BHO LEGAL

International and European Legal Framework for Geospatial Data and Services

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Introduction

- Legal and policy issues need to be addressed in order to **maximise the economic and societal benefits** of geospatial data and services and to provide a **clear and reliable framework** for industry
- Legal and Policy issues **become more complex** as new geospatial technologies and services develop and **convergence with other sectors, namely the general ICT sector,** rapidly increases (Big Data, Location Based Services, Cloud Computing, UAS/UAV, PNT, Internet 4.0)
- Size of global geospatial industry was very close to **$100 billion** in 2013, growing at an annual growth rate of **10-15%** (Source: Geospatial World, 17 September 2013)

Legal & Policy Challenges

The main legal and policy challenges in relation to geospatial data and services include:

- Open Data Policies
  - linked to national E-Government initiatives
- Public Data Licenses
  - including issues of license fees and IPR
- Service provision
  - shift from data licenses to geospatial services contracts
- Data Quality and Services Performance
  - standardisation, certification, warranty, and liability
- (Personal) Data protection
  - correlating geospatial data with personal information

Legal & Policy Challenges (cont'd)

- Policy and legal communities are slow to keep up with rapid technology and market developments:
  - Policy development faced with high complexity, even on national level
  - Lawyers and policy-makers struggle to understand the specificities of the sector
- Disparities may emerge between countries, leading to a "Geospatial Divide" between leading economies and developing/underdeveloped countries
- As for the phenomenon of the Digital Divide, helping countries to keep pace may represent one of the major international challenges in geospatial policy in the coming years
- Risk that technologies applications that could be of great value to society will not be available
  - due to a lack of adequate legal and policy frameworks
  - due to misperceptions by policy-makers and general public, namely on privacy issues

Status of International Law

- Relatively developed legal framework on remote sensing activities from outer space, as laid down in the
  - UN Outer Space Treaty (1967)
  - UN Remote Sensing Principles (1986)
  - International Disaster Charter (2000)
  - UN Spider (UN GA Res 61/110 of 14 December 2006)

- However, these instruments
  - mainly apply to the relation of States and the exchange of data among them
  - do not apply to all types of geospatial data and services (only where remote sensing is concerned)
  - do not specifically address the legal challenges in relation to geospatial data and services and do not intend to foster the markets

International Initiatives

- No binding international law instruments that specifically address geospatial data and services
- A number of initiatives on the international level to develop non-binding recommendations and best practices such as
  - United Nations Initiative on Global Geospatial Information Management (UN-GGIM)
  - Group on Earth Observation (GEO)
- Initiative by the International Bar Association (IBA) to work on a **binding** Convention on Geoinformation

UN-GGIM

- UN ECOSOC Resolution 2011/24
  - Decided to establish the **Committee of Experts on Global Geospatial Information Management (GGIM)**
- The Committee of Experts is mandated, among other tasks,
  - to disseminate **best practices and experiences** of national, regional and international bodies **on geospatial information related to legal instruments**.
- The Committee of Experts acknowledged
  - that there are significant **legal and policy challenges emerging** related to geospatial information, including licensing, pricing, liability, security, and open data
  - the need to begin engaging with lawmakers, policymakers and lawyers on the **value of geospatial information** and related applications and processed
  - the need for **governance** in geospatial information management

Group on Earth Observation

- Established in 2005, GEO is a partnership of governments and organizations that envisions
  - "a future wherein decisions and actions for the benefit of humankind are informed by coordinated, comprehensive and sustained Earth observations and information."
  - GEO Member governments include 96 nations and the European Commission, and 87 Participating Organizations comprised of international bodies with a mandate in Earth observations
  - Together, the GEO community is creating a Global Earth Observation System of Systems (GEOSS) that will link Earth observation resources world-wide and make those resources available for better informed decision-making
- However, GEO is a voluntary partnership
  - Governments and organizations are not formally obliged to implement GEOSS in accordance with the 10-Years Implementation Plan as adopted in 2005

IBA Convention on Geoinformation

- Initiative by the International Bar Association (IBA) on a Convention on Geoinformation aims at allowing the geospatial industry to develop by
  - rationalising the many conflicting and overlapping existing rules and regulations;
  - addressing the reliability of geospatial information;
  - granting producers a property right in the fruits of their work;
  - setting limits on the collection, use, storage and transfer of geospatial information.

