IDSA legal workshops

INTERNATIONAL DATA
SPACES ASSOCIATION

Nov 3 2020

IDSA Legal Workshop on Data Ethics

By the Sitra Ethical Group

Today's agenda

1. *Welcome and introduction to the IDSA Legal Workshops (Sebastian Steinbuß, IDSA and Olli Pitkänen, 1001 Lakes)*
2. *Introduction to the ethical issues in the data economy (Pekka Mäkelä, Sitra)*
3. *Recent discussion on data and AI ethical standards (Meri Seistola, Sitra)*
4. *Practical examples on data ethics (Kari Hiekkanen, Sitra)*
5. *Sitra's forthcoming Code of Conduct and the ethical maturity model (Jani Koskinen, Sitra)*

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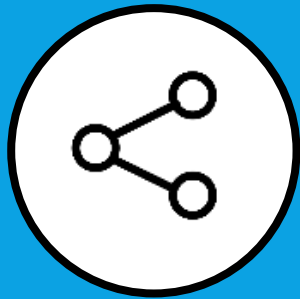
INTERNATIONAL DATA SPACES ASSOCIATION

International Data Spaces Association

I Agree ☐

#datasovereignty

DESIGN PRINCIPLES FOR DATA SPACES
ENSURING DATA SOVEREIGNTY

Unlimited **Interoperability**

standard for data flows between all kinds of data endpoints

Trust between different security domains

Comprehensive security functions providing a maximum level of trust

Governance for the data economy

usage control and enforcement for data flows

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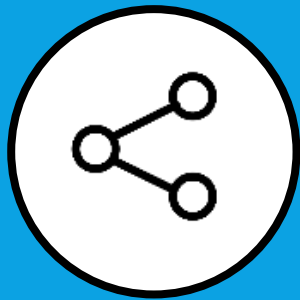providing a maximum level of trust

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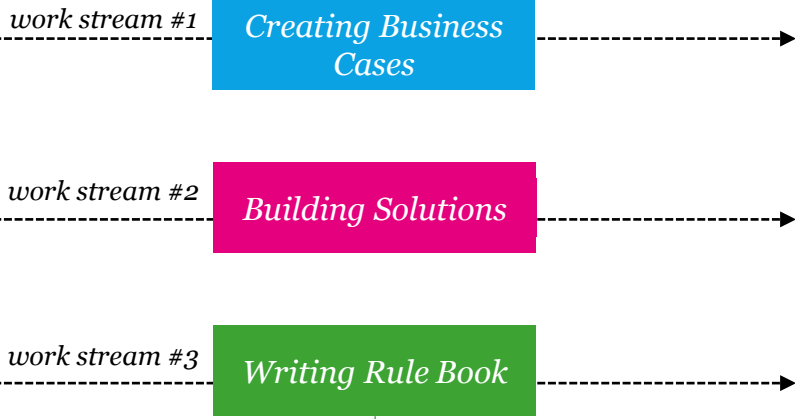usage control and enforcement
for data flows

Aug - Sept

Topics covered so far

- *Existing initiatives addressing the legal aspect of data sharing: Sitra and iShare*
- *Contracts for data sharing: standard contracts and the Legal Testbed project*
- *Synergies between IDS, Sitra and iShare: first results from the working group*
- *Expectations for the IDS Rule Book*

Data Ethics

The experience of the Sitra Ethical Group

Olli Pitkänen, 1001 Lakes

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Sitra IHAN Rulebook – Ethics Workgroup

Pekka Mäkelä, Dr. Soc Sci

Research coordinator, University of Helsinki

PI Academy of Finland project Ethical Risks and Responsibility of Robotics and Artificial Intelligence, grant 09/2020-08/2024

Keywords: Collective responsibility, collective intentionality, philosophy of social sciences, philosophy and ethics of robotics and AI

Meri Seistola

Secretary General of The Human Colossus Foundation, COO Pikkuli Edu.

