

FedGIS Conference

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Leveraging Metadata Standards in ArcGIS to Support Interoperability

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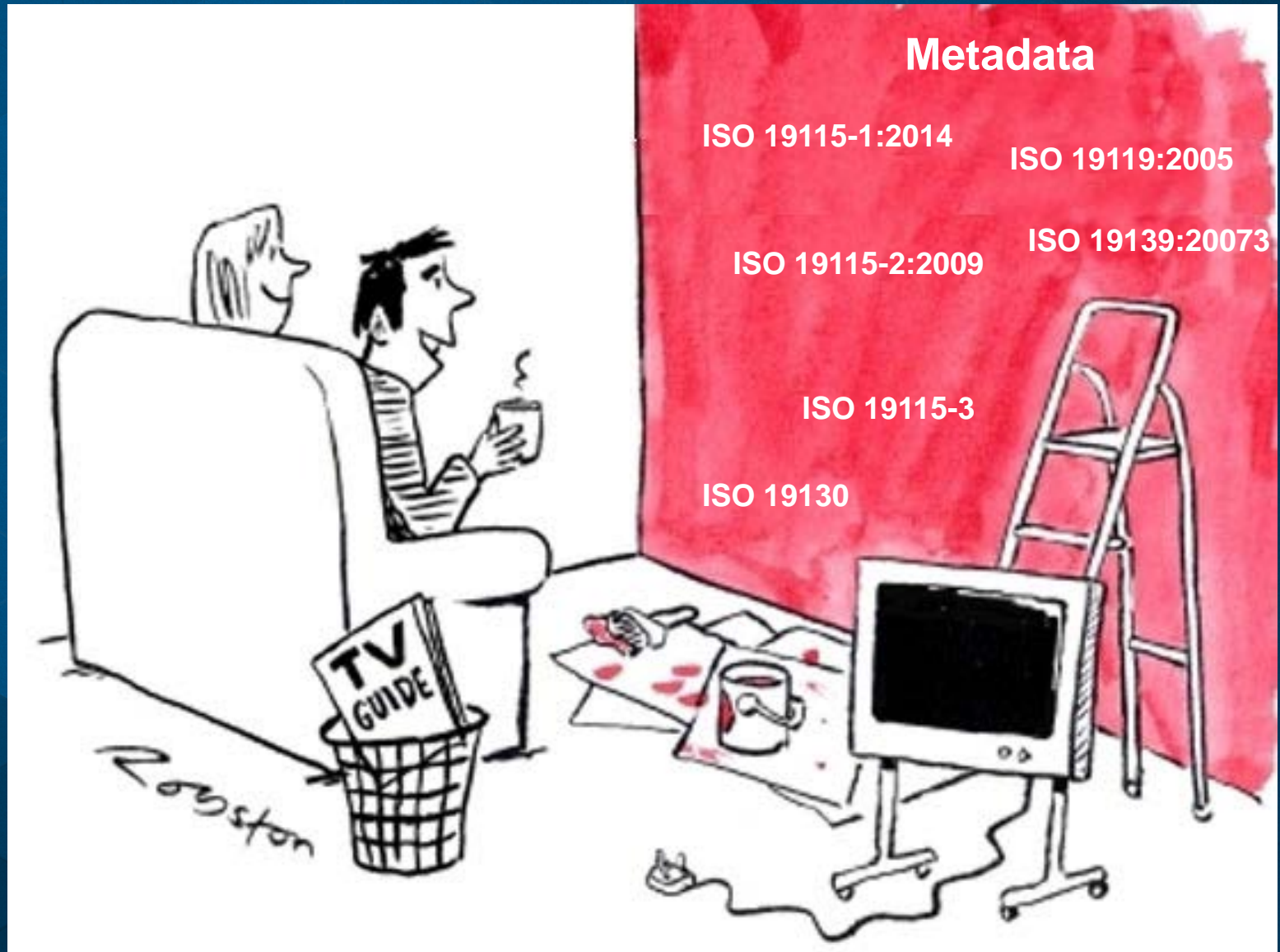
Marten Hogeweg (Esri)

Yuanjie Li (NOAA)

Why bother with metadata?

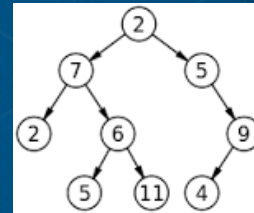


Watching
Paint
Dry



Why bother with metadata standards?

- Content checklist for authors
- Common understanding of geospatial data
 - Between countries
 - Between communities
- Publish to metadata catalogs
- Consistent terminology for global search



HOME SEARCH BROWSE LAUNCH MAP VIEWER

Search

Text:

Results 1-10 of 44 record(s) [1](#) [2](#) [3](#) [4](#) [5](#) [>](#) [Last](#)

Expand results [Zoom To Results](#) [Zoom To Searched Area](#)

