Commercial and Legal Difficulties for Data Sharing (in Energy Markets)

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RTTP

Data and IP

What is the nature of information and data?

ISO/IEC 2382-1:1993(en) Information technology: Vocabulary: Part 1: Fundamental terms

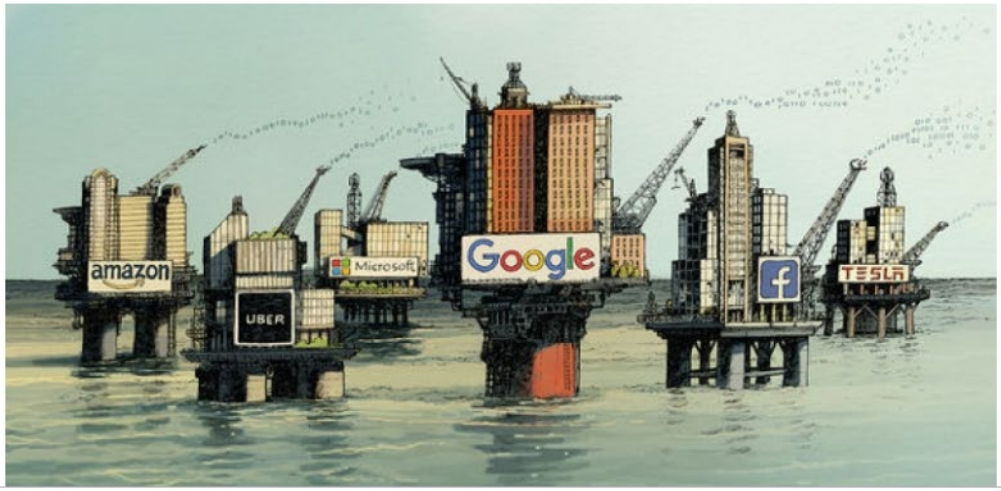
- **Information** (in information processing) is knowledge concerning objects, such as facts, events, things, processes, or ideas, including concepts, that within a certain context has a particular meaning".
- **Data** is a reinterpretable representation of information in a formalised manner suitable for communication, interpretation, or processing [which] can be processed by humans or by automatic means.
- ***Information is contextualised facts***

Rapid Emergence of Data Economy

Regulating the internet giants

The world's most valuable resource is no longer oil, but data

The data economy demands a new approach to antitrust rules



Rapid Emergence of Data Economy

You may have heard data is the new oil. It's not

'While data and oil can both generate value, the parallels stop there

Image: REUTERS/Akintunde Akinleye

Rapid Emergence of Data Economy

- Fixed amount of oil on the planet

- In the next two years, 40 zettabytes (10^{21} or 2^{70}) of data will be created; equivalent to five billion Libraries of Congress

- The value of oil comes from its scarcity and the difficulty of extracting it from new, untapped locations; its relatively easy to produce massive amounts of data

Value of Data?

- GPS is transforming agriculture
- Smart tractors from John Deere, as well as harvesters and planters
- Farmers make an average of 40 growing decisions each season
- Monsanto is collecting data from smart tractors and storing in the cloud
- Information on yield, property prices, commodity prices

Monetising Car Data

- Generating Revenue
  - Networked parking services, predictive maintenance

- Reducing Costs
  - Usage-based insurance, early recall detection and software updates

- Increased Utility and Service
  - Improved road infrastructure and maintenance

Big Data and Smart Grids

- smart grids (SGs) are electricity networks that can intelligently integrate the actions of all users connected to it – generators, consumers and those that do both – in order to efficiently deliver sustainable, economic and secure electricity supplies
- SGs are effective solutions to accelerate the pace for electrification of human society with high penetration of (intermittent) renewable energy sources

Data Sources in Smart Grids

- SG is an intelligent system of both energy and information
- covers the data from process of electricity generation, transmission, distribution and consumption
- data include the electrical information from distribution stations, distribution switch stations, electricity meters, and non-electrical information like marketing, meteorological as well as reginal economic data

Data Ownership Issues

- Data ownership can play a role in commercialising data
- Data ownership can create monopolies
- Data ownership can have public dimensions
- Data ownership may be challenging to locate
- Data ownership may have a role in privacy protection

IP Rights in relation to Data

- Copyright
- Database Rights
- Trade Secrets/Confidential Information

Copyright Law in Ireland

Copyright

- Protection is given to literary works (which include computer programmes and databases), dramatic, musical and artistic works, sound recordings and films, broadcasts, cable programmes, and the typographical arrangements of published editions
- Registration is not required to protect a literary work by copyright, merely that it be expressed in a permanent form