Supporting fair data sharing and MyData activities Meri was the Chair for the Finnish committee for ISO Standards on AI. She advises startups on lean management and human-centric marketing communications.

Kari Hiekkanen, Dr. Sc

Research Fellow, Aalto University

Kari has long experience in IT and strategy both as a researcher and practitioner.

Expertise area: Artificial Intelligence, Data economy, Digital transformation, Digital ethics and sustainability, Industrial applications of machine learning

Jani Koskinen, Ph.D.

Postdoctoral Researcher, University of Turku

Koskinen focuses his research on ethics of IS especially in the context of data economy ecosystems and information ownership. Koskinen has worked in different national and international projects. The latest project was IHAN Ethics-project where he was the principal investigator (funded by IHAN, SITRA).

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Pekka Mäkelä
University of Helsinki

Ethics

Ethics

AIM?

Why ethics? Virtuous corporate agents?

De-regulation, ethics wash? (Hard vs soft regulation)
HOW?

What are the relevant and (specific) ethical problems? Rather ethical risks?

Ethics and law (law behind development, law leaves discretion, technology neutral nature of law) What is the job left for ethics over and above law?

To be avoided: ethics washing and ethics bashing

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Ethics

Tentative tension from the moral point of view between:

Institutional design perspective -> minimal assumptions -> stimulus –response model of eg responsibility practices

And

Institutional development of moral reasons-sensitivity

(Full-blown moral agency: Reason space, sensitivity to reasons, action, conceptualisation)

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Ethics talk

How to talk about ethics?

Rulebook and ethics, how to implement how to bring ethics to the floor level
How to talk about ethics in the context of a rulebook?
Ethical problems? Ethical risks?
Use of ethical theories? Should we discuss in terms of consequentialism, deontology or virtue ehtics?

How to to approach ethical issues in this context?

Generic ethical concepts

o   Responsible agent

o   Responsible action (forward looking)

o   Responsibility for X (backward looking)

o   Trust

o   Trustworthiness etc.

o   Transparency works with these in a triangle

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Triangle

o   Who is responsible for what and to whom?

o   What are the consequences of my actions? Whose interests may be harmed?

o   Who trusts who?

o   To be trustworthy is to be responsible? What is to be responsible?

o   Transparency should concern these issues?

o   Right to explanation approach? What are you going to do with my data? Why did you do that? What if…?

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Ethical values and principles

o transparency,

o justice and fairness,

o non-maleficence,

o responsibility,

o privacy,

o beneficence,

o freedom and autonomy,

o trust,

o dignity,

o sustainability,

o solidarity

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Ethical principles in the wild

o Whose concerns matter?

o What's the sphere of relevant actors?

o Whose interests?

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Ethical issues in the use of data

o the place of confidential data

o the link between creation and use of data

o Legislation

o informed consent

o practical needs

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Ethical issues in managing and sharing data

o   Primary data use

o   Data use in participating firms and companies

o   Data re-used removed from its creators

o   Data archiving

o   Data publishing

27.10.2020

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Kari Hiekkanen
Aalto University

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Your Samsung SmartTV Is Spying on You, Basically

SHANE
HARRIS

You may be loving your new Internet-connected television and its convenient voice-command feature—but did you know it's recording everything you say and sending it to a third party?

Careful what you say around your TV. It may be listening. And blabbing.

A single sentence buried in a dense "privacy policy" for Samsung's Internet-connected SmartTV advises users that its nifty voice command feature might capture more than just your request to play the latest episode of *Downton Abbey*.

"Please be aware that if your spoken words include personal or other sensitive information, that information will be among the data captured and transmitted to a third party," the policy reads.

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The Incredible Story Of How Target Exposed A Teen Girl's Pregnancy

Gus Lubin
Feb. 16, 2012, 10:27 AM   52,421   17

Target broke through to a new level of customer tracking with the help of statistical genius Andrew Pole, according to a New York Times Magazine cover story by Charles Duhigg.