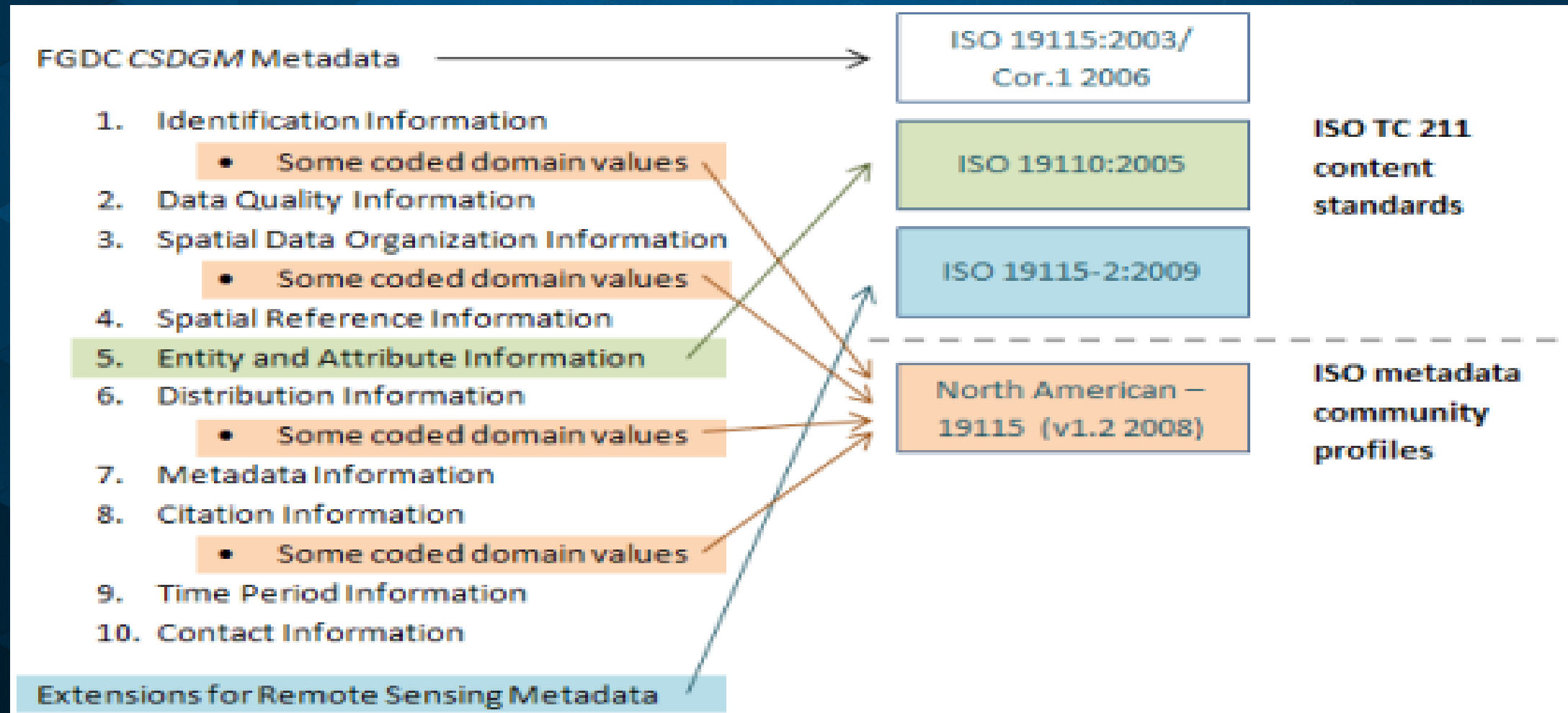
Records shown from: This Site
Click here to select different site or configure search.

Agriculture, Fruit and Orchards, Published in Not Provided, US Army.

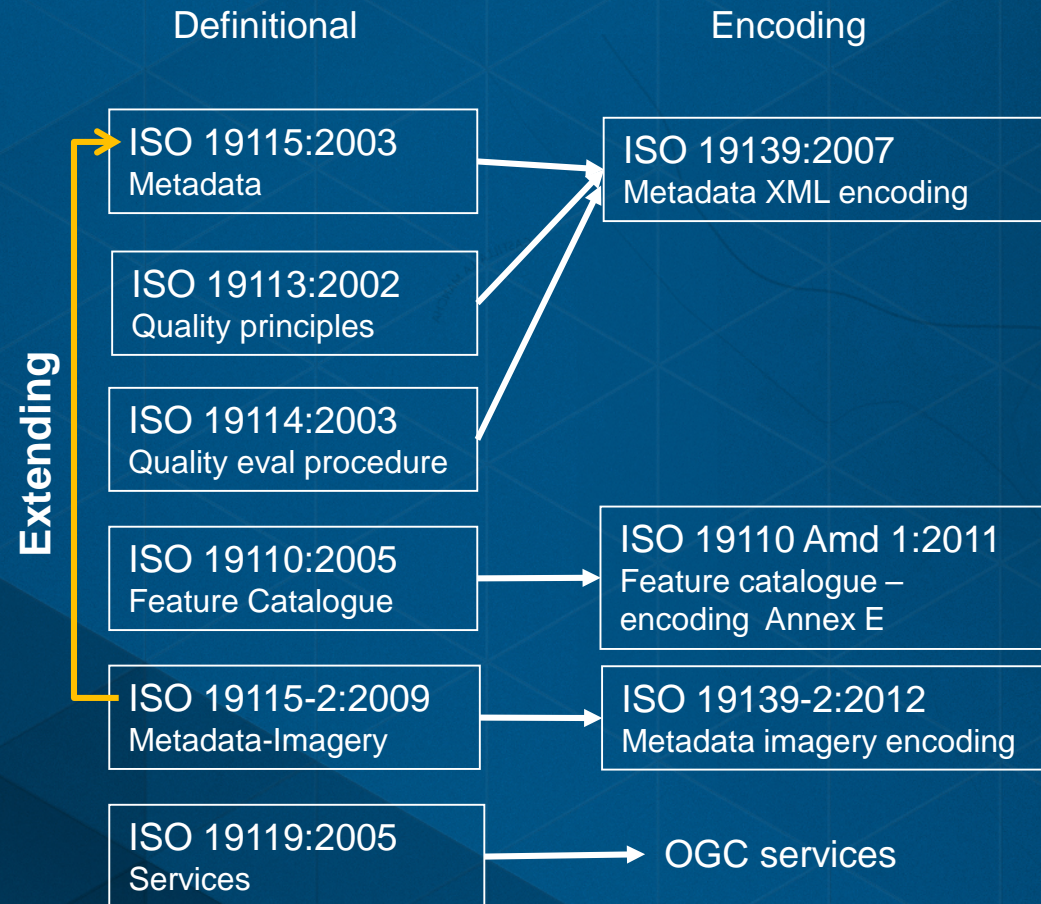
Tim Berners Lee's rating system for the WWW



