Glossary

Whether you're a data producer, data processor, data consumer, or just getting started, language matters. Access the glossary to master the terms needed to successfully collaborate in this interdisciplinary ecosystem.

Connected sensor technology – Technology products that can be connected to the internet and capture data using mobile sensors, then process these data using algorithms to generate measures of behavioral and/or physiological function (*The Playbook*: Digital Clinical Measures)

Data architecture – Translates business needs into data and system requirements and seeks to manage data and its flow through the enterprise. (Sensor data integrations team)

Data cleaning – Application of processes including filling in the missing values, smoothing noisy data, analyzing and removing outliers, and removing inconsistencies in the data to clean datasets for analysis and application.

Data consumers – Individuals and organizations that rely upon sensor data to drive their objectives and decision-making. Data consumers include clinicians, researchers, healthcare administrators, payers and health technology assessment (HTA) bodies, regulators, and public health agencies. (Sensor data integrations team)

Data integration – The technical and business processes used to (aggregate and) combine data from multiple sources to provide a unified, single view of the data. (Sensor data integrations team)

Data privacy – The set of rules, regulations, practices, and/or processes that ensure only authorized individuals and organizations see patient data and medical information. (Sensor data integrations team)

Data producers – Individuals and organizations participating in the generation of sensor data for use in clinical decision-making in healthcare and research. Data producers include connected sensor technology manufacturers and digital measurement companies in addition to people authorized to enter, document, change, or transmit sensor data. (Sensor data integrations team)

Data processing – Any operation or set of operations which are performed on sensor data (and it's accompanying data) such as collection, recording, organization, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction. (Derived from GDPR Art.4(2))

Data processors – Individuals and organizations that collect, record, organize, structure, store, adapt, alter, retrieve, consult, transmit, make available, align, combine, manage, restrict, erase, or destruct sensor data. Data processors include analytics companies, cloud service providers, data aggregators, data platforms, data scientists, and data engineers. (Sensor data integrations team)

Data security – The practice of protecting digital health data from unauthorized access, corruption, or theft throughout its entire lifecycle. (Derived from IBM)

Digital sensing product – Technology products that capture data using mobile sensors, then process these data using algorithms to generate measures of behavioral and/or physiological function. (*The Playbook*: Digital Clinical Measures)

High quality data - Data strong enough to support conclusions and interpretations equivalent to those derived from error-free data (IOM).

Pre-processed data – Data flowing from the digital sensing product. This data may have been through some electrical filters and firmware filtering before being transmitted.

Processed data – Pre-processed sensor data (and it's accompanying data) that have gone through operations such as collection, recording, organization, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction. These operations include the following steps and may happen at multiple points in the data lifecycle, all of which must be known and documented:
- *Data cleaning* and compression
- Algorithmic transformation to generate clinically interpretable data and information.

Sample level data – A construct that holds clear and consistent meaning across all digital sensing products. The output data at the sample level (for example, a 50 Hz accelerometer signal or a 250 Hz ECG signal) from the sensor itself. (V3)

Quicklinks to DiMe's 4 Sensor Data Integrations Toolkits

Data Architecture Toolkit

Data Standards Toolkit

Organizational Readiness Toolkit

Implementation Toolkit