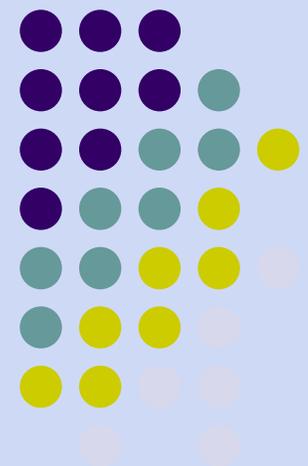


A tour of the DDI

The Data Documentation Initiative

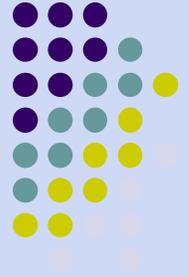
Ann Green
Yale University
Office of Digital Assets & Infrastructure

ann.green@yale.edu



Cornell University
February 27, 2009

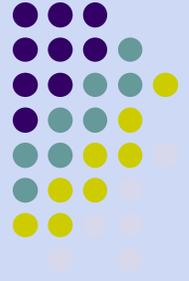




Outline

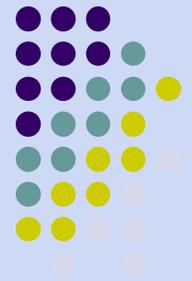
- Background
- Structure
- Versions of the DDI
- Creating DDI instances
- DDI for discovery, preservation, access management, and linking
- DDI and Institutional Repositories
- Tools and resources
- DDI @ Cornell

Background of the DDI



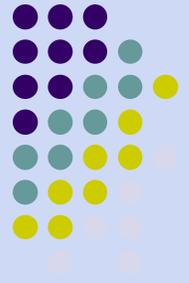
- Originally had a Social Science survey orientation (public opinion, census, administrative records, large scale social surveys, etc)
- Now can describe any survey or tabular data collection and output – not domain specific
- Describes digital objects containing quantitative or qualitative data – and can contain the data themselves
- Built from:
 - Data archive **study descriptions** (catalogs)
 - **Codebooks**: Contain elements for the full **context** of a ‘study’ describing the methods, funding, purpose, and details of the data production process
 - Data file **formats** in common use
- Community based development and deployment
- Informed by and Coordinated with other descriptive standards (FGDC, MARC, Dublin Core, etc)

Why is the DDI interesting?



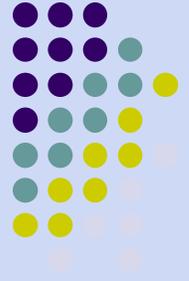
- Data user driven: contains what users need to know
- Multi-purpose: discovery, use, evaluation, interpretation, assessment, authentication of data resources
- Life cycle view and production strategy (workflow extends across the digital life cycle)
- Modular structure (XML Schema) that is additive across the research life cycle and can come from multiple authors and organizations
- Ongoing capture of contextual metadata
- International community of supporters (data producers, statistical agencies, data archives and libraries, software developers, etc.)
- Shared tool development
- Fits into the digital repository and preservation framework

How is the DDI used?

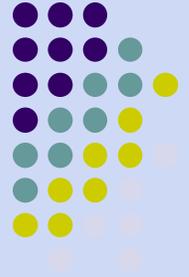


- **Query and display**
 - “Study” level search
 - Questions, variables, value labels
 - Cross study search
- **Transport format**
 - To / from statistical packages
 - To Library catalogs (MARC, MODS, etc.)
- **Descriptive metadata** to accompany bundles of statistical files
- **Collection of links** to external digital objects (thesauri, coding schemes, survey instruments, images, publications, etc.)
- **Corpus of text** for developing ontologies, domain specific natural language research

Who is implementing the DDI?



- Data archives in Europe, Australia, Israel, Canada
- ICPSR (world's largest social science focused data archive)
- Roper Center and Odum (public opinion archives)
- Harvard MIT Data Center and DVN (DataVerse Network aka Virtual Data Center)
- NHGIS and IPUMS (large scale demographic knowledge bases)
- Major social science centers (NORC: GSS, etc)
- Libraries are producing DDI records of 'core' elements
- See: <http://www.ddialliance.org/codebook/projects.html>



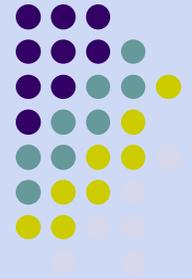
Finding out about the DDI

DDI website: <http://www.ddialliance.org>

- Background documents
- Sample XML Files
- Getting Started with DDI
- Who is using the DDI
- *DDI Directions*: newsletter

A set of best practices covering 12 topics is in development and will be included in a new version of the DDI Web site, “sometime in the spring.”

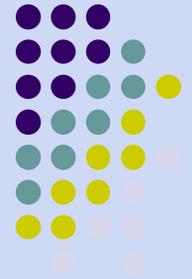
Vardigan, Mary, Pascal Heus, Wendy Thomas. "[Data Documentation Initiative: Toward a Standard for the Social Sciences.](#)" *The International Journal of Digital Curation* 3, 1 (2008).
<http://www.ijdc.net/index.php/ijdc/article/view/66/66>



Evolution of the versions of the DDI

- DDI 1: microdata surveys
- DDI 2: added aggregate tabular data
- DDI 3: modular, life cycle model, all of the above plus complex data files, comparative data files

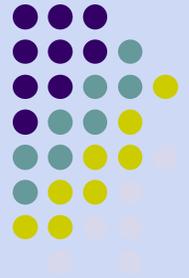




Structure of DDI2

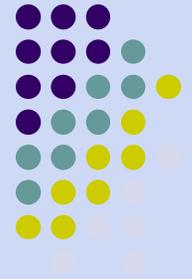
- **Document description:** information about the DDI document and how it was created with bibliographic citation
- **Study description:** information about the context of the data production and distribution (creators, methodology, abstract, keywords, etc.)
- **Data files description:** information about the data file or files (format, size, number of cases, etc.)
- **Variable description:** information about the data items or rows and columns in a tabular data file/s
- **Other study materials:** inline reference materials or references to external reference materials (coding schemes, thesauri, citations to publications, etc.)