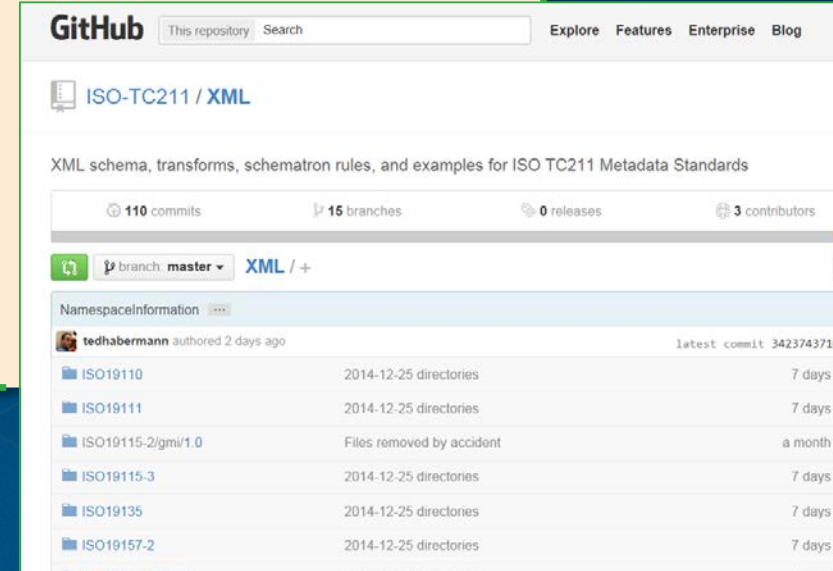
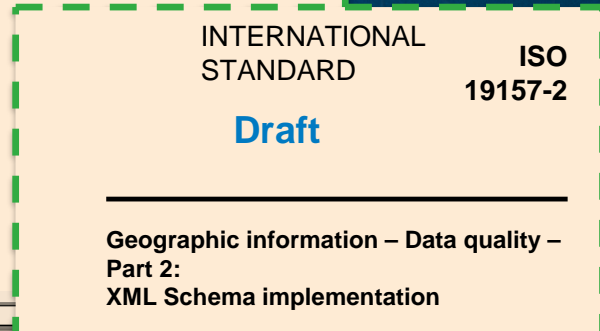
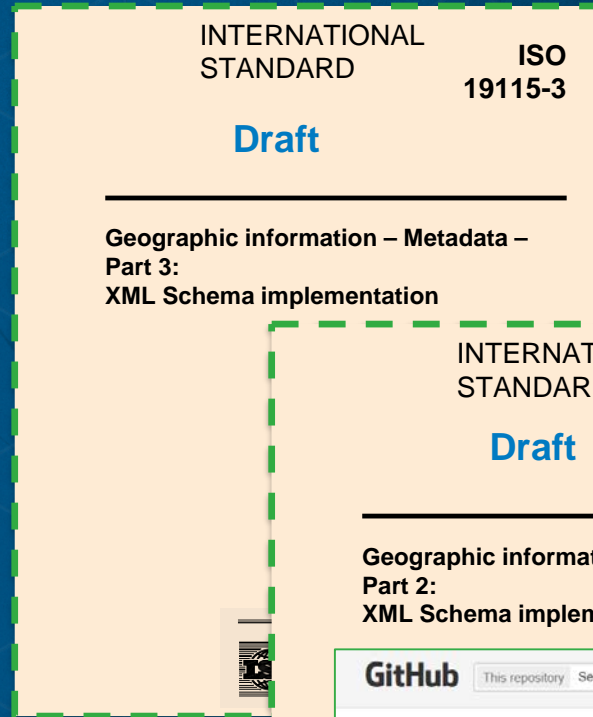
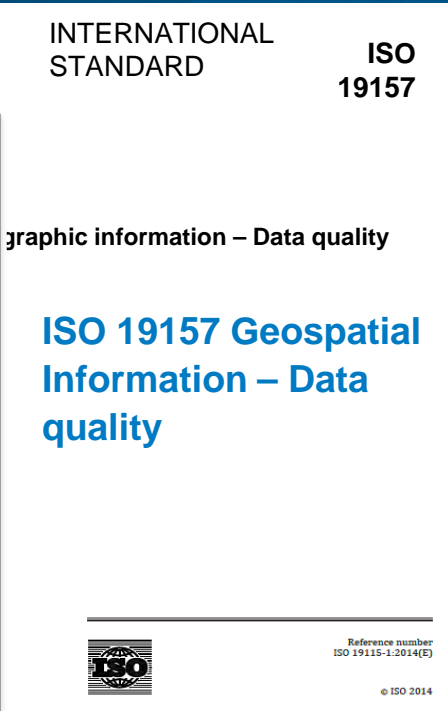
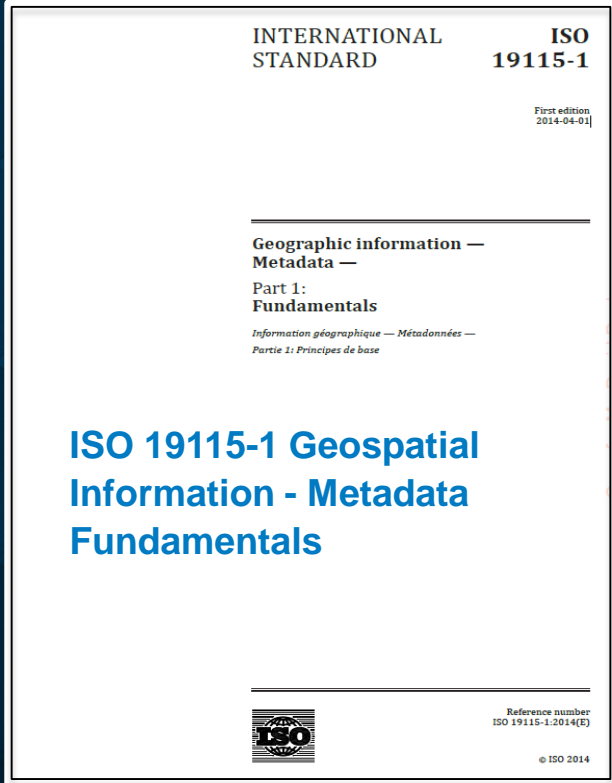
Overview of Metadata Standards



