



# Creation and Use of Metadata in 2 BLS Survey Efforts

## An Ethnographic Investigation of a Community of Practice

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## Methodology Basics (1)

- ☀ Ethnographic and Inductive
  - 6 months (between July 2000-Sept. 2001)
  - Community of practice: Personnel working on two surveys who interacted with and worked on problems with the survey methodologists
  - Iterative data collection and analysis using Grounded Theory technique (Glaser and Strauss, 1967)

## Methodology Basics (2)

### ☀ Surveys to Study

- CPS and American Time Use Survey

### ☀ Defining Metadata

- metadata is information preserved in some artifact that performs the task of providing context designed to help the user locate, understand, and use the entities/data to which the metadata refer

### Summary Table of Data Collection Activities: July 2000-July 2001\*

Number of participants	23
Interviews conducted	45
Number of participants interviewed multiple times	15
Meetings observed	20
Participant observation sessions including meetings, workshop participation, etc.	10
Number of documents collected	Approximately 125**

## The Final Story: Key Themes

- The work worlds of survey methodologists
- Decisions as fulcrums for metadata creation and use
- The context for metadata creation and use
- A general model of metadata from a quality perspective

## Work Worlds of Survey Methodologists (1)

- Work revolves around quality, cost-effectiveness, and improvement of survey processes
- Work involves conducting, reporting research and analysis, participating in decision making processes

## Work Worlds of Survey Methodologists (2)

- ☀ Variety of metadata used
- ☀ Some problems accessing metadata
- ☀ Metadata expressing rationales often missing

## Metadata Types Identified During the Study (1)

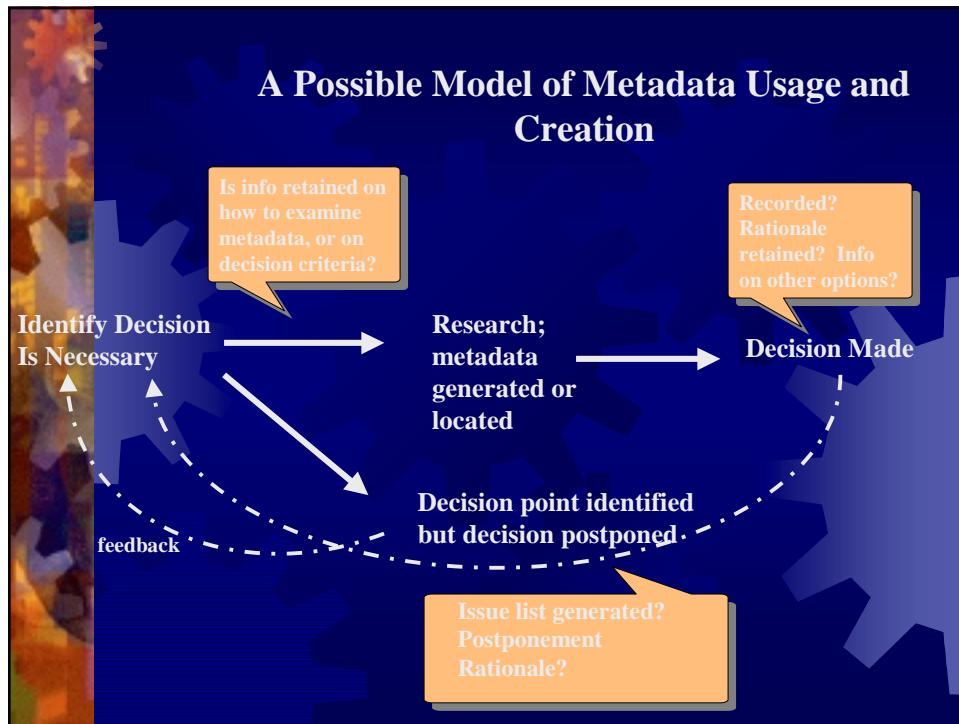
Metadata Type	Definition	Example(s)
Statistical	explicitly related to the final statistics	Codebooks, interviewer instructions, response rates, etc.
Survey methodology	concerning survey design & implementation procedures	Textbooks about survey methods, rules/guidelines for conducting surveys
Agency-specific survey methodology	concerning specific policies, procedures for survey design and implementation within agencies	Policies on appropriate formats for design specifications

## Metadata Types Identified During the Study (2)

Metadata Type	Definition	Example(s)
Research methods	non-survey methodologies	Methodologies for conducting cognitive tests
Project Management	documenting projects and keeping them on schedule	Task lists, flow charts
Administrative	Related to general operations of the agency	Information about staffing rules, budgeting, etc.