Copyright

- The right: To prevent unauthorised copying of copyright works
- What: Original literary, artistic, dramatic or musical works (computer software = literary work)
- What not: Concepts, ideas (regardless of originality)
- How: Creation of a work using sufficient "creative skill and judgment" – a very low threshold
- Who: The author or his employer (but NOT a commissioner)
- How long: The author's lifetime plus 70 years from the end of the year in which the author died

No Copyright for Facts or Ideas

- No protection for ideas in the abstract – only for an original expression of ideas
- Facts are not protectable under copyright law
- Facts are considered to be the building blocks of knowledge and innovation

No Copyright for Facts or Ideas

- Historically, for data to be protected under copyright, it must qualify as a compilation

- Underlying facts or data that make up a dataset may not be protected, the selection and arrangement of this data can be protected if it has minimum originality.

Originality in Copyright

Originality is coming from someone who is the originator/author – not novel!

- **UK** – very low threshold, author's own skill, labour, judgment and effort
- **Canada** – exercise of skill and judgment would require intellectual effort
- **USA** – works of authorship must require some minimal degree of creativity

Feist Publications v Rural Telephone 1991

A White Pages Directory published by Rural failed the originality test:

(1) The raw data in directory failed originality test as the list of subscribers and telephone numbers did not owe its origin to Rural;

(2) Rural simply alphabetized subscribers and its selection and arrangement of data "lacked the modicum of creativity"

Feist Publications v Rural Telephone 1991

- Facts may not be copyrighted because “facts, whether alone or as part of a compilation, are not original” creations of the author;
- A compilation containing uncopyrightable facts can be copyrighted “if it features an original selection or arrangement of facts. In no event may copyright extend to the facts themselves”

Database Rights

- Directive 96/9/EC on Legal Protection of Databases
- Database defined as “collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means”.

Database Rights

- Original vs Non-Original
- Original – copyright if database constitutes "the author's own intellectual creation"

- Author expresses "his creative ability in an original manner by making free and creative choices"

Database Rights

- Non-Original
- Database in which an investment has been made; investment in “obtaining” must not have been in the creation of the data which are the subject of the database, but rather in seeking out existing independent materials and collecting them in the database
- The maker of the database (the person who “takes the initiative and the risk of investing”) is protected

Database Rights

- The maker of the database (the person who "takes the initiative and the risk of investing") is protected
- Duration is 15 years
- Prevents:

  - extraction of substantial part of database;
  - repeated extraction of insubstantial parts
  - of database

Trade Secrets

- Article 2(1) Directive defines a ‘trade secret’ as information which meets the following criteria:

- It is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, **generally known among or readily accessible** to persons within the circles that normally deal with the kind of information in question
- It has **commercial value** because it is secret
- It has been subject to **reasonable steps** under the circumstances, by the person lawfully in control of the information, to keep it secret

Trade Secrets

- Article 4 outlines circumstances where the **acquisition** of a trade secret is considered unlawful, namely:

- unauthorised access to, appropriation of or copying of any documents, objects, materials, substances or electronic files, lawfully under the control of the trade secret holder, containing the trade secret or from which the trade secret can be deducted; or

- any conduct considered contrary to honest commercial practice.

Trade Secrets

- Article 4 also outlines circumstances in which the **use or disclosure** of a trade secret is considered unlawful, namely where such use or disclosure is made by any person who:

- without the consent of the trade secret holder who acquired the trade secret unlawfully;

- in breach of a confidentiality agreement; or

- any person in breach of a contractual or any other duty to limit the use of the trade secret

Trade Secrets Examples

- Technical Information

  - Manufacturing processes, recipes, chemical compounds;

