IEEE STANDARDS ASSOCIATION

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# P1752 Metadata Subgroup Group Meeting

## Sponsored by IEEE Engineering in Medicine & Biology (EMB) Standards Committee

3 March 2020

Teleconference

# Members/Attendance

Subgroup chair: Ida Sim, Open mHealth / UCSF
Subgroup secretary: Anand Nandugudi, U Memphis
Call out your name in the following order if you're here (so we can get familiar with your voice)

- Pradeep Balachandran
- Jakob Bardram
- Daniela Brunner
- Christina Caraballo
- Simona Carini
- Paul Harris
- Shivayogi Hiremath
- Sean McConnell
- Leonard Njeru Njiru
- Henry Ogoe
- Paul  Petronelli
- Udi Rubin
- Anna T

# Action Items
# From Last Meeting

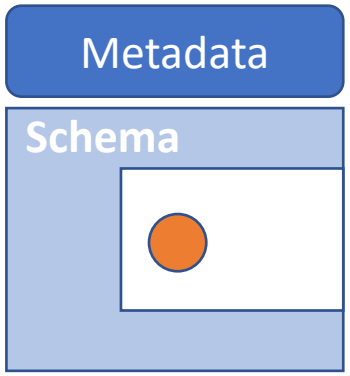
# Action Items from Feb 4

- Datapoint UUID – UUID for each observation in a datapoint?
- Naming of source_creation_datetime
- Draft examples of metadata sample data

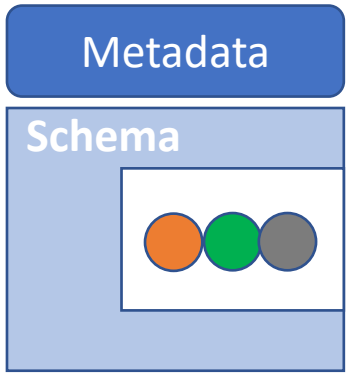
# Datapoint ID

# Datapoint versus Datapoint series: IDs

- Schema can be used for instances of arrays of observations (i.e. a series) not only a single datapoint
- Metadata must be identical for every data point in the series.
- Is a unique ID assigned to the Datapoint or each observation in the Datapoint series?




Datapoint




Datapoint series

**JSON arrays are ordered**

# UUID

- Recommending UUIDs  -Universally Unique IDentifier per RFC 4122
- UUID (16 bytes; 32-char string)
  - The version information is contained in the 128 bit message (unless otherwise specified)
  - There are two older encryption protocols supported SHA-1 and MD5
    - The use of some encryption is better than data in the clear
  - ·The RFC will evolve and newer encryption protocols may be included
  - As well, users may decide to implement their own solution to ensure that they are protected from possible violations of CDRP and GDPR
- Version number is encoded in the UUID itself

# Re: Privacy/Security

- The user must understand and implement solutions that align with the principles of CCPA and GDPR
- Users Need to recognize PII CCPA and GDPR as the benchmarks and impacts
- Users Must Protect PII - best practices Encrypt PII data at rest that is stored and in transit
- Security is not enough, the Data must meet the criteria of De-identification

# Mininum Metadata: Proposal

# Metadata Elements: Datapoint

| Needs | Property<br>(bold = required) | Example |
|---|---|---|
| Which datapoint is this? | **UUID (datapoint, datapoint series?)** | **Generate using RFC 4122 approach** |
| What does this value represent? | **schema ID and schema metadata** | **Pointer to the stress datapoint schema** |
| When is the effective time of this data? | [in the datapoint itself] | |

# Metadata Elements: Acquisition

| Needs | Properties (bold = required) | Example |
|---|---|---|
| When was this datapoint created at the original source? If the datapoint is aggregated later, the date does not change. If the datapoint is recalculated later (e.g., using a different algorithm), a new datapoint is created with a different id and creation date. | **source_creation_datetime** date-time schema represents a point in time (ISO8601). Timezone is UTC unless otherwise specified | **2019-08-01T07:01:00Z** |
| Was the datapoint sensed or self-reported? | **modality** | **sensed** |
| If data was acquired with a periodic rate, what was the rate? | **acquisition_rate** | **Value : 100 Unit : Hz**<br>OR<br>number_of_times: 2<br>time_window: value: 1 unit: d |

# Metadata Elements: Source

| Needs | Properties<br>(bold = required) | Example |
|---|---|---|
| What firmware/algorithm? What hardware? What app/product? Which person? Which study? | Pointer(s) to *Software Datasheet, Hardware Datasheet (UDI), Product Datasheet, Personal Datasheet (User ID), Study Datasheet (Study ID)* | Datasheet type {software, hardware, product, personal, study}<br>Pointer: IRI |

# Future Work

# Outstanding Items

- Draft examples of metadata sample data
- Subgroup input ahead of presentation to main WG

# Future Meetings

# Upcoming Meetings

- Metadata WG
  - Tuesday, March 17: **9:00 – 10:00** AM Pacific

- Present to main P1752 WG on March 31

# Adjournment