Considerations for Information Accessibility of Very Large Datasets

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Accessibility is a complex property of information, a composite of several different indicators that measure the ease with which one can get to and work with information from another source. These different indicators of accessibility scale differently with the size and scope of information. As the datasets get bigger, some indicators remain constant, some scale linearly, while others may scale in a more accelerated manner. At the University of Wisconsin Carbon Modeling group, we are building a very large, spatially accessible U.S. national climate dataset for ecosystem process modeling that is bringing up unique challenges and lessons for accessibility in the multi-Terabyte scale datasets. This paper describes the problem, and the information accessibility challenges and lessons learned while putting together its solution.