Pros

- Universal issues should be addressed on the global level
- May fill existing gaps in international law
- May define standards on data reliability

Cons

- Difficult to agree on universally accepted principles
- Difficulty of all key issues to be addressed in one single instrument
- May result in increased liabilities for industry

EU Legal Framework

- INSPIRE Directive (2007/2/EC) and implementing measures
  - establishes an infrastructure for spatial information in Europe to support the EU's environmental policies
- Public Sector Information Directive (2013/37/EU)
  - provides a common legal framework for a European market for government-held data (public sector information)
- Environmental Information Directive (2003/4/EC)
  - aims to ensure that environmental information is systematically available and distributed to the public
- Database Directive (96/9/EC)
  - creates an exclusive *sui generis* right for database producers to protect their investments

EU Legal Framework - Copernicus

- Regulation (911/2010) on GMES and its initial operations (2011 to 2013)
  - established the European Earth monitoring programme called GMES (now Copernicus)
  - laid down the rules for the implementation of its initial operations during the period 2011-2013
- Regulation (377/2014) establishing the Copernicus Programm
  - repeals Regulation (911/2010)
  - lays down the rules for the implementation of Copernicus
- Delegated Regulation (1159/2013) on Copernicus data and information services
  - establishes registration and licensing conditions and
  - defines criteria for restricting access to GMES data and services

EU Legal Framework – Directive on EO Satellite Data

- Proposal for a Directive on the dissemination of Earth observation satellite data for commercial purposes (COM(2014) 344 final)
  - Aims to "establish the internal market for Earth observation data through harmonization of certain rules for their dissemination"
- The Council Space Working Party raised a couple of concerns and asked to
  - provide more evidence that the functioning of the internal market is hindered;
  - provide more evidence to justify the proposed solution;
  - quantify costs, in particular administrative costs of transposition;
  - consider of existing regulatory regimes and the international situation.
- COM answered with a "Non-paper", submitted around end of 2014/beginning of 2015.
- New Commissioner made strong statements towards implementation during 2015.
- Currently the Directive is under further review by Parliament and Council.

Open Data Policies and Geospatial Industry

- The logic of full, free, and open access to public (geospatial) data is that:
  - revenues to a public sector body from sales of these data are generally small
  - the benefits to society of open access are potentially very large
  - generation of public data and information has already been paid from public funds
- A number of legal and policy documents reflect a clear international trend towards free, full, and open access to public (geospatial) data, including
  - G8 Open Data Charter
  - Panton Principles
  - OECD Guidelines on Research Data
  - GEOSS data sharing principles
  - International Disaster Charter
  - WMO Resolution 40
  - US Earth Observations Strategy
  - NOAA NESDIS data policy
  - Landsat data policy
  - ESA data policy
  - EUMETSAT data policy
  - Copernicus data policy

Open Data Policies and Geospatial Industry

- The terms full, free and open are not always used in a consistent manner:
  - Full – access to all data
  - Free – free of charge
  - Open – easily available

- Many policies or legal instruments allow for strong exceptions to the general principle of open data, including (among others):
  - International law
  - International relations and foreign policy
  - National security
  - Defence
  - National legislation
  - Intellectual Property Rights
  - (Personal) Data protection
  - Commercial confidentiality
  - Contractual obligations
  - Protection of (e.g. archeological) sites
  - Protection of species etc.
  - Availability of resources

Licensing and Licence Fees

- Licenses are popular as a means of defining the conditions of access to and use of geospatial data
- Many widely recognized licenses are, however, not intended for, and are not appropriate for data or collections of data (namely Creative Commons)
- Licensing conditions on both the national and international level vary widely
  - Differences may cause legal uncertainty and may discourage commercial use
- Need to develop simplified and unified conditions
  - German authorities recently initiated a model project with the aim to provide a simplified and standardized procedure in licensing public geospatial data
- For commercial geospatial data and services, there is a general trend from data licenses to more comprehensive services agreements, so the license model may become less relevant in the future

