Why Would We Use Functional Data Analysis Over Other Approaches?

Use over multivariate analysis techniques as often have a very large number of observations that dexribe an underlying process which can lead to massive amounts of calculation

Or have too few points and so extrapolating from data is dangerouis unless treated as functional.

Apparently gives access to more information than non functional data

Allows access to derivatives of functions as well so can explore similarities in data that may not be apparent otherwise

Find reference which covers functional data derivatives a bit better