Institutional Arrangements In Geoinformation Management: Influence of Legal and Policy Issues

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Geospatial Technology Is Now Pervasive



Creating A New Geospatial Community



Geospatial Community

- An international ecosystem that collects/uses/stores/distributes geoinformation.
 - Cuts across technology platforms, industry groups and user communities.
- All segments of community are contributing to community's growth
- Products and services increasingly being developed based upon aggregation all types of data collected from diverse sources.
- As a result policies/laws that impact the collection, impact, and distribution in one segment will impact others.
 - Traditional stovepipe approaches are obsolete/detrimental

Has Happened Almost Overnight St. Peter's Square - 2005



St. Peter's Square - 2013



Policy/Legal Communities Have Failed to Keep Up

- A number of policy/legal issues impact the collection/use/storage/distribution of geoinformation
 - Privacy
 - Intellectual Property
 - Licensing
 - National Security
 - Open Data
 - Liability
- Policy/legal communities don't understand geospatial technology, geoinformation, and/or the geospatial community
- Uncertainty makes it increasingly difficult to collect/use/store/distribute geoinformation

Impact of Privacy Concerns



Impact of Licensing/Data Sharing Restrictions



Impact of Liability Concerns



Impact of Homeland/National Security Policies



Broader Impact of Legal/Policy Uncertainty

- Private sector's ability to collect/use/store/distribute geoinformation
- Crowdsourcing, NGO's, Researchers
- Nation's sharing data by to address transnational issues:
 - Global Map for Sustainable Development
 - Climate Change
 - Geodetic Reference Framework
 - Disaster Response

Developing Proper Institutional Arrangements

- Understand which laws/policies/regulations are having an impact within each nation.
 - Begin with key issues that impact "legal interoperability"
- Raise awareness of full value of geoinformation in society and economy
 - Within government, private sector and society
 - Policy often balancing perceived risks versus potential benefits
- Create forums that include all relevant stakeholders to create institutional arrangements that recognize the role of entire geospatial community

What Will Likely Happen if Proper Institutional Arrangements are Not Created?

- Policies/laws will develop without full community input
- Will likely be broadly worded with a number of unintended consequences.
 - Privacy Laws
 - Restrictions on Drones
 - Laws Regarding Data Quality
 - National Security Directives and Policies
 - Proposed "Convention on Geoinformation"
- Full value of geoinformation will not be realized
 - Policies often about balancing benefits vs. perceived risk

Lawyers Will Try To Impose Own Institutional Arrangements

- Convention on Geoinformation initiated by <u>International Bar</u> <u>Association</u>.
- Intended to apply to <u>all geoinformation</u>, collected from whatever source, for whatever purpose.
- Trying to address in <u>one document</u> a number of complex issues that are critical to the geospatial community – such as <u>privacy, data</u> <u>quality, intellectual property rights, and national security</u>.
- Would result in a number of <u>new regulations and burdens</u> on industry and some governments with respect to the collection/use/distribution of geoinformation.
- Would increase <u>potential liability risks</u> for industry and (possibly some government agencies) and would also likely dampen the willingness of individuals to contribute geoinformation (also due to liability concerns).

Potential Impact of Bad Laws/Policies/Regulations

- Increased costs and expenses to collect/use geoinformation
- Longer roll-out times for new products/services
- Lawsuits may increase
- As a result . . .
 - Geoinformation will be harder to collect/use/distribute
 - Demand/Market for geospatial products/services could decrease
- This will impact the entire geospatial community
- How do you measure <u>opportunity costs</u> of not collecting/using geoinformation?