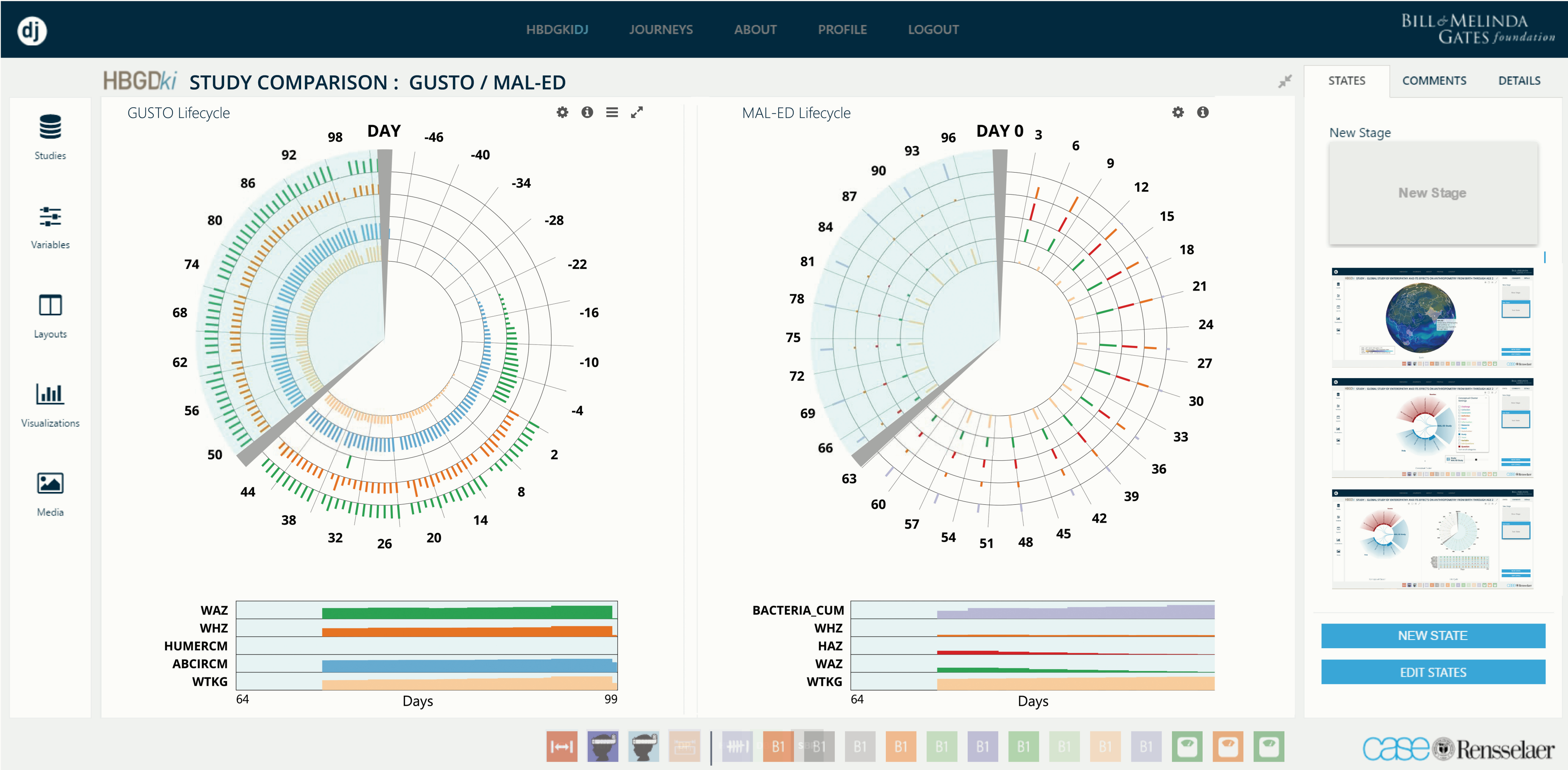


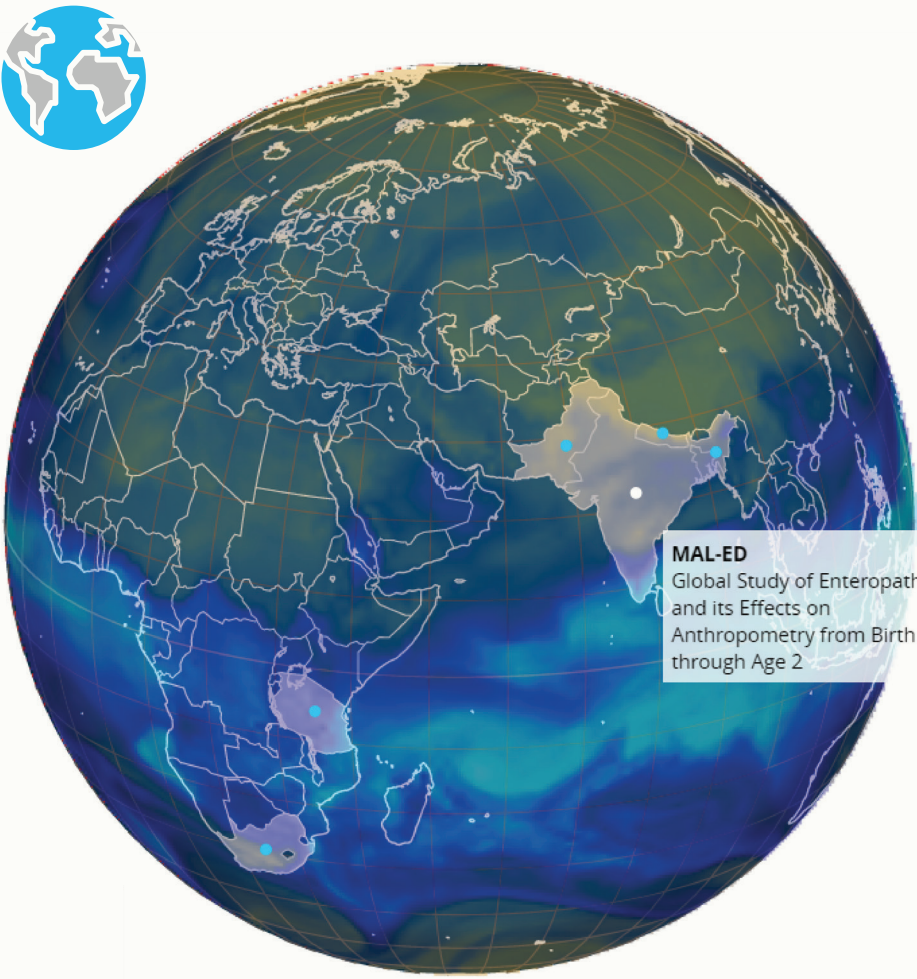
