I am strongly against requiring scientists to publish their source code. I recognize and endorse the fundamental objectives of ensuring reproducibility and providing the maximum reasonable value to any funding source, government or private. However, these objectives have long been part of the normal processes of peer-reviewed publication. Just because source code is portable does not mean it is different from other investments of the time and intellectual capital of scientist.

The clearest analogy is a laboratory: there is no requirement to aid others in using a painstakingly constructed and maintained laboratory nor even to allow access. If equipment was government-funded, it can be returned at some future date if contractually required without providing every implementation detail. Government-funded computers can similarly be returned without providing the details of what made them scientifically useful.

Before implementing any new policy, NASA should review the results of the upcoming NSF study on Reproducibility and Replicability in science. This study is specifically aimed at spotlighting the causes of and identifying remedies to these issues. It is not clear that simply seizing source code from researchers will fix any root cause of incomplete reproducibility, where it may exist. The NSF report will be completed in late 2020.