DDI 2 and DDI 3 comparison



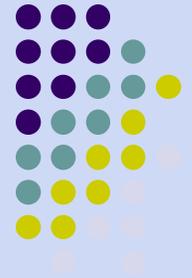
Version 2	Version 3.0
Inadequate representation of complex / hierarchical data	Detailed documentation for complex / hierarchical data
No instrument coverage.	Full description of instrument as a separate entity.
Question text appears only as part of variable description.	Compatible with Computer Assisted Interviewing software.
No documentation for question flow / conditions.	Documents specific use of questions: flow, conditions, loops.
Initially designed for microdata only	Adds support for tabular, spreadsheet-type, representation of aggregate data
Aggregate data section added in V 2.1 to support limited representation (Census-type data, delimited files)	Aggregate data transport option: cell content may be included inline with the data item description
No data transport function	In-line inclusion enabled for both aggregate data and microdata
No Longitudinal / Time Series / Cross-national Data Comparability	Grouping structure documents studies related on one or several dimensions (time, geography, language, etc.) as well as their comparability
Limited Multilingual Support	Support for multiple language use and translations
Single File, Hierarchical design	Modular design: Facilitates reuse; Facilitates versioning and maintenance; Supports life cycle model; Allows flexibility in organizing the DDI Instance; Supports grouping and comparing studies; Supports creation of metadata registries

Source: DDI and institutional repositories by Luis Martinez Uribe (UK-DISC: DataShare) 2008.



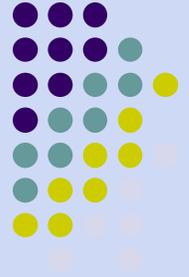
DDI 1/2 or DDI 3.0?

- DDI 3.0 will not supersede DDI 2.1
- Both versions will
 - coexist
 - continue to be maintained
 - be used according to specific needs
- All DDI 1/2 markup will not have to be migrated to Version 3.0



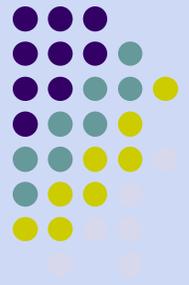
DDI 3.0 Features

- Compatibility with other metadata standards:
 - MARC, DC, but also...
 - SDMX (Statistical Data and Metadata Exchange)
 - ISO 11179 (Metadata Registries)
 - FGDC (Digital Geospatial Metadata)
 - ISO 19115 (Geographic Information Metadata)
 - PREMIS, METS – forthcoming...
- Life cycle orientation



More about DDI3

- Life cycle
- Modular
- Example variable level mark up
- Creating the modules
- Getting help



Version 3.0 is Life Cycle oriented and modular

Designed to cover all stages in the life cycle of a data collection:

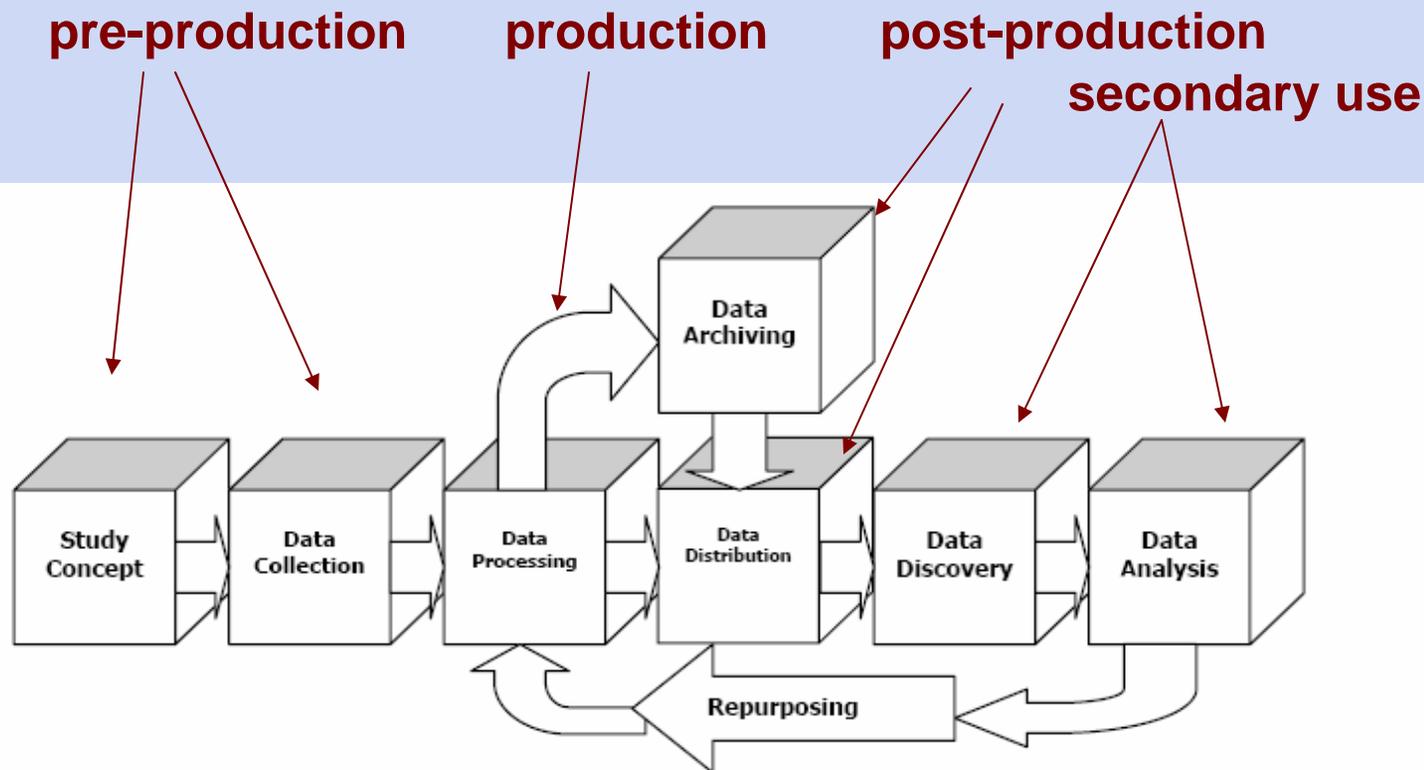
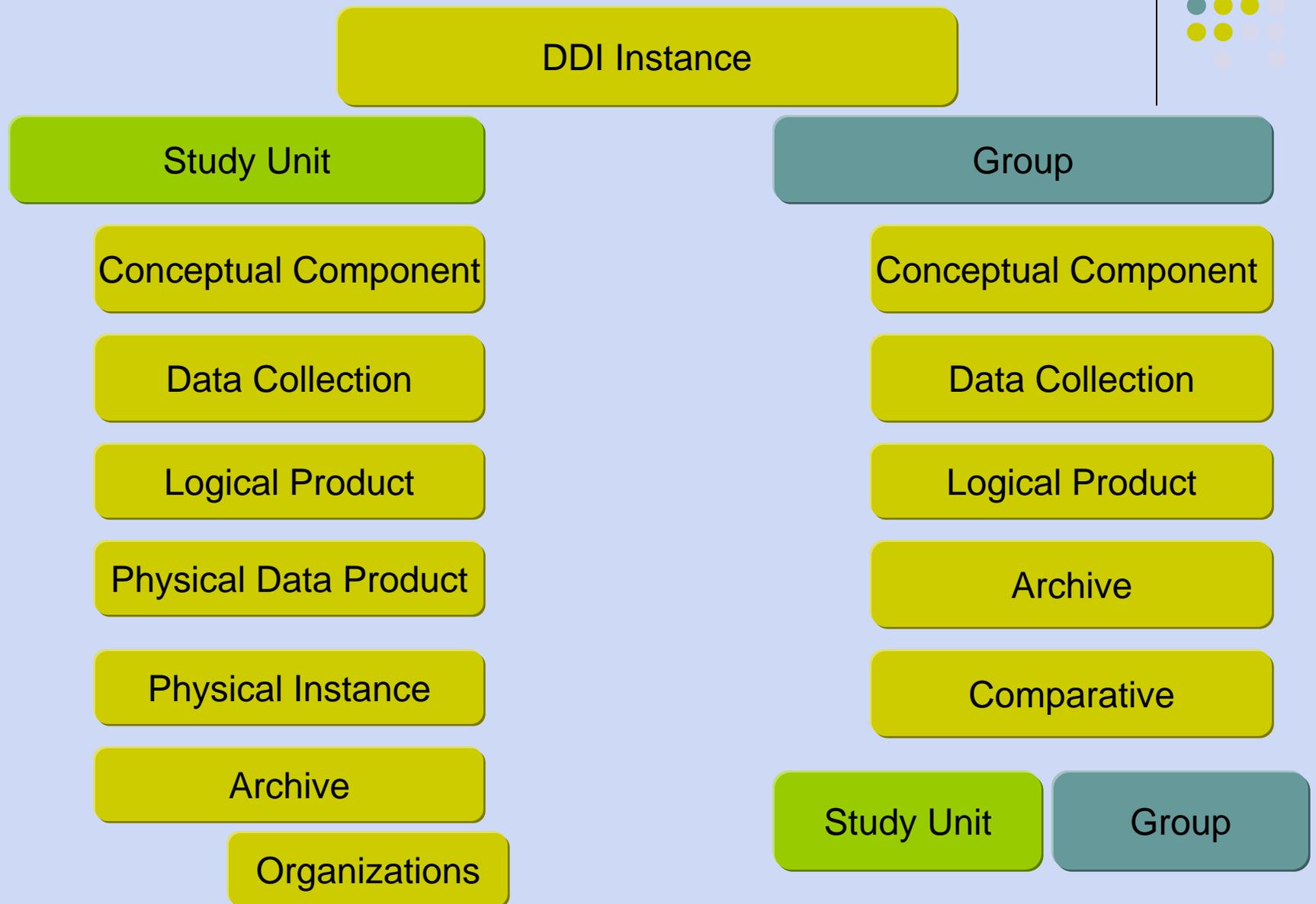
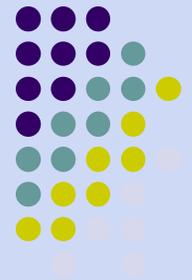


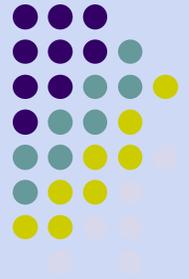
Figure: Combined Life Cycle Model

DDI Version 3.0 Modules

-- Structural Overview --



Creating the modules of DDI3



- **Start with Study Unit**
 - Identifies the XML instance being created
 - Citation for the Study
 - Purpose of the Study
- **Data Collection Stage**
 - Questionnaire (perhaps a link to an external document)
 - Textual information on methodology, collection event, data processing
 - Question schemes
- **Logical Product (content description)**
 - Define variables and categories or responses or coding structures
- **Physical Data Product (data structure)**
 - Describe the physical structure of the data store (fixed, delimited, tabular, relational, etc)
 - A physical address is assigned to a variable (for example col/row in a spreadsheet)
- **Physical instance (data store)**
 - A file of results as defined in the physical data product

Version 2.1 vs. Version 3.0

Example: A survey variable in Version 2.1

```
V043015 A7a. Attention to national (network) news
```

```
=====
```

```
PRE-ELECTION SURVEY:
```

```
IF R WATCHED NATIONAL NETWORK TV NEWS IN PAST WEEK:
```

```
QUESTION:
```

```
-----
```

```
Please look at page 1 of the booklet.
```

```
How much attention do you pay to news on NATIONAL news  
shows about the campaign for President -- a GREAT DEAL,  
QUITE A BIT, SOME, VERY LITTLE, or NONE?
```

```
VALID CODES:
```

```
-----
```

1. A great deal
2. Quite a bit
3. Some
4. Very little
5. None

```
MISSING CODES:
```

```
-----
```

8. Don't know
9. Refused

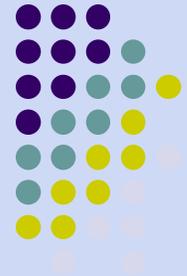
```
INAP. 0,8,9 in A7
```

```
TYPE:
```

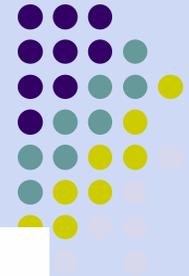
```
-----
```

```
Numeric Dec 0
```

- | | |
|---|-----|
| . | 270 |
| 1 | 198 |
| 2 | 318 |
| 3 | 304 |
| 4 | 110 |
| 5 | 12 |