Pole identified 25 products that when purchased together indicate a women is likely pregnant. The value of this information was that Target could send coupons to the pregnant woman at an expensive and habit-forming period of her life.

Plugged into Target's customer tracking technology, Pole's formula was a beast. Once it even exposed a teen girl's pregnancy:

(© BusinessInsider, 2012)

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APPLE CREDIT CARD UNDER INVESTIGATION FOR POTENTIALLY DISCRIMINATING AGAINST FEMALE CUSTOMERS

Steve Wozniak said he was offered ten times the credit limit of his wife

Sarah Young | @sarah_j_young | 2 days ago |

(The Independent, 11.11.2019)

Build your own bomb: How Amazon's algorithm helps suggest explosive recipes

Items under 'frequently bought together' tabs guide users how to make dangerous explosives

Rachael Revesz | @RachaelRevesz | Monday 18 September 2017 22:04 BST | 💬11 comments

- Channel 4 investigation found the deadly ingredients are grouped together
- Steel ball bearings are also recommended in the 'Customers Also Bought' tab
- These ingredients are harmless alone, but can be combined to make explosives
- It is possible to create a shopping basket of 45kg (99lbs) of bomb ingredients

By PRESS ASSOCIATION and PHOEBE WESTON FOR MAILONLINE 🐦

PUBLISHED: 23:45 GMT, 18 September 2017 | UPDATED: 15:05 GMT, 19 September 2017

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MACHINES TAUGHT BY PHOTOS LEARN A SEXIST VIEW OF WOMEN

If you're not a white male, artificial intelligence's use in healthcare could be dangerous

By Robert Hart | July 10, 2017

A crime-predicting algorithm in Florida falsely labeled black people re-offenders at nearly twice the rate of white people. Google Translate converted the gender-neutral Turkish terms for certain professions into "he is a doctor" and "she is a nurse" in English. A Nikon camera asked its Asian user if someone blinked in the photo -- no one did.

Google Photos labeled black people 'gorillas'

Jessica Guynn | USA TODAY
Updated 2:50 PM EDT Jul 1, 2015

Women less likely to be shown ads for high-paid jobs on Google, study shows

Automated testing and analysis of company's advertising system reveals male job seekers are shown far more adverts for high-paying executive jobs

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1. A blond girl and a bald man with his arms crossed are standing inside looking at each other.
2. A **worker** is being scolded by **her boss** in a stern lecture.
3. A **manager** talks to an **employee** about job performance.
4. A **hot, blond girl** getting criticized by **her boss**.
5. Sonic employees talking about work.

(Miltenburg: Stereotyping and Bias in the Flickr30K Dataset, Multimodal Corpora: Computer vision and language processing (MMC 2016)*)*

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Bernard Parker, left, was rated high risk; Dylan Fugett was rated low risk. (Josh Ritchie for ProPublica)

Machine Bias

There's software used across the country to predict future criminals. And it's biased against blacks.

by Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner, ProPublica

May 23, 2016

Ethics committee raises alarm over 'predictive policing' tool

Algorithm that predicts who will reoffend may give rise to ethical concerns such as bias

▲ Photograph: Christopher Thomond/The Guardian

A computer tool used by police to predict which people are likely to reoffend has come under scrutiny from one force's ethics committee, who said there were a lot of "unanswered questions" and concerns about potential bias.

Artificial intelligence

Predictive policing algorithms are racist. They need to be dismantled.

