BECH-BRUUN

Big Data and the Maritime Industry

16 October 2014

International Maritime Law Seminar 2014

Partner Anne Buhl Bjelke, Bech-Bruun

# Big Data and the Maritime Industry

Agenda

- Introduction – what is Big Data?

- Case study – Google Crisis Map

- Danish perspective

- Big Data and the Maritime Industry

- New possibilities for insurers?

- Concerns and legal implications

What is Big Data?

Characteristics:

- Volume
  - Quantity/scale

- Variety
  - Complexity
  - Link between different data

- Velocity
  - Speed
  - How fast the data is generated and processed

- Veracity
  - Uncertainty
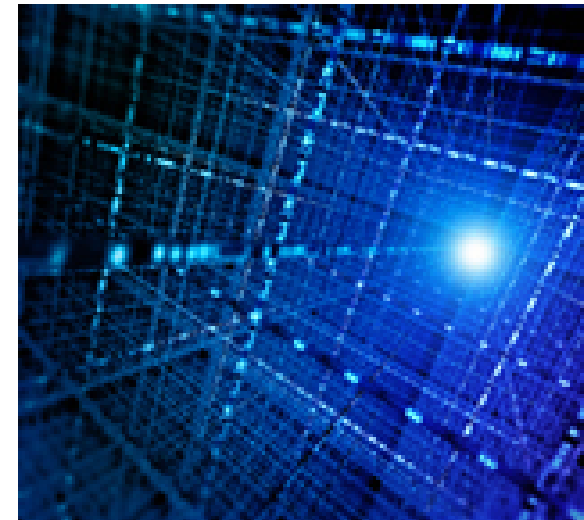
Where does Big Data come from?

Sources:

- Social networks

- GPS

- Transactions on the internet

- Satellites

- Data on the internet
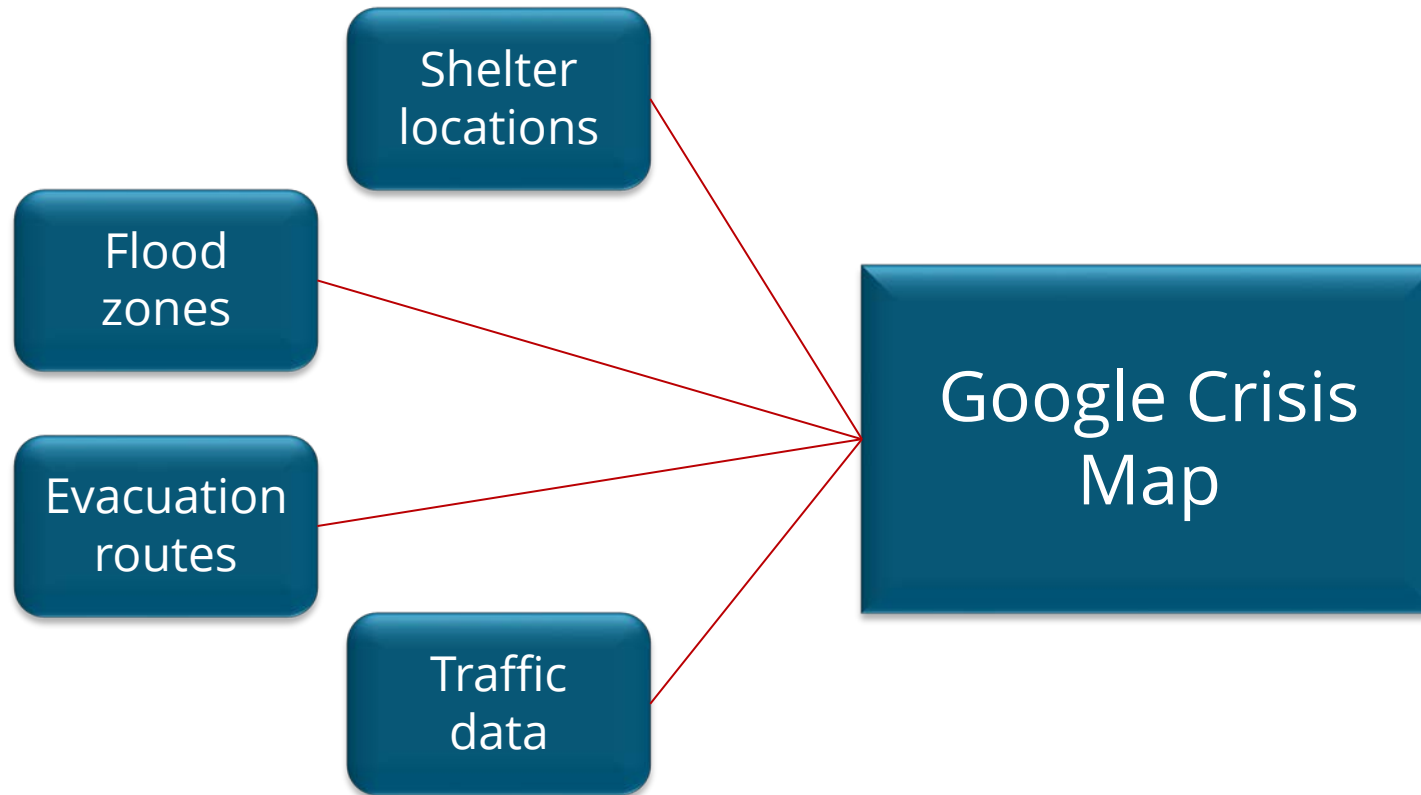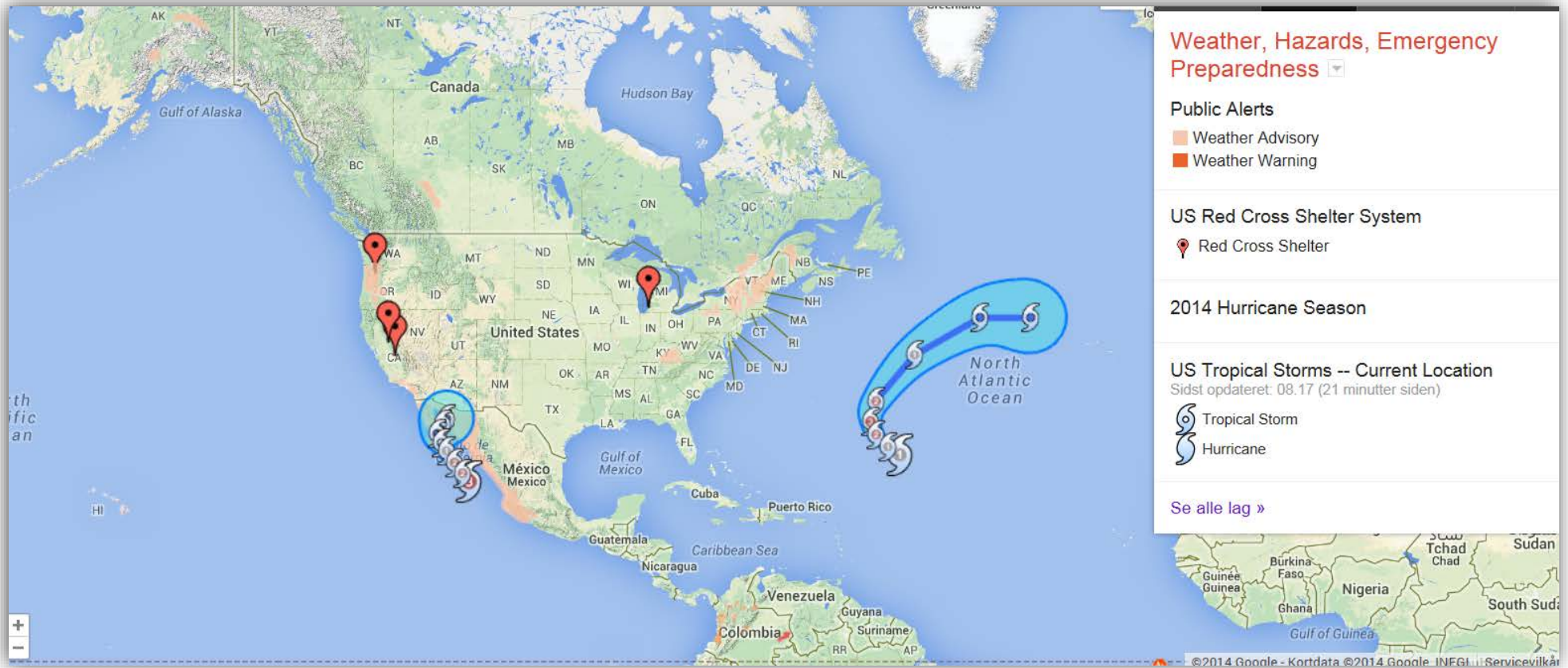
- E-commerce

- And much more...

