Data Annotation and Curation

Organize, annotate, establish minimal standards, and allow data to be interoperable and reusable.

**Keywords:** annotation, curation, data, standards, minimal standards, ontology

Data curation is the process of extracting important details from scientific sources (journals, databases, spreadsheets, documents) and converting these into an electronic format. To be most effective, data curation is the active and on-going management of information throughout the duration of its utility or usefulness. Overall, these activities enable data discovery and retrieval, quality assurance, add value, and provide re-use and preservation of information.

In cases where data standards exist, we will communicate with you to describe how these standards can be applied to your data, which will increase its value and potential for re-use.

The Data Annotation and Curation Service consists of an expert consultation with you to:

1. Understand your goals for data curation
2. Develop a plan for data extraction, parsing, annotation and validation
3. Identify if any data standards (minimal or otherwise) or other metrics need be applied to the data
4. (Re-)Annotate the (meta-)data and validate the output for completeness and accuracy
5. Deliver the (meta-)data and statistical metrics of output

**Examples**

**Transfer of laboratory cell line metadata from proprietary LIMS data to Labnodes**

<table>
<thead>
<tr>
<th>Use Case</th>
<th>We facilitated the transfer of nearly 3,000 records of cell lines from the Quaranta lab to a Labnodes collection. To do so by hand would have been error-prone and not economical.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
<td>MySQL-exporter CSV flatfile</td>
</tr>
<tr>
<td>Results</td>
<td>After obtaining a database export of the existing data, the data was reviewed, and column data was validated for a variety of factors with an emphasis on 1) data normalization and 2) data completion. After we completed these tasks, the data was then quickly imported into Labnodes and are readily available for the group and its collaborators.</td>
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<tr>
<td>Technology used</td>
<td>Excel, PostgreSQL relational database, PHP, Bash, Labnodes</td>
</tr>
</tbody>
</table>

**Service Fees**

Hourly rates apply.

Estimates to be provided following consultation.