**Data Description:
Variable**



Version 2.1 vs. Version 3.0

Example: A survey variable in Version 2.1

name="V043015"

var location

labl Attention to national (network) news

qstn Please look at page 1 of the booklet. How much attention do you pay to news on NATIONAL news shows about the campaign for President -- a GREAT DEAL, QUITE A BIT, SOME, VERY LITTLE, or NONE?

valrng range

universe Pre-election survey: respondents who watched national network TV news past week (1-7 in V043014)

sumStat 942

catgr INAP

catStat 270

catValu 1

labl A great deal

catStat 198

catValu 2

labl Quite a bit

catStat 318

catValu 3

labl Some

catStat 304

catValu 4

labl Very little

catStat 110

catValu 5

labl None

catStat 12

catValu 8

labl Don't know

catStat 0

catValu 9

labl Refused

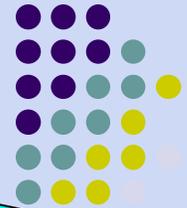
catStat 0

concept Attention to presidential campaign on national TV

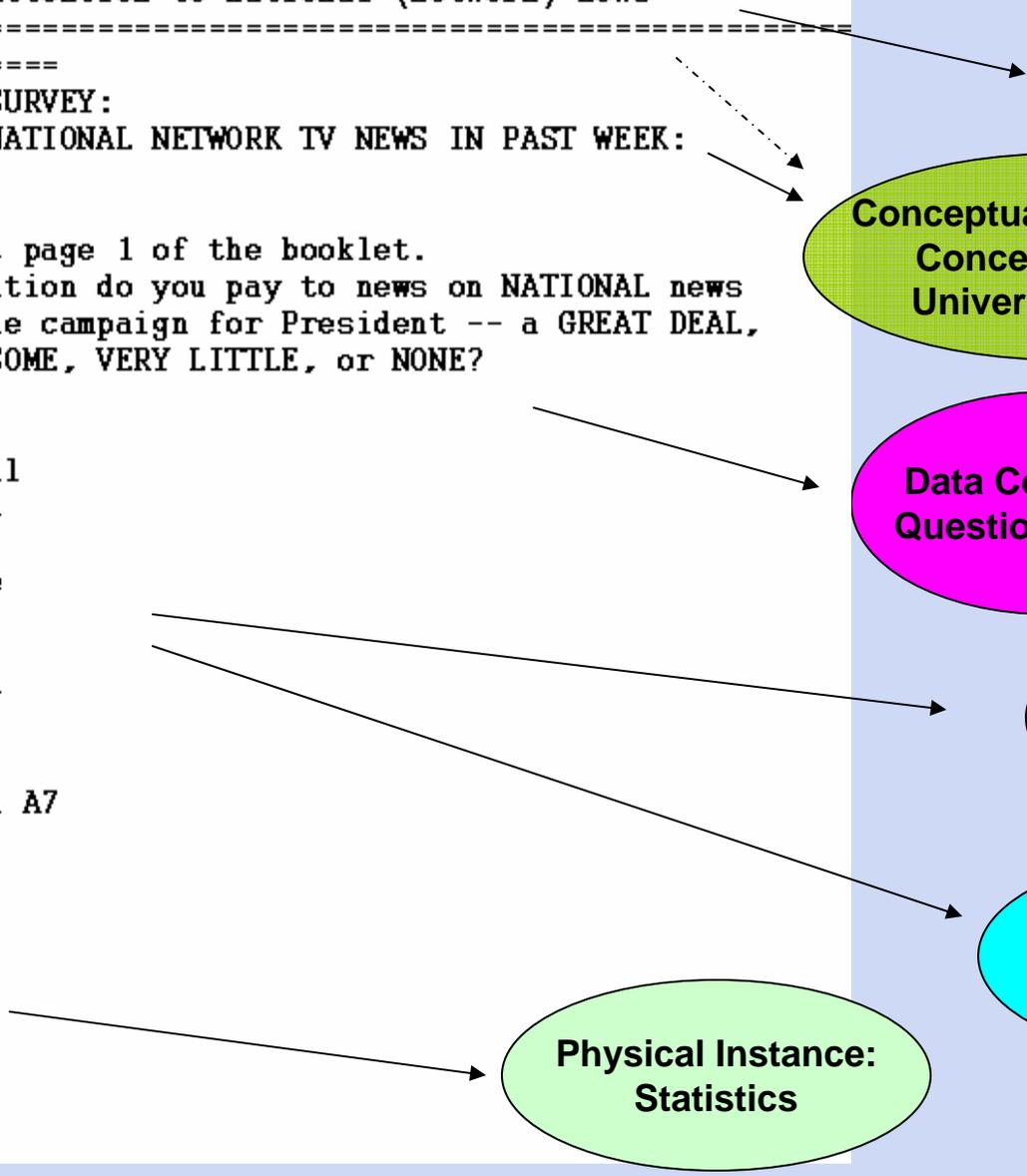
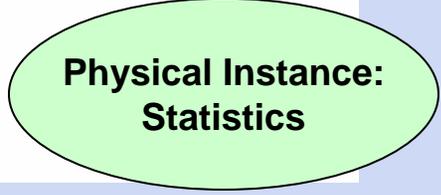
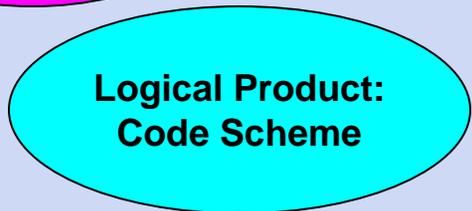
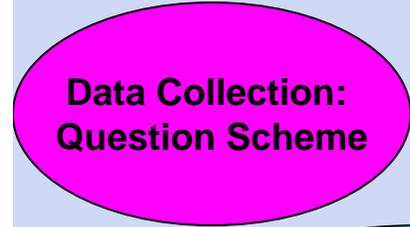
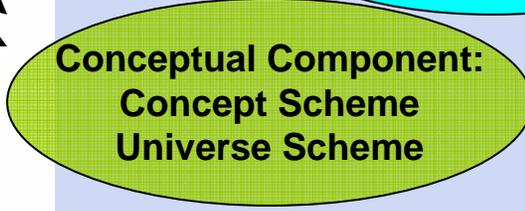
varFormat numeric