Lack of transparency and biased training data mean these tools are not fit for purpose. If we can't fix them, we should ditch them.

by **Will Douglas Heaven**

July 17, 2020

(MIT Technology Review, 2020)

SiTRa

Why Self-Driving Cars Must Be Programmed to Kill

Self-driving cars are already cruising the streets. But before they can become widespread, carmakers must solve an impossible ethical dilemma of algorithmic morality.

by **Emerging Technology from the arXiv**   October 22, 2015

(MIT Technology Review, 2015)

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Autonomous killer drones set to be used by Turkey in Syria

TECHNOLOGY 20 September 2019

By David Hambling

The Turkish army is increasingly using drones in combat
Soner Kilinc/Anadolu Agency/Getty

October 30, 2019, 6:01 AM GMT+2

The Drone Wars Are Already Here

● The skies of Syria, Yemen, and Libya swarm with armed and dangerous unmanned aerial vehicles. And the technology is spreading farther and farther afield.

By Gwen Ackerman, Selcan Hacaoglu, and Mohammed Hatem

▲ A Bayraktar TB-2 unmanned aerial vehicle. PHOTOGRAPHER: MUHAMMED ENES YILDIRIM/ANADOLU AGENCY/GETTY IMAGES

"data extraction and analysis"

"new contractual forms due to better monitoring"

ARTICLE | JOURNAL OF INFORMATION TECHNOLOGY

Big Other: Surveillance Capitalism and the Prospects of an Information Civilization

by **Shoshana Zuboff**

(Harvard Business School 2015)

"personalization and customization"

"continuous experiments"

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Meri Seistola

The Human Colossus Foundation

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Ethics illustrate values

Industrie 4.0

Era of Data Immersion

Ethical Frameworks & working groups

ISO/IEC - CEN/CENELEC – DIN, SFS..

IEEE, W3C, ACM..

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Characteristics of IT Trustworthiness ISO/IEC JWG7

reliability, availability, resilience,
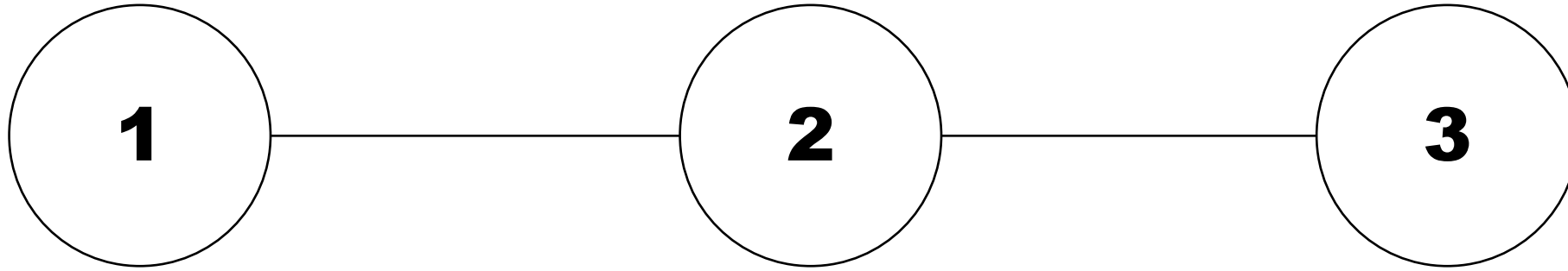
security, privacy, safety,

accountability,transparency,

integrity, authenticity, accuracy,

quality, usability

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Maturity assessment

1 Data Ethics

2 Business Ethics

3 Ecosystem Ethics

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Ethics of Structural Powers

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Why Data and AI Ethics is Such a Hot Topic

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Discussion

What kind of models or structures can you identify?

Empathetic, ethical, discouraging...

