Emerging technologies and the impact of legal and policy frameworks on access, sharing and use of geospatial information

**World Geospatial Information Congress** 

## Centre For Spatial Law and Policy

- Educate governments and businesses on current legal and policy environment with regards to location and other types of spatial data.
- Advocate development of consistent and transparent policy and legal frameworks for collection, use and distribution of spatial data.
- Identify solutions to legal and policy issues that limit the sharing of spatial data for critical transnational issues.
  - Climate change
  - Disaster response
  - Tracking spread of infectious disease

## Agenda

- Key legal issues in geospatial law
- Impact of new collection technologies on legal and policy frameworks
- Impact of new analytical/visualization tools on legal and policy frameworks
- Example: Data protection/privacy

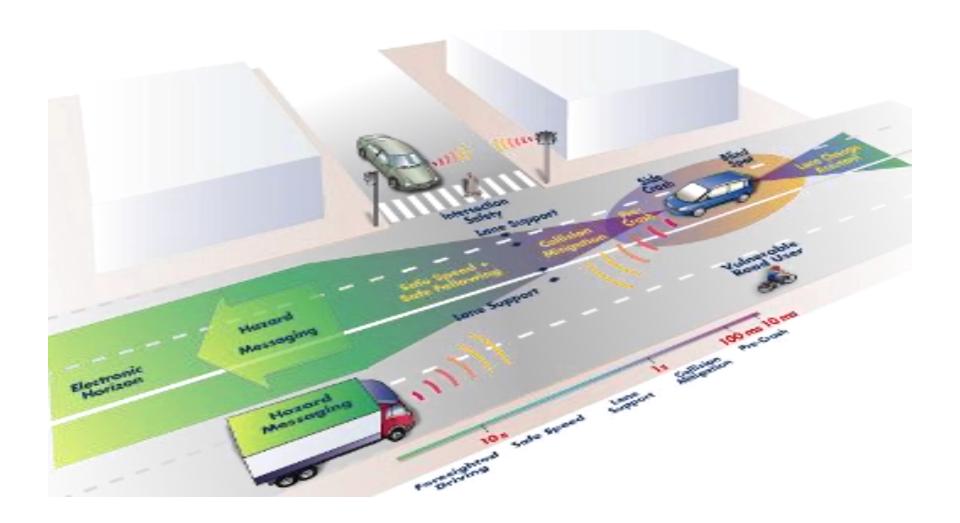
## Key Legal and Policy Issues

- Intellectual Property Rights
- Data Protection/Privacy
- Data Quality/Liability
- National Security
- Platform/Industry Specific Regulations
- Licensing/Data Sharing

