Overall, the likelihood of retrieving data dropped by 17% each year after publication.[15] Similarly, a survey of 100 datasets in Dryad found that more than half lacked the details to reproduce the research results from these studies.[16] This shows the dire situation of access to scientific data that is not published or does not have enough details to be reproduced.

A solution to the problem of reproducibility is the attempt to require FAIR data, that is, data that is Findable, Accessible, Interoperable, and Reusable. Data that fulfills these requirements can be used in subsequent research and thus advances science and technology.[17]

In other fields [edit]

Although data is also increasingly used in other fields, it has been suggested that the highly interpretive nature of them might be at odds with the ethos of data as "given". Peter Checkland introduced the term *capta* (from the Latin *capere*, "to take") to distinguish between an immense number of possible data and a sub-set of them, to which attention is oriented.[18] Johanna Drucker has argued that since the humanities affirm knowledge production as "situated, partial, and constitutive," using *data* may introduce assumptions that are counterproductive, for example that phenomena are discrete or are observer-independent.[19] The term *capta*, which emphasizes the act of observation as constitutive, is offered as an alternative to *data* for visual representations in the humanities.

The term **data-driven** is a neologism applied to an activity which is primarily compelled by data over all other factors.[*citation needed*] Data-driven applications include data-driven programming and data-driven journalism.

See also [edit]

- Biological data
- Computer data processing
- Data mining
- Data modeling
- Data-driven learning
- Data-driven science