

Impact of New Technologies on Geospatial Information Management

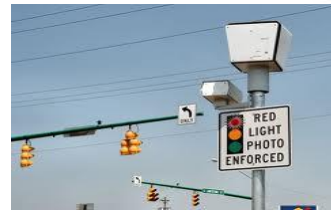
International Workshop
on Legal and Policy Frameworks
for Geospatial Information

Nuku'alofa, Kingdom of Tonga
10-13 April

Objectives of This Module

- Understand Emerging Trends That Will Impact Geospatial Information Management.
- Understand How Laws and Policies Developed In Response to Emerging Technologies Could Impact Geospatial Information Management.

Technologies That Can Collect and Use Geospatial Information Are Growing



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Unmanned Aircraft Systems



3D Visualization

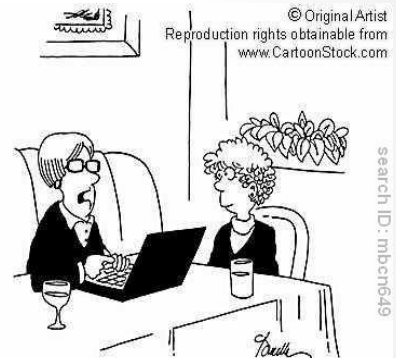


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Augmented/Virtual Reality



Tracking Devices



"I'm tracking my husband through his GPS unit. Right now, he's between a televised sporting event and the refrigerator."

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Social Media



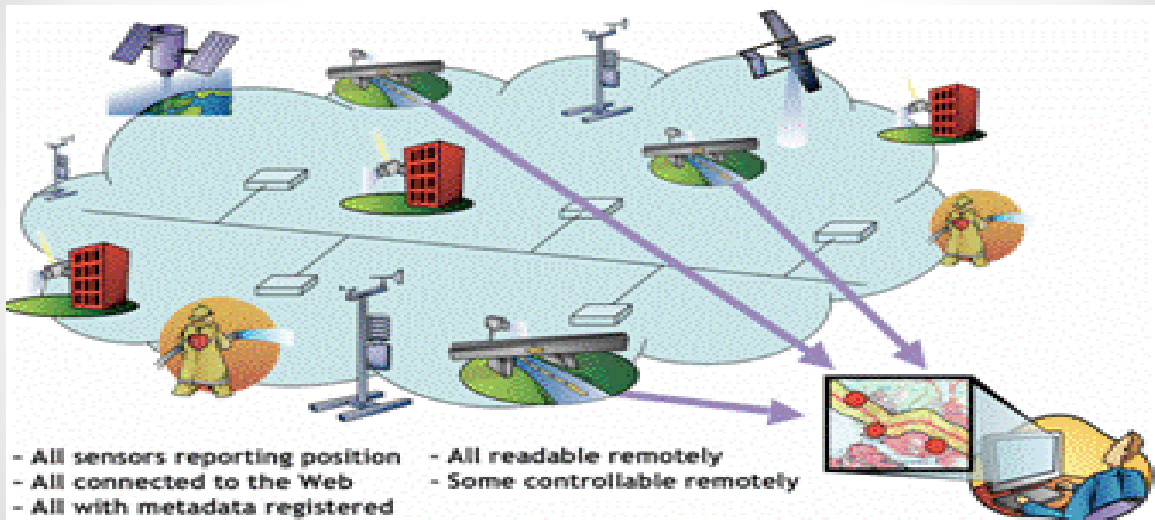
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Crowdsourcing



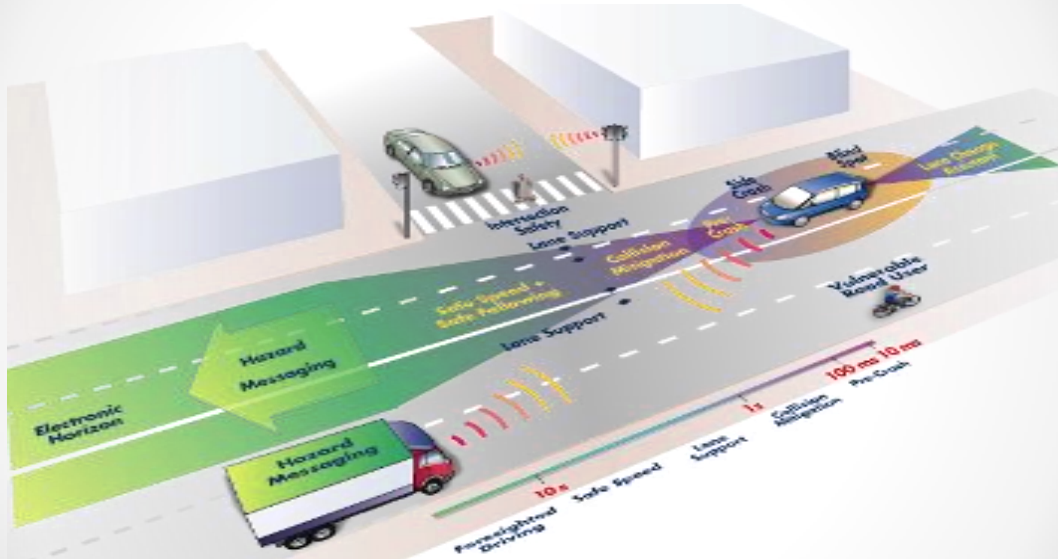
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Internet of Things