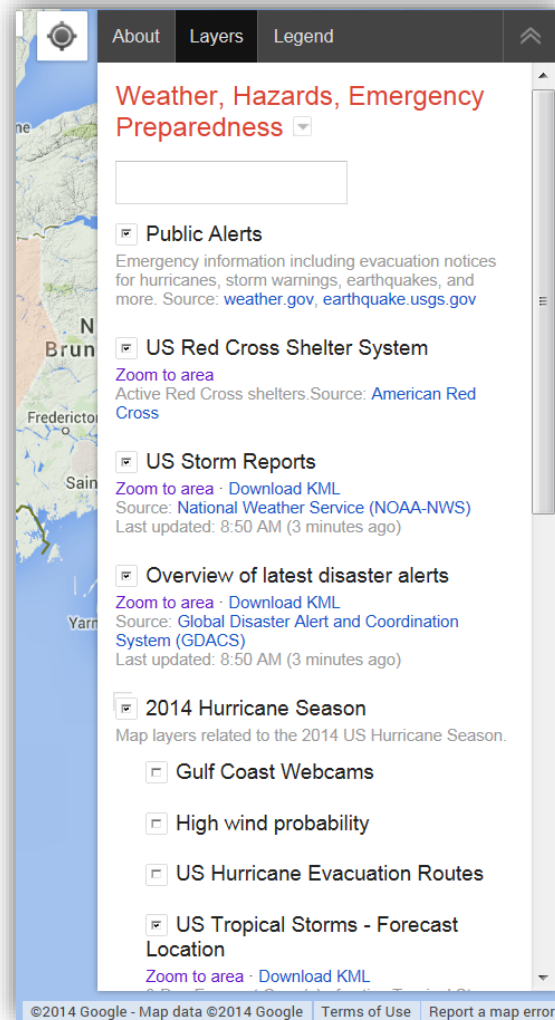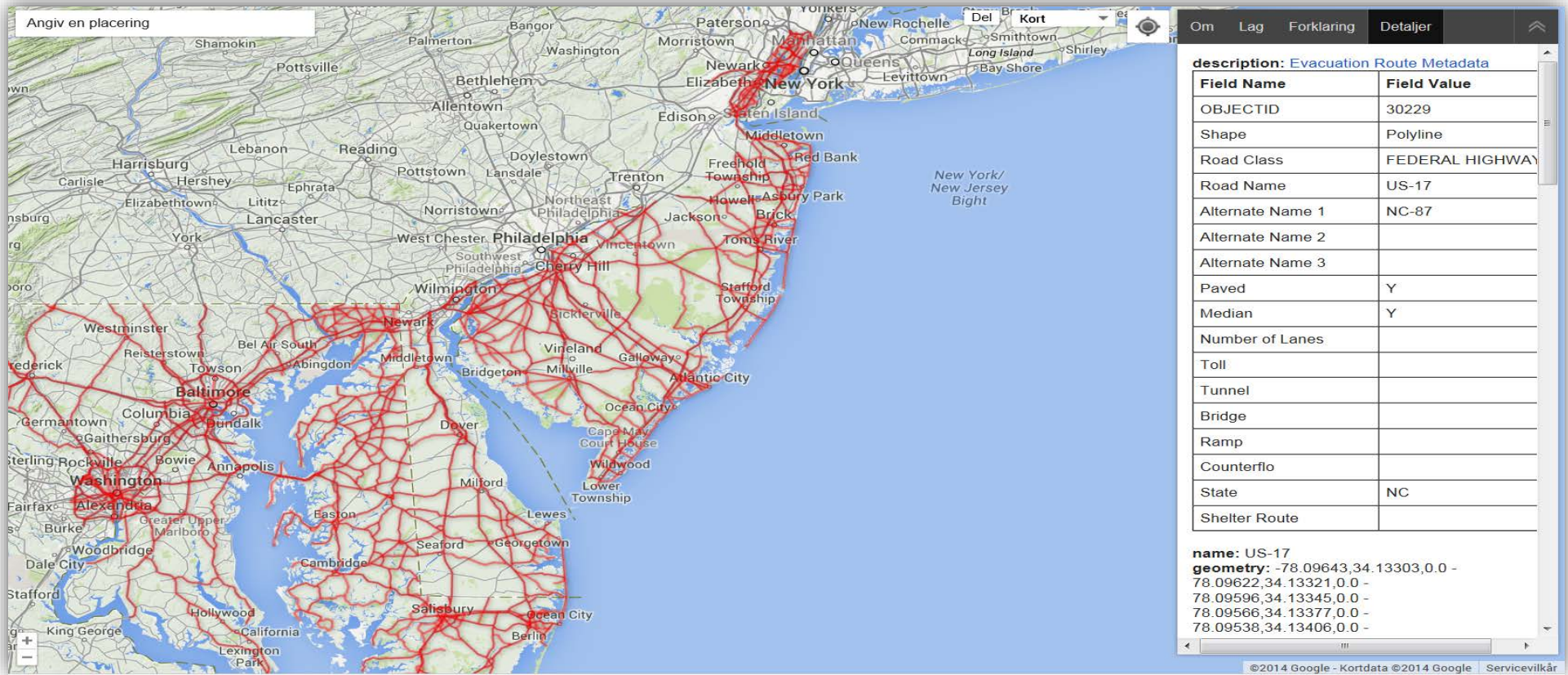A case study: Threat models – Google Crisis Map

