**Benefits of Open Data**

Open data is beneficial for both individual researchers and science, because it facilitates the spread of knowledge and improvements in research. Piwowar says open data allows scientists to develop new hypotheses, see multiple perspectives on different research, and identify errors. In fields where p-hacking and false positives run rampant, such as psychology, open data discourages fraud and makes replication more likely (Piwowar). There have even been studies that show “papers with publicly available datasets receive a higher number of citations than previous studies without data” (Piowar). However, open data must be clear and understandable to successfully replicate and experiment, which is a prerequisite for verifiable research (TYS). While some may say that open data is not necessary because scientists can just share data when they are requested to, Rouder says that only a small percentage of those scientists end up sharing their data.

Open data already has a history of being successful. In the 1990s, when researchers were trying to decode the human genome, open data made it possible for many individuals to collaborate (TYS). Those involved met in 1996 to discuss how they would go about the decoding process and manage their data (TYS). Considering the massive importance of the Human Genome Project, it can be said that open data has already had a large impact on science.

Fortunately, with the advancement of technology and the widespread use of the internet, open data has come a long way even since the 1990s. There are multiple repositories that researchers can take advantage of when they wish to make their data open. GitHub, Figshare, Dryad, and Open Science Framework are just a few of these (Rouder).

Rouder and his team of researchers use what they call “born-open data.” All of their data is on Github and it updates itself nightly so that the researchers do not have to go in and update everything themselves. This has helped his team avoid much of the hassle associated with open data. Additionally, since Github has institutional support, they do not have to worry about anything happening to their data for decades (Rouder).