- Commercial Information

  - Customer lists, products launch dates, results of marketing studies

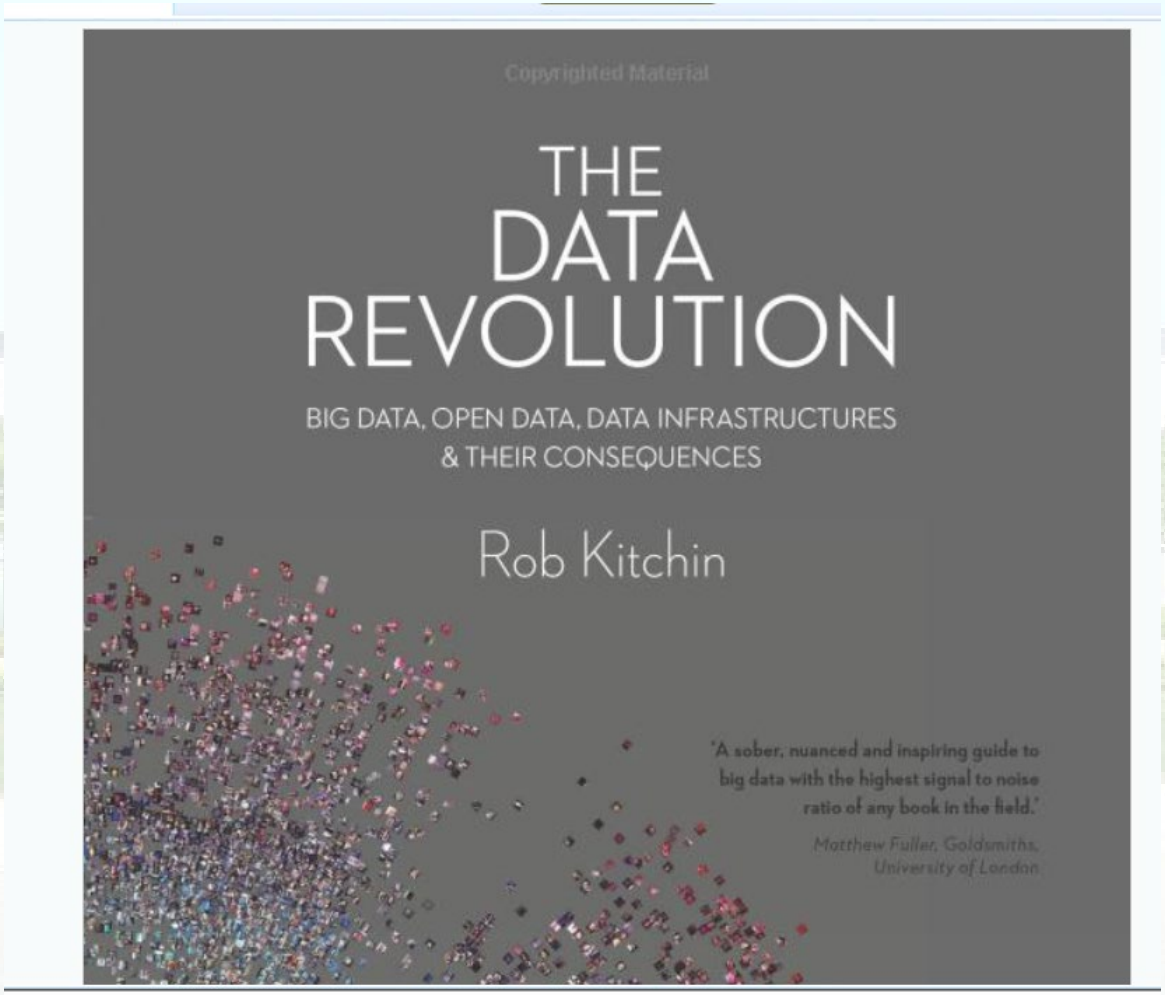
Features of Trade Secrets

- There is no official register
- Protection depends entirely on keeping information secret
- No Geographical limitation
- As long as secrecy is maintained, protection can last indefinitely

Features of Trade Secrets

- It must not just BE secret – it must be KEPT secret
- The owner must make a positive effort to keep trade secrets confidential and beyond the reach of competitors

Understanding Data



Understanding Data

- Rob Kitchin describes 3 broad categories of data:

(1) Data that are representative in nature

(2) Data that are implied

(3) Data that are derived

Understanding Data

- **Representative data** typically involves some kind of measurement, such as a person's age, ambient temperature or the volume of traffic

- **Implied data** are those **read into an absence**, such as inferences drawn about a voting preferences based on her online activity

- **Derived data** are those that are **produced from** other data

Understanding Data

- “Data do not exist independently of the ideas, instruments, practices, contexts and knowledges used to generate, process and analyse them” (Kitchin)

- Data inherently reflect choices about which data to collect (or to exclude) and what tools or parameters will be used in their collection.

- In the case of derived data, the data reflect the many choices that went into determining how they would be processed and for what ends – Human Agency!