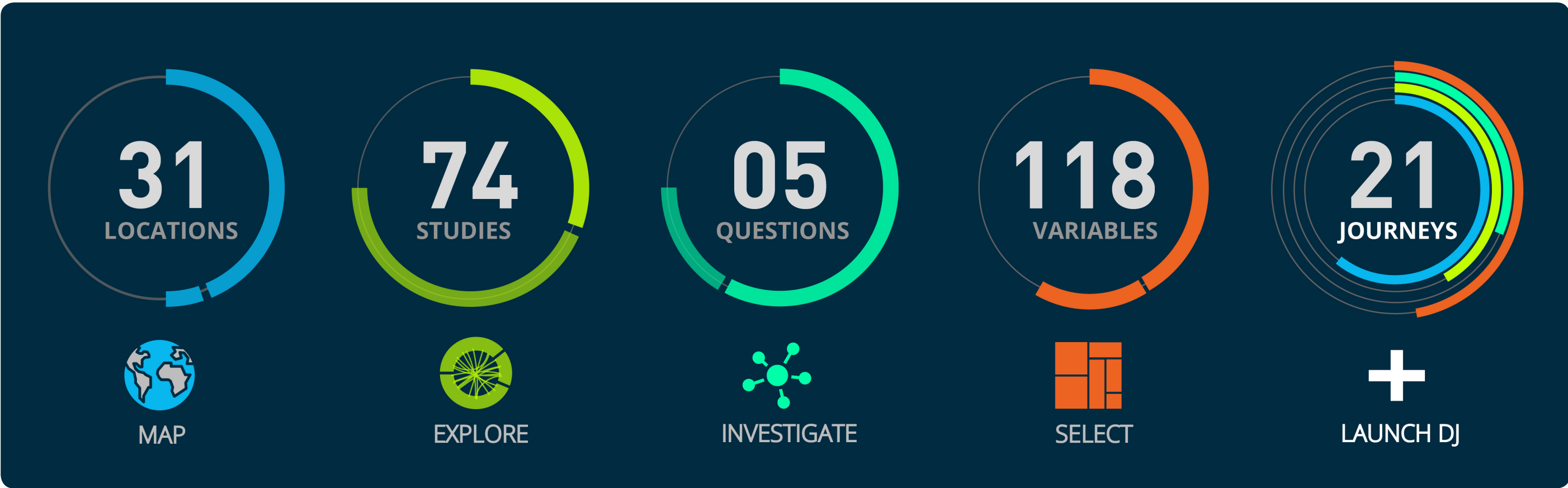
Data Journey (DJ): Data Visualization Framework