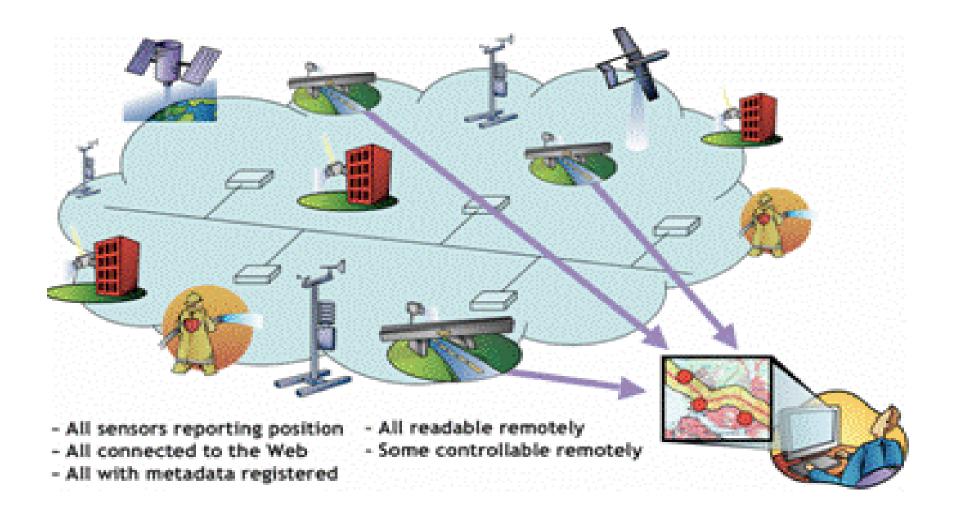
## **Unmanned Aircraft Systems**



#### **Autonomous Vehicles**



#### **Internet of Things**



# Crowdsourcing



#### As Are Technologies that Analyze Data

- Growing number of technologies that can process, aggregate, analyze and visualize Big Data.
- Exponentially increases the value of each piece of data.
- Much of this work goes on behind the scenes and only comes to light when either:
  - Something goes wrong
  - There is a report in the media
- Applications for data are growing rapidly.
- Legal and policy communities are unable to keep up

### 3D Visualization



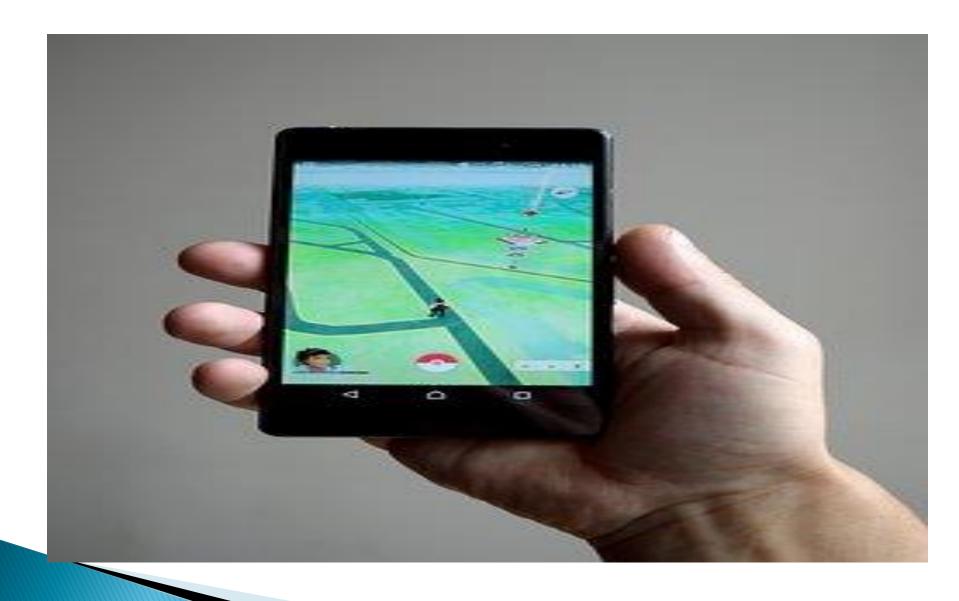
## Artificial Intelligence/Machine Learning



#### Blockchain



# Augmented/Virtual Reality



#### Example: Impact on Data Protection/Privacy

- There are numerous threats that must be considered:
- Misuse
  - Intentional
  - Unintentional
- Data breaches
  - Cyberattacks
  - Human error

## Perceptions of Privacy are Changing...

#### St. Peter's Square – 2005



Luca Bruno/AP

#### ...Creating a Privacy Paradox

#### St. Peter's Square - 2013



Michael Sohn/AP

#### ... Across Technology Platforms



# Strava Heat Map



#### General Data Protection Regulation

- Came into effect on May 25, 2018
- Replaced a Directive more teeth
- Based upon "controllers" and "processors"
  - Data Processing Agreements
- Significant penalties for failure up to 4% of turnover
- Grants data subjects significant rights
  - Right to be forgotten
  - Right to have a copy of information
  - Right to know who information is share with/how used
- A lot of questions remain

#### Impact of New Technologies on Data Protection/Privacy

- We are struggling to understand location privacy.
  - Advancement in technology are changing expectations.
- Need to identify and weigh the true privacy risks.
  - Policy often involves trade-offs between public benefit and perceived risks.
- Location information doesn't easily fit into existing privacy protection constructs.
- Excessive regulation, conflicting and/or confusing legal and policy regimes will have a significant impact on ability of entire geospatial ecosystem to collect, use and distribute geospatial.
- Geospatial community needs to play active role in this and other legal/policy discussions.

#### Questions

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