BECH-BRUUN

A case study: Threat models – Google Crisis Map

BECH-BRUUN

A case study: Threat models – Google Crisis Map

A case study: Threat models – Google Crisis Map

BECH-BRUUN

Big Data through a Danish perspective

Digital signature (Digital signatur) The digital signature is an authentication service that citizens and businesses can use to self-authenticate when communicating with any different branch of public authorities and also a lot of private companies.	**The Citizen Portal (Borger.dk)** The citizen portal is a digital one-stop-shop for easy access to public sector information and the increasing number of citizen-centric digital self-service solutions irrespective of the underlying administrative organization.	**The Business Portal (Virk.dk)** The business portal is a digital one-stop-shop which gathers information and business-centric digital self-service solutions irrespective of the underlying administrative organization.
E-health Portal (Sundhed.dk) The Danish e-Health Portal is a joint portal providing information on and access to all Danish Healthcare Services.	**Easy Account (NemKonto)** An Easy Account is a normal bank account to which all payments from public institutions are transferred directly. Citizens and companies designate an existing account as their Easy Account.	**Electronic Health Record (Elektronisk patientjournal, EPJ)** The Danish Electronic Health Record project aims at creating a comprehensive system for secure and efficient electronic handling of patient records.

Big Data through a Danish perspective

Realistic large-area flood risk screening

- Denmark incurred over DKK 6 billions in combined losses due to a single cloudburst in 2011

- On that ground there is established a partnership between COWI, SCALGO and MADALGO

- The purpose is to develop software that can use Big Data to analyze the risk of floods

- The aim is that the software can distinguish between the use of land, soil conditions and type of sewerage
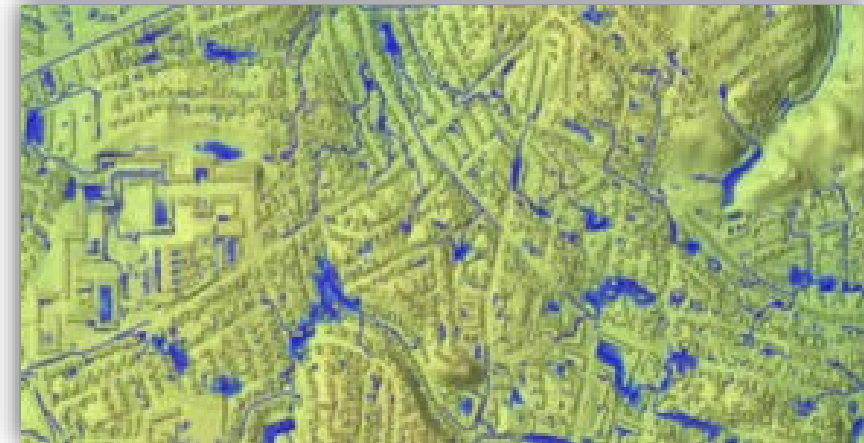
Big Data through a Danish perspective