Geophysical Service Inc. v Encana 2017

- Case involved claims of copyright in Plaintiff's seismic data about the ocean floor
- Judge assessed that the data were collected through a process that required considerable skill, as well as time and resources
- Court divided the data into two categories –

  Field Data – data collected using P's tools/technology

  Processed data – "any product derived, generated or created from the data, including all processed and reprocessed data, interpretations, maps and analyses"

Geophysical Service Inc. v Encana 2017

- Court found that **field data were a compilation** (original database)
- Processed seismic data **either compilation or an artistic work,** depending on representation
- Both categories met threshold for originality (considerable skill and judgment)
- Although technology played a considerable role in collection/generation of data, there was still sufficient human authorship to sustain copyright

Geophysical Service Inc. v Encana 2017

- Court concluded that the data were “an expression of GSI’s views of what the image of the subsurface of the surveyed areas represents”

- The uncopyrightable facts exist in the sub-ocean landscape

- **Copyright exists in both the data and the compilation (database)**

Ownership:Original vs Derived Data

Processing licensed data may create data that is:

- Sufficiently different from the original data such that it cannot be reverse engineered
- A modification or enhancement of the original data from which that data can be traced

Derived Data

- Owing to the uncertainty of its ownership under applicable IP law, the ownership of derived data is usually protected by **contract law**

- "***The definition and ownership of status of derived data often is an extensively negotiated aspect of data licence agreements***." (Practical law)

Data Agreements

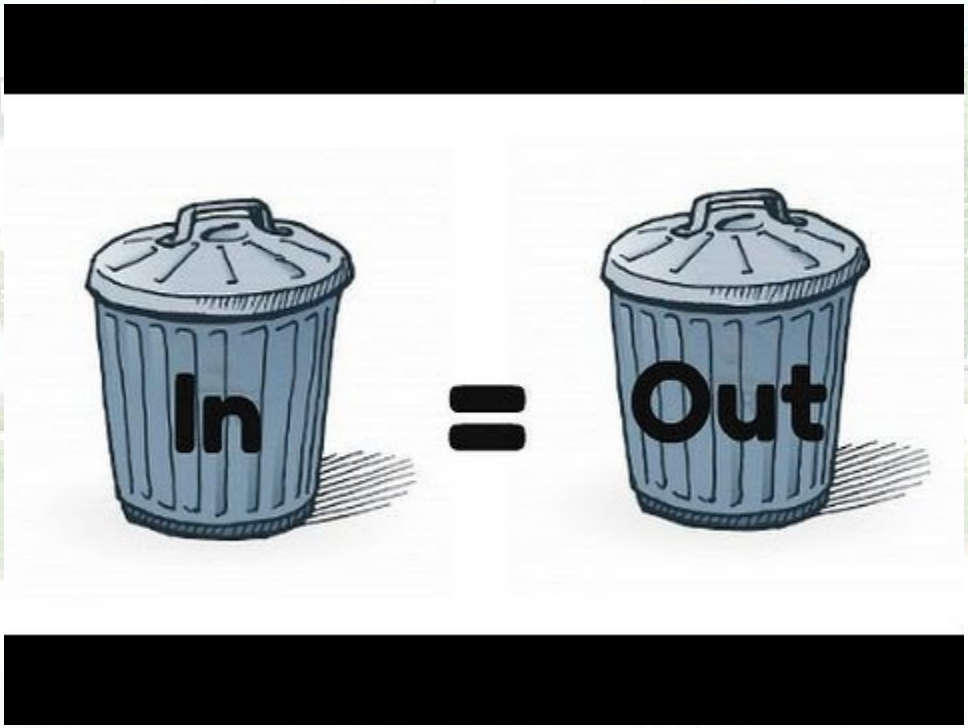
- Data User Agreements
- Data Sharing Agreements
- Contract for Services (Supply of Data)
- Licensing Data Agreement

Transacting and Licensing Research Data

- Do you have the right to license the data?
- Due Diligence!
- How will you license the data? (copyright, database rights, trade secrets/confidential information)
- Is a Services Contract/Data User agreement better?

Transacting and Licensing Research Data

GIGO



Sources of Data

Public Data

- Open Data - Ireland's Open Data Portal https://data.gov.ie/

  - All data and metadata linked to data.gov.ie will be associated with the Creative Commons Attribution (CC-BY) Licence, at a minimum.

- Restricted data, e.g. Petroleum Affairs Division (PAD)

