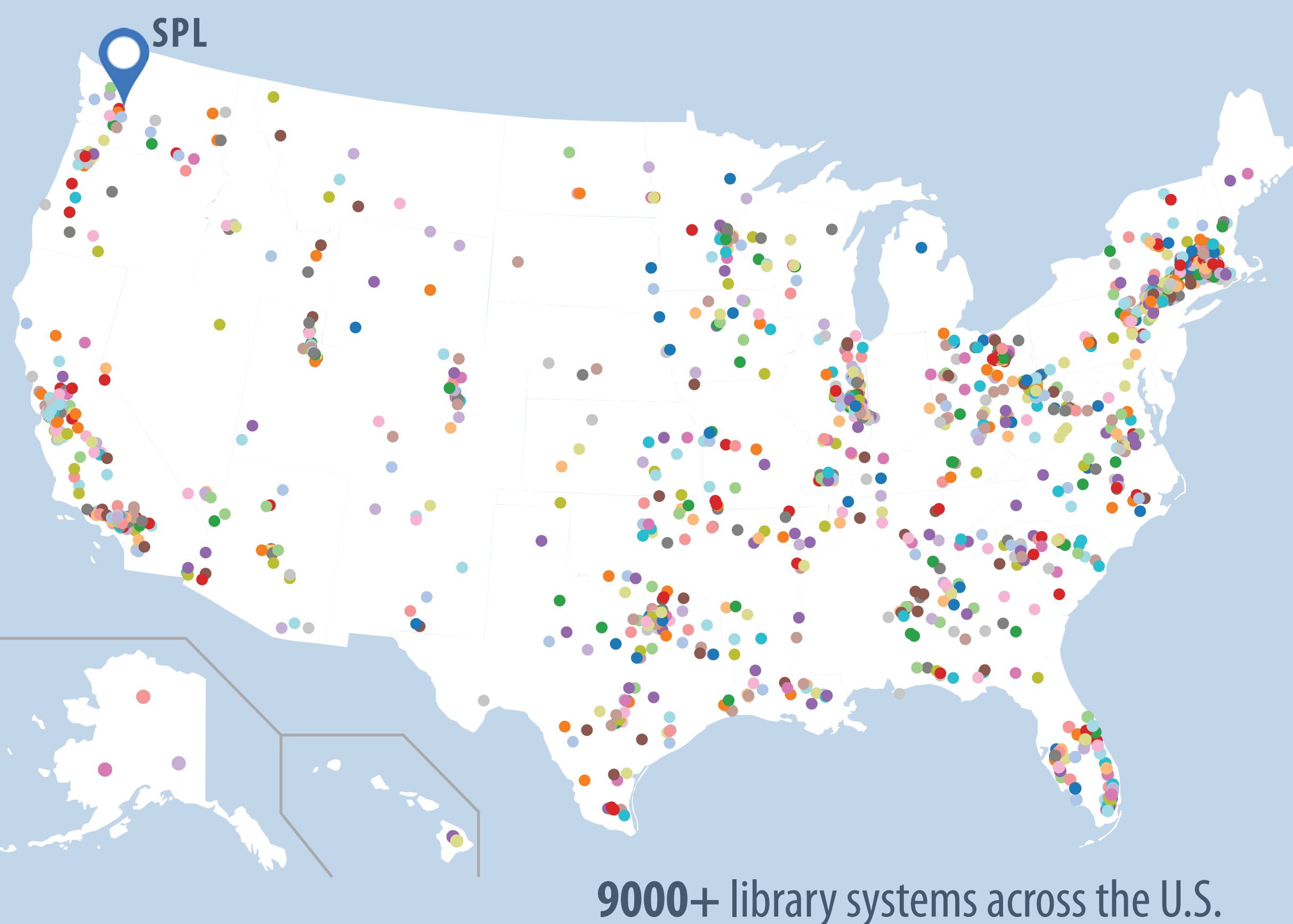


PROBLEM STATEMENT

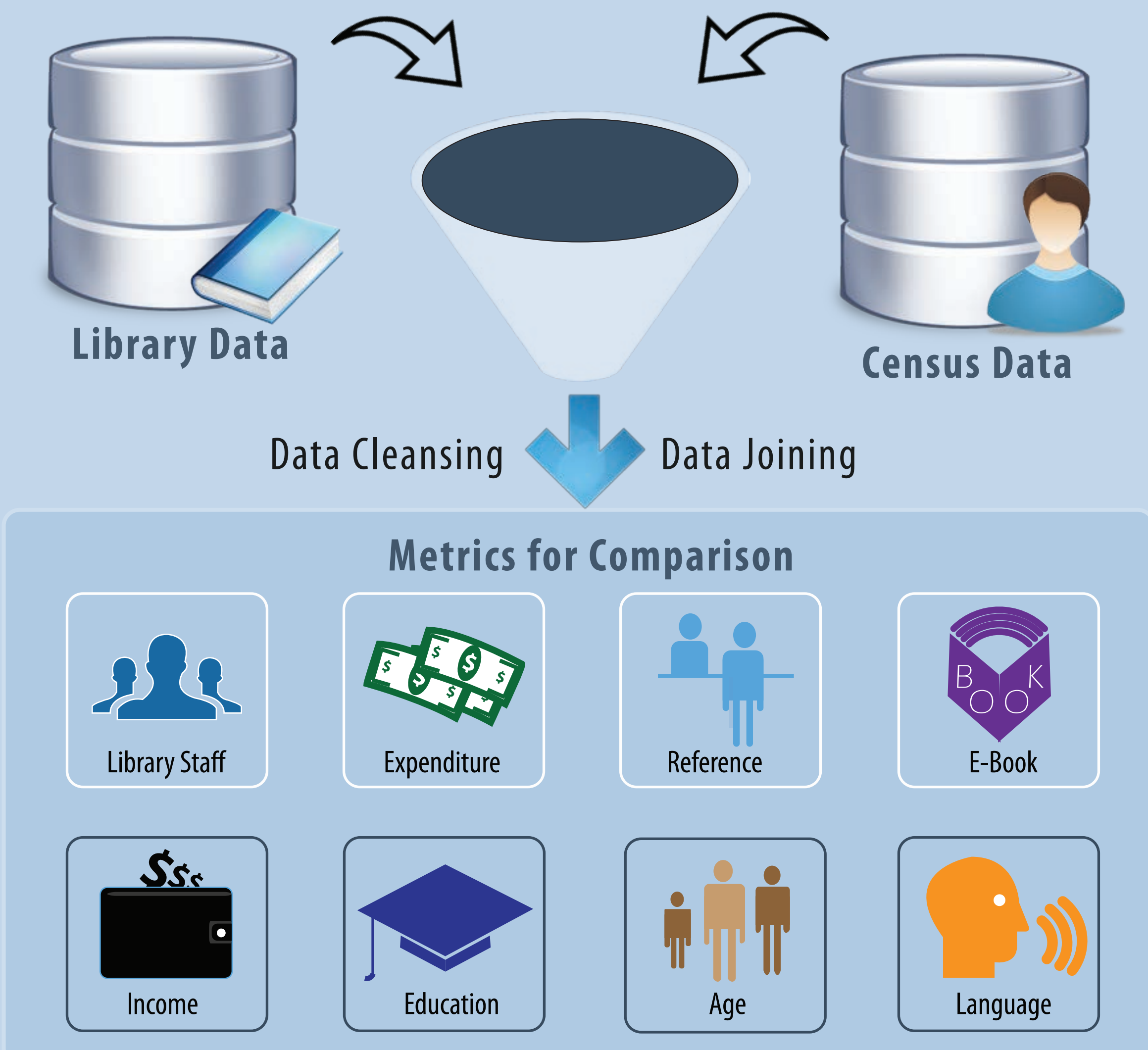
With approximately 9,000 public library systems across the United States, the Seattle Public Library (SPL) faces the challenges of identifying a network of similar library systems for collaboration. The current comparison and analytics are somewhat basic and only take library measures into consideration. These measures do not capture the complexity of the diverse communities in which the libraries are rooted.



PROJECT GOALS:

- Build on existing measures & incorporate demographic data to enable a holistic comparison
- Apply rigorous statistical analysis methods to improve accuracy

PROJECT APPROACH



Market Segmentation, PEST Analysis and previous library studies were used to identify the metrics that would be most relevant for analysis. The library and census datasets were joined using the city and state attributes.

DATA ANALYSIS:

- Standardized the relative scales of the metrics being measured to remove potential biases
- Applied the Euclidean Distance concept to analyze the magnitude of differences between the various metrics
- Tools Used: R Studio & R Shiny



RESULTS



LibCompare: The Library Comparison Tool

Library Metrics Census Metrics

Library Comparison Dataset

10 records per page Search: _____

Rank	Similarity	Library
1	2.843240	FL0035: HILLSBOROUGH COUNTY PUBLIC LIBRARY COOPERATIVE
2	3.074846	IN0210: INDIANAPOLIS-MARION COUNTY PUBLIC LIBRARY

Population of Legal Service Area
 Total Staff
 Total Operating Expenditures
 Print Material
 Electronic Books (EBooks)
 Audio Physical Materials
 Video Physical Materials
 Library Visits

The Library Comparison Tool enables flexible comparison to accommodate various analysis and ongoing studies. Users can select from any combination of 23 identified metrics to use in their search.

IMPACTS:

Enable SPL to identify similar library systems to learn from and collaborate with.

MSIM 2014 Candidates

- Huong Ho
- Nadee Ritviroon
- Xinxin Dong
- Wenbin Wu

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