ANNA DYSON, NAOMI KEENA, MOHAMED ALY, JAMES MCCUSKER, CHRISTOPHER PREUSCH, PAULO PINHEIRO, KATIE CHASTAIN, JOHN ERICKSON, DAVID ISAACSON, KRISTIN BENNETT, DEBORAH MCGUINNESS, JOSH DRAPER, MARSHALL JAMES, ALEXANDER SCHWARTZBERG, ASHER NORLAND, MANDI PRETORIUS, VIVIAN LIN
Center for Architecture Science and Ecology (CASE) and Tetherless World Constellation (TWC), Rensselaer Polytechnic Institute (RPI), Troy, New York, USA



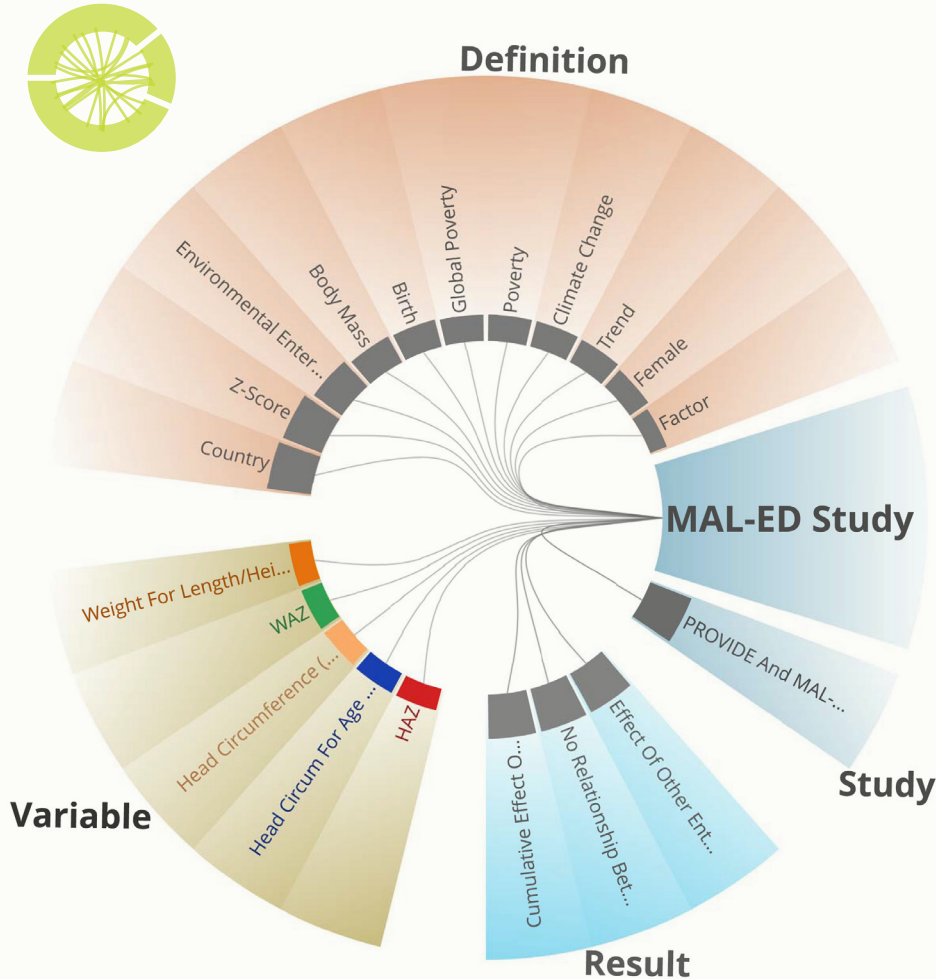
OBJECTIVE

Data Journey (DJ) is a novel interactive visualization framework for HBGD*ki* data. The aim of DJ is to facilitate the acquisition of unanticipated