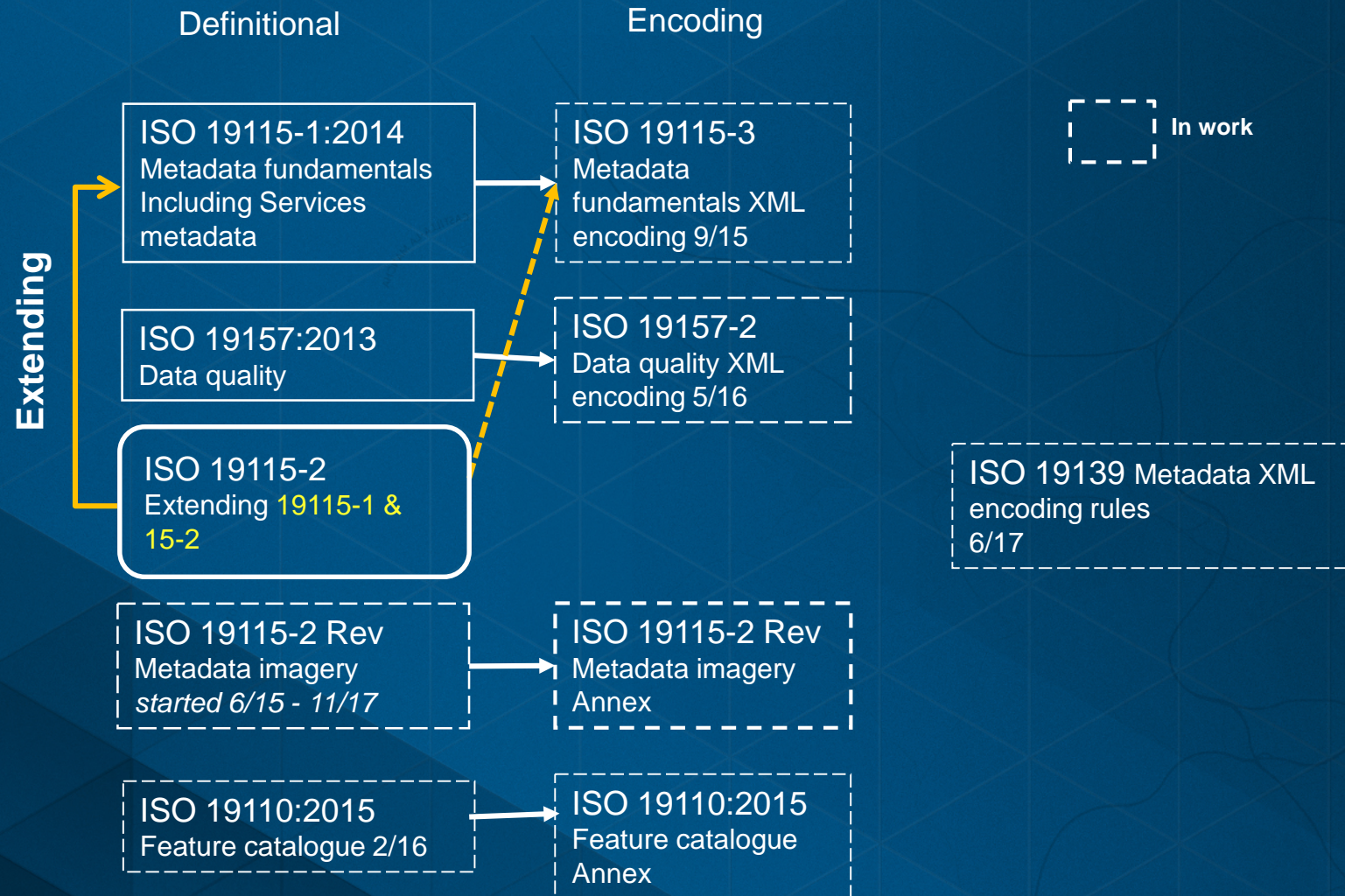
ISO metadata standards today



Metadata standards tomorrow (future)



