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Data and Metadata Quality Management – an essential topic for Biobanks

Nov 2022

The amount of data in medicine and also in biobanking is constantly increasing and biobanks not only harbour and share samples but also data. For both, samples and data, high quality is essential. This is internationally recognized. On 29 Nov. 2022, BBMRI.at member, Prof. Johann Eder (Alpen Adria University) gave a keynote talk on "Data and Metadata Quality Management for Biobanks" at the 9th International Conference on Future Data and Security Engineering in Ho Chi Minh City, Vietnam.

Medical research requires biological material and data of documented trustworthy policy for delivering relevant and reproducible results. The management of the quality of biological samples for medical research received high attention in recent years resulting is well documented and audited standard operating procedures and standards for the documentation of various quality characteristics. We need similar efforts to establish systems, policies, procedures for assuring well documented quality characteristics of data and metadata.

In his presentation, Johann Eder reviewed on the typical characteristics for data and for metadata and pointed to precise definitions of these properties. He presented and discussed the requirements for managing these qualities and propose a process and the necessary tasks for biobanks to establish such a holistic system for data quality management.

The complex nature of biobanks as data producers, data providers, data mediators and data archives dealing with data from various sources and the highly sensitive nature of personal health data for quality data make them a most interesting use case for data quality management supporting both known and unknown future demands.

Read publication:
Eder, J., Shekhovtsov, V.A. (2022). **Managing the Quality of Data and Metadata for Biobanks.** In: Dang, T.K., Küng, J., Chung, T.M. (eds) Future Data and Security Engineering. Big Data, Security and Privacy, Smart City and Industry 4.0 Applications. FDSE 2022. Communications in Computer and Information Science, vol 1688. Springer, Singapore. https://doi.org/10.1007/978-981-19-8069-5_4

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