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# Addicted to FAIR data? The role of repositories and reproducibility in improving impact of data in addiction research.

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Biomedical science is at a crossroads where the promise of big data and data science will increasingly drive discovery. Such discoveries require large pools of shared data and infrastructures for sharing and computing on them. But a shift in academic science towards routine and effective data sharing that would fuel this revolution has not yet taken place across much of biomedicine. Investments over the past 25 years have led to a functioning infrastructure for many types of data and new architectures, e.g., the Cloud, distributed ledgers, hold promise that such infrastructures will be able to scale with the size and rate of biomedical data acquisition. The increase in data availability is increasing pressure on investigators to make other parts of studies accessible, including resources and protocols. The problems, with protocols and resources in terms of reproducibility are by now well known. In neuroscience, the trickle of meaningful treatments and cures across neurotrauma, neurodegeneration and mental health are not keeping pace with the increasingly large burden on individuals, their families and society at large. At some point, researchers have to ask themselves if they entered biomedical science in order to publish large numbers of flashy but non-reproducible narratives built on data sets that cannot be meaningfully reused for anything else (Iannodis, 2006; Poldrack, 2019). Or would they rather publish perhaps fewer but more impactful studies built on well structured, documented and shared data sets that can serve as building blocks for further study (Ferguson et al., 2014)?