and disruptive insights and discoveries, by enabling the comparison across a far greater range of heterogeneous data types and analysis techniques across multiple scientific and socio-demographic categories and scales — from metadata to microdata. Through the development of an interactive dashboard, users can juxtapose and recombine the HBGD*ki* data and data analyses across diverse studies, variables, methods, and participants.



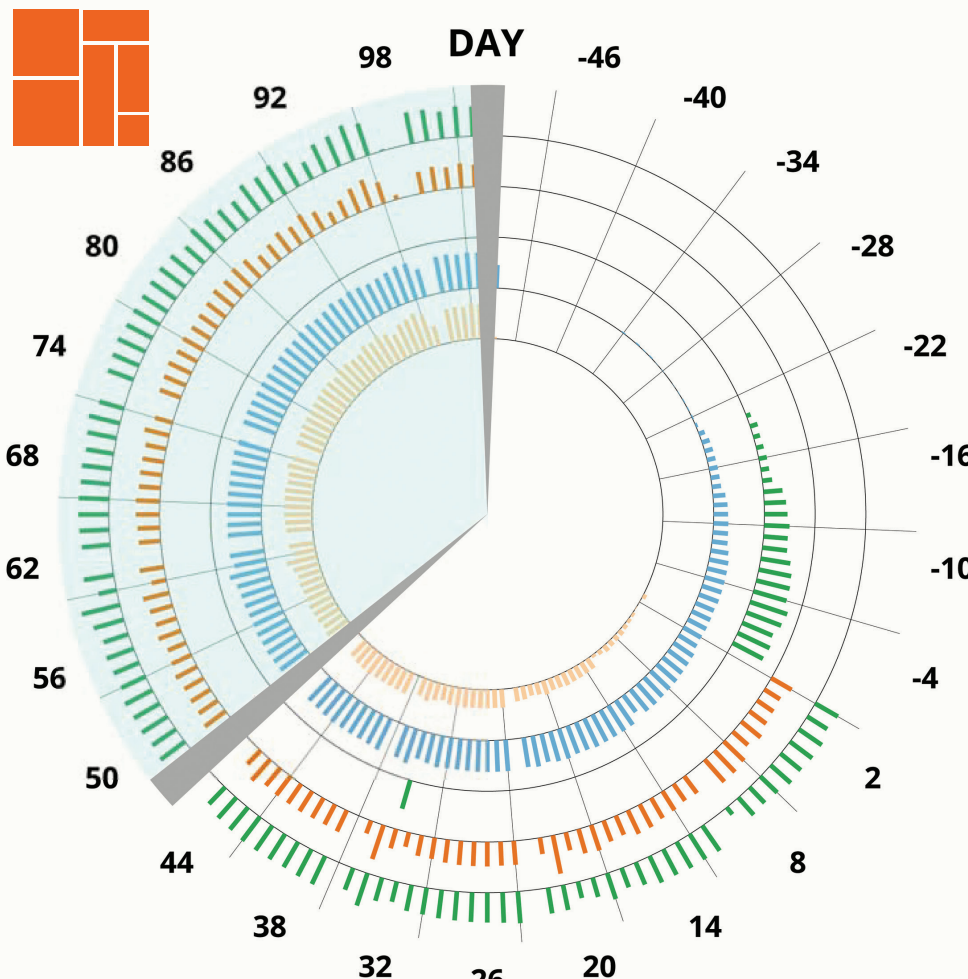
GLOBAL VISUALIZATION

The globe visualization geo-locates HBGD*ki* studies and overlays different climate conditions using open source weather data.



