

Impact of New Technologies on Geospatial Information Management

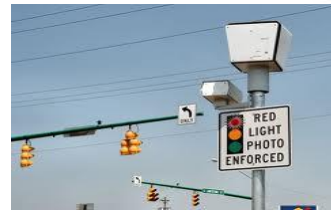
International Workshop
on Legal and Policy Frameworks
for Geospatial Information

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

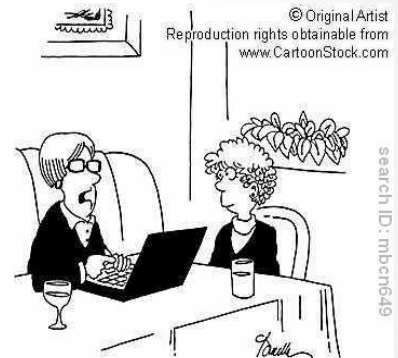


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Augmented/Virtual Reality



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



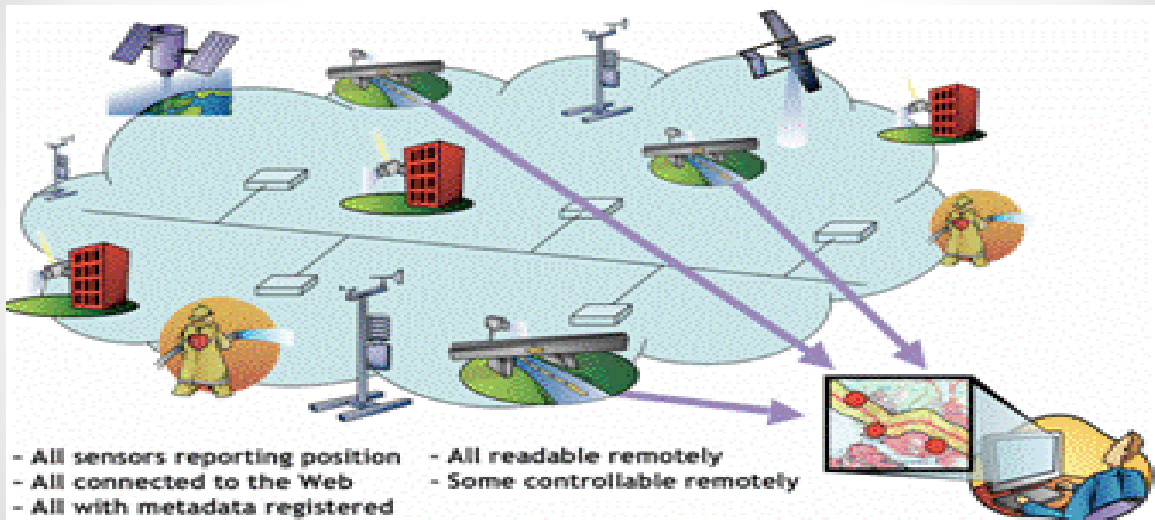
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Crowdsourcing



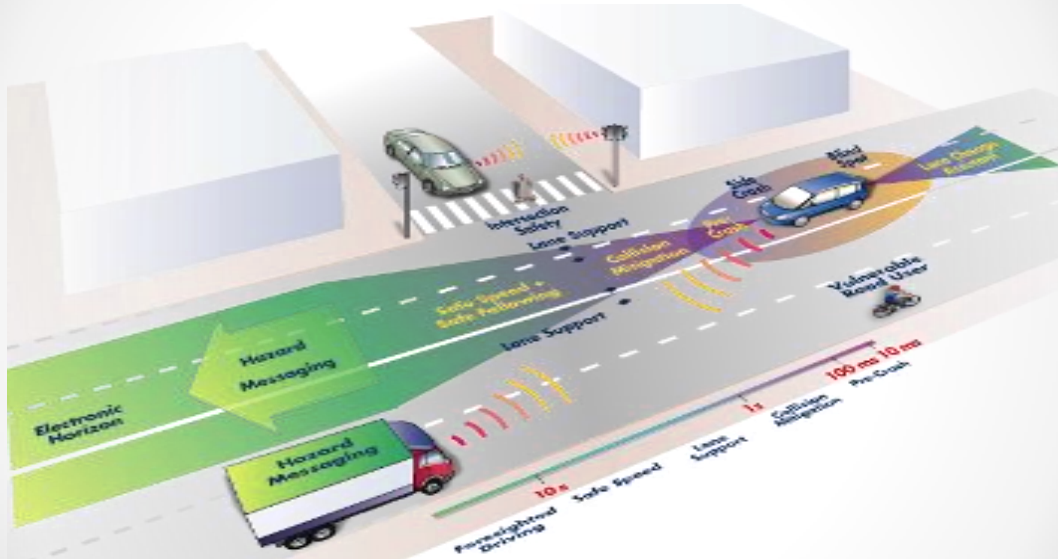
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Internet of Things



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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 including a web browser, a file explorer, and a presentation software.

... 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 including a web browser, a file explorer, and a presentation software.

... 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

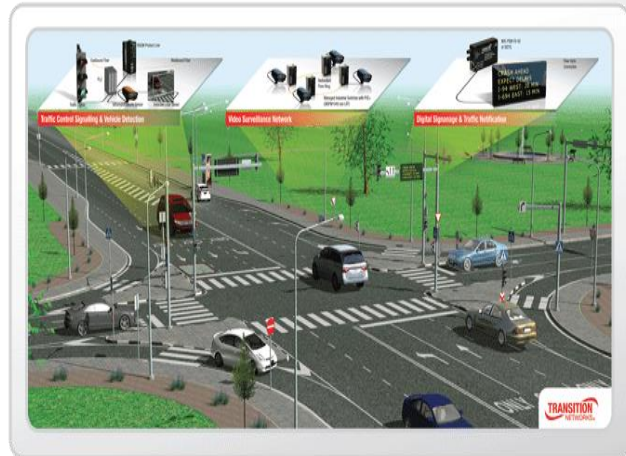
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New Stakeholders

- 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?