



# UTILIZING TEXT DATA IN STRUCTURAL EQUATION MODELING

**Professor Zhiyong Johnny Zhang**  
**Professor in Quantitative Psychology**  
**The University of Notre Dame**

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**16:30 – 17:45**

**Room 401-402, Meng Wah Complex, HKU**

**Chair: Professor Jinsong Chen**



REGISTRATION

## **Abstract:**

Qualitative text data are widely collected in research and can come from many different sources. Compared to quantitative data collected through Likert scales, text data can provide more nuanced information. However, text data are largely underanalyzed in social, behavioral, and educational research. In this study, we present a general framework that treats text data as a new type of variable in structural equation modeling. A two-stage method is used to first extract information from the text data through a variety of approaches, including modern AI methods. We show how to conduct analyses with text data using the R package TextSEM that we developed, through a variety of examples.

## **About the speaker:**

Professor Zhiyong Johnny Zhang is a Professor in Quantitative Psychology at the University of Notre Dame. He is the director of the Lab for Big Data Methodology at Notre Dame. His research aims to develop improved statistical methods and software for applications in education, health, management, and psychology. He has conducted research in the areas of Bayesian methods, big data analysis, structural equation modeling, longitudinal data analysis, mediation analysis, and statistical computing and programming. His most recent research involves the development of new methods for social network and text analysis. He has published over 100 peer-reviewed articles and book chapters. Professor Zhang is a Fellow of the American Psychological Association and an elected member of the Society of Multivariate Experimental Psychology. He has received multiple awards, including the SMEP Early Career Award, the American Psychological Association Division 5 Jacob Cohen Award for Distinguished Contributions to Teaching and Mentoring, and the Joyce Award for Excellence in Undergraduate Teaching at the University of Notre Dame. Professor Zhang is the founding editor of the Journal of Behavioral Data Science.



All are welcome!