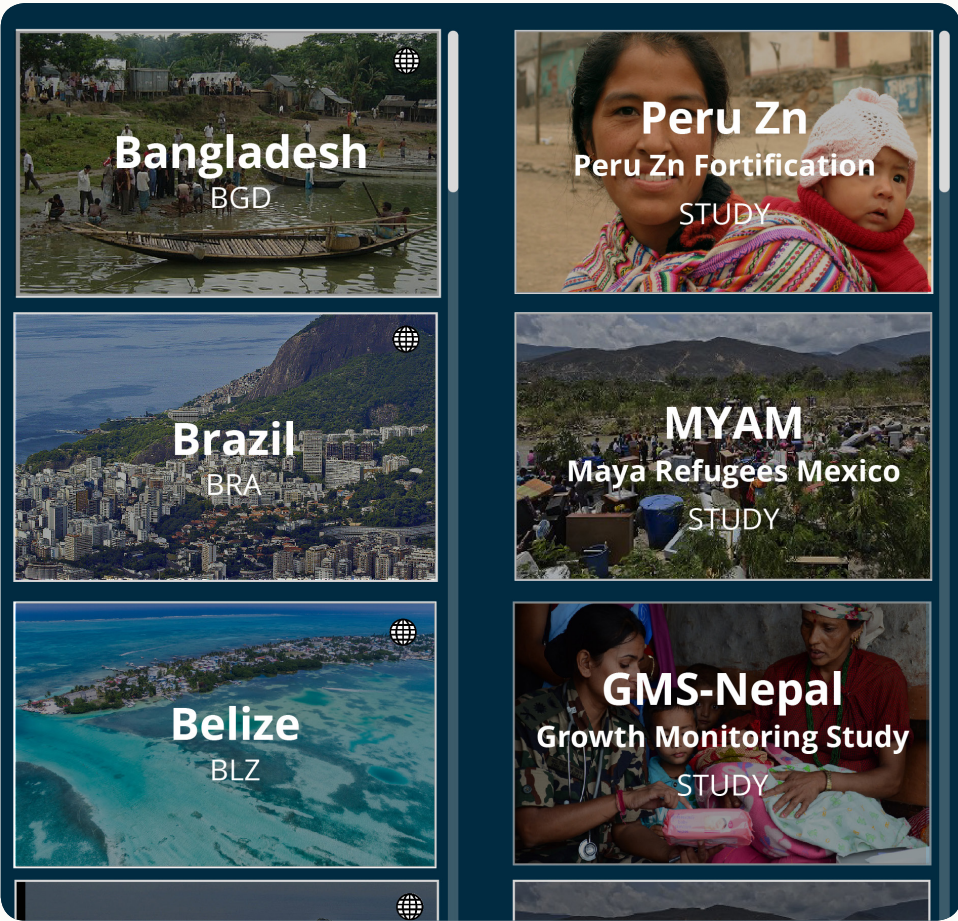
CONCEPTUAL CLUSTER VISUALIZATION

Connected to kikm nodes this visualization shows the relationships of a dataset in terms of how it relates to other datasets, which teams are working with it, what results have been founded, what variables are being considered as well as other metadata relationships.



LIFE-CYCLE VISUALIZATION

This visualization shows variables over the life cycle of a child from conception up to the first 1000 days. A brush mechanism allows ranges of data to be selected and viewed at higher resolution.



DATA STORY-MAKING

DJ allows users to see and show data within its context: to capture, annotate, create and share data stories, and to allow the user to integrate their own interactive data visualization tools. An initial filters page allows users to explore and filter all the HBGD*ki* data with DJ via locations, studies, questions and variables.

ACKNOWLEDGMENTS

The DJ team would like to thank the following for their funding and support: Center for Architecture Science and Ecology (CASE), Skidmore, Owings & Merrill (SOM), New York State Energy Research

and Development Authority (NYSERDA), U.S. Department of Energy (DOE), National Science Foundation (NSF), National Institutes of Health (NIH), IBM, and the Bill and Melinda Gates Foundation HBGD*ki* Initiative.