R Mapping

1. GDAL – open source raster and vector
   1. DB?
2. Mapping – self/ overlay
3. interactive map

I am still not feeling grounded with this topic, but I am just starting to get the landscape of spatial mapping and can kind of understand why lessons that put it all together are far and few.  I have put the questions that I am exploring next in red.  Feel free to help with these questions, comment, critique, or criticize.

So, to start with, we need to unpack the description for the ***pf*** package:

Support for simple features, a standardized way to encode spatial vector data. Binds to 'GDAL' for reading and writing data, to 'GEOS' for geometrical operations, and to 'PROJ' for projection conversions and datum transformations (GPS- curve to flat).

Do we do anything with the second and third part of that statement (GEOS and PROJ)?

The GDAL part is crucial because GDAL is an open-source consortium that has both created an open-source raster and vector format and the tools to convert any other raster or vector format to their format.  Well, I think they can convert any other – I am not sure on the completeness, but the internet is pretty excited about GDAL.  If GDAL’s claim are true, then any lesson starts here.  We tell people about this consortium and how ***pf*** links to the tools the consortium created.  The we would tell them about the various raster and vector format that are out there, but we do not go into detail because, inevitably, we are just converting them into the GDAL format.

What about databases?  There is a lot of data out there that is not downloaded as a file but queried to a database.  Does ***pf*** handle database queries in a similar way to downloaded files?  I feel it should because the queried data from the database can just be written to a data file – but I do not know this answer.

Once we have the data portion of our lesson fleshed out the next part is mapping.   Obviously, there are mapping package that you can overlay shapefile data.  Is there such a thing as shapefiles that create their own map?  In other words, the shapefile is also a map and not meant to be overlaid on an existing map.

The last part of the lesson will be interactive maps, which ironically, I think is the easiest to teach.