Metadata for the Common Mandate

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2010

Tom Ogle, DESE
State Perspective

Metadata Sources

- *Legacy Systems* – Maintain compatibility with current systems.

  80 column card/screen constraints

  8 character variable names

  SSN stored as a numeric value

Metadata Sources

- *Formal Metadata Guidelines*

  Current State Government IT Standards

  Database table and column names

Metadata Sources

- *Authoritative Data Sources*

  School District Directory table

  Standard Codes table

Metadata Sources

- *Federal Department of Education Reporting Requirements* – EDEN

  Discipline reporting categories

  Migrant Education reporting categories

Metadata Sources

- *National Data Standards*

  NCES Handbooks

  National Forum on Education Statistics

  Education Data Association Standards

Metadata Management

- *Data System Manuals* – Documentation of current systems in printable format.

- *Metadata Repository* – Single integrated system designed to store metadata for all agency data systems including data collections, repositories and reporting systems.

Beth Young, QIP
National Perspective

National Forum on Education Statistics - Overview - Mozilla Firefox
http://nces.ed.gov/forum/
National Forum on Education Statistics
Publications & Products | PK-12 Data Model | Staff
Overview
Welcome to the National Forum on Education Statistics. The Forum is sponsored by the National Center for Education Statistics of the U.S. Department of Education and is committed to improving the quality, comparability, and usefulness of elementary and secondary education data, while remaining sensitive to data burden concerns. Forum members include representatives from state education agencies, local education agencies, the federal government, and other organizations with an interest in education data. Our purpose is to plan, recommend, and implement strategies for building an education data system that will support local, state, and national efforts to improve public and private education throughout the United States.
HIGHLIGHTS
New! Winter 2010 Forum Notes and Materials
The Winter 2010 Forum Meeting was held on March 1-2, 2010 in Phoenix, AZ. Meeting notes, including presentations and other materials are now available.
RECENT PUBLICATIONS
March 24, 2010:
National Forum on Education Statistics Shared Knowledge: Shared Success
February 26, 2010:
The Forum Guide to Data Ethics
February 26, 2010:
Crisis Data Management: A Forum Guide to Collecting and Managing Data About Displaced Students and Their Families
Search NCES Forum
Go
NCES Handbooks Online - W...
Handbooks Online
An online resource for standard education terms, definitions and classification codes.
Begin Searching Handbooks Online Now!
Click here...
Welcome to NCES Handbooks Online
Education Data Model (National Forum on Education Statistics). Strategies f...
http://nces.ed.gov/forum/datamodel/index.asp
Education Data Model (Natio...
TIONAL EDUCATION DATA MODEL
Welcome to the National Education Data Model
Welcome to NEDM 2.0 officially released on March 3, 2010 at the 23rd Annual MIS Conference. Please take a moment to look around and utilize the work that has gone into the NEDM site. NEDM can also be accessed via the working site located at http://www.educationdatamodel.org. Comments and criticism is welcomed at nedm@ccsso.org. Thank you for your contributions and partnership.
The National Education Data Model is a conceptual but detailed representation of the education information domain. The Education Data Model strives to be a shared understanding among all education stakeholders as to what information needs to be collected and managed at the local level in order to enable effective instruction of students and superior leadership of schools.
The Education Data Model can be used by educators, vendors, and researchers to understand the information required for teaching, learning, and administrative systems. The Education Data Model answers questions such as:
Let's hear from you
Your feedback will help improve the success of the data model
Click Here Now!
Browse by ...
Technical View
Done
National Center for Education Statistics (NCES) Home Page, a part of the U.S. Department of Edu...
http://www.nces.ed.gov/
Welcome to NCES
Map schools, school districts, and more...
SCHOOL DISTRICT
The EDFacts Initiative - Mozilla Firefox
http://www2.ed.gov/about/inits/ed/edfacts/index.html
The EDFacts Initiative
ED.gov U.S. Department of Education
Funding | Policy | Research | News | About ED
About ED
Overview
Contacts
Offices
Boards & Commissions
Initiatives
White House Initiatives
ED Initiatives
Publications
ED Performance & Accountability
Jobs
INITIATIVES
The EDFacts Initiative
EDFacts is a U. S. Department of Education initiative to put performance data at the center of policy, management and budget decisions for all K-12 educational programs. EDFacts centralizes performance data supplied by K-12 state education agencies (SEAs) with other data assets, such as financial grant information, within the Department to enable better analysis and use in policy development, planning and management. The purpose of EDFacts is to:
Place the use of robust, timely performance data at the core of decision and policymaking in education.
Reduce state and district data burden and streamline data practices.
Improve state data capabilities by providing resources and technical assistance.
Provide data for planning, policy, and management at the federal, state, and local levels.
EDFacts relies on the Education Data Exchange Network (EDEN), a centralized portal through which states submit their educational data to the U.S. Department of Education. EDEN is comprised of three main components: (1) the EDEN Submission System (ESS), an electronic data system capable of receiving data on over 100 data groups at the state, district and local levels; (2) the EDEN Survey Tool (EST), which collects data supplementary to the ESS data; and (3) the EDEN staging database, a holding area for newly submitted data.
MORE RESOURCES
EDFacts Log-In (ED staff only)
EDEN Submission System Log-In (State users and ED staff) and EDFacts Log-In (State users with EDFacts access)
EDFacts Metadata and Process System Log-In
How Do I Find...?
Grant opportunities
Money for college
Research, best practices
Facts and figures
Accreditation
More
Related Topics
Mission
IMPORTANT NEWS!
New Summer 2010 EDFacts State Profiles Now Available!
New Summer 2010 EDFacts State Profiles are now available for your use. These state profiles provide critical performance data from EDFacts (state-reported data on students, staff, services, and outcomes at the state, district, and school
Done
Welcome to the SIF Association - Mozilla Firefox
http://www.sifinfo.org/us/index.asp
SIF Association
About Us | SIF Specification | Certification | Events | EdSTART | SIFA University
What SIF Means To
Vendors
Schools
Government Agencies
Partners
Welcome to the SIF Association
Quality education relies, in large part, on professional educators and parents having access to the information, resources, and tools to serve learners of all ages. Seamless integration of a broad spectrum of instructional, administrative and communications tools is essential to effectively address the needs of all learners.
The SIF Association´s vision within this context is that schools will be enabled to better utilize technology in a manner that leverages the promise and capabilities of interoperability between disparate applications. The SIF Association brings together the developers and vendors of school technology with the federal, state and local educators who use that technology. To define the rules for data movement between applications—efficiently, accurately and automatically—in the SIF Specification.
Developed by the SIF Association´s members, the SIF Specifications ensure that data systems work together
Access SIF Community
CLICK HERE
ASSOCIATION NEWS
IMPLEMENTING SIF
Implementation Readiness Tools
RFP Language
EdSTART Vendor Registry
SIF Implementation Specifications
SIF Certified Applications
Standards - Mozilla Firefox
http://www.commondatastandards.org/
Standards
First set of CDS elements to be released by September 30, 2010
RESOURCES | FAQ
Latest news
July 23, 2010: Review and comments ongoing. Updates are posted based on the first set of review comments. Comment Response Report has been posted.
September, 2010: Release of first set of CDS elements.
Recent publications
What is the Common Data Standards Initiative? >>Download (pdf)
Presentation delivered at the 23rd Annual MIS Conference >>Download (pdf)
of the CDS initiative is to provide a common vocabulary that supports the d comparability of education data.
Initiative
Data Elements
Search the list of data elements. See the definition and applicable code set. Review what others have said about the data elements and add your own comments.
Learn more >
Use Case Scenarios
See the list of use case scenarios and how the Common Data Standards data elements support each use case.
Technical Specifications
View the Common Data Standards XML schema and schema documentation.
Done
Standards & Workgroups
PESC Approved Standards
Admissions Application
Education Test Score Reporting
IPEDS
Student Aid
COD
CRC - Common Record: CommonLine
Online Loan Counseling
Transcripts
Standards &
PESC supports the maintenance, electronic data interchange (EDI) maintenance, and implementation language (XML). While EDI is admission application, and tes... through the American National Standards Institute (ANSI), PESC hosts the corresponding implementation guides and recommended implementation practices, which were developed by AACRAO's SPEEDE Committee, here on the PESC website. A number of corresponding code sets are also hosted here on the PESC website.
Like EDI, XML is a specification used in software to define the content of an electronic document and has become widely used
Done

Is it a question of type?

Or a question of brand?

What is a standard?

- *Data definitions and code sets* – Concerned with the meanings and contents (e.g., values) of data elements.
- *Technical specifications* – Used by software and systems developers to facilitate interoperability between applications or to guide data reporting.
- *General guidelines/relationships* – Describe the relationships that exist between data elements. Data models are the typical source of such information.