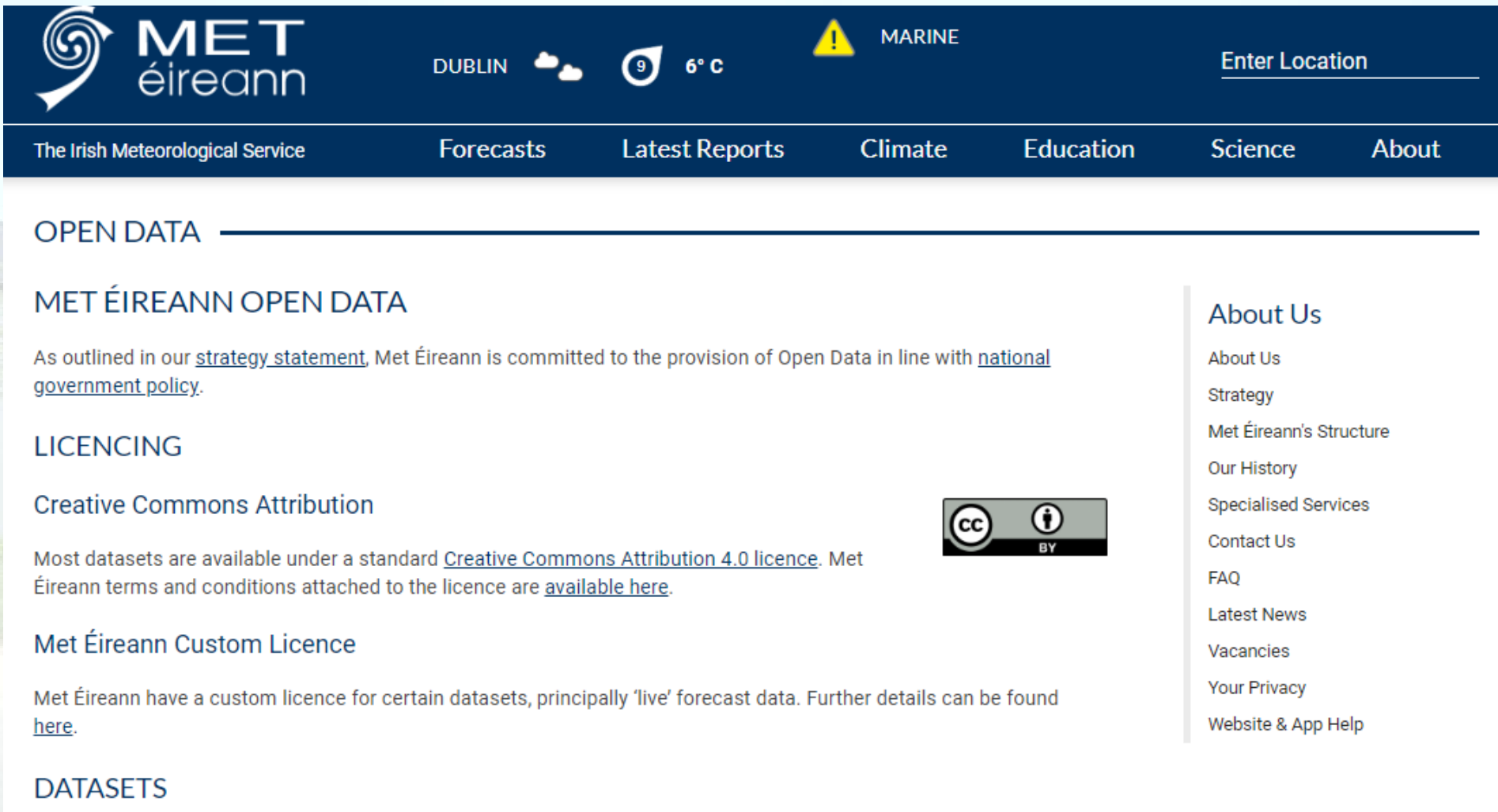
- Commercially available, e.g. British Geological Survey (data resellers licence and internal business use licence)

Sources of Data

Private Data

- Commercial licences, e.g. FarmersEdge Smart Pro, Iteris ClearAg weather and agriculture-related data
- Non-commercial licences, e.g. Iteris ClearAg weather and agriculture-related data
- Bespoke Data Sharing Agreements
- Synthetic Data, e.g. MostlyAI

Sources of Data – Met Éireann



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  - Non-Commercial;

  - Share Alike;

  - No Derivatives

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Questions for the Licensor:

- Do I want to allow commercial use or not? (NC)
- Do I want to allow derivative works or not? (ND)
- If I allow derivatives, then do I want the Licensees to make that new work available under the same licence terms ("Sharealike" SA)

