

Data curation is essential for maximizing the utility of clinical trial data and is one of the most important processes which decide how well data can be utilized for different purposes. To fully leverage clinical trial data for scientific exploration and knowledge enhancement, it is important to ensure intuitive data understanding. Curation and harmonization are important especially when considering data generated under different circumstances and conditions.

Standards, for example, CDISC standards, simplify the data submission process for regulatory review. SDTM is used to prepare and map clinical trial data collected from raw sources and is used to streamline processes in collection, management, analysis and reporting. ADaM is used to prepare data for statistical analysis.

Challenges often remain after using common standards, as these are utilized for special purposes. Also, tabular formats have limitations since there could be inconsistencies across the domains, which could cause issues when processing the data.

• CHALLENGES WHEN CONSUMING DATA •

FINDING THE DATA

- Data organization**
 - Understand how data is organized
 - Information in data or fields

- Implicit data**
 - Coded

EXPLORE EVENTS OVER TIME

- Incorrect dates**
 - Missing
 - Imputations
 - Formats

- Inconsistent visits**
 - Same date - different visits
 - Same visits - different dates

TOO MUCH OR TOO LITTLE

- Incomplete data**
 - Missing

- Duplicate data**
 - Duplicate entries
 - Same data in duplicate locations

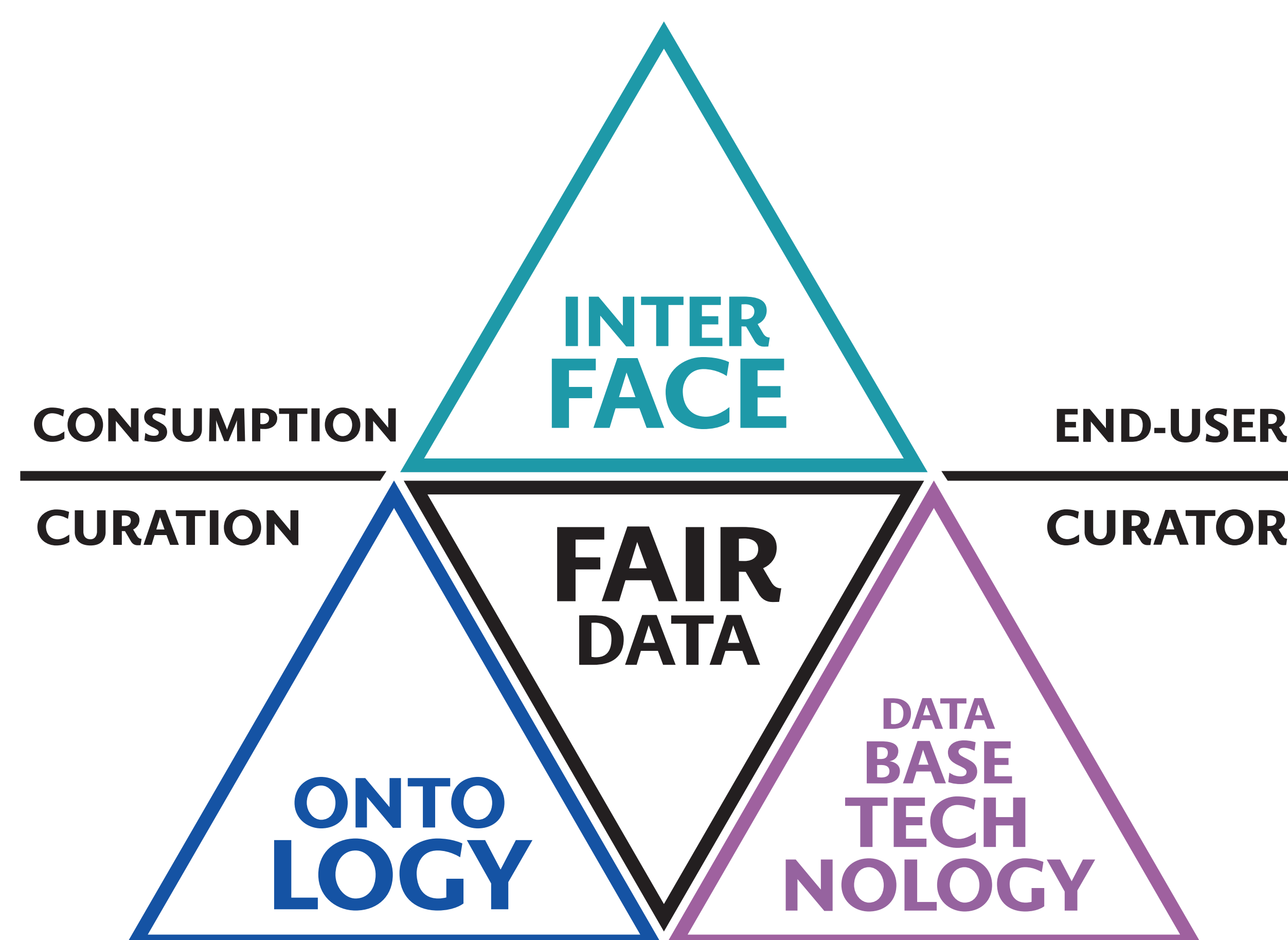
The consequences of having, for instance, incorrect dates, inconsistent visits, and duplicate entries could be that connections between events occurring on the same date, will not be established. These missing connections could lead to inaccurate event counts and potentially influence decision-making.