How did we get here?

- NCES Handbooks
- Federal Data Collections
- Forum Best Practice
- Vendor Community
- NEDM
- CDS

Different Types

Who should be “in charge” of national standards?

- US Department of Education?
- Vendor Community?
- States?
- Districts?
- Associations?
- Foundations?

Glynn Ligon, ESP
Historical Perspective

Reinventing Data Standards—Again

Please, no!

EDICS NCES Handbooks

SEDCAR NEDM

SIF PESC Common Data Standards

PBDMI EDEN/EDFacts

SEA Standards

Vendor Proprietary Standards

Reinventing Data Standards—Again

Please, no!

So, how are data standards set and managed across different industries?

Two Challenges: (Standards across Agencies)

1. **Rules**: Definitions of data elements, options/code sets, business rules, periodicities, etc.

2. **Compliance**: Processes/people that follow the rules

Two Challenges:

1. **Rules**—Definitions of data elements, option/code sets, business rules, periodicities, etc.

Without clearly stated rules (a.k.a. data standards), even the most conscientious data provider cannot provide quality data.

Two Challenges:

2. **Compliance**: Processes/people that follow the rules

Without conscientious compliance, even the most clearly stated rules will not produce quality data.

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2. **Compliance**: Processes/people that follow the rules

Without conscientious compliance, even the most clearly stated rules will not produce quality data.

- **Documentation**
- **Help**
- **Training**
- **Support**

Enforcement

Who's creating the data standard?

The practitioners/users of the standard who will "manage/generate" the data and for whom the data must be comparable, interpretable, valid, and high quality.

- SEAs
- LEAs
- Postsecondaries
- Charters, privates, commercials, etc.

Adopt the Rules

Who guides/advises/funds them?

The decision-makers, policy makers, data users who depend upon quality data and have the capacity to fund and/or influence legislation, policy, or best practice

- Policy makers (governors, legislators, Congress, etc.)
- Foundations
- Education boards
- News media
- Researchers

State the Questions

How have industries accomplished this?

Communities of practice have:

- Established a joint standards body
- Anointed or accepted an entity to be their management/fiscal/central coordinator

- Emergency Response Alliance
- Public Health Data Standards Consortium
- ANSI
- SIFA

1 Authoritative Body

Every standard proves to be inadequate for the users!

- SPEEDE/ExPRESS User Guide–ANSI X12 EDI
- Profiles or Extensions for the Content Standard for Digital Geospatial Metadata
- SIFA Oklahoma Test Harness
- EDEN/EDFacts—Notes
- Missouri DataSpecs—Track Changes for Annual Definition Changes
- Louisiana DataSpecs—Comparison of Definitions of Elements Mapped to Enterprise Metadata Dictionary

User-Defined Alternatives

Every industry has metadata tools!

- Where are the data? How are they arranged?
  - ISInsight
- How are data defined?
  - DataSpecs

Software for your industry

Every industry has metadata tools!