Current Business Models are Built on Silos

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THE RISE OF THE CONSCIENTIOUS CONSUMER

- Why addressing ethical questions in AI will benefit organisations, CapGemini Research Institute, 2019

When consumers perceive the company AI interactions ethical

62% would place higher trust

61% would share positive experiences with friends and family

59% would have higher loyalty to the company

55% would purchase more products, provide high ratings and positive feedback on social media

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Data Interoperability

From Static Silos to a Dynamic Data Economy

Jani Koskinen
University of Turku

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Code of Conduct and Maturity model

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Aiming for fair data economy

- We need ways and tools for organisations to make data ecosystems fairer
→ Code of Conduct
- Maturity model as a tool for that aim
- → in future: detailed description of maturity levels → guidelines for actions to reach next level

|	Security	Privacy	Commitment to ethical practices	Transparency and communication	Sustainability	People centeredness	Fair Networking	Purpose
Level 0	"I believe that this is very secure"	"Your information is our now"	"We prefer not to commit, we are free"	"Just Trust us"	"Let it burn"	"What this has to do with the people?"	"Anarchy"	"We do what we want to do"
Level 1	There is proper Antivirus, Firewall and other needed security tool in use which all are properly updated.	Organisation follows the privacy regulations.	Organisation follows regulations and best practices of the own field.	Organisation follows the regulations and uses truthful communication.	Organisation has documented sustainability plan/program.	The individuals are recognised as stakeholder and their rights are taken account.	Organisation follows regulations and best practices of the own field.	?
Level 2	There is a dedicated person whose task is to keep up with information security.	Privacy is protected and the private information is not handed over to third parties without beforehand informing the source.	Organisation has implemented and committed to following ethical code(s) or other codes of conduct.	Organisation supports open internal communication and responsible information sharing.	There is an evaluation model for sustainability with clear indicators.	The organisation collect information of needs of individuals to improve people centredness.	Organisation supports and encourages a fair data sharing in ecosystems.	?
Level 3	There are clearly documented procedures for the preparation of security threats.	Organisation does not collect personal information that it does not need.	There are clear procedures and documentation for action to be taken when ethical issues occur.	There is a transparent, documented plan for internal and external communication	Organisation impact on the environment is neutral or positive.	Individuals have low-level ways to communicate with the organisation and their opinions are systematically noted.	?	?
Level 4	The whole organisation has internalised the importance of security and it is constantly monitored and developed through the organization.	For collected (personal) information there is a clear lifecycle plan where the collection, archiving and possible erasing of data is described.	Organisational policies and procedures are developed critically form ethical perspective together with all relevant stakeholders.	Organisation openly communicates its procedures and policies.	Organisation is actively advancing the sustainability of its business field.	Organisation will actively involve all relevant stakeholders in decision making.	Organisation actively seeks to ways to advance possibilities of whole ecosystems.	Organisation has clear, public, documented goals and values that it systematically work for.

Checklists example: Commitment to ethical practices

Commitment to ethical practices	Level description	Checklist
Level 0	"We prefer not to commit, we are free"	
Level 1	Organisation follows regulations and best practices of the own field.	-Organisation is aware of the regulation that concerns it and follows those. -Organisation is aware and follows the best practices of its field.
Level 2	Organisation has implemented and committed to following ethical code(s) or other codes of conduct.	- There is dedicated person whose duty is work with ethical issues and ensure that codes are updated. -The codes are public and easy to find. -The employees are aware of codes and they have been officially instructed to follow those.
Level 3	There are clear procedures and documentation for action to be taken when ethical issues occur.	-Actions of organisation are evaluated and documented from ethical perspective and founded problems will be taken care -Clear support form management for ethical behaviour and there are official way to inform founded issues (also without need for reveal identity of informer when needed) -All members of organisation are committed to ethical working and there is support and resources (working time and budget) for improving ethical issues.
Level 4	Organisational policies and procedures are developed critically form ethical perspective together with all relevant stakeholders.	-Aim is to ensure the ethicality and advance the benefits of all stakeholders, including the stakeholders outside of own organisation- Individuals, other organisations and society -Public report of ethical situation and plans to for next years is yearly produced and published. (Compare: financial statement)

