

INTEGRATING STATISTICAL THINKING INTO HIGH SCHOOL SCIENCE CURRICULA WITH RSHINY APPLETS

Jack M. Wolf, Kody DeGolier, and Marta Shore
University of Minnesota Division of Biostatistics

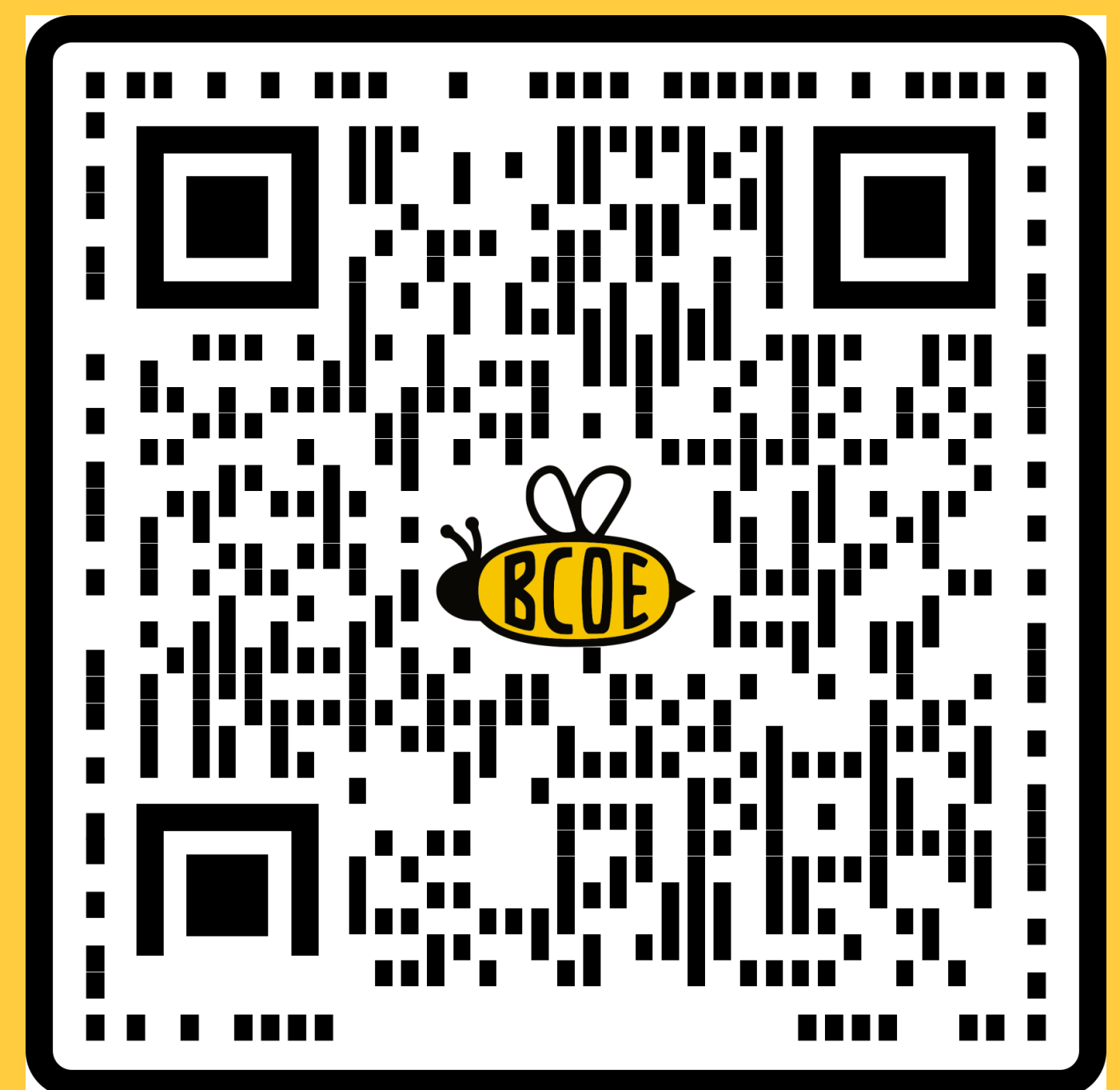
APPLET GOALS

- Allow high school students to explore and interpret quantitative environmental data
- Use local and timely environmental data relevant to students' lived experiences
- Create an interactive RShiny applet to get students investigating without requiring training in data cleaning or modeling

THE MINNESOTA AIR QUALITY APPLLET

- Analyze PM 2.5 concentrations at 27 air quality monitoring sites across the state of Minnesota from 2015-Present
- Engage in multivariate thinking using possible predictors of PM 2.5 such as distance to the nearest interstate highway, daily precipitation, and day of the year

VIEW THE APPLLET



bcoeumn.shinyapps.io/MNAirQualityApp/

DISCUSSION

- Currently used in 9th-grade earth science curriculum in St. Paul Public Schools
- Encourages future collaborations between data science researchers and high school educators/students to create tailored applets to promote quantitative thinking

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