- Where are the data? How are they arranged?
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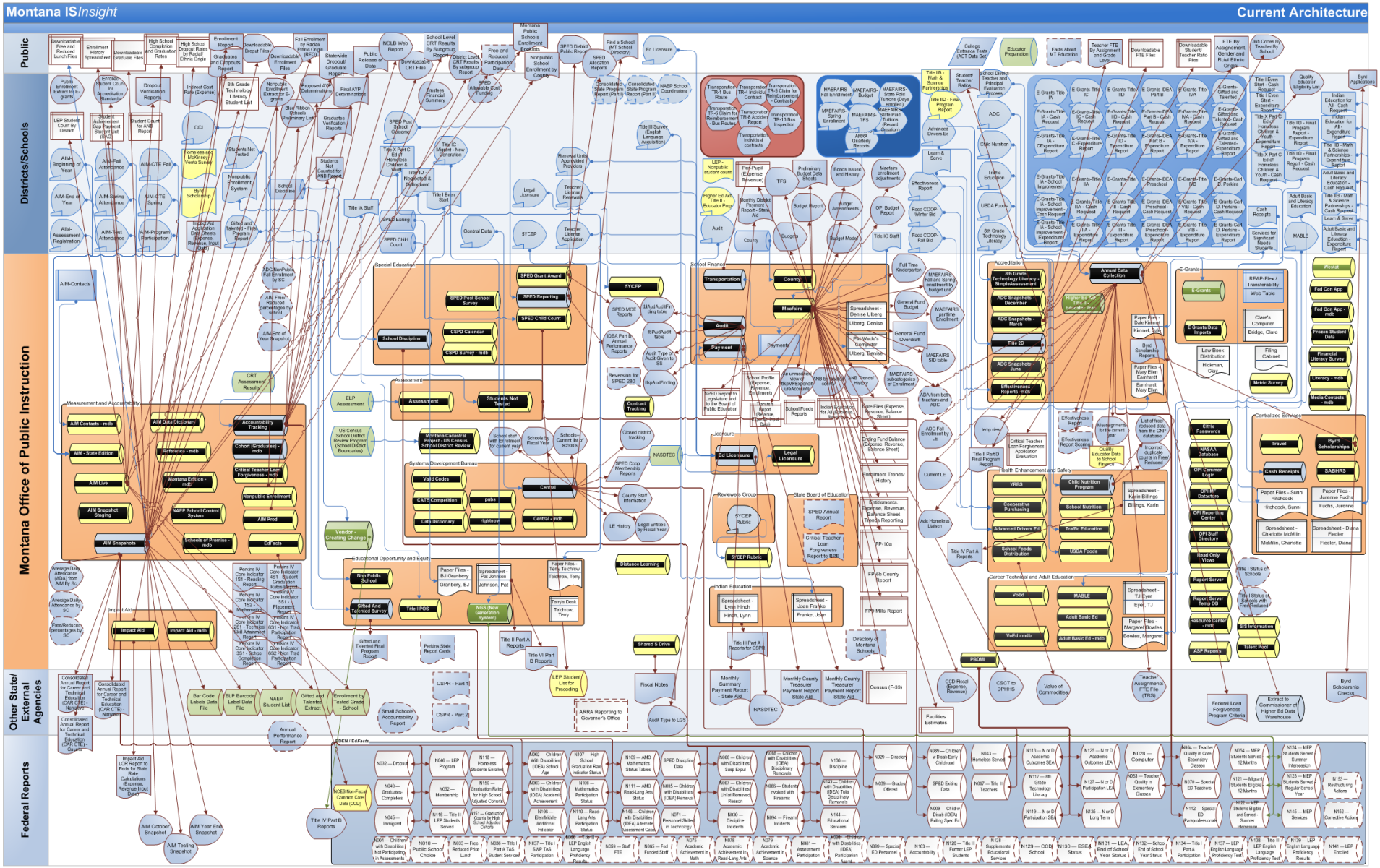
Software for <u>your</u> industry



