

Assessing the Quality of Metadata: The Next Challenge

Paul Johanis, Statistics Canada for
Work Session on METIS
6-8 March 2002, Luxembourg

The history of metadata systems to date

- First period: Thinking and theorizing
- Second period: Constructing and loading
- The immediate future: Maintaining and assuring quality
- The more distant future: Expanding and reaping full potential

Assuring quality of metadata

- Need a standard that establishes what constitutes “good” quality
- Quality Assurance Framework (STC version):
 - relevance, accuracy, timeliness, accessibility, interpretability and coherence.

Relevance

- Providing the right metadata at the right level of detail, for its intended purpose
- For dissemination purposes: enable users to judge the extent to which the data source responds to their needs.
 - Data sources and methodology
 - Conceptual universe and target population
 - Concepts and variables measured
 - Data accuracy

Accuracy

- Coverage error
 - extent to which the metadatabase contains information on all the objects it is intended to cover
 - issues in covering “surveys”
- Measurement error
 - basic survey attributes
 - alignment of methodology texts and headings

Timeliness

- extent to which metadata availability lags the availability of the data it describes
 - vintage issues: metadata for each instance of a survey
 - update triggers and metadata creation

Accessibility

- Ease with which users can access the metadata that supports the data they wish to use
- if data is found, how easy is it to get to the metadata?
- If data is not found, how effective is metadata in helping find the data?

Interpretability

- Availability of meta-metadata, that is, definitions and contextual information regarding the metadata itself
- The term “metadata” itself
- Readability and clarity of metadata texts

Coherence

- Extent to which standard definitions and concepts are used in formulating metadata
 - the standards themselves (e.g. ISO 11179)
 - the application of the standards in use
- Extent to which metadata are presented to users in a consistent, standard format
 - on website
 - across products
- intra and inter-agency

Conclusion

- QAF provides sound basis for metadata quality indicators
- Set of indicators to be developed and reported upon
- Metadata quality is key to protecting investment in development of metadata systems