**Ethical Consumption Before Capitalism**

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### 1. Introduction

What does ethical consumption entail? Today, it often means making purchases that involve more environmentally-friendly materials and laborers working under fair conditions. But how was the concept of ethical consumption different during the Early Modern period in pre-capitalist Europe? **The objective of this project is to analyze the relationship between consumption and ethics.** We used philosophical and religious understandings of ethics to analyze specific consumption items. We used sentiment analysis to understand the sentiments surrounding each consumption item and cosine similarity to see how consumption items relate to each understanding of ethics. Our initial dataset of 60k texts came from Early English Books Online (EEBO), and after filtering for relevant texts that are within our date range (1580-1630), we had a dataset of 10.1k texts.

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### 2. Preliminary Text Organizing

#### Text Cleaning and Normalizing
- Cleaned for Bag-of-Words (BOW) model
- Normalized spelling with VARD

#### Topic Modeling
- Document Term Matrix to calculate frequency of terms + Latent Dirichlet allocation (LDA) to match text to topic
- Filtered for relevant texts using topic modeling by creating a lexicon

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### 3. Methods and Results

#### Sentiment Analysis

- Created “context windows” (5 words before and after a word) around consumption words we wanted to analyze
- Conducted dictionary-based sentiment analysis using VADER

Fig. 2 & 3: descriptive statistics (left) and distribution (right) of sentiments for five key consumption items

#### Cosine Similarity

- Beer and Tobacco are mostly associated with positive sentiments—likely because these intoxicants were considered sophisticated
- Wool has negative outliers possibly due to metaphors and landowners evicting tenants to increase wool production

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### 4. Future Directions and References

- Explore negative cosine similarity relationships
- Develop Word Frequency Graphs to discover other consumption items for analysis
- Research ways to distinguish metaphorical language from literal language
- Restructure lexicons for text filtering

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### Other Links

To see our references and details about our work, please check out our website and our github.

Website: [Link]

GitHub: [Link]

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**Fig. 1:** visual of topic modeling output in R

**Fig. 4 - 8:** Cosine similarity between consumption items and religious and philosophical terms over time