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Checklists example: Privacy

Privacy	Level description	Checklist
Level 0	"Your information is our now"	
Level 1	Organisation follows the privacy regulations.	-Organization surveys regularly the regulations that apply to them and ensure that those are followed in the organisation. This process is clearly documented.
Level 2	Privacy is protected and the private information is not handed over to third parties without beforehand informing the source.	-There exists clear documented processes for data collection, storage, use and distribution. -There are clear ways to inform individuals when their personal data is distributed to the third party and if possible the information is anonymised
Level 3	Organisation does not collect personal information that it does not need.	- All personal information that is collected has to be necessary for specific use by origination. Personal Information is not collected without already existing need.
Level 4	For collected (personal) information there is a clear documented lifecycle plan where the collection, archiving and possible erasing of data is described.	- This lifecycle plan is visible for information source and control over information use is given for source when it is possible and justified.

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Now it is time for discussion
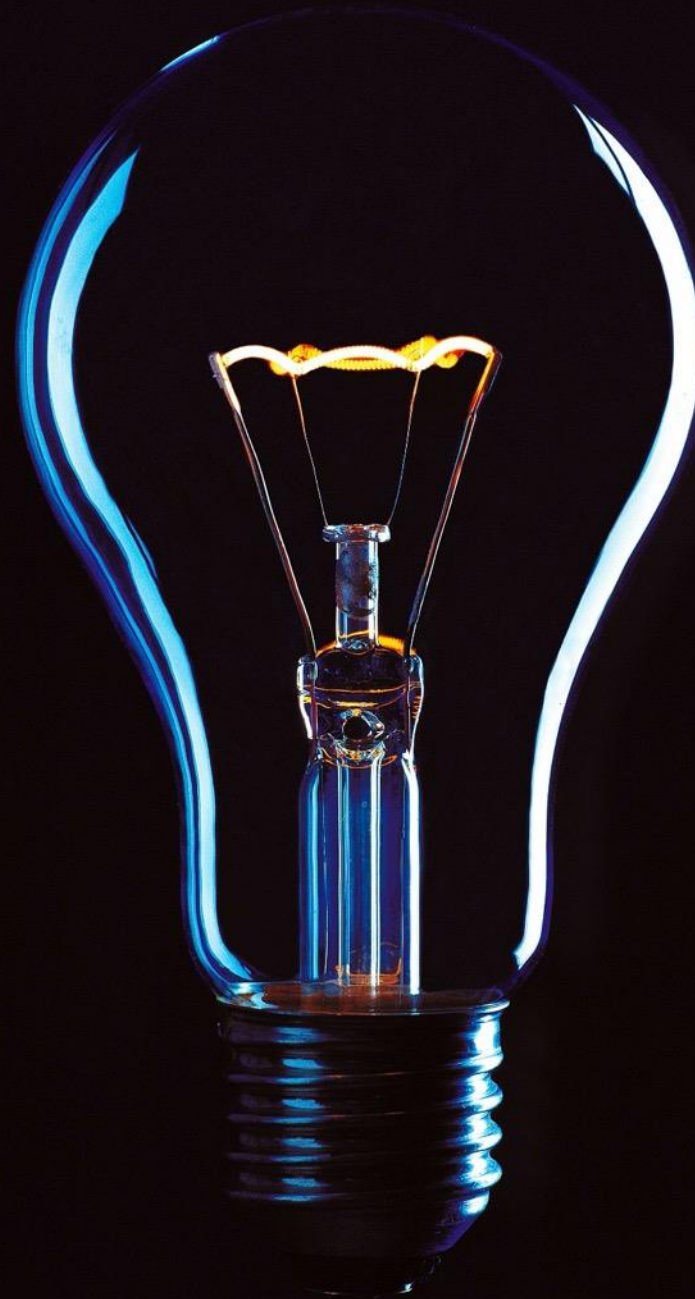
What's next

- *Anti-trust law in the context of data sharing* **Dec 2020**

- *Data usage control* **Jan 2021**

Would you like to contribute or organise a workshop?
Contact giulia.giussani@internationaldataspaces.org

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