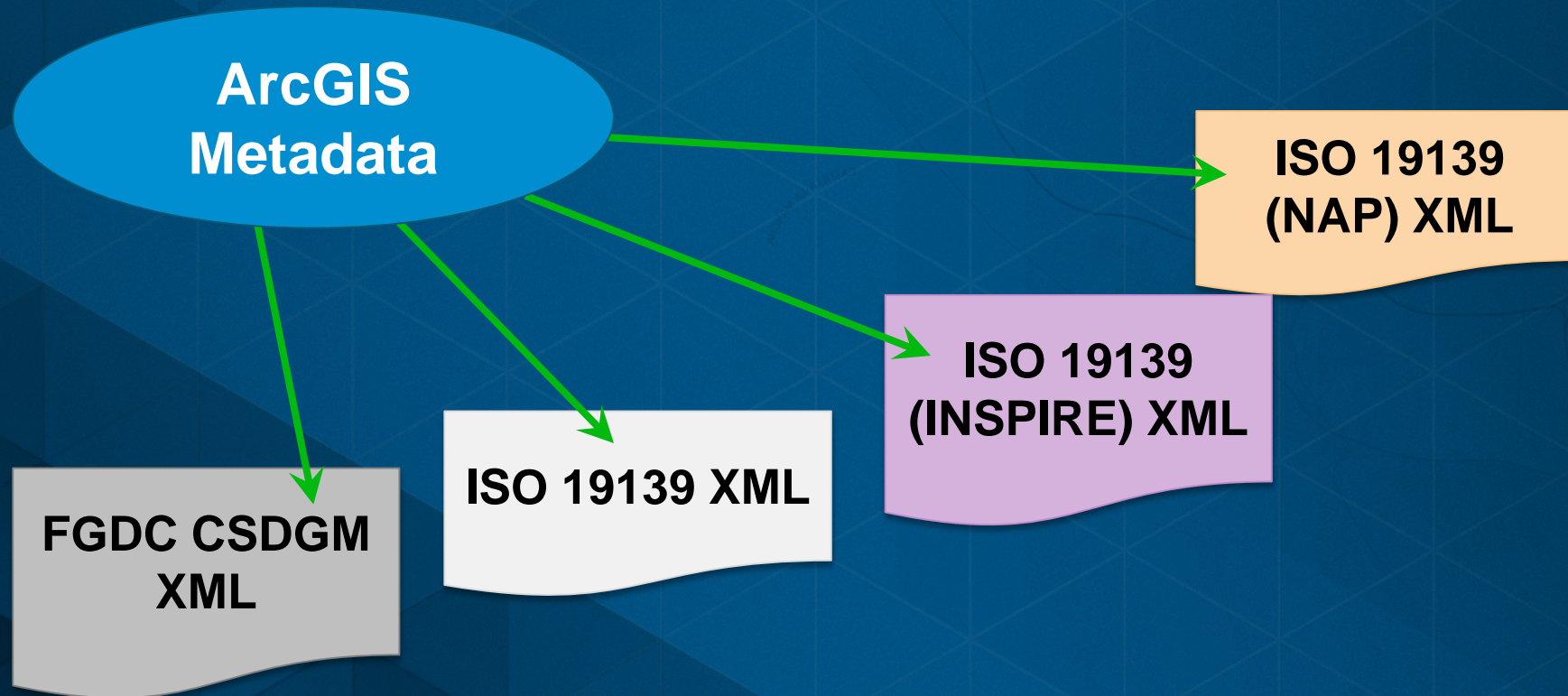
ISO metadata standards future



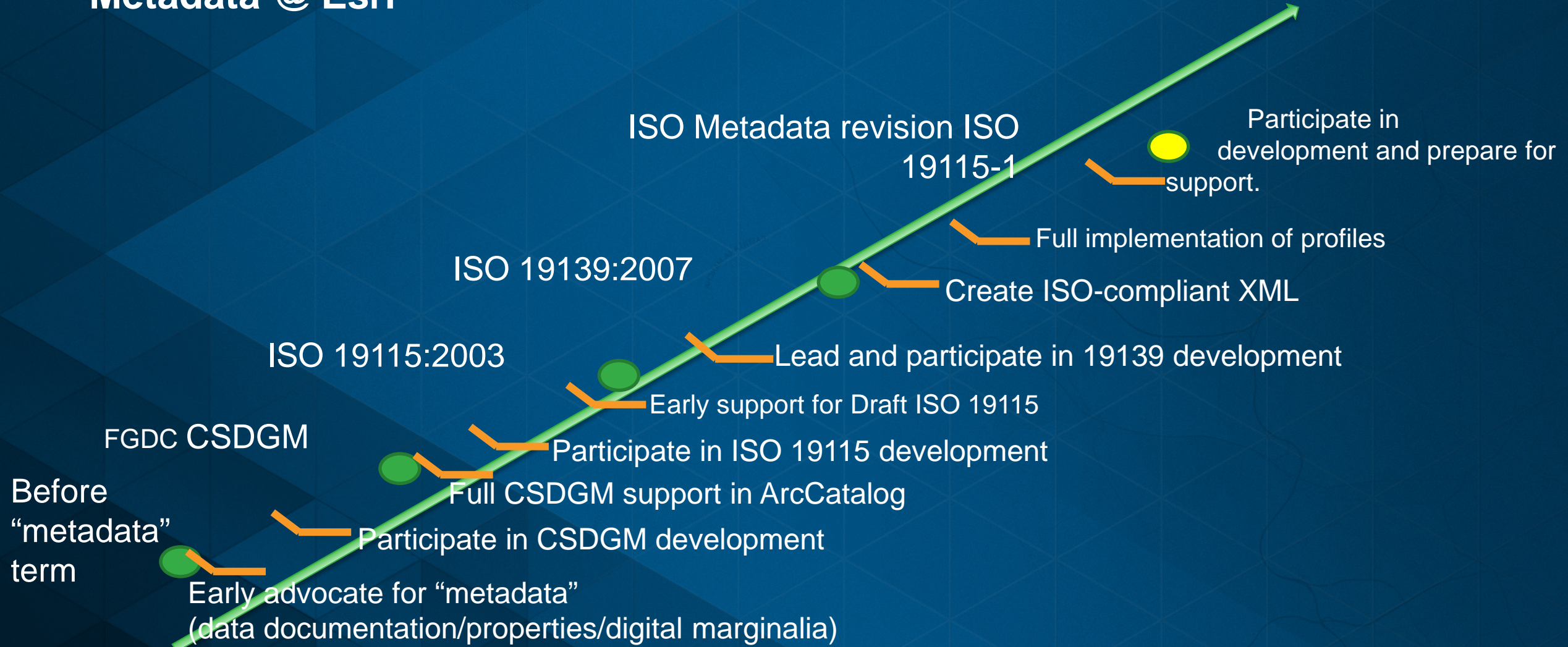
ISO 19115 (-1) Profiles

- Australia-New Zealand Profile
- North American Profile of ISO 19115:2003 (NAP)
 - CAN/CGSB-171.100-2009
 - INCITS 453-2009
- INSPIRE Metadata Directive
- ISO19115/ISO19119 Application Profile for CSW 2.0
- C3Grid ISO 19115 Metadata Profile
- Marine Community Metadata Profile of ISO 19115
- Energy Industry Profile of ISO 19115-1
- USGIN ISO 19139 Profile
- DISDI Geospatial Metadata Profile (DGMP)
- National System for Geospatial Intelligence Metadata Foundation (NMF)
- A metadata profile for precision agriculture based on ISO 19115 standard.