Version 2.1 vs. Version 3.0

Example: A survey variable in Version 3.0

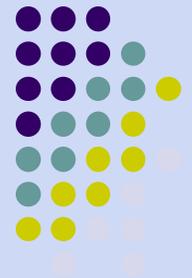


```
V043015 A7a. Attention to national (network) news
=====
PRE-ELECTION SURVEY:
IF R WATCHED NATIONAL NETWORK TV NEWS IN PAST WEEK:
QUESTION:
-----
Please look at page 1 of the booklet.
How much attention do you pay to news on NATIONAL news
shows about the campaign for President -- a GREAT DEAL,
QUITE A BIT, SOME, VERY LITTLE, or NONE?
VALID CODES:
-----
1. A great deal
2. Quite a bit
3. Some
4. Very little
5. None
MISSING CODES:
-----
8. Don't know
9. Refused
INAP. 0,8,9 in A7
TYPE:
-----
Numeric Dec 0
. 270
1 198
2 318
3 304
4 110
5 12
```



DDI 3.0 Markup

Modules used in a full variable description



```

<?c:ConceptualComponent> <?r:MaintainableID> <?r:D>4245_ConceptualComponent </r:D> </r:MaintainableID>
<?c:ConceptScheme> <?r:MaintainableID> <?r:D>4245_ConceptScheme </r:D> </r:MaintainableID>
<?c:Concept> <?r:VersionableID> <?r:D>Concept_2 </r:D> </r:VersionableID>
<?r:Description>Attention to presidential campaign on national TV </r:Description> </c:Concept> </c:ConceptScheme>
<?c:UniverseScheme> <?r:MaintainableID> <?r:D>4245_UniverseScheme </r:D> </r:MaintainableID>
<?c:Universe> <?r:MaintainableID> <?r:D>4245_Universe </r:D> </r:MaintainableID>
<?r:HumanReadable> <?xhtml:p>All United States citizens of voting age on or before the 2004 Election Day. </xhtml:p> </r:HumanReadable>
<?r:SubUniverse> <?r:MaintainableID> <?r:D>SubUniverse1_Preelection </r:D> </r:MaintainableID>
<?r:HumanReadable> <?xhtml:p>Respondents who watched national network TV news during the previous week </xhtml:p>
</r:HumanReadable> </r:SubUniverse> </c:Universe> </c:UniverseScheme> </c:ConceptualComponent>
<?d:DataCollection> <?r:MaintainableID> <?r:D>4245_DataCollection </r:D> </r:MaintainableID>
<?d:QuestionScheme> <?r:MaintainableID> <?r:D>4245_QuestionScheme </r:D> </r:MaintainableID>
<?d:QuestionItem> <?r:IdentifiableID> <?r:D>A7a </r:D> </r:IdentifiableID>
<?d:QuestionText> <?d:LiteralText> <?d:Text>Please look at page 1 of the booklet. How much attention do you pay to news on
NATIONAL news shows about the campaign for President -- a GREAT DEAL, QUITE A BIT, SOME, VERY LITTLE, or NONE? </d:Text>
</d:LiteralText> </d:QuestionText>
<?d:CategoryDomain> <?r:CategorySchemeReference> <?r:Reference> <?r:D>CategoryScheme_V043015 </r:D> </r:Reference>
</r:CategorySchemeReference> </d:CategoryDomain> </d:QuestionItem> </d:QuestionScheme> </d:DataCollection>
<?i:LogicalProduct> <?r:MaintainableID> <?r:D>4245_LogicalProduct </r:D> </r:MaintainableID>
<?i:CategoryScheme> <?r:MaintainableID> <?r:D>4245_CategoryScheme </r:D> </r:MaintainableID> </i:CategoryScheme>
<?i:CodeScheme> <?r:MaintainableID> <?r:D>CodeScheme_V043015 </r:D> </r:MaintainableID>
<?i:CategorySchemeReference> <?r:Reference> <?r:D>4245_CategoryScheme </r:D> </r:Reference> </i:CategorySchemeReference> </i:CodeScheme>
<?i:VariableScheme> <?r:MaintainableID> <?r:D>4245_VariableScheme </r:D> </r:MaintainableID>
<?i:Variable> <?r:IdentifiableID> <?r:D>V043015 </r:D> </r:IdentifiableID>
<?r:Label>Attention to national (network) news </r:Label>
<?r:UniverseReference> <?r:Reference> <?r:D>SubUniverse1_Preelection </r:D> </r:Reference> </r:UniverseReference>
<?i:ConceptReference> <?r:Reference> <?r:D>Concept_2 </r:D> </r:Reference> </i:ConceptReference>
<?i:QuestionReference> <?r:Reference> <?r:D>A7a </r:D> </r:Reference> </i:QuestionReference>
<?i:Representation> <?i:CodeRepresentation> <?r:CodeSchemeReference> <?r:Reference> <?r:D>CodeScheme_V043015 </r:D> </r:Reference>
</r:CodeSchemeReference> </i:CodeRepresentation> </i:Representation> </i:Variable> </i:VariableScheme> </i:LogicalProduct>
<?pi:PhysicalInstance> <?r:MaintainableID> <?r:D>4245_PhysicalInstance </r:D> </r:MaintainableID>
<?pi:PhysicalDataProductReference> <?r:Reference> <?r:D>4245_PhysicalDataProduct </r:D> </r:Reference> </pi:PhysicalDataProductReference>
<?pi:DataFileIdentification> <?r:IdentifiableID> <?r:D>4245_DataFile </r:D> </r:IdentifiableID>
<?pi:Location>ICPSR </pi:Location>
<?pi:URI><a href="http://www.icpsr.umich.edu/cgi-bin/bob/newark?study=4245">http://www.icpsr.umich.edu/cgi-bin/bob/newark?study=4245</a> </pi:URI> </pi:DataFileIdentification>
<?pi:GrossFileStructure> <?r:VersionableID> <?r:D>4245_GrossFileStructure </r:D> </r:VersionableID>
<?pi:CaseQuantity>1212 </pi:CaseQuantity>
<?pi:OverallRecordCount>1212 </pi:OverallRecordCount> </pi:GrossFileStructure>
<?pi:Statistics> <?pi:VariableStatistics> <?pi:VariableReference> <?r:Reference> <?r:D>V043015 </r:D> </r:Reference> </pi:VariableReference>
<?pi:TotalResponses>947 </pi:TotalResponses>
<?pi:CategoryStatistics> <?pi:CategoryValue> </pi:CategoryValue>
<?pi:CategoryStatistic> <?pi:CategoryStatisticType>Frequency </pi:CategoryStatisticType>
<?pi:Weighted>false </pi:Weighted>
<?pi:Value>270 </pi:Value> </pi:CategoryStatistic> </pi:CategoryStatistics>
  