## Metadata Types Identified During the Study (3)

Metadata Type	Definition	Example(s)
Referral/person	Information that enables someone to get additional help from a person	Telephone lists of contacts
Rationales	Explanations of events/actions	Explanation of a universe choice



## The Context (1)

- ✦ Metadata creation and use is related to the physical and organizational contexts in which community of practice and metadata systems exist

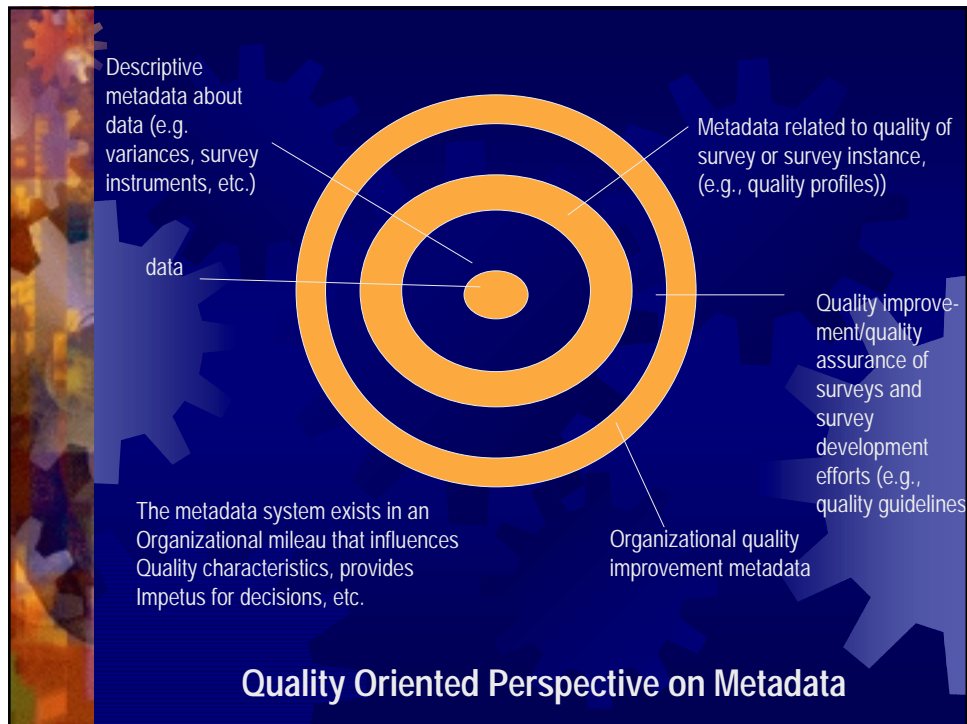
## The Context (2)

- Physical aspects (e.g., color, space) used to enable understanding of information
- Metadata often saved “locally” in electronic/paper files
- Physical space influences what metadata gets retained, in what formats

## The Context (3)

- Organizational context embedded in formal or tacit rules, procedures, etc. influences what metadata are created, saved
- Relationships of these surveys to others (such as CPS and Decennial) also important





- ## Meta-Themes (1)
- ✦ Context of data matter
    - But users' contextual (i.e., metadata) elements vary
      - Analysis of particular populations to identify common contextual elements
    - Locating and retaining rationale information
      - May be possible to "mine" sources (e.g., minutes) for these rationales
    - Ignoring physical work worlds may reduce metadata system effectiveness



## Meta-themes (2)

- ☀ Metadata and Quality Assurance
  - Quality a useful organizing principle for metadata efforts for this population
  - Metadata and metadata systems = knowledge repositories supporting quality efforts
  - Ability to connect knowledge management initiatives to metadata initiatives

## Meta-themes (3)

- ☀ Identifying Metadata as it is Created
  - The decision model provides a strategy to focus attention at particular moments in decision process

## Meta-Themes (4)

- Metadata communicates across boundaries?
  - Each community of stakeholders has its own concentric circle model
    - Flesh out these models with specific metadata (retaining quality as the organizer)
    - Identify other organizers used by other communities
    - Meshing the models to point to potential communication gaps, different ways to express the same organizing principle