

## **NLP-based Topical Analysis and Comparison of "Molokai" by Alan Brennert and "Night Calypso" by Lawrence Scott**

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This research presents a method for literary analysis that employs automatic topical analysis. It examines the novels "Molokai" by Alan Brennert and "Night Calypso" by Lawrence Scott. By utilizing *natural language processing* (NLP) techniques, this study delves into and compares how each novel addresses the themes of belief systems, human relationships, health care, and the body. Our approach also allows for a more detailed analysis by subdividing the themes into sub-themes. For instance, human relationships are further divided into those dealing with relatives, friendships or authorities.

We use the outputs of the NLP system to analyze the historical, societal, and cultural context of leprosy colonies. We then utilize a postcolonial theoretical perspective to support the analysis. This approach allows us to reveal the insightful ways Brennert and Scott delve into the human condition under extraordinary circumstances. Both novels offer a remarkable account of life within a leprosy colony. Furthermore, they uncover the external factors that shape the communities' response to leprosy.

The comparative analysis underscores the relevance of the selected themes as lenses through which the authors explore the multifaceted experiences of their characters, shedding light on public attitudes towards the ill and the marginalized and colonized subjects. This study enhances our understanding of the thematic richness of "Molokai" and "Night Calypso" and highlights the potential of NLP tools to help uncover insights into literary texts. By combining NLP-based topical analysis with the postcolonial theoretical perspective, this study contributes to digital humanities and literary studies, offering a model for future research to explore the complex interplay of themes in literary works.