

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

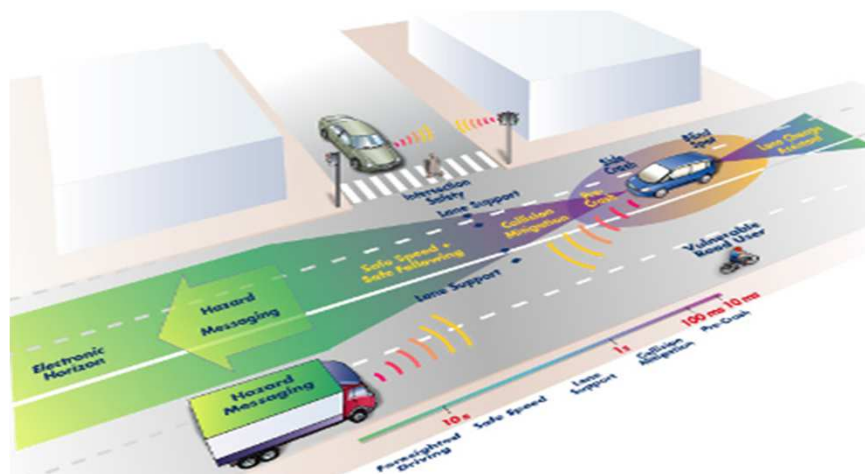
- Intellectual Property Rights
- Data Protection/Privacy
- Data Quality/Liability
- National Security
- Platform/Industry Specific Regulations
- Licensing/Data Sharing

Unmanned Aircraft Systems

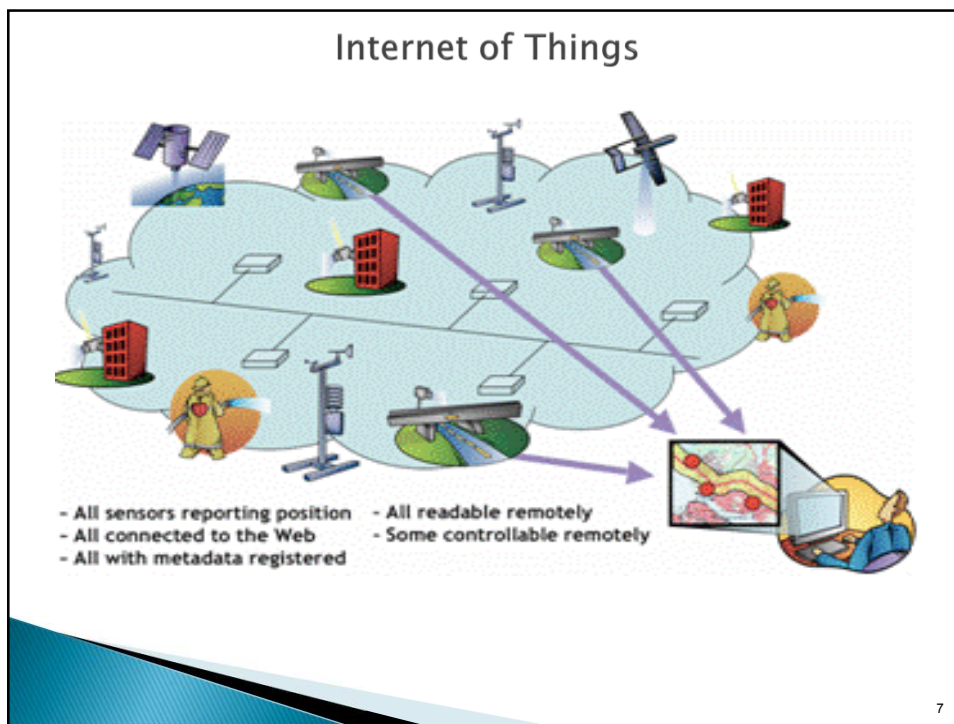


5

Autonomous Vehicles



6



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



11

Blockchain



12

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

The screenshot shows a TechCrunch article from October 11, 2016. The article title is "Facebook, Twitter cut off data access for Geofeedia, a social media surveillance startup". The author is Lara Kolodny (@larakolodny). The article features a map of a city area with numerous red location pins, indicating social media activity. To the right of the map is a sponsored advertisement for 4K TVs from LG, Samsung, Sony, Vizio, and Sharp. The article is categorized under "social media monitoring" and "Instagram". The browser address bar shows the URL: https://techcrunch.com/2016/10/11/facebook-twitter-cut-off-data-access-for-geofeedia-a-social-media-surveillance-startup/.

Strava Heat Map

The screenshot displays a Strava Heat Map interface. The map shows a large industrial or commercial area with several large white storage tanks. The map is overlaid with a heatmap where red and orange colors indicate high density of activity, primarily along the perimeter of the industrial site. The interface includes a sidebar with controls for "Heatmap Color" (Hot, Blue, Gray, Red), "Activity Type" (All, Run, Ride, Swim), "Heat Opacity" (0%, 40%, 60%, 80%, 100%), and "Layers" (Map, Labels, Satellite). A notification at the bottom left states "1 billion+ activities uploaded to Strava. Learn how the heatmap was made." The Strava logo and "LABS" are visible in the top left corner.

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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