**Week 2 Discussion**

What do we mean when we say we ‘vectorize’ an operation in R? How do you think you can apply vectorized operations in your R code? Your response should be one paragraph and you need to respond to three other student’s posts.

Yale’s Center for Research Computing states that “(m)ost of R’s functions are vectorized, meaning that the function will operate on all elements of a vector without needing to loop through and act on each element one at a time. This makes writing code more concise, easy to read, and less error prone.” [[1]](#endnote-1) Before finding this definition, I had not considered that R was doing this. In MatLab, where most of my experience lies, this is not the case. Instead you find yourself writing for and if loops that go through each element of a vector, performing the operation individually on each element. The code required to do this is cumbersome and must be written carefully to avoid errors or missing an element. Since R has vectorized operations it will be much easier to simply combine or edit elements of one or more vectors without an if loop. I can see that this will make my code simpler. I envision using it to transform each element of a vector at once, quickly resulting in the next layer of information needed.

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[1] https://docs.ycrc.yale.edu/r-novice-gapminder/09-vectorization/

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