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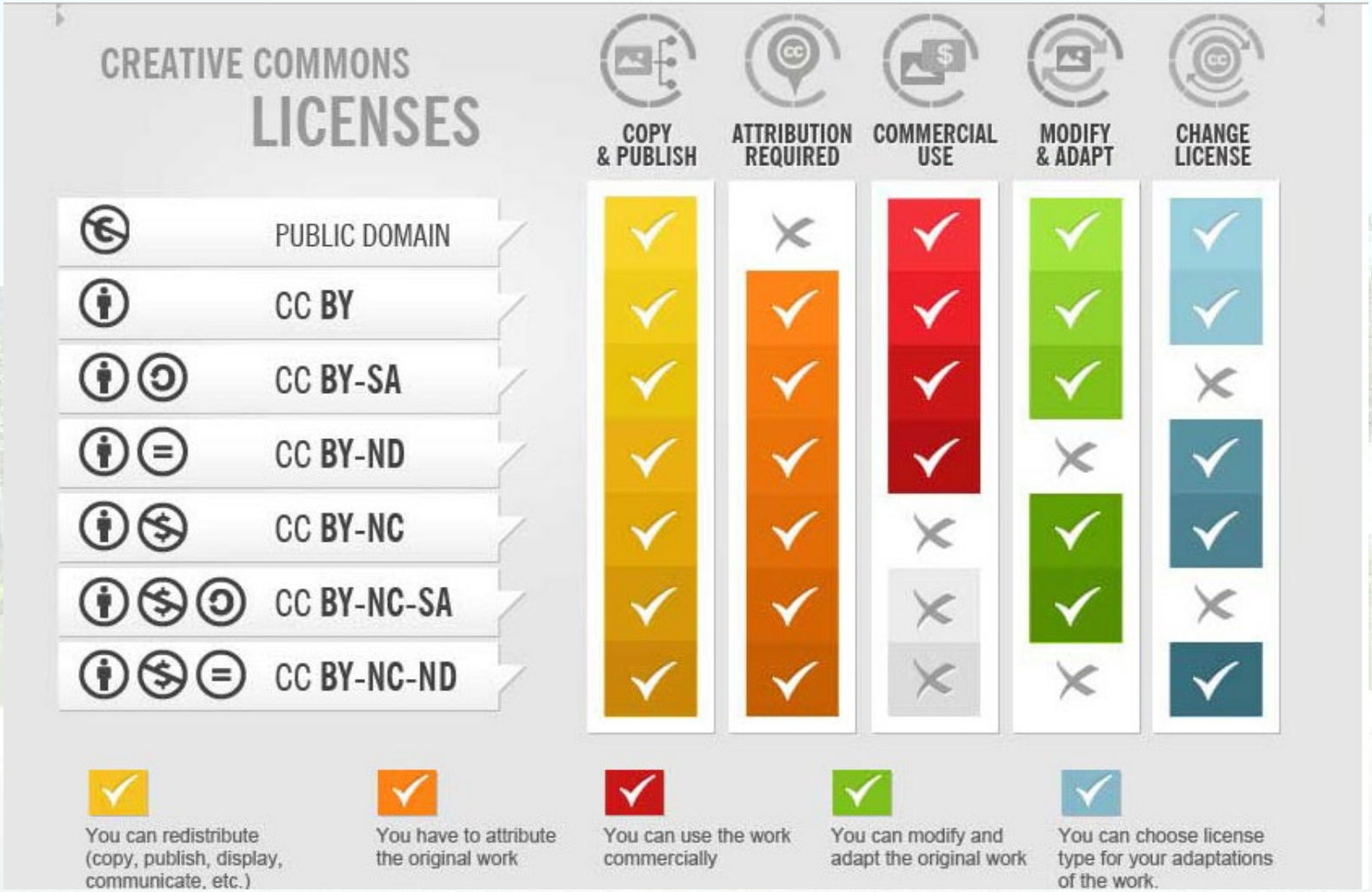