```

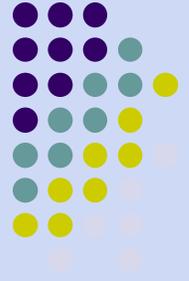
Concept Universe

Question

Values
Value Labels
Variable name
Variable label

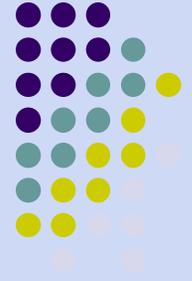
Statistics

Location:
Physical Data Product



DDI for discovery

- DDI2 lite: CESSDA integrated catalog
- Core v3
- DDI to MARC
- DDI to Dublin Core
- DDI and OAI



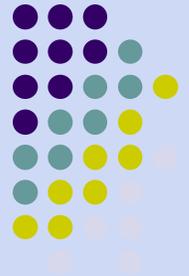
DDI 2 Lite

CESSDA 2001 recommendations:

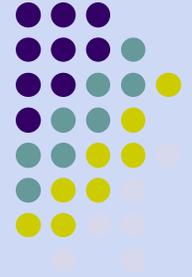
<http://www.ddialliance.org/DDI/related/cessda-rec.pdf>

- Examples from the various CESSDA archives were collected and compared
- Defined a realistic least common denominator for the CESSDA archives in English
- A set of strongly recommended fields constituting the basic information on any dataset.
- Used to make cross archive substantive searches

Core v3: based upon DDI 2 Lite



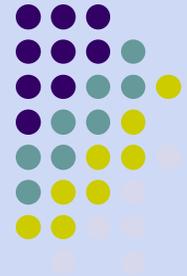
- Describes the study as a whole, the data files, and the variables in the files
- Uses information from the following modules:
 - Study unit
 - Conceptual Component
 - Data Collection
 - Logical Product
 - Physical Data Product
 - Physical Instance
 - Archive
 - Organization



DDI v2 and MARC

- ICPSR Field Mapping Table

<http://www.icpsr.umich.edu/ICPSR/or/metadata/table.html>



DDI 2 and Dublin Core

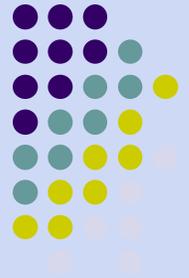
DC Element	DDI Element	Notes
Title	<titl> 2.1.1.1	Title of Data Collection
Creator	<AuthEnty> 2.1.2.1	Authoring Entity of Data Collection
Subject	<keyword> 2.2.1.1	Keyword(s)
	<topcClas> 2.2.1.2	Topic Classification
Description	<abstract> 2.2.2	Abstract
Publisher	<producer> 2.1.3.1	Producer of Data Collection
Contributor	<othId> 2.1.2.2	Other Identification/Acknowledgements - Data Collection
Date	<prodDate> 2.1.3.3	Production Date - Data Collection
Type	<dataKind> 2.2.3.10	Kind of Data
Format	<fileType> 3.1.5	Type of File
Identifier	<IDNo> 2.1.1.5	ID Number - Data Collection
	<holdings location="" callno="" URI=""> 2.1.8	Holdings Information - Data Collection
Source	<sources> 2.3.1.8	Sources - Used for Data Collection
Language		
Relation	<othrStdyMat> 2.5	Other Study Description Materials
Coverage	<timePrd> 2.2.3.1	Time Period Covered
	<collDate> 2.2.3.2	Date(s) of Data Collection
	<nation> 2.2.3.3	Country
	<geogCover> 2.2.3.4	Geographic Coverage
Rights	<copyright> 2.1.3.2	Copyright - Data Collection

Sources: Sanda Ionescu, ICPSR. Introduction to DDI 3. CESSDA Expert Seminar, September 2007 (ppt). DDI Alliance: www.ddialliance.org. DDI and institutional repositories by Luis Martinez Uribe (UK-DISC: DataShare) 2008.

Dublin Core (Basic)	DDI 3.0
Contributor	Citation: Contributor (in Instance, StudyUnit, Group and Phys. Instance)
Coverage	Coverage: SpatialCoverage, and Coverage: TemporalCoverage (in Instance, StudyUnit, Group and Phys. Instance)
Creator	Citation: Creator (in Instance, StudyUnit, Group and Phys. Instance)
Date	Coverage: Temporal: AdministrativeDate, (in Instance, StudyUnit, Group and Phys. Instance) OR LifeCycleInformation: LifeCycleEvent: Date (in Archive)
Description	Abstract (in StudyUnit, and Group)
Format	Item: Format (in Archive)
Identifier	Item: Call Number (in Archive)
Language	Translation Information: Language (in Instance)

Dublin Core (Basic)	DDI 3.0
Publisher	Citation: Publisher (in Instance, StudyUnit, Group and Phys. Instance)
Relation	OtherMaterial (in Instance, StudyUnit, Group and Phys. Instance)
Rights	Citation: Copyright (in Instance, StudyUnit, Group and Phys. Instance)
Source	OtherMaterial (in Instance, StudyUnit, Group and Phys. Instance)
Subject	Coverage: Topical (in Instance, StudyUnit, Group and Phys. Instance)
Title	Citation: Title (in Instance, StudyUnit, Group and Phys. Instance)
Type	DataKind (in StudyUnit module)

Qualified Dublin Core elements and DDI 3



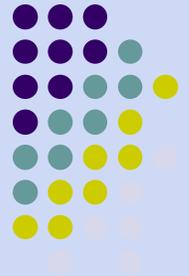
“Qualified” Dublin Core Elements	DDI 3.0
Audience	NA
Provenance	Item: OriginalArchiveOrganizationReference (in Archive)
RightsHolder	Citation: Copyright (in Instance, StudyUnit, Group and Phys. Instance) OR Organization/Individual: Role (In Archive: Organizations)

Source: Sanda Ianescu, ICPSR.