MAERSK LINE

- Lee Kindberg, Director, Environment & Sustainability at Maersk Line North America:

  "You don't want to speed up and slow down. The lowest steady speed will give you the best energy efficiency. To achieve that, the masters on board all of our vessels now have some decision software that helps them figure out what is the lowest, most economical speed, the lowest energy-efficient speed they can run to get between these two ports. **In these days of big data we are actually looking at the performance speed and fuel consumption between every port pair**."

Big Data and the Maritime Industry

New possibilities for the Maritime Industry?

- Technical operation and maintenance

- Energy efficiency (cost and environment)

- Safety performance

- Management and monitoring of accident and environmental risks from shipping traffic

- Commercial operation (as part of logistics chain)

- Automation of ship operations

Examples:
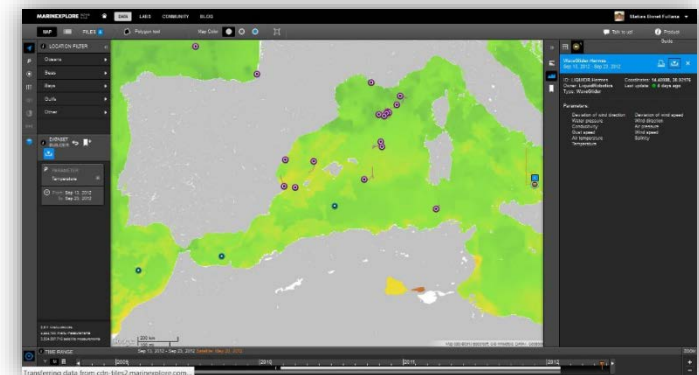
New possibilities for insurers?

Increasing Market Penetration

Deepening Customer Relationships

Underwriting New Risks

More customized, flexible products

Value-added services

Greater pricing accuracy

More effective and efficient loss prevention

Concerns and legal implications

Recent survey ("TDWI Best Practices Report: Managing Big Data", 4th quarter 2013):

- 57 % of business analysed consider themselves to be "managing big data", in the sense of "very large Datasets" which can include "streaming data from machines, sensors, web applications and social media".

Big data is more than personal data

- It includes aggregated and anonymous data

- However, it is rare for data generated by user activity to be completely and irreversibly anonymised.

Data protection

EU-legislation

- ## The Charter of Fundamental Rights
  - Article 8 formulates the protection of personal data as a separate right

- ## Data Protection Directive (Directive 95/467EC)
  - Article 2(a): Definition of personal data: "any information relating to an identified or identifiable natural person".
  - Article 6 (1) (b): Provides that data must be "collected for specific, explicit and legitimate purposes and not further processed in a way incompatible with those purposes".
  - Personal data processing requires a legal basis.
    - Freely-given, unambiguous and informed consent of the data subject to the specific processing operation (article 2(h)).

- ## Data Protection Reform – expected adoption in 2015

Data protection

EU-legislation

- Data Protection Reform – customer perspective:
  - A right to be forgotten
    - When you no longer want your data to be processed and there are no legitimate grounds for retaining it, the data will be deleted.

  - Easier access to your own data
    - A right to data portability will make it easier for you to transfer your personal data between service providers.

  - Putting you in control
    - When your consent is required to process your data, you must be asked to give it explicitly. It cannot be assumed.

- Enforcement: Fines up to EUR 100 million!

BECH-BRUUN

Contact

Anne Buhl Bjelke

Partner · Copenhagen

Dispute Resolution, Transport and
Insurance

T   +45 72 27 34 50
M   +45 25 26 34 50
E   abb@bechbruun.com

Copenhagen
Langelinie Allé 35
2100 Copenhagen
Denmark

Aarhus
Værkmestergade 2
8000 Aarhus C
Denmark

Shanghai
Suite 1818, 18/F
No. 699 Nanjing West Road
Jing an District, 200041 Shanghai

T +45 72 27 00 00
F +45 72 27 00 27
E info@bechbruun.com
www.bechbruun.com