Statistical analysis of geospatial information | relevance of SDI’s and international standards

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The geospatial and statistical communities are major contributors of information used as evidence in decision-making processes across many sectors, both public and private.

With the increasing complexity of national and global challenges and issues, the need to understand the interrelationships across the economic, social and environmental pillars is becoming critical.
Integration - cartographic and statistical information critical for both public and private sectors
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Essential for GGIM
- Interoperability
- Data Accuracy
- Security
Challenges to Interoperability, Data Accuracy & Security

- Multiple Platforms (Operating Systems, Databases, …)
- Multiple Architecture (Local, Enterprise, Web, Cloud, …)
- Multiple Clients (Desktop, Web, Mobile, …)
- Multiple Developer Environments (.NET, Java, …)
- Multiple Protocols (SOAP, REST, OGC, …)
- Multiple Encodings (XML, Raster Formats, GML, JSON, …)
Consumerisation of Technology

Disasters

BIG Data

Human Capital Management
Commitment
ArcGIS Platform supporting UNGGIM

ArcGIS Online

- Open APIs
- OGC
- ISO TC211
- Esri Git.Hub
- +++

GeoEvent Server
- Image Server
- Metadata
- Big Data

Desktop

- Imagery
- IN-SITU
- Sensors
- Vector

GEOSS
- CEOS
- GeoSur
- National SDI

+++
ArcGIS Platform Support Standards across the Work Flow

Collect
- Earth Observation
- In-situ Sensor Networks
- GIS

Store
- Image Server
- GeoEvent Processor
- Geoprocessing Server
- ArcGIS Server

Serve

Discover

Portal

Use
- Research
- Data Products
- Web Access
- Applications
- Geospatial Platform
- WMO
- CEOS
- GCOS
- GEOSS
ArcGIS - Building open and interoperable Systems

Popular Consumer Mapping Environments:
- Google Maps
- Microsoft VE
- Yahoo Maps

Esri Client Solutions:
- ArcGIS for Desktop
- ArcGIS for Mobile
- ArcGIS Online

GIS Software:
- Intergraph
- Autodesk
- PitneyBowes

Solution Developer Frameworks:
- php
- Ruby
- Python

Business Applications:
- SAP
- MS Sharepoint
- IBM WebSphere Portal

ArcGIS for Server
ArcGIS - Building open and interoperable systems

Supporting Multiple Protocols

- Representational State Transfer (REST)
- Simple Object Access Protocol (SOAP)
- Open Geospatial Consortium (OGC)

Catering to Multiple Communities:

- Spatial Data Infrastructures (SDI)
- Enterprise Architectures (EA)
- Mashups (Web 2.0)
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Solution
Build interoperable Web services across platforms, applications, and programming languages
ArcGIS - Building open and interoperable Systems
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Statistical analysis of geospatial information | relevance of SDI’s and international standards

- Standards are important to integration of spatial data and statistical data – and critical to our common success

- Esri supports standards

- ArcGIS is open and interoperable