Dublin Core Elements	DC Element Qualifiers	DDI 3.0
Title	Alternative	Citation: Alternate Title
Description	Table of Contents	Item->Item (nestable) (in Archive)
	Abstract	Abstract
Date	Created Valid Available Issued Modified	Coverage: TemporalCoverage: Administrative Date: Type (has Controlled Vocabulary)
Format	Extent	Item: DataFileQuantity (in Archive)
	Medium	Item: Media (in Archive)
Relation	Is Version Of Has Version Is Replaced By Replaces Is Required By Requires Is Part Of Has Part Is Referenced By References Is Format Of Has Format	OtherMaterial: Type
Coverage	Spatial	Coverage: SpatialCoverage
	Temporal	Coverage: TemporalCoverage

Source: Sanda Ionescu, ICPSR.



DDI 2 and OAI-PMH

Responds to a *ListRecords* request returning a record with most of the information but not Data Files and Variables descriptions.

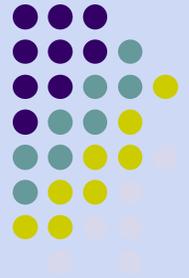
UK Economic and Social Data Service (ESDS) has an OAI-PMH implementation that uses DDI2

<http://oai.esds.ac.uk/>

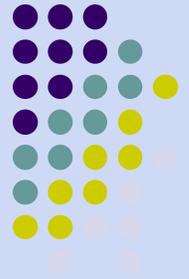
ICPSR

MIT DSpace

Other functions using DDI



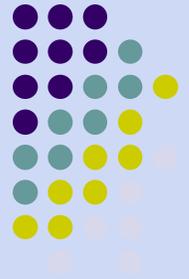
- DDI and preservation
- DDI and access management
- DDI and linking



DDI and digital preservation

- Life cycle orientation of documentation means that a “chain of custody” can be created
- Archives can use the life cycle events to track data processing activities (e.g. data transformation).
- Separate DDI instances can be created to follow the OAIS model: SIP, AIP, DIP.

Preservation metadata and DDI 3



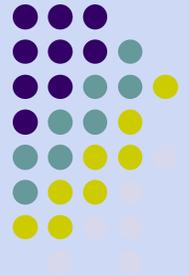
PLEDGE:

Project aims to incorporate the Virtual Data Network (DataVerse) into PLEDGE activities

Transforming descriptive and administrative metadata out of DDI formats and into MODS and PREMIS for inclusion in METS SIPs.

<http://pledge.mit.edu/index.php/VDCIntegration>

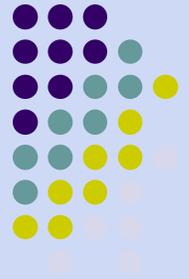
Using DDI for access management



- Both DDI 2 and DDI 3 have tags that can be used to deal with the access management requirements.
- In DDI 2 use the Data Access tag (`<dataAccs>`) which describes access conditions. In cases where access conditions differ across individual files or variables, multiple access conditions can be specified.
- In DDI 3.0 the relevant tags are in the Archive module under access type.

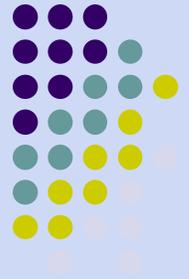
Using DDI for Linking to other materials

(publications, maps, images, etc.)



- Both versions of DDI will allow linking to publications.
- In DDI 2 the “Other Study Materials” section allows linking to related studies through title of study, author, producer, version and physical location amongst others.
- In DDI 3, linking to other materials happens in the study unit module.

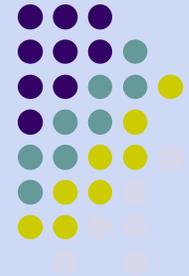
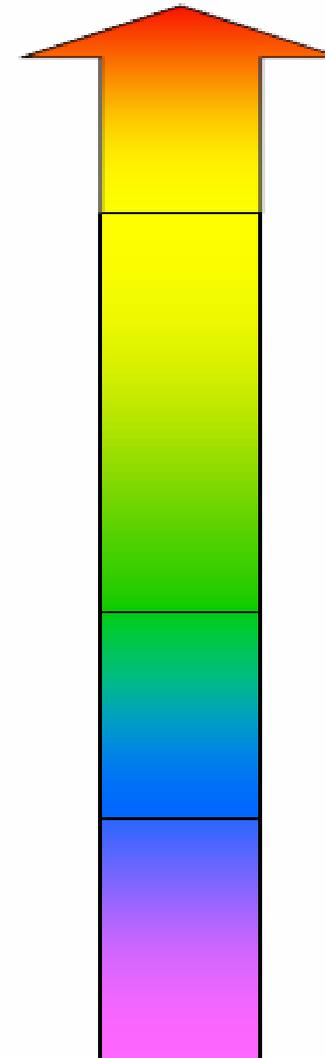
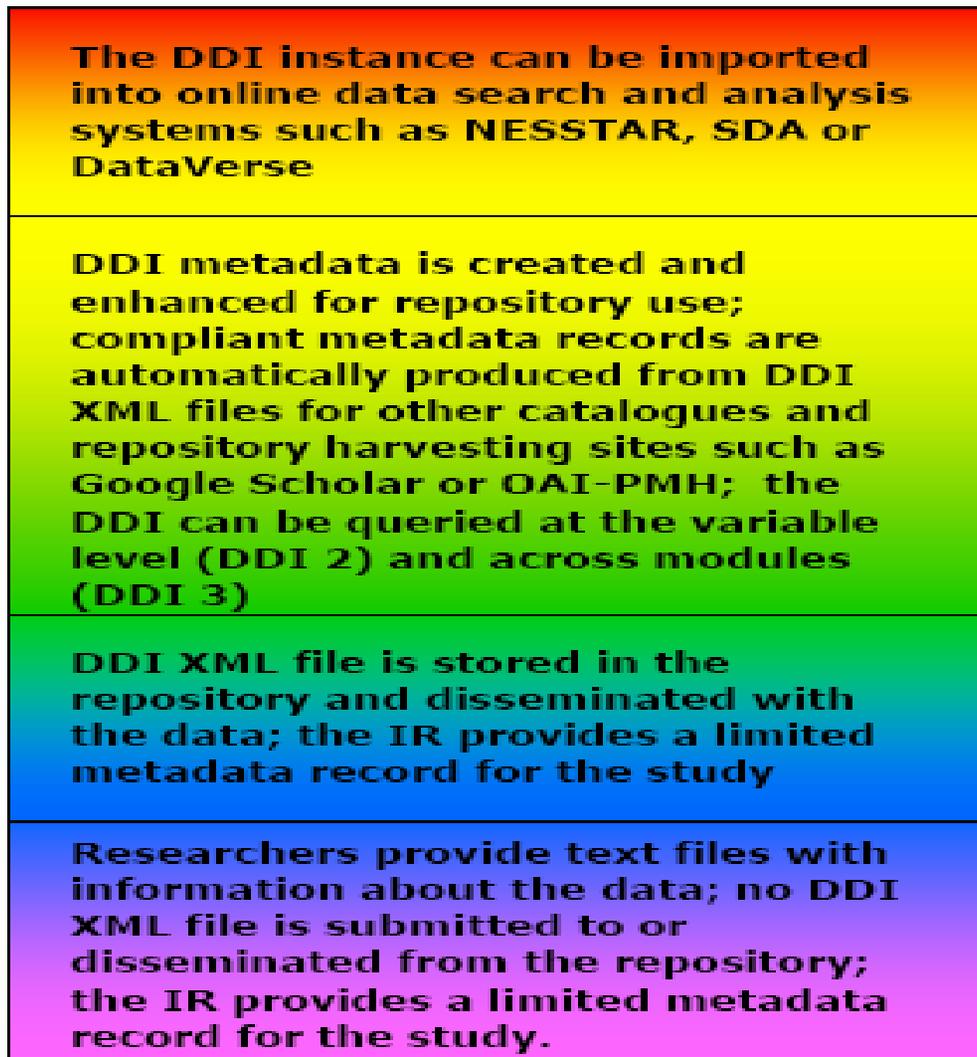
DDI and Institutional Repositories