Data Quality and Services Performance

- Many public data policies or commercial licensing conditions exclude any warranty or liability of the data owner (e.g. Art. 9 Copernicus Data Policy, Section 9 of Digital Globe End User License Agreement) regarding:
  - quality
  - accuracy
  - fitness for purpose
- Such general exclusion is apparently still widely accepted by all stakeholders
- It will, however, become under increasing pressure, the more commercial services are developed and offered on the basis of open public data, namely
  - for mass consumer markets (e.g. location based services) or
  - for safety-critical applications.
- Provision of services free of charge is not per se a justification for broad warranty and liability exclusions under several jurisdictions

Data Quality and Services Performance (cont'd)

- Industry raises concerns in relation to the exclusion of any warranty or liability of public data owners, namely that
  - Public data may not be used by commercial industry, unless they are of assured and appropriate quality
  - industry has to deliver its services to clients at competitive conditions, and has itself to commit for services quality and performance
  - Geospatial services should have clear product specifications; transparent information on data quality etc. should be provided
- Service Level Agreements (SLA) are increasingly employed in the geospatial industry defining guaranteed levels of services performance
- Lack of commitment by public data owners towards data quality may hamper the wider use of such data by industry and may thus reduce their potential benefits.
- The adoption of big data solutions may be dependent on standardized data with reliable quality, as it will not be feasible for users to check each piece of data

(Personal) Data Protection

- Geospatial data and services have until recently not been perceived as raising specific concerns regarding the protection of personal data
- During the last 5 years or so, however, geospatial data and services have come on the screen of data protection authorities and meet increasing concerns of the general public
- Google Street View and Google Earth were the key drivers, numerous national authorities restricted or even denied the collection of data and imposed fines on Google
- Reasons for increasing awareness include
  - Advances in technology (High Resolution EO data, UAS, Cloud)
  - Consumer Market Usage (Location Based Services, tracking services)
  - Commercialization and new services (geo-marketing, geo-scoring, geo-profiling etc.)
  - Other recent developments (NSA, Facebook etc.)

(Personal) Data Protection – Legal Framework

- No global approach or instrument addressing (personal) data protection in relation to geospatial data and services
- On the European level:
  - EU Data Protection Directive (95/46/EC) – currently under review
  - Directive does not contain specific provisions on geospatial data and services, Art. 29 Working Party has provided some relevant opinions (but not directly dedicated to geospatial data and services)
- On the national level:
  - some national authorities have issued guidelines, namely on Google Street View
  - commercial actors develop Codes of Conduct in order to prevent binding rules
- Jurisprudence
  - in the context of Google Street View, the Federal Supreme Court of Switzerland held that Google is under the obligation to render personal data unrecognizable (1C_230/2012)

Qualification of Geospatial Data as Personal Data

- Most geospatial data are mere factual data which as such not include direct information about persons
- However, they can provide information about persons indirectly, namely when combined with other types of data and information
- Under the criterion of “indirectly identifiable” according to the EU Data Protection Directive, more or less all geospatial data could become personal data
- Difficult to determine when the interests in the collection, use and publication of the data overrule the legitimate interests of persons in data protection
- Technical criteria (e.g. resolution, scale, number of households etc.) are subject to rapid changes and tend to be arbitrary
- This, together with unspecific legal frameworks, results in a high degree of uncertainty for industry whether or not data protection laws apply and how they should be observed

Conclusion

- No comprehensive international legal framework for Geospatial data and services
- International cooperation mainly limited to events of disasters
- Evolving legal framework on European level, but not consistent
- General global trend of open data policies, however many access limitations in practice
- Complex situation with regard to public licenses, hundreds of different types only in Germany
- Broad warranty and liability exclusions for data quality and availability still the rule
- Personal Data Protection is a hot topic, increasing concerns by policy-makers and the general public, lot of uncertainty in industry
- Convergence and rapid market developments further complicate the situation

Geospatial Law is yet to come!!

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