the findings convey that “attention should be given to the way in which materials are marketed” (Walker and Halvey, 2017).
To increase use of search systems, the authors claim, platforms should be user-friendly, and well marketed.

**Innovative technologies and future opportunities**

All stakeholders recognised that new technologies will increase participation in, and access to, their material. User-friendliness was considered to be of paramount importance. Automatic speech recognition (ASR) was discussed, acknowledging limitations such as 25% word error rates typical of these technologies, but also stating that users are still able to locate materials with keyword searches despite this. Still, serious concerns remained over the viability of ASR due to the fact that it tends not to accurately pick up on dialects and strong accents, which are common in OH projects. This is supported by Boyd (2013), who states that “that technology is not far enough along, especially for a large-scale collection of often poorly recorded interviews containing multiple dialects.”

Apps and other mobile technologies were also discussed as a means to engage younger ‘digitally native’ audiences, with more than half the groups taking part in the study expressing an interest in developing these technologies.

**Recommendations & Conclusions**

The paper makes five main recommendations as a result, acknowledging that some of them “come with significant challenges” due to financial or other restrictions (Walker and Halvey, 2017). However, overall, these recommendations included:

- Implement platforms of engagement and ensure all user groups have been considered.
- Publicise technology well to promote wider engagement.
- Develop clear ethical and consent policies, and make these easily accessible and transparent.
- Develop mobile and app-based technologies that include video and audio segments.
- Prioritise metadata to ensure users of all backgrounds can access the information.

Despite the fact that, as illustrated above, one consensus reached was that platforms should be user-generated, this is not included in the Recommendations section of the paper.

The authors conclude that their research presents effective qualitative research that determines the most important features available in any OH search system, that was conducted with a diverse range of stakeholders to ensure that all voices were heard, and conclude by stating that their research supports and reinforces a statement by Gluck et al (1999), which is that “the human element will always remain fundamental to the field”.

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In conclusion, Walker and Halvey appear to have conducted a thorough review of the technology that is available, the awareness surrounding these technologies, the user-friendliness of existing technologies, and what is needed from new forthcoming technologies. Their research questions are met, as summarised in the section of this essay entitled ‘The Research: Questions’, and explored more in depth in the section entitled ‘The Research: Analysis of Findings’. The recommendations they make reflect this, and are easily understood by the intended audience. Therefore, it is a useful and thorough guide for practitioners seeking to know more about what should be considered when designing any such system.

However, in line with their claim that the study could be used by future researchers to explore further areas of study and include other regions of the UK, or indeed the world, it would have benefited from the inclusion of several elements that were missing. These were:

- A full list of questions as they developed and changed, including the varying ones for differing stakeholders.
- A statement on where the audio was stored.
- Participant Information Sheet and Consent Form.
- Records of the secondary focus group activity on hierarchies of importance.

The claim that technology being built should be free and attempt to avoid bias would have benefited from supporting quotes or evidence. It is an extremely valuable and arguably ethically sound recommendation, but needs support so that practitioners can feel justified in seriously considering how they might facilitate this.

Sturges (2012) in his piece about using imagination in LIS research, implores us - when dealing with findings and drawing conclusions - to “discover what is significant and explain why”, instead of simply “recapitulating the most interesting findings”. At the beginning of the paper, Walker and Halvey remind us of the socio-political, moral and historiological reasons why we should concern ourselves with the development of effective, user-friendly search systems for oral histories: they are narratives far less heard in the mainstream, and deserve amplification. Therefore, this study would have benefited enormously from linking back to this idea in the conclusion, and explaining how the findings and recommendations would support this laudable and arguably valid assessment of the meaning and importance of oral history in 21st Century UK.

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REFERENCE LIST


BIBLIOGRAPHY


Appendix A - Framework for Analysis


(Disclaimer: this list has been reordered in accordance with the order in which the items were checked off within the essay).

1) Who did the study and what do we know about them?
2) Where was it published?
3) Has it been peer-reviewed?
4) Is the purpose clearly stated, can the research questions be understood?
5) Are any background assumptions, presuppositions, theoretical positions stated clearly?
6) Is the context stated clearly, and is there an appropriate literature review?
7) If the review is claimed as comprehensive or systematic, is it so?
8) Are the methods clearly described, and are they appropriate to answer the questions?
9) If a questionnaire or other data collection instrument is used, is it fully described and has it been validated?
10) Are the results presented fully and clearly? Are the original data given, or is it stated where they can be found?
11) If it is a quantitative study are appropriate statistical techniques used; and are the data presented in appropriate tabular and graphical forms?
12) Are the findings integrated with previous work?
13) Is there any evidence of bias, or undue subjectivity?
14) Have the authors cited relevant literature and have they interpreted it correctly and fairly?
15) Do the authors draw appropriate conclusions from the findings? Do they answer the questions that the study was designed to answer?

16) Is the practical relevance of the findings clear?

17) Are there any ethical issues; is it clear how the work has been funded, and does this matter?

18) Are the style and presentation appropriate for the intended readers?