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Autonomous Vehicles



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Growth has Resulted in a Number of Media Reports On Geolocation Privacy

- Smart phone apps
- Drones
- Geotagging of on-line photos
- Law Enforcement's Use of Location Data
- Smart Grid
- Tracking Devices
- Autonomous Vehicles

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Concerns Over Geolocation Privacy are Growing .

The screenshot shows a web browser displaying an NPR article. The URL in the address bar is www.npr.org/sections/alltechconsidered/2016/12/01/503985473/uber-now-tracks-passengers-locations-even-after-theyre-dropped-off. The article is titled "Uber Now Tracks Passengers' Locations Even After They're Dropped Off" and is dated December 1, 2016, at 6:08 PM ET. The author is Laura Roman. The article features a large image of a smartphone screen showing the Uber app interface, with the text "ITV Hub" and "The Times" visible on the screen. To the right of the article, there is a sidebar with a "SPEND A YEAR DOING JOURNALISM THAT MATTERS." campaign by Marquette University, with an application deadline of January 27, 2017. The browser's taskbar at the bottom shows various open applications and the system clock indicating 9:30 PM on 12/6/2016.

... Across Technology Platforms ...

The screenshot shows a TechCrunch article. The URL in the address bar is <https://techcrunch.com/2016/10/11/facebook-twitter-cut-off-data-access-for-geofeedia-a-social-media-surveillance-startup/>. The article is titled "Facebook, Twitter cut off data access for Geofeedia, a social media surveillance startup" and is dated October 11, 2016, by Lara Kolodny (@lorakolodny). The article features a large image of a map of a city area, with numerous small icons representing social media profiles or locations. To the right of the article, there is a sidebar with a "SAVE BIG ON 4K TVs" advertisement for LG, Samsung, Sony, Vizio, and Sharp. Below the advertisement, there is a "Crunchbase" logo. The browser's taskbar at the bottom shows various open applications and the system clock indicating 9:27 PM on 12/6/2016.

... And Platforms.



Strava Heat Map



Open Data Trends

- Growing number of organizations are creating their own Open Data licenses.
- Each are a little different.
- Will be harder to aggregate Open Data without careful review.
- But most are not well suited for geospatial community
 - Defined terms
 - Users of geospatial information
 - Types of geospatial information
 - Variety of actors using geospatial information

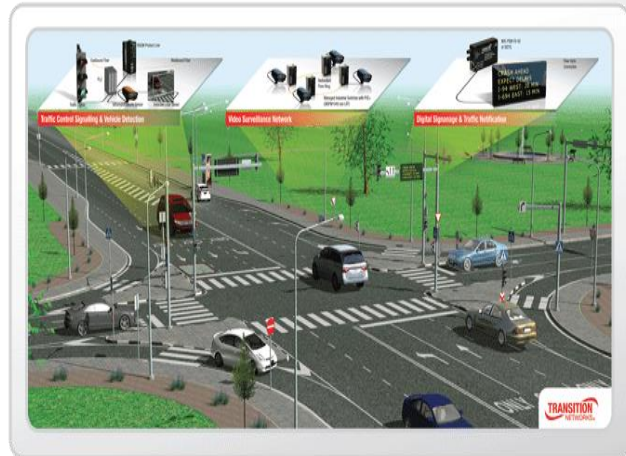
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New Stakeholders

- Geospatial community will need to “share” geoinformation with new communities:
 - ☐ Smart Cities
 - ☐ Autonomous Vehicles
 - ☐ Internet of Things
 - ☐ Open Data Communities
 - ☐ Business Intelligence
 - ☐ Internet of Things
- Each have their own motivations, concerns.
- Subject to their own regulations and legal framework.

Challenge Will Grow As New Technologies and Applications Develop

Laws/policies will developed concerning nontraditional geospatial technologies and stakeholders that will impact broader geospatial community.



New Regulators

- Consumer Protection
- Telecommunications
- Privacy
- Law Enforcement
- Energy
- Transportation
 - Ground
 - Air

Discussion Items

- Discuss what can work for you?