- WMO Core Profile of the ISO 19115 Metadata Standard
- Transformation of HDF-EOS metadata from the ECS model to ISO 19115-based XML
- Draft African metadata profile of ISO19115
- Samoan profile
- NOKIS – an ISO 19115 Based Metadata System
- The UDK and ISO 19115 Standard
- Latin American Profile
- Núcleo Español de Metadatos (NEM)
- UK GEMINI
- Biological profile
- Coastal zone profile
- S100 Metadata profile (IHO)

ArcGIS Metadata Standards Support



Metadata @ Esri



ArcCatalog

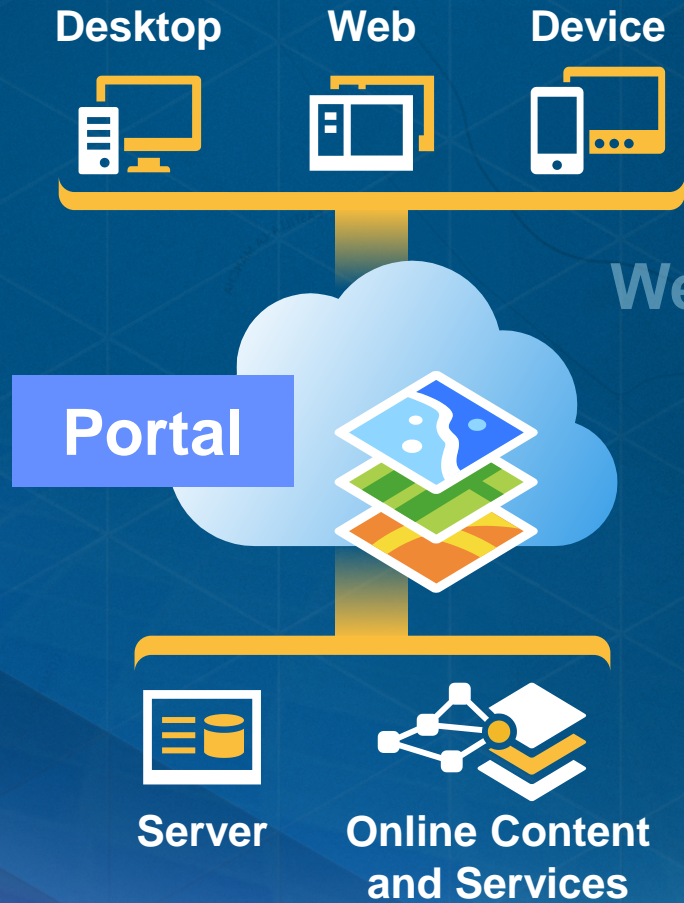
The screenshot displays the ArcCatalog application window with the following components:

- Main Window:** ArcCatalog - C:\data\Japan\shape_jp_1_1\bnda_1_1.shp. The interface includes a menu bar (File, Edit, View, Go, Geoprocessing, Customize, Windows, Help), a toolbar, and a breadcrumb path. The main content area shows the 'Resource Citation' section for a dataset titled 'Global Map Administrative boundaries'. The 'Metadata' tab is active, showing 'Presentation Form' set to 'FGDC Geospatial Data Presentation Form'. A sidebar on the left contains navigation options like 'Overview', 'Item Description', 'Topics & Keywords', 'Citation', 'Citation Contacts', 'Contacts Manager', 'Locales', 'Metadata', 'Details', 'Contacts', 'Maintenance', 'Constraints', 'Resource', 'Details', and 'Extents'.
- ArcCatalog Options Dialog:** Opened to the 'Metadata' tab. It features a 'Metadata Style' dropdown menu with the following options: ISO 19139 Metadata Implementation Specification (selected), FGDC CSDGM Metadata, INSPIRE Metadata Directive, ISO 19139 Metadata Implementation Specification, ISO 19139, Item Description, and North America. A 'Validate Metadata' button is also present.
- Export Metadata Dialog:** Opened in the foreground. It contains the following fields:
 - Source Metadata: C:\data\Japan\shape_jp_1_1\bnda_1_1.shp
 - Translator: C:\Program Files (x86)\ArcGIS\Desktop10.3\Metadata\Translator\ArcGIS2ISO19139.xml
 - Output File (optional): C:\data\Japan\shape_jp_1_1\bnda_1_1_xslttransformation_1.xmlThe dialog includes 'OK', 'Cancel', 'Environments...', and 'Show Help >>' buttons.
- Background Dialog:** A partially visible dialog titled 'Source Metadata' with a text field containing 'ArcGIS2ISO19139.xml'.

ArcGIS Is a Platform

Enabling GIS Everywhere

Simple
Integrated
Open



Metadata

Author / Create
Use

Catalog / Discover
/ search

Serve / Publish

*Available in the Cloud . . .
. . . and On-Premises*

ArcGIS Platform and Metadata

• Items Carrying Metadata

- Portal and Online Items
- Mxd's, Datasets, Services
- Folders
- ...

• Metadata Formats

- Item Information
- ArcGIS Metadata
- Formal Metadata – FGDC, ISO, ...
- DCAT
- Encodings – esri JSON, XML, atom,