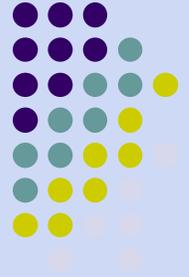


Take advantage of DDI to classify, describe, and organize datasets

QUESTIONS:

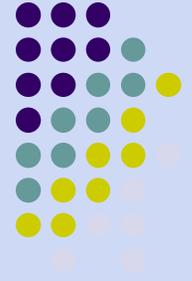
- use DDI 2 or DDI 3?
- how many and which tags are needed?
- in which ways could DDI be progressively incorporated and used in IRs?





Tools and resources

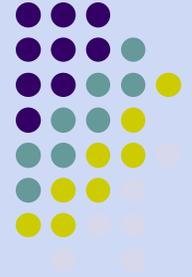
- DDI 3.0 Editor Lite
- XML tools
- Software for specific functions
- DDI Toolkit
- Tools from the International Household Survey Network



DDI 3.0 Editor-Lite

- DDI 3.0 Editor-Lite generates XML markup
- basic study and variable-level descriptions of simple, survey-type datasets.

http://www.ddialliance.org/DDI/ddi3/workshop/DDI3_TransformerTOOL_updated/DDI_v2dot2.html#app=1792&44f0-selectedIndex=1



Other XML tools

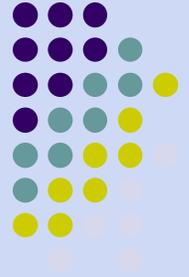
- **XML editor: oXygen**

- Create new DDI instance
- Edit/update DDI instance
- Validate DDI instance
- View schemas

- **DDI 3.0 Stylesheets/Transforms**

- Basic: transform the XML file into XHTML for Web presentation.
- Enhanced: passes the XML file through a series of stylesheets to add more advanced features to the XHTML display, such as graphical representation of frequencies, and automated calculation of valid percentages.

Software to assist in document viewing, transformation and production



- DeXtris:

- XML browser to view and search DDI files
- Converts DDI 1/2 to DDI 3.0
- Has sample DDI documents

<http://www.opendatafoundation.org/tool/dextris>

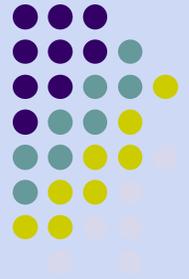
- SPSS to DDI 3.0 converter

- Linked from DDI Alliance website:

<http://www.ddialliance.org/DDI/ddi3/proof.html>

From GESIS – Leibniz Institute for the Social Sciences

DDI Foundation Tools Program in development (open source)



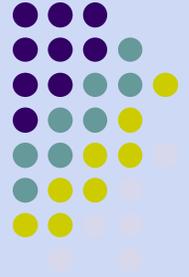
Developed by the DDI Alliance, GESIS-ZUMA, UKDA, DDA, Canada RDCs, and OdaF.

<http://tools.ddialliance.org>

- DDI Version 1/2 <-> Version 3.0 converters
- DDI 3.0 URN resolution tool
- DDI 3.0 validation tool
- Version 3.0 stylesheets with display and editing layers
- Grouping tool
- Concept management tool
- Registry applications

Source: DDI Alliance:www.ddialliance.org.

Tools from the International Household Survey Network



<http://www.surveynetwork.org/home/>

Combination of open source and NESSTAR (licensed)

Microdata Management Toolkit: uses the DDI metadata standard and the Nesstar content management and analysis system.

Metadata Editor

Explorer is a free reader for files generated by the Metadata Editor. It allows users to view the metadata and to export the data into various common formats (Stata, SPSS, etc).

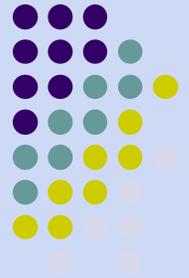
CD-ROM Builder is used to generate user-friendly outputs (CD-ROM, website) for dissemination and archiving."

Quick Reference Guide for Data Archivists

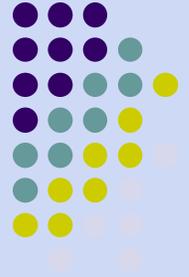
DDI at Cornell

Bill Block and Janet Heslop
CISER and DDI

ICPSR Summer Workshop 2009 at Cornell



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