Missouri Department of Elementary & Secondary Education

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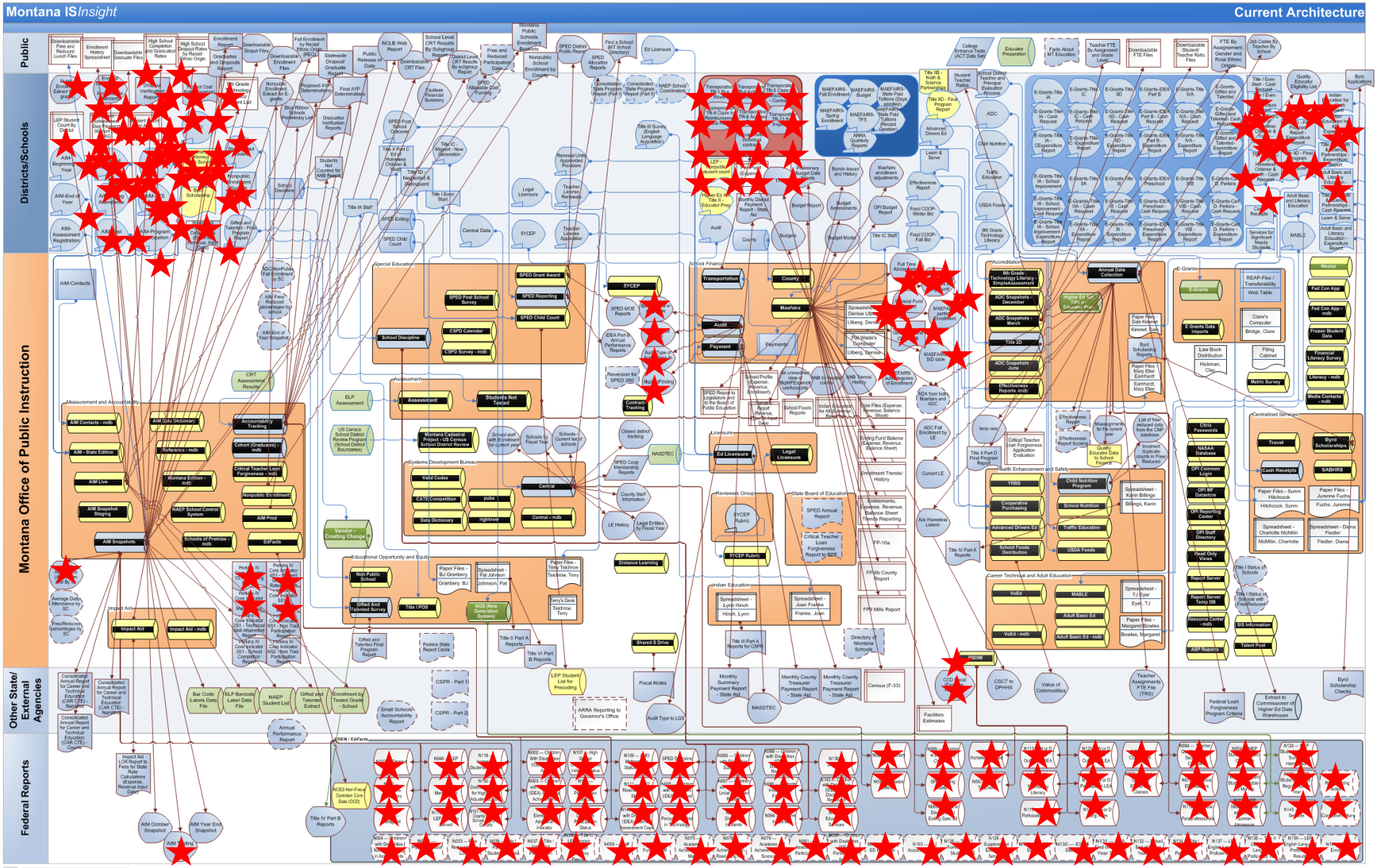
Thanks, Montana OPI!



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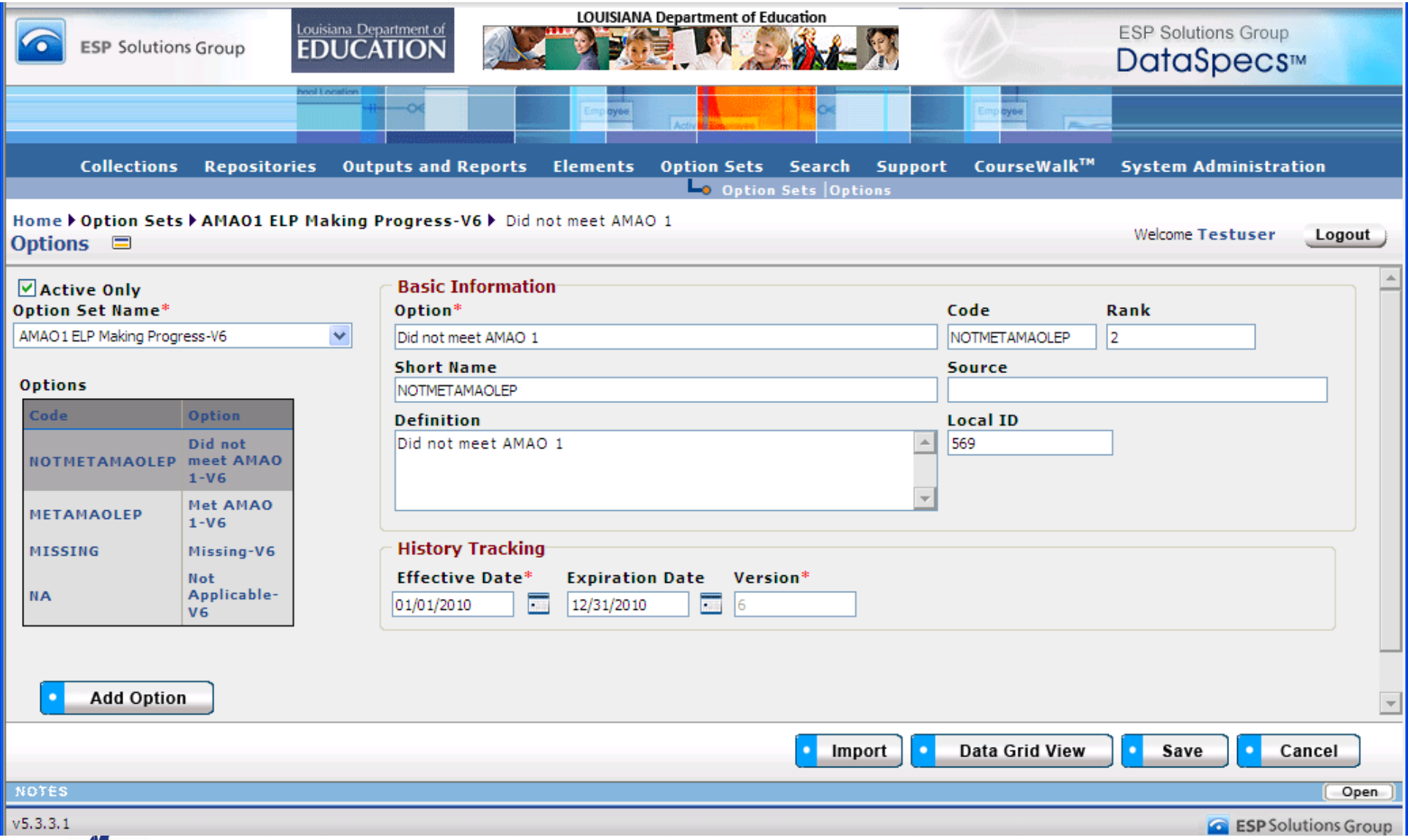
Every industry has metadata tools!