• Indexing / Access / Discovery

- GeoServices REST Spec
- OGC CS-W

Products

ArcGIS Desktop – ArcMap, PRO

ArcGIS for Server

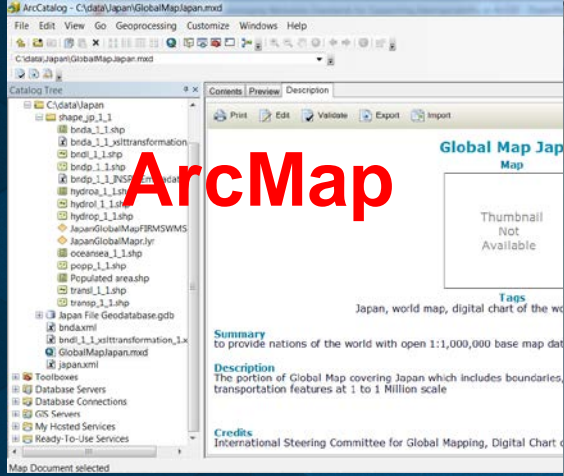
ArcGIS Online / Portal for ArcGIS

ArcGIS OpenData App

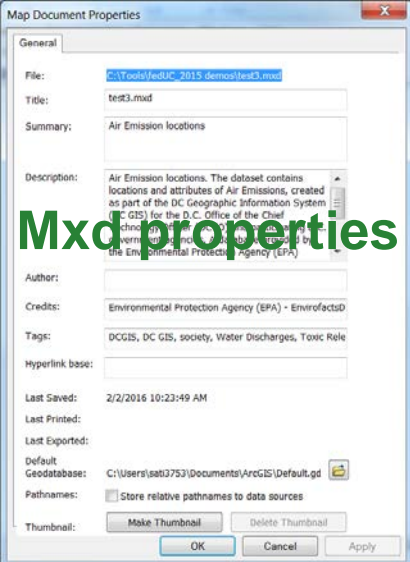
Geoportal Server

App Widgets

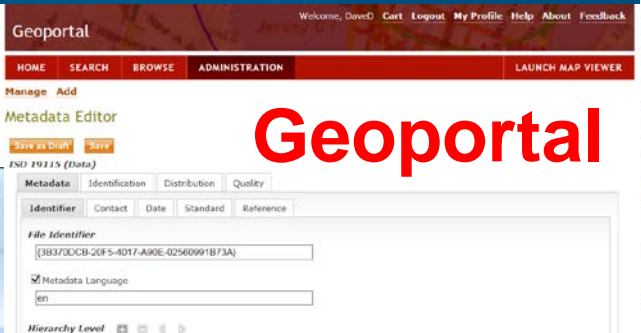
Esri support for metadata



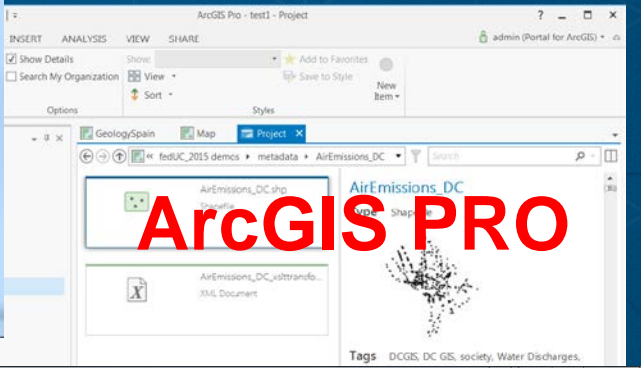
ArcMap



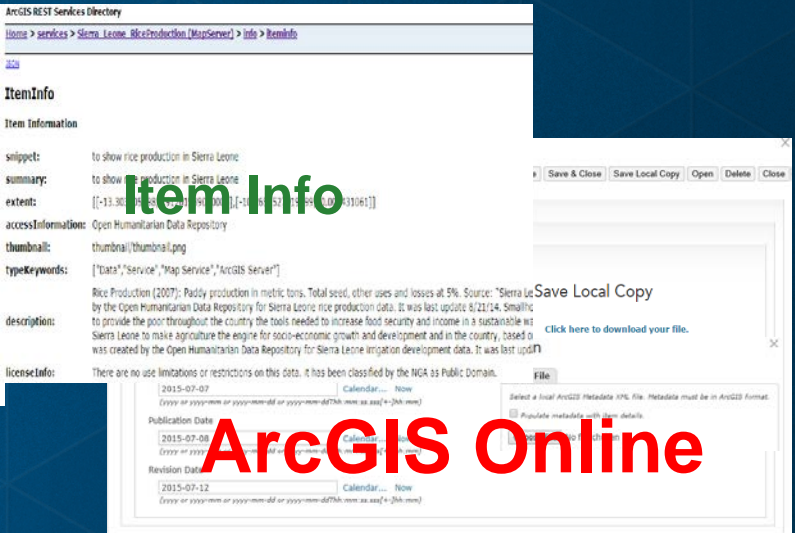
Mxd properties



Geoportal

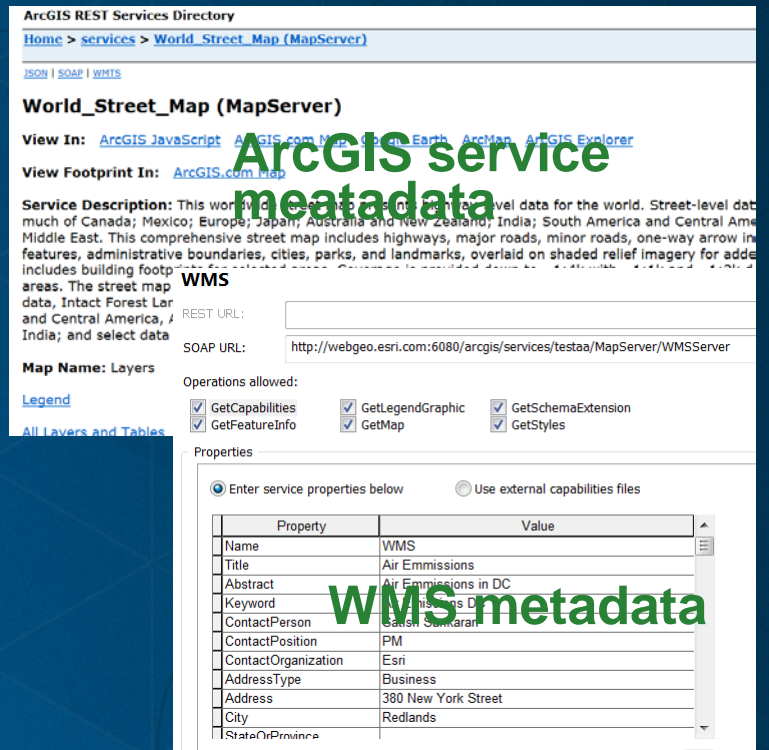


ArcGIS PRO



Item Info

ArcGIS Online



ArcGIS service metadata

WMS metadata



Service Metadata



ArcGIS OpenData

What's Next for ArcGIS?

- **Will add support for ISO 19115-1 when it has been finalized and an XML Schema is available**
 - **Possibly support ISO 19115-2 at the same time**
- **Will update ArcGIS for Desktop to use schemas from new repository when it is available**
 - **Will use GML 3.2.1 namespace**
- **Improve and extend existing support for metadata in ArcGIS PRO**
- **Improve end-to-end support for metadata : Desktop -> Server -> Online/Portal**

