

Proposal for the 50th Annual Meeting of the Social Sciences History Association

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Title: Harnessing AI to Uncover and Disseminate Complexity in the Oral Histories of Historic Ranchers: An Ethnographic Approach

Abstract:

This paper proposes an exploration of ethnographic methods enhanced by Artificial Intelligence (AI) to address two critical aspects of studying oral histories of ranchers: (a) preparing a nuanced literature review taking into account the varied stakeholders, including indigenous prior occupants of ranch lands, and (b) disseminating videotaped oral histories effectively to libraries, researchers, and trade associations. By integrating AI tools into the analysis and dissemination processes, this research seeks to uncover the complex interplay between historical agency and emergent structures in the social and economic practices of ranching communities. The application of AI offers new insights into interdependence in systems, dynamic social processes, and network properties inherent in these oral narratives. This study aligns with the SSHA's 2025 conference theme, addressing the potential and limitations of AI in understanding historical complexity and advancing methods for capturing emergent phenomena in history.

Background and Objectives:

The oral histories of ranchers provide a rich, yet underutilized, lens for examining the socio-economic transformations of rural communities. These narratives are embedded with emergent phenomena such as adaptive strategies in response to environmental and market shifts, social coordination within ranching networks, and intergenerational knowledge transfer. Two notable examples are the 350,000-acres grazed by the Indian Creek Cattle Company in and around the Dugout Ranch in Southern Utah and The Tavaputs Ranch's 1,200-head cattle-, big-game-hunting, and tourist-ranch in Eastern Utah. Ranch owner/operators in both these locations are pioneering advancements in the science of cattle ranching, grazing practices, grassland management, and feed optimization in response to climate challenges such as higher temperatures and drier conditions. Both ranching families have been recognized for their exemplary land stewardship and conservation practices. Yet, traditional ethnographic methods have failed to comprehensively analyze and contextualize such multi-layered and relational data about who conducts this land conservation. This paper proposes leveraging AI to overcome these challenges through two primary objectives:

1. **Background Literature Review:** Using AI-driven tools to systematically review and synthesize existing literature on ranching histories and oral traditions, highlighting key patterns, themes, and gaps that frame the complexity of these narratives.
2. **Dissemination of Videotaped Oral Histories:** Employing AI for automated transcription, thematic coding, and public dissemination of videotaped oral histories to enhance accessibility and engagement with these narratives.

Methodology:

1. **AI-Enhanced Literature Review:** Researchers at the David Eccles School of Business and the Natural History Museum of Utah are employing AI tools like natural language processing (NLP) algorithms and topic modeling to analyze a corpus of scholarly works on ranching, oral histories, and socio-economic history. This process will identify emergent themes and interconnections that shape the broader historical understanding of ranching practices. Interestingly, Cattle ranchers often keep the exact number of their cattle herd a secret due to factors that include competitive pricing, potential for theft, and the desire to avoid attracting unwanted attention or scrutiny. AI can help “tell” what ranchers don’t necessary disclose.
2. **Analysis of Oral Histories:** Ethnographic interviews with ranchers from The Dugout Ranch and The Tavaputs Ranch will be videotaped and transcribed using AI-powered tools. Subsequent analysis will employ machine learning models to detect recurring patterns, networks of influence, and feedback loops within the narratives.
3. **Dissemination Strategies:** Leveraging AI for video summarization and interactive platforms will make the oral histories accessible to diverse audiences, including scholars, policymakers, and the ranching community itself. This approach will explore how AI can aid in scaling up ethnographic research while preserving the authenticity of individual stories.

Addressing Complexity:

This research contributes to the conference’s focus on complexity and its consequences by:

- Examining the emergent dynamics in ranching communities through their oral histories, providing insights into their adaptive and networked practices.
- Evaluating the role of AI as a tool for managing and interpreting complex historical datasets, as well as its limitations in capturing the nuances of human agency and cultural specificity.
- Proposing methods to address aggregation and scaling challenges in ethnographic research, demonstrating how AI can bridge micro-level narratives with macro-level historical processes.

Significance:

This study aligns with the SSHA’s interest in leveraging new tools to build site-specific models of historical change and understanding social coordination problems. By focusing on ranchers’ oral histories, particularly from Utah’s Dugout Ranch and Tavaputs Ranch, it also highlights the relevance of grassroots perspectives in shaping broader socio-economic patterns. Ultimately, this paper seeks to advance the methodological integration of AI in social science history, offering both theoretical and practical contributions to the field.

Integrating AI into the ethnographic study of ranchers’ oral histories presents a promising avenue for uncovering the complexity of historical processes. This approach not only enhances the analytical capacity of researchers but also democratizes access to historical narratives, fostering a deeper understanding of the interdependence and emergent dynamics within rural socio-economic systems.