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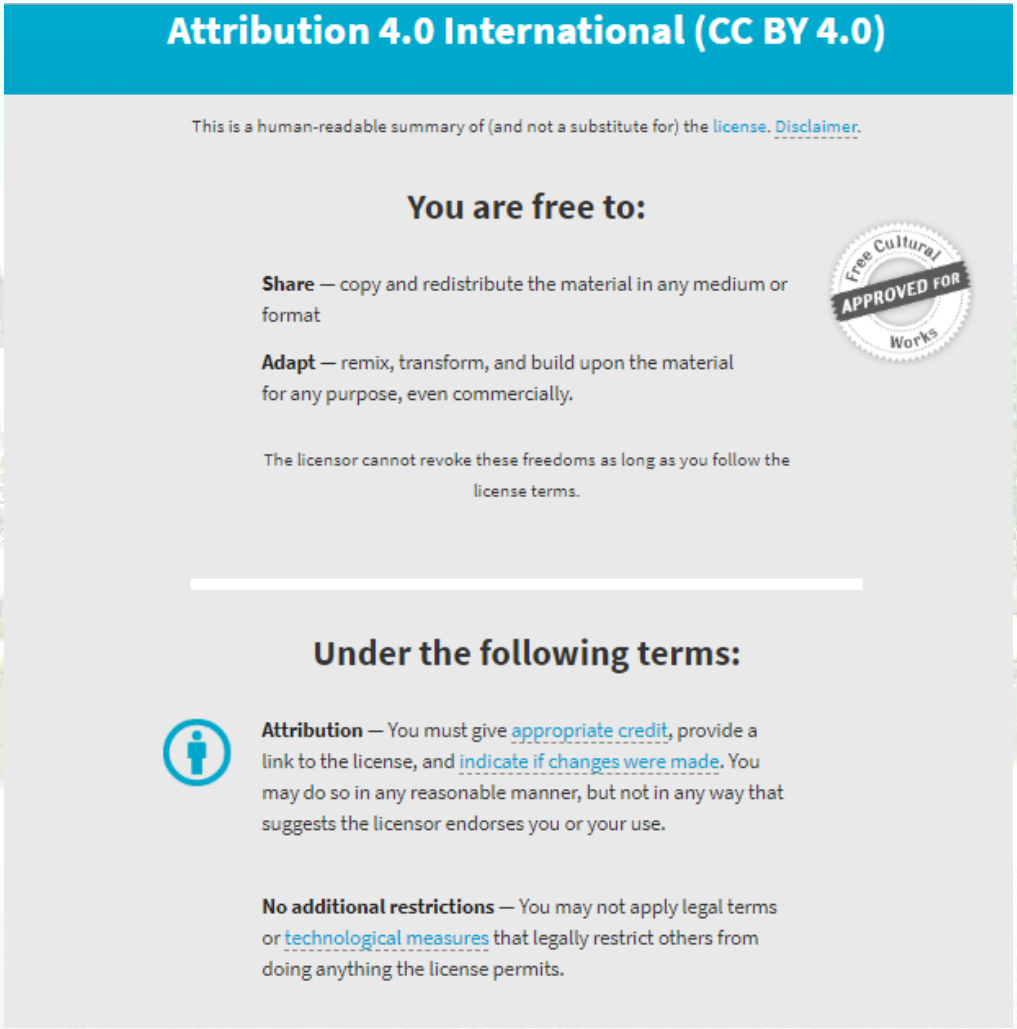

