Literature Review Synthesis Matrix

A synthesis matrix is one way to organize your sources. You can compare, contrast, and categorize your different sources by key concepts, themes, or main ideas. This visual representation of how your research relates will help you organize your sources logically and efficiently.

Instructions:

Complete this matrix by identifying your key concepts, and then write down a few bulleted notes on each source. Note the page numbers if you include direct quotes or paraphrases of specific ideas.

A template is on the next page, followed by an example. In Microsoft Word, click anywhere in the table and then use the Layout tab in the Table Tools to insert additional rows and columns as needed.

# Template

**My research question:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Methods** | **Concept 1:** | **Concept 2:** | **Concept 3:** | **Gaps, Problems,Unresolved Questions,****Notes on Sources** |
| **Source 1:**Citation |  |  |  |  |  |
| **Source 2:**Citation |  |  |  |  |  |
| **Source 3:**Citation |  |  |  |  |  |

# Example

**My research question:
How can we use machine learning to analyze social media data related to HIV?**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Methods** | **Concept 1:****Social Media Data** | **Concept 2:****HIV** | **Concept 3:****Machine Learning** | **Gaps, Problems,Unresolved Questions,****Notes on Sources** |
| **Source 1:**Signorini, A., Segre, A. M., & Polgreen, P. M. (2011). The use of Twitter to track levels of disease activity and public concern in the U.S. during the influenza A H1N1 pandemic. *PloS one*, *6*(5), e19467. | Collected and stored a large sample of public tweets that matched a set of pre-specified search terms and geocoded. Estimated rate of disease and public sentiment toward swine flu | * Able to make predictions about swine flu using social media data
* This data is vital given that “an influenza surveillance program does not exist” (p. 3)
 |  |  | “When and where tweets are less frequent (or where only a subset of tweets contain geographic information), the performance of our model may suffer.” |
| **Source 2:**Chiu, C. J., Menacho, L., Fisher, C., & Young, S. D. (2015). Ethics issues in social media–based HIV prevention in low-and middle-income countries. *Cambridge Quarterly of Healthcare Ethics*, *24*(3), 303-310. | Quantitative survey assessing participants’ perspectives on educational intervention | * Increasing social media use in low- and middle-income countries
* Participant took part in an HIV education program on Facebook
 | * Most participants felt like they benefited positively from the program and learned about HIV prevention
* All participants were MSM
 |  | * Note: Helpful article for including diverse perspectives
 |
| **Source 3:**Bollen, J., Mao, H., & Zeng, X. (2011). Twitter mood predicts the stock market. *Journal of computational science*, *2*(1), 1-8. | Collected public tweets and analyzed mood | * Gathered data from Twitter posts that explicitly states moods (e.g. “I’m feeling…”)
* Found that positive/negative sentiment on Twitter is 87.6% accurate for predicting stock market average
 |  | * Used a “Self-Organizing Fuzzy Neural Network” to predict Dow Jones Industrial Average (p. 1)
 |  |

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