These challenges highlight the importance of careful data management. Addressing them is essential for making informed, reliable, and secure use of data.

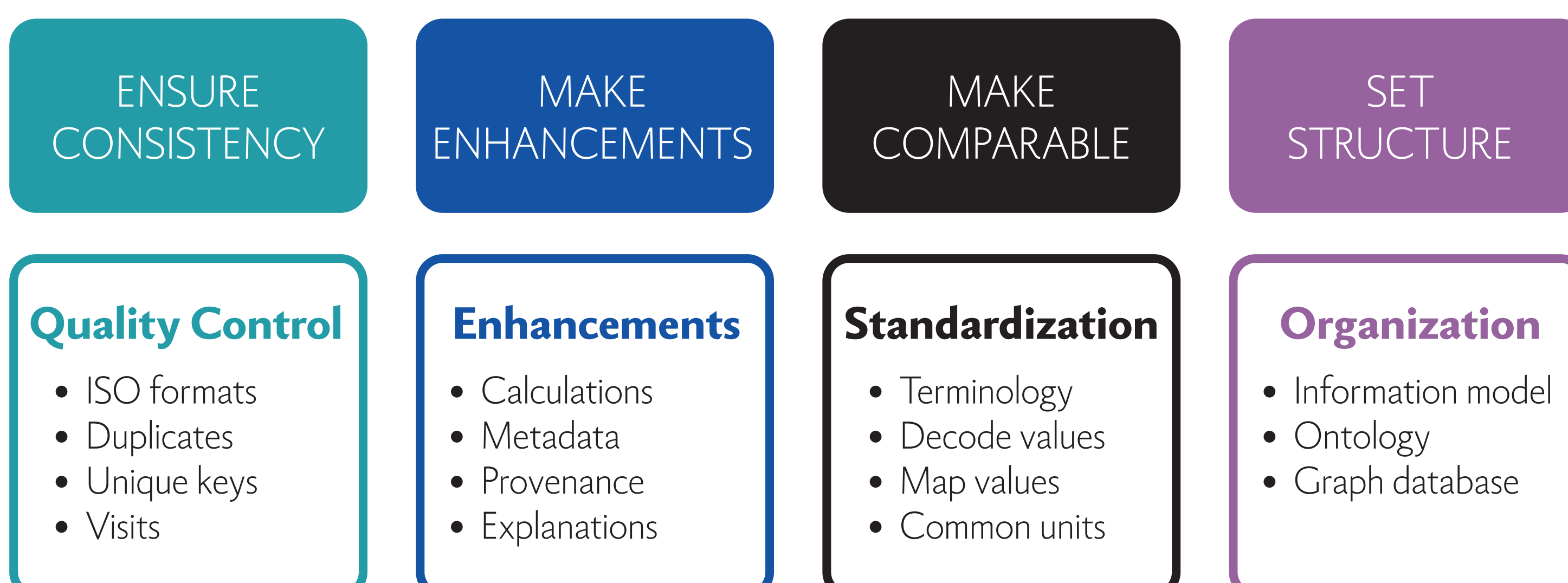


Facilitating data consumption involves a combination of adequate technology, user training, and continuous process improvement to make data more accessible, usable, and valuable for all users.

ASPECTS OF FACILITATED DATA CONSUMPTION



Data curation has numerous benefits that can help businesses and organizations in various ways. One of the primary advantages of data curation is improved data quality. By properly curating their data, companies can ensure that they have accurate, complete, objective and consistent information to work with. Data curation is all about efficiency, both from the perspective of the curator as well as the perspective of the data consumer.



CONCLUSION

When data doesn't need to be connected, minor inconsistencies in well-curated data may not pose significant problems. However, when the goal is to relate and compare data, consistency becomes crucial. A well-curated dataset, accessible through a robust interface, greatly enhances the end-user's ability to derive meaningful insights. By consuming data without worrying about how it's organized or whether it's consistent across studies, users can focus more on patient safety, correlations, and improvements.

Investing in data curation allows stakeholders to unlock the full potential of trial data, leading to better decision-making in pharma/healthcare and the advancement of medical knowledge and treatments. Additionally, effective post-trial data curation plays a key role in optimizing future trial designs and furthering scientific understanding. By ensuring that trial data remains valuable and actionable, such investments ultimately contribute to improved patient care and the progress of evidence-based medicine.