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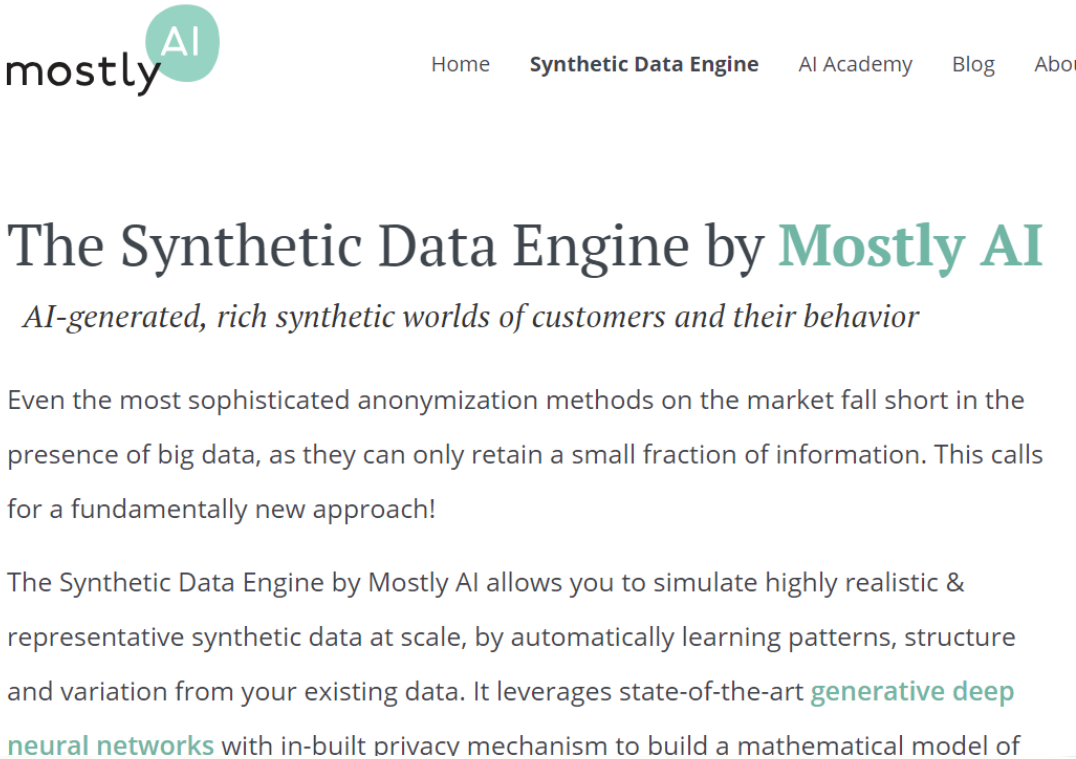
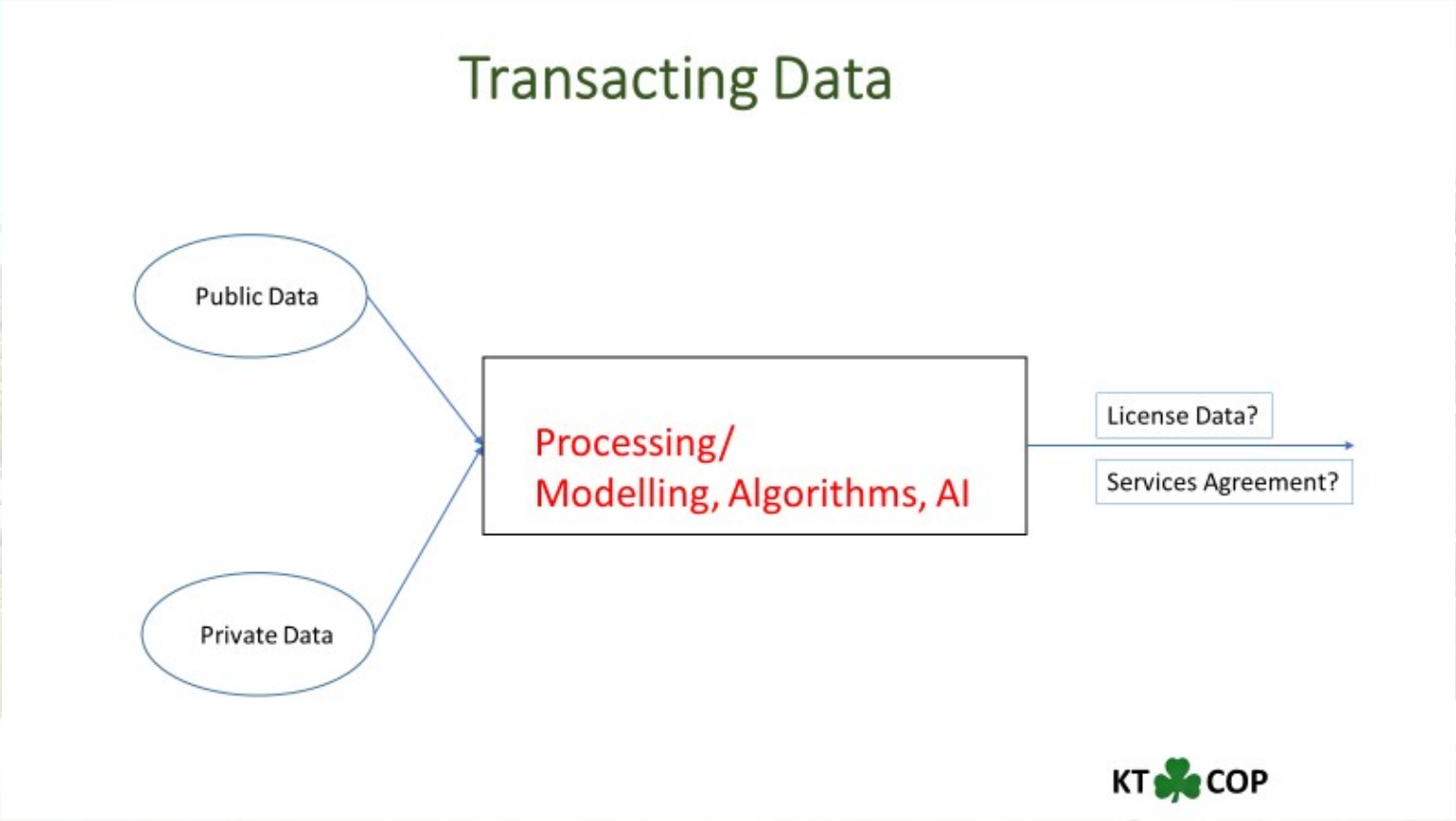


Transacting Data



Data and AI

- Training an AI system requires large datasets
- Are there any IP Rights in relation to those datasets?
- Data can be protected by an overlapping patchwork of different IP rights and contractual restrictions on the purposes for which the data can be used.