- Where are the data? How are they arranged?
  - ISInsight
- How are data defined?
  - DataSpecs

Tools like DataSpecs manage an agency's metadata & map to national standards.

Standardize Option Sets, Options, & Codes



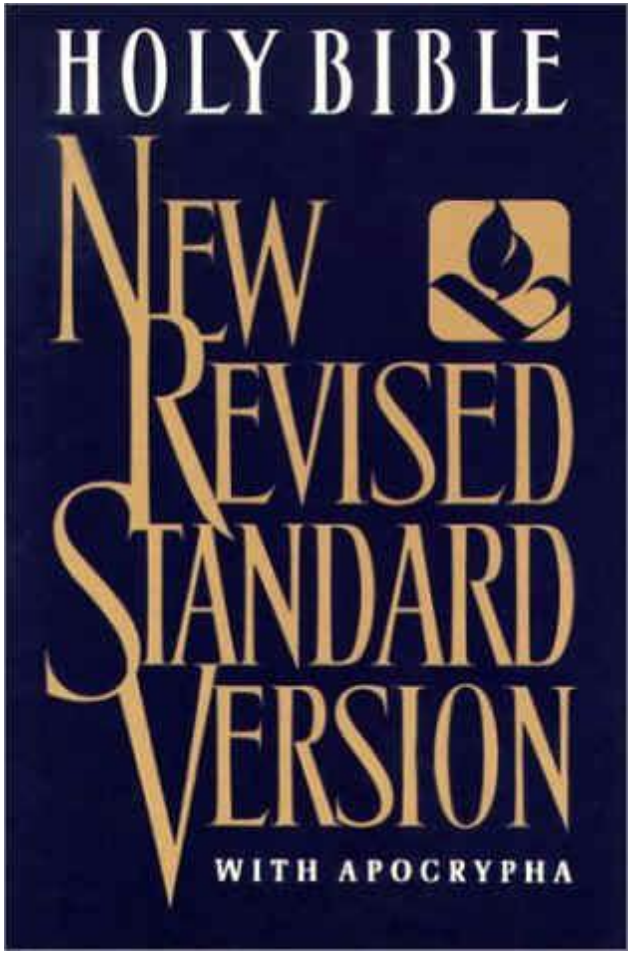
Honor thy father and mother.

Standard 4.1.2.3 and 5.1.2.3 (AKA Commandment, numbered and amended dependent upon reference to Jewish (Talmudic); Anglican, Reformed, and other Christian; Orthodox; Catholic, Lutheran; or independent orders and sects adopting this standard)

Honor thy father/mother, alternatively, mother/father, and or mother/mother, father/father, step-mother/father, step-father/mother, legal guardian, court-appointed guardian, custodial parent, foster parent

Standards abound……

….Even God knows that a standard is a **process**, not a finished product.



The End…of course not…

Questions & Responses